

ANNUAL REPORT 2021-2022



English Version

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DIRECTOR'S ADDRESS

The past financial year (2021-22) started with new challenges as the nation was facing a wave of Covid-19 infections. The availability of vaccines and the initiative of the central government to vaccinate its citizens provided a ray of hope and the strength to counter the pandemic situation that loomed in the country. Nevertheless, IIT Patna witnessed an eventful year in academic and research fronts while the citizens of our nation managed to tackle the unusual crisis in the past financial year.

The academic affairs were conducted in hybrid modes in strict adherence to the directives of the state government. The Senate approved modalities for evaluation of academic performances of the students were closely monitored. It ensured that there was no compromise in the quality of the education being imparted to students in the online modes. The past academic year saw start of several new academic programs such as B.Tech. in Artificial Intelligence and Data Sciences, B Tech in Engineering Physics, BS in Mathematics & Computing. Consequently, IIT Patna registered increase in student strength and new intakes in 2021-2022. Senate IIT Patna approved start of PG programs (to be implemented from 2022-23) such as M.Tech. in Geotechnical Engineering, M.Tech. in

Structural Engineering, M.Tech. in Power and Control and M.Tech. in Artificial Intelligence (by TIH).

The Continuing Education Programme (CEP) activities continued uninterrupted in 2021-22 despite the pandemic while assisting working professionals to widening their knowledge base and enhance their professional skills. Under the umbrella of CEP, more than ten courses were organized in multiple areas such as Signal Processing and Machine Learning, Mobile Robotics, , Development of communication and Soft Skills at Workplace, Neuronal Dynamic and Neuromorphic Computing, Research Methods in Humanities and Social Sciences, Forensic Linguistics, Basic Econometrics and Reinforcement Learning. The floated courses saw excellent participation of industry professionals and were much participated with positive feedback that boosted the efforts of faculty members coordinating these CEP courses in IIT Patna.

On the research front, the institute saw several new projects awarded to its faculty members. The research output in terms of publications was also significant considering the intermittent closure of research labs twice due to the 2nd and 3rd wave of CoViD. While the disruptions in the research activities was a dampener, the faculty members ensured that research scholars remained motivated and focussed without feeling depressed. The incubation center (IC) in IIT Patna continued its activities (in spite of all odds) in its mission to provide opportunities to young entrepreneurs and nurture as well as translate technology ideas and innovation in the broad area of Electronics System Design and Manufacturing (ESDM) with a focus on Medical Electronics. Incubatee companies of IC launched new products, secured grants or made breakthroughs in securing orders from leading companies in India.

On recruitment front, the Institute appointed more than two dozen faculty members in various levels. In

spite of the unfavourable situation in the job market due to the pandemic in 2021-22, IIT Patna recorded one of the best placement season with a huge spike in the placement and internship offers. The campus recruitment reported the highest number of job offers, highest domestic pay package, highest average package, and highest number of pre placement offers. More than forty new companies have participated in the campus recruitment for the first time.

Noteworthy is the fact that several students of the batch graduating in 2022 secured offers with an annual pay package of more than one crore rupees.

During the FY 2021-2022, the institute landscape continued to change with steady progress in the construction activities on the campus. The new hostels for boys, faculty quarters for professors, Institute guest house, central library, new academic buildings and a new tutorial block are likely to be handed over in this FY.

The newly started Centre For Endangered Language Studies (CELS) made its presence felt in the academic setup. The Centre made significant progress in the task of compiling and digitalizing Magahi idioms. So far a digital repository of more than 200 Magahi idioms has been created.

The Centre for Earthquake Engineering Research (CEER) organized a workshop (22nd-28th October,

2021) sponsored by SERB under Karyashala Scheme, at IIT Patna. Several invited lectures were delivered by faculty members of IIT Patna affiliated to the CEER in various forums and conferences. Three projects were also executed by the CEER in the area of Earthquake Engineering.

The Technology Innovation Hub (TIH) aka "IIT Patna Vishlesan i-Hub Foundation" continued working on its central theme of "Speech, Video and Text Analytics (SVTA)" for the exponential growth of Interdisciplinary Cyber Physical Systems (ICPSs). In 2021-2022, the TIH was responsible in training human-resource and creating jobs through several startup companies. It also initiated scientific collaboration with other academic institutions and private companies. Several fellowships were announced for UG, PG and PhD students. A full-time CEO was hired along with other staff to manage the day-to-day affairs of TIH.

Despite the challenging times in the past FY (2021-22), IIT Patna sailed smoothly defeating all odds. Vaccination camps were organized in IIT Patna periodically for campus residents (staff and students) to meet the government's noble initiative to vaccinate its citizens. I acknowledge MoE, Gol and Government of Bihar for its continued support in the steady progress of IIT Patna.

Jai Hind!

ORGANIZATION STRUCTURE

Board of Governors

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Director, IIT Patna

Additional Secretary/ Joint Secretary
Member
MoE, Government of India

Principal Secretary, Department of Science & Technology,
Member
Government of Bihar

Principal Secretary, Department of Science & Technology,
Member
Government of Jharkhand

Prof. Kailash Chandra Sharma
Member
Ex-Vice-Chancellor, Kurukshetra University

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Chairman
IIT Patna

Prof. Trilok Nath Singh
Member (Ex-officio)
Director, IIT Patna

Member
Additional Secretary, MoE

Joint Secretary & Finacial Advisor, MoE

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Member
Professor, Department of Physics, IIT Patna

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Associate Professor,
Department of Mechanical Engineering,
IIT Patna

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Secretary
Registrar, IIT Patna

Prof. Yogesh Singh
Member
Vice-Chancellor, University of Delhi

Dr. Mangesh V. Joshi
Member
Managing Director,
Sanrachana Structural Strengthening Pvt. Ltd

Prof. Naveen K. Nishchal
Member
Professor,
Department of Physics, IIT Patna

Dr. Akhilendra Singh
Associate Professor,
Department of Mechanical Engineering,
IIT Patna

Mr. Vishwa Ranjan
Secretary
Registrar, IIT Patna

Administrative Heads

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Director
Indian Institute of Technology Patna

Sh. Vishwa Ranjan
Registrar, Indian Institute of Technology Patna

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Associate Dean (Academic)

Prof. Somanath Tripathy
Associate Dean (Administration)

Prof. Mayank Tiwari
Associate Dean (Faculty Affairs)

Prof. Jawar Singh
Associate Dean (Research and Development)

Dr. Rishi Raj
Associate Dean (Resources)

Prof. Smriti Singh
Associate Dean (Student Affairs)

Senate

Prof. T.N. Singh
Director IIT Patna
Senate Chairman

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HoD, CSE

Mr. Vishwa Ranjan
Registrar

Dr. Probir Saha
HoD, ME

Prof. Manoj Kumar Tiwari
External Member

Dr. N.K. Tomar
HoD, Mathematics

Prof. Y.C. Sharma
External Member

Dr. Rajib Kumar Jha
HoD, EE

Prof. K.N. Singh
External Member

Dr. Vaibhav Singhal
HoD, CEE

Dr. T. Rajagopal
Warden

Dr. Md. L. H. Choudhury
HoD, Chemistry

Dr. Atul Thakur
Associate Dean

Dr. Priyanka Tripathi
HoD, HSS

Dr. Rishi Raj
Associate Dean

Dr. Devinder Yadav
HoD, MME

Dr. Jawar Singh
Associate Dean

Dr. Ajay D. Thakur
HoD, Physics

Dr. Mayank Tiawri
Associate Dean

Dr. Sushant Kumar
HoD, CBE

Dr. Smriti Singh
Associate Dean

Dr. P. K. Srivastava
Associate Prof.

Dr. Somanath Tripathy
Associate Dean

Dr. S.S. Panda
Associate Prof.

Dr. Asif Ekbal
PIC, PG

Dr. Om Prakash
Associate Prof.

Dr. Prolay Das
PIC, UG

Dr. Sahid Hussain
Associate Prof.

Dr. S.K. Parida
Chairperson, JEE

Dr. Jimson Mathew
Associate Prof.

Dr. Rajiv Misra
Chairman GATE

Dr. Ahmad Ali
Associate Prof.

Dr. Debabrata Seth
PIC, JAM

Dr. Yatendra Kumar Singh
Associate Prof.

Dr. Manoranjan Kar
PIC, Library

Dr. Neeladri Das
Associate Prof.

Dr. Ranganathan Subramanian
Associate Prof.

Dr. A.K. Thakur
Associate Prof.

Dr. Akhilendra Singh
Associate Prof.

Dr. Subrata Hait
Associate Prof.

Dr. Md. Kaleem Khan
Associate Prof.

Dr. Sumanta Gupta
Associate Prof.

Dr. Ranjan Kumar Behera
Associate Prof.

Dr. S Sivasubramani
Associate Prof.

Dr. Y. M. Tripathi
Associate Prof.

Dr. Papia Raj
Associate Prof.

Dr. Utpal Roy
Associate Prof.

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Dr. Nalin Bharti

Associate Prof.

Dr. Manabendra Pathak

Associate Prof.

Dr. Karali Patra

Associate Prof.

Dr. Subrata Kumar

Associate Prof.

Dr. Anirban Chowdhury

Associate Prof.

Dr. Kailash Chandara Ray

Associate Prof.

Dr. Amit Kumar

Associate Prof.

Dr. Mahesh Kumar H. Kolekar

Associate Prof.

Dr. P.K. Tiwari

Associate Prof.

Dr. Shovan Bhaumik

Associate Prof.

Dr. V.R. Dantham

Associate Prof.

Dr. Naveen K. Nishchal

Associate Prof.

Mukesh Kr Singh

PGR Gymkhana

Dr. Somnath Sarangi

Associate Prof.

Vijaya Gonugade

VP Gymkhana

Dr. Preetam Kumar

Associate Prof.

Building Works Committee

Prof. Trilok Nath Singh

Director, IIT Patna
Chairman (Ex-Officio)

Mr. Sushant Baliga

(Retd.) Additional Director General,
CPWD Training Institute, New Delhi and Advisor, Civil
Works, IIT Patna
Member

Mr. S. Ramanujam

Consultant, Ex-Director, DCSEM, Dept. of Atomic
Energy
Member

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President & Chief Project Officer,
Raheja Universal Private Ltd, Mumbai
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Superintending Engineer (Electrical), IIT Kharagpur,
Member

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Dept. of Civil Engineering, Delhi Technological
University, Member

Mr. Vishwa Ranjan

Registrar, IIT Patna Secretary

All India Rank [2020-21] of IIT Patna

IIT Patna participated in the NIRF 2020 ranking under two categories – Overall and Engineering. This year IIT Patna obtained more scores under both the categories compared to the last year leading to improvement in the Overall ranking to 54 from last year's 58. In the Engineering category, however, the ranking has slipped to 26 from the last year's 22 rank despite the slight gain in the overall score.

In Atal Ranking of Institutions on Innovation

Achievements (ARIIA) - 2020, IIT Patna has been ranked in Band A (i.e., ranked between 11 and 25).

In THE ranking 2021, IIT Patna is ranked in the range of 1001* in World University, 301-350 in Asia university, 301-350 in Young University, 601-800 in Engineering & Technology and 301-350 in Emerging Economics categories.

In the QS 2021 ranking, IIT Patna was judged at Asia level where it got ranked in the range of 301 to 350 like last year.

EVENTS OF SIGNIFICANT IMPORTANCE

Recruitment of Employees at IIT Patna during 2021-22 (April, 2021 - March, 2022)

Joining details of Director

Sl. No.	Name	Designation	Joining Date
1	Prof. Trilok Nath Singh	Director	10-Sep-21

Joining details of Teaching Staff Members

Sl. No.	Name	Dept.	Designation	Date of Joining
1.	Dr. Ashwani Assam	ME	Assistant Professor	08-Feb-22
2.	Dr. Chandranath Adak	CSE	Assistant Professor	25-Feb-22
3.	Dr. Amit Kumar Singh	EE	Assistant Professor	28-Feb-22
4.	Dr. Aditya Raj	HSS	Associate Professor	08-Feb-22
5.	Dr. Samrat Mondal	CSE	Associate Professor	08-Feb-22
6.	Dr. Raju Halder	CSE	Associate Professor	08-Feb-22
7.	Dr. Joydeep Chandra	CSE	Associate Professor	08-Feb-22
8.	Dr. Dinesh Kumar Kotnees	MME	Associate Professor	08-Feb-22
9.	Dr. Anup Kumar Keshri	MME	Associate Professor	08-Feb-22
10.	Dr. Amit Kumar Verma	MATH	Associate Professor	08-Feb-22
11.	Dr. Richa Chaudhary	HSS	Associate Professor	10-Feb-22
12.	Prof. Mayank Tiwari	ME	Professor	08-Feb-22
13.	Prof. Karali Patra	ME	Professor	08-Feb-22
14.	Prof. Somanath Tripathy	CSE	Professor	08-Feb-22
15.	Prof. Preetam Kumar	EE	Professor	08-Feb-22
16.	Prof. Md Lokman Hakim Choudhury	CHE	Professor	08-Feb-22
17.	Prof. Prolay Das	CHE	Professor	08-Feb-22
18.	Prof. Om Prakash	MATH	Professor	08-Feb-22
19.	Prof. Nalin Bharti	HSS	Professor	08-Feb-22
20.	Prof. Smriti Singh	HSS	Professor	08-Feb-22
21.	Prof. Naveen Kumar Nishchal	PHY	Professor	08-Feb-22
22.	Prof. Rajiv Misra	CSE	Professor	08-Feb-22
23.	Prof. Manabendra Pathak	ME	Professor	08-Feb-22
24.	Prof. Jimson Mathew	CSE	Professor	08-Feb-22
25.	Prof. Awalendra Kumar Thakur	PHY	Professor	08-Feb-22
26.	Prof. Jawar Singh	EE	Professor	08-Feb-22

Relieving details of Teaching Staff Member (on lien)

Sl. No.	Name	Dept.	Designation	Remarks
1.	Dr. Sudhan Majhi	EE	Associate Professor	On Lien

Relieving details of Teaching Staff Member

Sl. No.	Name	Dept.	Designation	Date of Relieving
1.	Dr. Trishikhi Raychoudhury	CEE	Assistant Professor	10-Dec-21

Relieving details of Non-Teaching Staff Member (on lien)

Sl. No.	Name	Dept.	Designation	Date of Relieving
1.	Mr. Sanjeev Kumar	PHY	Technical Superintendent	On Lien

Relieving details of Non-Teaching Staff Member

Sl. No.	Name	Dept.	Designation	Date of Relieving
1.	Mr. Sunil Kumar Yadav	MME	Junior Assistant	16-Aug-21
2.	Mr. Satish Kumar	IWD	Junior Assistant	24-Dec-21
3.	Mr. Raghwendra Choudhary	Admin & Est.	Junior Assistant	24-Jan-21
4.	Mr. Bhagaban Satapathy	Chemistry	Junior Assistant	21-Feb-22
5.	Dr. Rashmi Raj	Institute Hospital	Medical Officer	28-Feb-22

Foreign Students at IIT Patna

Sl. No.	Student Name	Country	Academic Program	Date of Joining	Department	Funding
1.	Thy Truc Doan	Vietnam	Ph.D.	18 Aug 2020	Civil and Environmental Engineering	ASEAN
2.	Smegnew Asemie	Ethiopia	Ph.D.	Requested extension in fee payment (Aug 2020)	Computer Science & Engineering	Embassy of Ethiopia, New Delhi
3.	Shubhechchu Khanal	Nepal	M-Tech.	12 Aug 2020	Computer Science & Engineering	Self-financed
4.	Asres Temam Abagissa	Ethiopia	Ph.D.	Jan 2021	Computer Science & Engineering	Embassy of Ethiopia, New Delhi
5.	Minyechil Alehegn Tefera	Ethiopia	Ph.D.	Jan 2021	Computer Science & Engineering	Embassy of Ethiopia, New Delhi
6.	Tibebu Bekel Shana	Ethiopia	Ph.D.	Jan 2021	Computer Science & Engineering	Embassy of Ethiopia, New Delhi

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DEPARTMENT-WISE ACHIEVEMENTS

CHEMICAL AND BIOCHEMICAL ENGINEERING

Head: Dr. Sushant Kumar



DR. ANOOP K GUPTA

Assistant Professor

Computational fluid dynamics, Non-Newtonian flow rheology.
Motion of bubble/drops. Particle dynamics in multiphase flows.
CFD-DEM coupled simulations, Heat transfer in Nanofluids Modelling of Phase change materials



DR. ATANU KUMAR METYA

Assistant Professor

Thermodynamics and statistical mechanics
Phase equilibria and nucleation, Wetting phenomena, Structure, dynamics, and interfacial properties of solutions in bulk and confined systems, Design of anti-icing surfaces and force field development using density functional theory



DR. JOSE V PARAMBIL

Assistant Professor

Separation Processes, Crystallization, Carbon Footprinting



DR. NITIN DUTT CHATURVEDI

Assistant Professor

Modeling and Simulation of Chemical processes, Process system engineering, Process Integration Pinch Analysis, Industrial Energy Conservation, Scheduling and optimization of batch processes



DR. SANDIP KHAN

Assistant Professor

Molecular Modelling and Simulation, Statistical Thermodynamics, Equilibrium, Dynamic and Interfacial Properties of Complex fluids



DR. SUJOY KUMAR SAMANTA

Assistant Professor

Advanced Oxidation Processes, Wastewater Treatment, Photocatalysis, Microwave-Assisted Material Processing



DR. SUSHANT KUMAR

Assistant Professor

Clean Hydrogen Production Methods, Hydrogen Storage using metal hydrides, CO₂ Utilization and Capture, Catalysts for clean energy applications

Research Area

- | | |
|---|--|
| 1. Atanu Kumar Metya, Thermodynamics and statistical mechanics; Simulations: phase equilibria and nucleation; design of anti-icing surfaces, wetting phenomena; Structure, dynamics, and interfacial properties of solutions in bulk and confined systems; and force field development using density functional theory. | 4.69/5.0 |
| 2. Sandip Khan, Phase behaviour of associating fluids in functionalized porous materials | 2. Sandip Khan, Spring, CB308, 3-1-0-8, 45, 4.69/5.0 |
| 3. Sandip Khan, Evaporation and condensation of nanodroplets | 3. Sandip Khan, Autumn, CB405, 0-0-3-3, 24, 4.0/5.0 |
| 4. Sandip Khan, Wetting and interfacial properties of complex fluids like ionic liquid, deep eutectic solvent etc. | 4. Sandip Khan, Autumn, CB501, 3-0-0-6, 10, 4.68/5.0 |
| 5. Sushant Kumar, Photocatalysis for CO ₂ conversion to fuels, low pressure ammonia synthesis, Non-thermal Plasma catalysis | 5. Sushant Kumar, Spring, CB302, 3-0-0-6, 45, 4.693/5.000 |
| 6. Sujoy Kumar Samanta, 1. Wastewater Treatment 2. Catalysis 3. Pharmaceutical Waste Management 4. Microwave Assisted Material Processing 5. Renewable Energy Sources and Applications | 6. Sushant Kumar, Spring, CB502, 3-0-0-6, 24, 4.257/5.000 |
| 7. Nitin Dutt Chaturvedi, Process System Engineering, Process Integration | 7. Sushant Kumar, Autumn, CB211, 3-1-0-8, 54, 4.418/5.000 |
| 8. Jose V Parambil, Separation Processes, Crystallization, Process Development | 8. Anoop Kumar Gupta, Spring, CB102, 3-0-0-3, 388, Feedback score = 4.69/5 |
| 9. Anoop Kumar Gupta, Energy Storage, Lithium-ion battery thermal management, Computational fluid dynamics, Heat transfer | 9. Sushant Kumar, Autumn, CB203, 3-1-0-8, 54, 4.386/5.000 |
| | 10. Anoop Kumar Gupta, Spring, CB208, 1-3-0-5, 54, Feedback score = 4.66/5 |
| | 11. Anoop Kumar Gupta, Autumn, CB401, 3-1-0-8, 24, Feedback score = 4.34/5 |
| | 12. Anoop Kumar Gupta, Autumn, CB307, 1-3-0-5, 44, Feedback score = 4.55/5 |
| | 13. Sujoy Kumar Samanta, Autumn, CB301, 3-0-0-6, 45, B.Tech. Chemical Engg. Third Year Course. Teaching Feedback 4.306 |
| | 14. Sujoy Kumar Samanta, Autumn, CB205, 3-0-0-6, 55, B.Tech. Chemical Engg. Second Year Course. Teaching Feedback 4.198 |
| | 15. Sujoy Kumar Samanta, Spring, CB504, 3-0-0-6, 50, For BTech Final Year, MTech and PhD Students. Teaching Feedback 4.304 |
| | 16. Sujoy Kumar Samanta, Spring, CB310, 0-0-3-3, 45, Chemical Reaction Engg. Lab for BTech Third |

Teaching

SI, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

1. Sandip Khan, Spring, CB304, 3-0-0-6, 45,

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|--|---|
| <p>Year Students. Teaching Feedback 4.106</p> <p>17. Nitin Dutt Chaturvedi, Spring, CB202, 3-1-0-8, 50, Feed back 4.446/5</p> <p>18. Nitin Dutt Chaturvedi, Autumn, CB503, 3-0-0-6, 5, Feedback 4.714/5</p> <p>19. Nitin Dutt Chaturvedi, Spring, CB210, 0-0-3-3, 50, Feedback 4.359/5</p> <p>20. Nitin Dutt Chaturvedi, Spring, CB306, 0-0-3-3, 50,</p> <p>21. Nitin Dutt Chaturvedi, Autumn, CB311, 0-0-3-3, 50,</p> <p>22. Atanu Kumar Metya, Spring, CB424, 6-0-0-0, 45, 4.192/5</p> <p>23. Atanu Kumar Metya, Autumn, CB407, 3-0-0-0, 24, 4.071/5</p> <p>24. Atanu Kumar Metya, Autumn, CB305, 3-0-0-0, 45, 4.057/5</p> <p>25. Atanu Kumar Metya, Spring, CB206, 3-0-0-0, 54, 4.056/5</p> <p>26. Jose V Parambil, Autumn, CB303, 2-1-0-6, 45,</p> <p>27. Jose V Parambil, Autumn, CB309, 0-0-3-3, 69,</p> <p>28. Jose V Parambil, Spring, CB204, 2-1-0-6, 54,</p> <p>29. Jose V Parambil, Spring, CB508, 2-0-2-6, 26,</p> | <p>Heterocyclic Compounds, Ayushi Jain (1801CB07), NA, Completed</p> <p>5. Atanu Kumar Metya, PhD, Multiscale modelling approach for Alzheimer drug design, Sunandini Swain (2121CB10), NA, On-going</p> <p>6. Nitin Dutt Chaturvedi, PhD, Production Planning for process Industries, Mr. Rakesh Kumar Sinha, , Completed</p> <p>7. Sandip Khan, PhD, Phase behavior of confined fluid at nanoscale, Sashanka Sekhar Mandal, ,</p> <p>8. Sandip Khan, PhD, Microstructural behavior of MR fluids at nano scale using molecular dynamic simulation. , Chandra Shekhar Maurya, Dr. Chiranjit Sarkar, Department of Mechanical Engineering ,</p> <p>9. Sandip Khan, PhD, Estimation of free energy accross solid-fluid interface, Devargya Chakraborty,,</p> <p>10. Sandip Khan, PhD, Coalescence behavior of aqueous droplet, Sana Parween,,</p> <p>11. Sandip Khan, PhD, Adsorption of PFAS molecules in activated carbon materials , Swasti Medha, ,</p> <p>12. Sandip Khan, Bachelors, PFAS Separation from Water through Adsorption, Grace Rawat and Khushi Gour,,</p> <p>13. Sandip Khan, Bachelors, Effect of surfactants (Alkanols) with control mechanism during water droplets coalescence phenomenon, Rakesh Kumar & Yogesh Dubey,,</p> <p>14. Sujoy Kumar Samanta, Bachelors, Degradation of pharmaceutical compounds in wastewater, Anugula Ramachandra Yogesh , NA, Progress Satisfactory</p> <p>15. Sujoy Kumar Samanta, Bachelors, DEVELOPMENT OF SOLAR ENERGY IN INDIA, Tuniki Sai Santosh Kumar , NA, Progress Satisfactory</p> <p>16. Sushant Kumar, PhD, Photocatalytic carbon dioxide reduction and dinitrogen fixation by water over novel photocatalysts , Mr. Niwesh Ojha, Not applicable, Completed</p> |
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Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Atanu Kumar Metya, Bachelors, Transport and Thermophysical Properties of Ionic Liquid-Based Electrolytes: A Molecular Dynamic Study, Srija Karmakar (1801CB25), NA, Completed
2. Atanu Kumar Metya, Bachelors, Removal of Carbon Dioxide from Flue Gases using Heterocyclic Compounds, Shubham Kumar (1801CB23), NA, Completed
3. Atanu Kumar Metya, Bachelors, Transport and Thermophysical Properties of Ionic Liquid-Based Electrolytes: A Molecular Dynamic Study, Himansh Guddeti (1801CB11), NA, Completed
4. Atanu Kumar Metya, Bachelors, Removal of Carbon Dioxide from Flue Gases using

17. Sushant Kumar, PhD, Non-thermal Plasma for catalytic conversion of greenhouse gases , Mr. Abhinav Bajpai, Not applicable , On going
18. Sushant Kumar, Masters, Low Pressure Ammonia Synthesis using Novel Transition Metals Based Carbide Catalysts, Mr. Pintu Kumar Roy, Not applicable , Completed
19. Sushant Kumar, PhD, Hydride-based electrides for ammonia production at mild conditions , Mr. Pintu Kumar Roy, Not applicable , Ongoing
20. Sushant Kumar, Bachelors, Microkinetic Modeling of Synthesis of Methanol by Hydrogenation of Carbon Dioxide over Gallium-Nickel supported on Silicon Dioxide Catalyst, Reyan Alam and Pranshu Gupta, Not applicable , Completed
21. Sushant Kumar, Bachelors, Highly sensitive Dual Side gold coated Photonic Crystal Fiber Biosensor based on Surface Plasmon Resonance, Syed Insherah Amim and Shubham Sudhanshu, Not applicable , Completed
22. Sujoy Kumar Samanta, PhD, Not Finalized , Vikash Kumar, NA, coursework completed
23. Sujoy Kumar Samanta, PhD, Magnetically retrievable QD-Carbon composite for degradation of pharmaceuticals using photocatalytic-fenton reaction, Vineeta Singh , NA, Completed Course Work and working on literature survey for the research work
24. Sujoy Kumar Samanta, PhD, Metal Free Graphene Catalysis in Persulfate based Advanced Oxidation Process for Environmental Remediation of Pharmaceuticals in Water , Shashi Prakash Gupta , NA, Comprehensive exam completed in March 2022
25. Sujoy Kumar Samanta, PhD, TREATMENT OF PHARMACEUTICAL POLLUTANTS IN WASTEWATER USING AOPs , Sunny Shivam , NA, Completed Registration and enhancement seminar in Oct 2021
26. Sujoy Kumar Samanta, PhD, Microwave Assisted Processing of Multiphase Bio-Materials, Sushma Kumari, NA, Thesis Submitted in Feb 2022
27. Sujoy Kumar Samanta, PhD, MICROWAVE CATALYTIC DEGRADATION OF ORGANIC POLLUTANTS EMPLOYING TWO DIMENSIONAL FERRITES SHEETS, Sandhya Mishra , Prashant Kumar, PhD Viva Voce Completed in Nov 2021
28. Sujoy Kumar Samanta, Bachelors, DEVELOPMENT OF SOLAR ENERGY IN INDIA, Gopu Lalithya Naga Kumar, NA, Progress Satisfactory
29. Sujoy Kumar Samanta, Bachelors, Degradation of Pharmaceutical Compounds Present in Wastewater, Manisht Pratap Singh , NA, Progress Satisfactory
30. Anoop Kumar Gupta, Bachelors, THERMAL MANAGEMENT OF LITHIUM-ION BATTERY USING PHASE-CHANGE MATERIALS, AJAY KUMAR,,
31. Jose V Parambil, PhD, Continuous Crystallization using Slug-Flow-Cooling Crystallizer, Neelesh Nandan,,
32. Anoop Kumar Gupta, Bachelors, THERMAL MANAGEMENT OF LITHIUM-ION BATTERY USING PHASE-CHANGE MATERIALS, SANDEEP SINGH,,
33. Jose V Parambil, PhD, Cocrystallization of Nutraceuticals, Anindita Saha,,
34. Anoop Kumar Gupta, Bachelors, METAL FOAM/PCM MELTING EVOLUTION ANALYSIS: ORIENTATION EFFECT, SAKSHI DARJEE,,
35. Jose V Parambil, PhD, Phytochemical Extraction using Deep Eutectic Solvents, Rashi Srivastava,,
36. Anoop Kumar Gupta, Phd, LITHIUM-ION BATTERY THERMAL MANAGEMENT SYSTEM, LALAN KUMAR SINGH,,
37. Nitin Dutt Chaturvedi, PhD, Optimization in fluid transportation, Mr. Gaurav Shukla, , Ongoing
38. Jose V Parambil, Bachelors, Thin-film drying techniques, Harsh Gupta, ,
39. Anoop Kumar Gupta, Phd, THERMAL ENERGY STORAGE IN SYSTEMS FILLED WITH PCM-METAL

- FOAM, TABREZ ALAM, ,
40. Jose V Parambil, Bachelors, Divided wall Column Distillation Process, Lavanya Naresh, ,
 41. Anoop Kumar Gupta, Phd, HYBRID THERMAL MANAGEMENT FOR LITHIUM-ION BATTERIES, RAJESH KUMAR, ,
 42. Nitin Dutt Chaturvedi, PhD, Sagggregated resource planning, Md. Alquma, , Ongoing
 43. Nitin Dutt Chaturvedi, PhD, Energy Storage and power generation planning, Manish Meena, , Ongoing
 44. Nitin Dutt Chaturvedi, Masters, Optimization in Oil and Gas sector, Rahul Sudhhansu, , Ongoing
 45. Nitin Dutt Chaturvedi, Masters, Targeting Uncertainties in Production Planning and Scheduling, Piyush Kumar, , Ongoing
 46. Nitin Dutt Chaturvedi, Bachelors, Maximizing Profit using Benders Decomposition in a Water Distribution Network, Raghav Bharadwaj, , Completed
 47. Nitin Dutt Chaturvedi, Bachelors, Light Robust Optimization, Ankush, , Completed
 48. Nitin Dutt Chaturvedi, Bachelors, Exploring Machine Learning Opportunities in Process System Engineering, Akash Das, , Completed

Sponsored Research

1. Determination of Nucleation and Growth Kinetics of Cocrystals in Solution Cocrystallization (SERB, 37 Lakhs) PI: Dr. Jose V Parambil; CO-PIs: Dr. Aijaz Dar
2. Multiscale Modeling of Deep Eutectic Solvent Promoted Enhanced Oil Recovery (NSM, DST, 20.39 Lakhs) PI: Dr. Debasish Kundu ; CO-PIs: Dr. Sandip Khan
3. Development of bi/tri-metallic plasmonic nanoparticles decorated metal oxide semiconductor as Photocatalyst for CO₂ reduction by H₂O to fuels: A nanoscale approach to harvest visible light (BRNS, DAE, 23.0625 Lakhs) PI: Dr. Sushant Kumar ; CO-PIs: None
4. Planning of process industries production to

minimize carbon emissions and energy consumption (SERB, 22.36 Lakhs) PI: Nitin Dutt Chaturvedi; CO-PIs: NA

5. Wetting behavior of Ionic Liquids on different surfaces: Insight from Molecular Dynamic Simulation (SERB, DST, 33 Lakhs) PI: Dr. Sandip Khan; CO-PIs: NA
6. Continuous Polymorphic Crystallisation of Active Pharmaceutical Ingredients in a Slug-Flow Cooling-Crystalliser (SERB, 32 Lakhs) PI: Dr. Jose V Parambil ; CO-PIs: NA
7. Design and optimization of systems containing micro-encapsulated phase change materials (MPCMs) for efficient thermal energy storage and heat transfer (DST, 35 Lakhs) PI: ANOOP KUMAR GUPTA (SELF) ; CO-PIs: NA
8. Low pressure ammonia synthesis using nitrides as catalyst (SERB, 33.0849 Lakhs) PI: Dr. Sushant Kumar ; CO-PIs: None

Awards

1. Anoop Kumar Gupta (2021-11-25) Life Membership
2. Anoop Kumar Gupta (2021-11-10) Member
3. Sandip Khan (2021-11-08) Membership
4. Sujoy Kumar Samanta (2021-05-09) Indian Chemical Society
5. Anoop Kumar Gupta (2021-04-24) Life Member

Journals

1. Saha, D., Khan, S., & Van Bramer, S. E. (2021). Can porous carbons be a remedy for PFAS pollution in water? A perspective. *Journal of Environmental Chemical Engineering*, 9(6), 106665., 73 (2021)
2. Bhattacharjee, S., & Khan, S. (2022). Molecular insights into the electrowetting behavior of aqueous ionic liquids. *Physical Chemistry Chemical Physics*, 24(3), 1803-1813., 92 (2021)
3. Ojha, N., Bajpai, A., & Kumar, S. (2021). Enriched oxygen vacancies of Cu₂O/SnS₂/SnO₂ heterostructure for enhanced photocatalytic

- reduction of CO₂ by water and nitrogen fixation. *Journal of Colloid and Interface Science*, 585, 764-777., 118 (2021)
4. Ojha, N., & Kumar, S. (2021). Tri-phase photocatalysis for CO₂ reduction and N₂ fixation with efficient electron transfer on a hydrophilic surface of transition-metal-doped MIL-88A (Fe). *Applied Catalysis B: Environmental*, 292, 120166., 192 (2021)
 5. Ojha, N., Metya, A. K., & Kumar, S. (2022). Influence of plasmonic metals (Ag, Cu) on overall CO₂ photoreduction activity of -Ga₂O₃. *Applied Surface Science*, 580, 152315., 122 (2021)
 6. Chawla, K., Yadav, D. K., Bajpai, A., Kumar, S., Jain, I. P., & Lal, C. (2022). Effect of PdCl₂ catalyst on the hydrogenation properties and sorption kinetics of Mg. *Sustainable Energy Technologies and Assessments*, 51, 101981., 51 (2021)
 7. Mishra, S., Kumari, S., Kumar, P., & Samanta, S. K. (2021). Microwave synthesized strontium hexaferrite 2D sheets as versatile and efficient microwave catalysts for degradation of organic dyes and antibiotics. *Science of The Total Environment*, 790, 147853., 225 (2021)
 8. Kumawat, P. K., & Chaturvedi, N. D. (2022). Robust resource targeting in continuous and batch process. *Clean Technologies and Environmental Policy*, 24(1), 273-288., (2021)
 9. Shukla, G., & Chaturvedi, N. D. (2021). Targeting compression energy in batch process. *Cleaner Engineering and Technology*, 5, 100315., (2021)
 10. Kumari, S., & Samanta, S. K. (2022). The Effect of Temperature and Additives on the Dielectric Behavior of Human Whole Blood, Its Different Components, and Cell Suspensions. *IEEE Transactions on Instrumentation and Measurement*, 71, 1-9., 72 (2021)
 11. Kumari, S., & Samanta, S. K. (2022). The evolution of microwave assisted thermal processing of pre-transfusion human blood: a review. *Materials Today: Proceedings*., 70 (2021)
 12. Mishra, S., Kumar, P., & Samanta, S. K. (2022). Atomic sheets of silver ferrite with universal microwave catalytic behavior. *Science of The Total Environment*, 818, 151735., 225 (2021)
 13. Mishra, G., Memon, A., Gupta, A. K., & Nirmalkar, N. (2022). Computational study on effect of enclosure shapes on melting characteristics of phase change material around a heated cylinder. *Case Studies in Thermal Engineering*, 34, 102032., 47 (2021)
 14. Singh, L. K., Gupta, A. K., & Sharma, A. K. (2022). Hybrid thermal management system for a lithium-ion battery module: Effect of cell arrangement, discharge rate, phase change material thickness and air velocity. *Journal of Energy Storage*, 52, 104907., 60 (2021)
 15. Singh, L. K., & Gupta, A. K. (2022). Hybrid cooling-based lithium-ion battery thermal management for electric vehicles. *Environment, Development and Sustainability*, 1-22., 62 (2021)
 16. Alam, M. J., Nirmalkar, N., & Gupta, A. K. (2022). Stability criteria and convective mass transfer from the falling spherical drops, part II: HerschelBulkley fluids. *The Canadian Journal of Chemical Engineering*, 100(7), 1640-1651., 71 (2021)
 17. Nirmalkar, N., Alam, M. J., & Gupta, A. K. (2022). Stability criteria and convective mass transfer from the falling spherical drops, part I: Bingham plastic fluids. *The Canadian Journal of Chemical Engineering*, 100(7), 1626-1639., 71 (2021)
 18. Trivedi, M., Nirmalkar, N., Gupta, A. K., & Chhabra, R. P. (2021). Effect of non-newtonian fluid behavior on forced convection from a cluster of four circular cylinders in a duct, Part I: Power-law fluids. *Heat Transfer Engineering*, 43(1), 1-26., 70 (2021)
 19. Trivedi, M., Nirmalkar, N., Gupta, A. K., & Chhabra, R. P. (2021). Effect of non-Newtonian fluid behavior on forced convection from a cluster of four circular cylinders in a duct, part II: Bingham plastic fluids. *Heat Transfer Engineering*, 43(1), 27-48., 70 (2021)

20. Maurya, M., Metya, A. K., Singh, J. K., & Saito, S. (2021). Effects of interfaces on structure and dynamics of water droplets on a graphene surface: A molecular dynamics study. *The Journal of Chemical Physics*, 154(16), 164704., (2021)
21. Gupta, A. K., Mishra, G., & Singh, S. (2022). Numerical study of MWCNT enhanced PCM melting through a heated undulated wall in the latent heat storage unit. *Thermal Science and Engineering Progress*, 27, 101172., 37 (2021)
22. Pathak, A., Sharma, A. K., & Gupta, A. K. (2021). Dimensional analysis of a flow-by porous electrode and demonstration to all-vanadium redox flow batteries thereon. *Journal of Energy Storage*, 44, 103258., 60 (2021)
23. Singh, L. K., Mishra, G., Sharma, A. K., & Gupta, A. K. (2021). A numerical study on thermal management of a lithium-ion battery module via forced-convective air cooling. *International Journal of Refrigeration*, 131, 218-234., 125 (2021)
24. Sinha, R. K., & Chaturvedi, N. D. (2021). Multi-criteria Decision-making in Carbon-Constrained Scenario for Sustainable Production Planning. *Process Integration and Optimization for Sustainability*, 5(4), 905-917., (2021)
25. Chaturvedi, N. D., Goyal, A., & Singh, A. (2021). Minimizing Compression Work in a Multi-Pressure Level Steam Network. *Chemical Engineering Transactions*, 88, 169-174., (2021)
26. Kumawat, P. K., & Chaturvedi, N. D. (2021). Feasibility Analysis in Batch Process: A Machine Learning Approach. *Chemical Engineering Transactions*, 88, 451-456., (2021)
27. Sudhanshu, R., Kumawat, P. K., & Chaturvedi, N. D. (2021). Robust Optimization of Heat Exchanger Network with Uncertainty in Inlet Temperatures of Streams. *Chemical Engineering Transactions*, 88, 307-312., (2021)
28. Haider, M. A., & Chaturvedi, N. D. (2021). Segregated Targeting for Resource Conservation with Dedicated Sources for Batch Process. *Chemical Engineering Transactions*, 88, 175-180., (2021)
29. Shukla, G., & Chaturvedi, N. D. (2021). A Goal Programming Approach for Optimizing Natural Gas Transportation Network. *Chemical Engineering Transactions*, 88, 361-366., (2021)
30. Kumawat, P. K., Sinha, R. K., & Chaturvedi, N. D. (2021). Multiobjective optimization for sustainable production planning. *Environmental Progress & Sustainable Energy*, 40(6), e13741., (2021)
31. Chaturvedi, N. D., & Manan, Z. A. (2021). Batch process integration for resource conservation toward cleaner production A state-of-the-art review. *Journal of Cleaner Production*, 318, 128609., (2021)
32. Chaturvedi, N. D. (2021). Cost-optimal pinch analysis for sizing of hybrid power systems. *Cleaner Engineering and Technology*, 3, 100094., (2021)
33. Chaturvedi, N. D., Kumawat, P. K., & Keshari, A. K. (2021). Energy and Carbon-Constrained Production Planning with Parametric Uncertainties. *IFAC-PapersOnLine*, 54(3), 560-565., (2021)

Conference

1. Azim, M., & Gupta, A. K. (2020, February). Melting and Thermal Behavior of Phase Change Materials Around an Asymmetrically Confined Circular Cylinder. In *Proceedings of the International Conference on Advances in Chemical Engineering (AdChE)*, Duration-3 Days (2021)
2. Chaturvedi, N. D., & Sinha, R. K. (2021). Simultaneous minimization of minimum resource and storage requirements in batch process. In *Computer Aided Chemical Engineering (Vol. 50, pp. 1741-1746)*. Elsevier, Duration-4 Days (2021)
3. Shukla, G., & Chaturvedi, N. D. (2021). A Robust Optimization Approach for Hydrogen Allocation

- Network with Parametric Uncertainties. In Computer Aided Chemical Engineering (Vol. 50, pp. 135-140). Elsevier., Duration-4 Days (2021)
4. Kumawat, P. K., & Chaturvedi, N. (2021). A Data-Driven Approach to Plan Electricity Production from Diesel Engines with Constrained Parameters. In Computer Aided Chemical Engineering (Vol. 50, pp. 1761-1767). Elsevier., Duration-4 Days (2021)
 5. Das, A., Kumawat, P. K., & Chaturvedi, N. D. (2021). A Study to Target Energy Consumption in Wastewater Treatment Plant using Machine Learning Algorithms. In Computer Aided Chemical Engineering (Vol. 50, pp. 1511-1516). Elsevier., Duration-4 Days (2021)
 6. Sudhanshu, R., & Chaturvedi, N. D. (2021). Gas Lift Optimization for Optimum Oil Production from a Well Platform. In Computer Aided Chemical Engineering (Vol. 50, pp. 123-128). Elsevier., Duration-4 Days (2021)
- approval of M.Tech. degree curriculum.
5. Sushant Kumar - Head of the Department.
 6. Sushant Kumar - M. Tech. by Research co-ordinator.
 7. Sushant Kumar - Library-in-charge.
 8. Atanu Kumar Metya - Workshop/conference.
 9. Anoop Kumar Gupta - Department Timetable coordinator.
 10. Anoop Kumar Gupta - DAPC coordinator.
 11. Anoop Kumar Gupta - Course revision committee member.

Book Chapters Published

1. Simmi Ranjan Kumar, Saugat Prajapati, Jose V. Parambil : Challenges and Opportunities of Circular Economy in Agri-Food Sector. Environmental Footprints and Eco-design of Products and Processes: Sustainable Food Value Chains and Circular Economy Published (2021)

Departmental Activities

1. Sujoy Kumar Samanta - LC-MS/MS and its UPS were repaired in Biochemical lab at the department of Chemical and Biochemical Engineering IIT Patna on 24 Feb 2022.
2. Sujoy Kumar Samanta - Rectification and Demonstration of TOC (Total Organic Carbon Analyser) on 18 Feb 2022.
3. Sandip Khan - Ph.D Coordinator.
4. Jose V Parambil - Department DAPC Secretary, Member of Department Purchase Committee, Incharge for department website maintenance (continuing), Dept. Outreach & Industry collaboration, in-charge for the creation and

Institute Activities by Faculty Members

1. Sandip Khan - Library Advisory Committee .
2. Atanu Kumar Metya - Coordinator innovation activity, IIC, MoE.
3. Sushant Kumar - PIC-UG Programs.
4. Sujoy Kumar Samanta - Serving as Chairperson of Cultural and Technical Affairs at IIT Patna Since 10th Aug 2021.
5. Atanu Kumar Metya - Associate Warden .
6. Jose V Parambil - PIC for Training and Placement Cell.
7. Anoop Kumar Gupta - IAPC member.

Professional Activities by Faculty Members

1. Sandip Khan - Reviewer for Physical chemistry and chemical physics.
2. Sushant Kumar - Reviewer for Advanced Optical Materials .
3. Sushant Kumar - Reviewer for Advanced Materials.
4. Sujoy Kumar Samanta - Delivered an invited talk in the "National Seminar on Recent Trends in Chemical Research" at Bhagalpur University, Bhagalpur Bihar on 28 Feb 2022.
5. Sushant Kumar - Reviewer for Advanced Functional Materials.
6. Atanu Kumar Metya - Reviewer of ACS Earth and Space Chemistry .
7. Sandip Khan - Reviewer for Material Today.

8. Sujoy Kumar Samanta - Delivered an invited talk on "Relevant Guidance on Problems Faced by Today's Budding Engineers" at IIT Patna on 27 Nov 2021.
9. Sujoy Kumar Samanta - Dr. S. K. Samanta took major initiative to start IChE Patna Regional Centre in Nov 2021.
10. Sandip Khan - Reviewer for Physical chemistry and chemical physics.
11. Sushant Kumar - Reviewer for Scientific Reports.
12. Sushant Kumar - Reviewer for Journal of Inorganic and Organometallic Polymers and Materials.
13. Sujoy Kumar Samanta - Delivered an invited talk on "Self-Motivation for Life Skills Development and Management; and Life Audit to Achieve Personal and Professional Goals" for Women Entrepreneur's Co-operative Society (WECS), Bihar. on 10 July 2021.
14. Sandip Khan - Reviewer for RSC Advance.
15. Sandip Khan - Reviewer for Industrial and Engineering Chemistry Research.
16. Sushant Kumar - Reviewer for Small.
17. Atanu Kumar Metya - Reviewer of ACS Applied Bio Materials.
18. Atanu Kumar Metya - Reviewer of Physical Chemistry Chemical Physics.
19. Sushant Kumar - Reviewer for ACS Applied Energy Materials.
20. Nitin Dutt Chaturvedi - Invited Talk on Process Integration Developments for Process System Engineering in Gharda Institute of Technology.

Seminar, Conference and Workshop Organised

1. Sushant Kumar - Invited Speaker:-Recent Progress in Materials and Chemical Science (RPMCS-2022), Online (Invited Speaker) Participants: 90.
2. Sushant Kumar - Invited Speaker :-2nd International Conference on Materials Genome (ICMGII) ACCMS Theme Meetin, Online (Invited Speaker) Participants: 300.
3. Sushant Kumar - Chairperson in technical sessions:-The 2nd International Conference on Renewable Energy, Hybrid (Jaipur, Rajasthan) (Chairperson in technical sessions) Participants: 200.

Other Academic Activities

1. Sandip Khan - Invited Talk at IIT Madras.
2. Sushant Kumar - M Tech Program Course Curriculum.
3. Sandip Khan - Online Presentation at AIChE Annual Meeting.

Any Other Information

1. Sujoy Kumar Samanta - Dr S K Samanta organised an invited talk of Dr. Amit Dutt (SS Bhatnagar Awardee in the field of Medical Sciences 2017), scientist at ACTREC, Tata Memorial Centre, Mumbai, at the Department of Chemical and Biochemical Engineering, on topic "Cancer Informatics Enabling Precision Medicine: Integrating Mutations and Pathogens in Human Cancer" on 26.11.2021.
2. Sushant Kumar - Filing Patent on "Low pressure ammonia production using novel catalysts".
3. Nitin Dutt Chaturvedi - Included in National Organising Committee of PSE Asia 2022(IIT Madras).

CHEMISTRY

Head: Prof. Md. Lokman Hakim Choudhury



DR. AMIT KUMAR

Associate Professor

Synthesis of modified sugar, glycosyltransferase inhibitors, Oligosaccharides and Chiral catalyst; Application of Metal catalysis in the synthesis of natural products and Medicinal useful Pharmacophores



DR. DEBABRATA SETH

Associate Professor

Photophysics, Chemical Dynamics, Ionic liquids



DR. DEBAJIT SARMA

Assistant Professor

Coordination polymer, solid state chemistry, Chalcogenide and chalcogel based materials, oxide materials, energy conversion and catalysis.



PROF. MD. LOKMAN HAKIM CHOUDHURY

Professor

Diversity Oriented Synthesis (DOS) using multicomponent reactions (MCRs), the discovery and development of new synthetic methods with particular interest in heterocyclic chemistry and total synthesis of various biologically active natural products and structural analogues



DR. NEELADRI DAS

Associate Professor

Self-assembly and Supramolecular Chemistry, Organic Synthesis, Inorganicorganic hybrid material synthesis, Coordination polymers / Metal organic framework (MOF), Polymer Chemistry - syntheses/characterization/applications



PROF. PROLAY DAS

Professor

DNA Nanotechnology, Carbon Dot based functional nanostructures, Biomaterials



DR. RANGANATHAN SUBRAMANIAN

Associate Professor
Spectroscopy, Computational, Instrumentation development, Physical Chemistry



DR. SAHID HUSSAIN

Associate Professor
Nano-scale Materials, Green Chemistry and Synthetic Organic Methodologies



DR. SNEHASIS DASCHAKRABORTY

Assistant Professor
Studies of reaction and relaxation processes in complex chemical and biological systems using theory and computer simulation technique



DR. SUBRATA CHATTOPADHYAY

Assistant Professor
Polymer chemistry (sustainable/Green synthesis), nanomaterials and surface engineering



DR. T. RAJAGOPALA RAO

Assistant Professor
Quantum reactive scattering of gas phase bi-molecular reactions, non-adiabatic coupling effects, geometric phase effects, nuclear spin symmetry effects, isotopic effects, spectral attributes of quasi-bound states, construction of potential energy surfaces

Research Area

1. Debabrata Seth, Ultrafast fluorescence spectroscopy, Physical Chemistry, Chemical Dynamics, Photochemical study in the presence of nanomaterials, block copolymers, deep eutectic solvents
2. Prolay Das, Application of Carbon dot in Biomedical and Environmental remediation
3. Tammineni Rajagopala Rao, Theoretical Chemistry: Quantum reactive scattering
4. Neeladri Das, Inorganic and Organometallic Chemistry, Supramolecular Chemistry, Polymer

- (Porous organic polymers) and Materials Chemistry
- Md Lokman Hakim Choudhury, Green Synthesis, multicomponent reactions (MCRs), organocatalysis, design and development of light mediated reactions, synthesis and functionalization of heterocycles and multicomponent polymerization
 - Ranganathan Subramanian, Computational Chemistry Gas Phase Spectroscopy Dielectric Relaxation Spectroscopy
 - Amit Kumar, Design and development of sustainable synthetic strategy for synthesis of Functionalized Heterocycles and Glycomimetic.
 - Subrata Chattopadhyay, Functional Polymers and Materials: (i) Green Synthesis of functional polymers- degradable and stimuli responsive polymers and (ii) Porous Polymers- design and mechanistic aspects to tune structure property.
 - Debajit Sarma, Coordination polymer; Metal organic framework; Metallogel; Energy conversion and catalysis; Solid state chemistry; Oxide Materials; Chalcogenide and chalcogen based materials
 - Sahid Hussain, Nanoscale materials, Green Chemistry, Synthetic organic methodologies
 - Snehasis Daschakraborty, Theoretical Chemistry, Molecular Dynamics Simulation
 - Subrata Chattopadhyay, Summer, CH110, 0-0-3-3, 254,
 - Subrata Chattopadhyay, Autumn, CH430, 0-0-3-6, 22,
 - Subrata Chattopadhyay, Autumn, CH 601, 3 0 0 6, 16,
 - Debabrata Seth, Autumn, CH521, 3-0-0-6, 22, For M.Sc students, Student feedback score:4.327 out of 5
 - Debabrata Seth, Spring, CH428, 3-0-0-6, 24, For M.Sc students, Student feedback score:4.942 out of 5
 - Debabrata Seth, Others, CH110, 0-0-3-6, 260, For B.Tech 1st year (Group 7 to Group 12). One expt was taken by me on 09-12-2021 (online mode), and evaluation.
 - Debabrata Seth, Spring, CH110, 0-0-3-6, 400, For B.Tech 1st year of 2020, and one student from 2021 batch. One expt was taken by me on 05-02-2022 (online mode), and evaluation.
 - Debabrata Seth, Spring, CH110, 0-0-3-6, 258, For B.Tech 1st year (Group 1 to Group 6 of 2021 batch). One expt was taken by me on 31-03-2022 (online mode), and evaluation
 - Ranganathan Subramanian, Autumn, CH-110, 0-0-3-3, 236, Taught 3rd Lab Experiment to B.Tech First Year Student for G7-G12
 - Ranganathan Subramanian, Autumn, CH-427, 3-0-0-6, 24, MSc First Year Core Course
 - Ranganathan Subramanian, Spring, CH-428, 3-0-0-6, 24, MSc First Year Core Course
 - Sahid Hussain, Autumn, CH432, 3-0-0-6, 22,
 - Sahid Hussain, Spring, CH605, 3-0-0-6, 29, Shared half
 - Sahid Hussain, Spring, CH430, 0-0-6-6, 48, Shared
 - Md Lokman Hakim Choudhury, Spring, CH424, 3-0-0-6, 24,
 - Sahid Hussain, Spring, CH110, 0-0-3-3, 255, Shared
 - Md Lokman Hakim Choudhury, Autumn, CH423,

Teaching

Sl, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

- Amit Kumar, Spring, CH110, 0-0-3, 270, B.Tech Lab
- Amit Kumar, Spring, CH604, 3-0-0, 11, M.Sc course
- Amit Kumar, Autumn, CH523, 3-0-0, 24, M.Sc course
- Subrata Chattopadhyay, Spring, CH 606, 3 0 0 6, 18,
- Subrata Chattopadhyay, Spring, CH110, 0-0-3-3, 250,

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- 3-0-0-6, 22,
23. Neeladri Das, Autumn, CH425, 3-0-0-6, 24, Chemistry of s- and p-block elements
 24. Neeladri Das, Autumn, CH103, 3-1-0-8, 255, Half semester (only)
 25. Md Lokman Hakim Choudhury, Spring, CH110, 0-0-3-3, 256, shared with others
 26. Neeladri Das, Spring, CH103, 3-1-0-8, 257, Half semester (only)
 27. Md Lokman Hakim Choudhury, Spring, CH110, 0-0-3-3, 250, shared with others
 28. Neeladri Das, Spring, CH440, 0-0-6-6, 24, Inorganic Chemistry Practical with another faculty as co-instructor
 29. Debajit Sarma, Autumn, CH 525, 3-0-0-6, 22,
 30. Debajit Sarma, Spring, CH426, 3-0-0-6, 24,
 31. Debajit Sarma, Spring, CH440, 0-0-6-6, 46, For two batches (2021 and 2022) jointly with Dr. Neeladri Das
 32. Snehasis Daschakraborty, Spring, CH422, 3-0-0-6, 24,
 33. Snehasis Daschakraborty, Autumn, CH 605, 3 0 0 6, 30,
 34. Snehasis Daschakraborty, Spring, CH110, 0-0-3-3, 500,
 35. Snehasis Daschakraborty, Autumn, CH110, 0-0-3-3, 300,
 36. Prolay Das, Autumn, CH429, 3-0-0-6, 24,
 37. Prolay Das, Spring, CH512, 3-0-0-6, 40,
 38. Prolay Das, Spring, CH110, 0-0-3-3, 520,
 39. Tammineni Rajagopala Rao, Autumn, CH103, 3-1-0-8, 255, Shared with Dr. Neeladri Das
 40. Tammineni Rajagopala Rao, Spring, CH103, 3-1-0-8, 257, Shared with Dr. Neeladri Das
 41. Debajit Sarma, Autumn, CH110, 0-0-6-6, 270, 8 faculties were involved.
 42. Debajit Sarma, Spring, CH110, 0-0-6-6, 270, 8 faculties were involved.

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students,

Name of Co-Supervisor, Remarks

1. Snehasis Daschakraborty, Bachelors, Simulation of Lipid Membrane, Sumit Pandey,,
2. Debabrata Seth, Phd, Photophysics And Rotational Dynamics Of Fluorophores In Deep Eutectic Solvents And Room Temperature Ionic Liquid, Rajesh Kumar Gautam, NIL, Viva voce held on 25-01-2022
3. Debabrata Seth, Phd, The Effect Of Graphene Oxide On The Photophysics of Biologically Active Fluorescent Molecules In Different Organized Assemblies And In Neat Solvents, Alope Bapli, NIL, Viva voce held on 23-09-2021
4. Debabrata Seth, Phd, Supramolecular Interaction Of Biologically Active Molecules With Macrocyclic Hosts And Micelles, Rabindranath Jana, NIL, PhD thesis submitted on 06-04-2022
5. Md Lokman Hakim Choudhury, PhD, Multicomponent reactions for the synthesis of heterocycles and polymers, Prabhas Bhaumick, NA,
6. Prolay Das, PhD, carbon dot applications in biomedical, Saptarshi MANDAL,,
7. Prolay Das, PhD, Carbon dot for biomaterial applications, Suman Nayak,,
8. Md Lokman Hakim Choudhury, PhD, C-H functionalization of N-heterocycles, Danish Ali, NA,
9. Prolay Das, PhD, Carbon Dot biomolecule conjugation, Subhrajeet Banerjee,,
10. Prolay Das, PhD, Carbon dot for crosslinking applications, Maansi Agrawal,,
11. Md Lokman Hakim Choudhury, PhD, Synthesis of heterocycles by multicomponent reactions, Asim Jana, NA,
12. Prolay Das, PhD, Carbon dot in polymer science, Gorbil, Prolay Das,
13. Prolay Das, Masters, carbon dot, Jyoti Viswakarma,,
14. Md Lokman Hakim Choudhury, PhD, Metal

- catalyzed C-H activation , Swadhin S. Acharya, NA,
15. Prolay Das, Masters, carbn dot, Aftab Uddin Molla,,
 16. Md Lokman Hakim Choudhury, PhD, Synthesis of fused heterocycles by metal-free multicomponent reactions, Rohit Kumar, NA,
 17. Debabrata Seth, Phd, Photophysical Study In The Presence of Protein, Protein-Surfactant/Macrocycles Aggregates, And Nanomaterials, Souvik Pandit, Nil, This Student Joined In My Group On July 2018
 18. Debabrata Seth, Phd, Photophysical Study In The Presence Of Block Copolymers And Nanomaterials, Sanyukta Bhattacharjee, Nil, This Student Joined In My Group On July 2019
 19. Debabrata Seth, Phd, Photophysical Study In The Presence Of Block Copolymers And Block Copolymers-Surfactant Aggregates, Sapana Sinha, Nil, This Student Joined In My Group On July 2021
 20. Debabrata Seth, Phd, Photophysical Study In The Presence Of Deep Eutectic Solvents, Sagar Srivastava, Nil, This Student Joined In My Group On January 2022
 21. Debabrata Seth, Masters, Supramolecular Interaction Between An Amphiphilic Molecule With Cucurbit[7] Uril / Surfactants Mixtures: A Spectroscopic Study, Ganesh Kumar Yadav, Nil, 1-Year M.Sc Project
 22. Debabrata Seth, Masters, Photophysical Study Of 7-Hydroxycoumarin 3-Carboxylic Acid In Deep Eutectic Solvent And Its Binary Mixtures With Water, Sibnath Roy Pramanik, Nil, 1-Year M.Sc Project
 23. Tammineni Rajagopala Rao, PhD, Vibronic Coupling in the Photodetachment Bands of Poly-Aromatic Hydrocarbon and Carbon-Boron mixed Cluster anion, ABHISHEK KUMAR,,
 24. Tammineni Rajagopala Rao, PhD, Quantum Dynamics and its Ensuing Applications, KORUTLA SRIKANTH,,
 25. Tammineni Rajagopala Rao, PhD, Vibronic coupling in Aluminium clusters, RISHABH KUMAR PANDEY,,
 26. Tammineni Rajagopala Rao, PhD, Construction of Potential energy surfaces of tri atomic molecules., PREETI KARMAKAR,,
 27. Tammineni Rajagopala Rao, PhD, Quantum Reaction dynamics, ANUJ TAK,,
 28. Tammineni Rajagopala Rao, PhD, Quantum nuclear dynamics, SHYAM SHARAN TRIPATHI,,
 29. Tammineni Rajagopala Rao, Masters, Vibronic Coupling In Photodetachment Bands Of Meta Hydroxy Phenoxy Radical, Abhishek Kumar,,
 30. Tammineni Rajagopala Rao, Masters, Mechanism Of Direct Amino Acid-Catalysed Cascade Reductive Alkylations : A Computational Approach, Rakhi Maji,,
 31. Neeladri Das, Phd, Design Of Triptycene Based Linear And Network Polymers For Various Applications, Mosim Ansari,,
 32. Neeladri Das, Phd, Synthesis, Characterization And Applications Of Nanoporous Polymers With Triptycene Motifs, Akhtar Alam,,
 33. Neeladri Das, Phd, Porous organic polymers (POPs) for environmental remediation applications, Atikur Hassan,,
 34. Neeladri Das, Phd, Synthesis and characterization of organoplatinum molecules and their application in Supramolecular Chemistry, Arnab Chakraborty,,
 35. Neeladri Das, Others, Inorganic Supramolecular chemistry, Dr. Saurabh Kumar,,
 36. Neeladri Das, Masters, Towards the Syntheses of some Novel Imine-linked Polymers as Iodine adsorbents, Sohom Chandra,,
 37. Neeladri Das, Masters, Synthesis of Novel Triptycene-Based and Imine-Linked Porous Organic Polymers for Efficient I₂ Capture, Prince,
 38. Sahid Hussain, Phd, Synthesis Of Structurally Diverse Heterocycles Through Pot, Atom, And

- Step Economy (Pase) Reaction, Mugada Sugunakara Rao,,
39. Sahid Hussain, Phd, Design And Controlled Synthesis Of Binary And Ternary Metalchalcogenide Functional Nanostructured Materials, Afaq Ahmad Khan,,
 40. Sahid Hussain, Phd, Fabrication Of Surface Functionalized Nickel Sulfide Nanomaterials For The Adsorptive Removal Of Hazardous Pollutants, Sunita Kumari,,
 41. Sahid Hussain, Phd, Nanoscale Materials for Photothermal Applications, Bhagirath Mahto,,
 42. Sahid Hussain, NULL, Photothermal applications of metal chalcogenides, Ashok Barohi,,
 43. Sahid Hussain, Phd, New synthetic organic methodologies, Haider Ali,,
 44. Sahid Hussain, Masters, Fabrication Of Surface Functionalized Nickel Sulfide Nanomaterials For The Adsorptive Removal Of Hazardous Pollutants, Tanima Pal,,
 45. Sahid Hussain, Masters, Ipso-Hydroxylation of Arylboronic Acid by Hydrogen Peroxide in Presence of Bismuth-Tungsten Oxide (Bi₂WO₆) Nano-Catalyst, Rounak Ranjit,,
 46. Amit Kumar, Masters, Synthesis of spiro-fused bicyclic sugar derivatives., Mr. Subimal Patra,,
 47. Amit Kumar, Masters, Primary amide as directing group in C-H bond functionalization reaction, Ms. Pragya Sahu,,
 48. Ranganathan Subramanian, PhD, Theoretical investigation of Fluorohydrocarbons with free radicals, Kanika Guleria,,
 49. Amit Kumar, Phd, Synthesis of Functionalized Heterocycles using the transition metal salts assisted by weakly coordinating group, Ms. Akansha S. Bhagel,,
 50. Amit Kumar, Phd, New Route for making the conformationally locked bicyclic sugars, Ms. Anjali,,
 51. Ranganathan Subramanian, PhD, Formation of Aerosol and study of their properties using Theory, Arnab Patla,,
 52. Amit Kumar, Phd, Primary amide: A valuable and sustainable directing group for C-H activation reaction, Mr. Sakasam Mishra,,
 53. Ranganathan Subramanian, PhD, Interfacial atmospheric reactions, Harveer Singh,,
 54. Debajit Sarma, Phd, Solid State/Inorganic Chemistry, Noohul Alam,,
 55. Debajit Sarma, Phd, Solid State/Inorganic Chemistry, Subham Sahoo,,
 56. Debajit Sarma, Phd, Solid State/Inorganic Chemistry, Rajesh Patra,,
 57. Debajit Sarma, Phd, Solid State/Inorganic Chemistry, Sumit Mondal,,
 58. Debajit Sarma, Phd, Solid State/Inorganic Chemistry, Nisha Nandi,,
 59. Debajit Sarma, Masters, Solid State/Inorganic Chemistry, ANKITA CHAKRABORTY,,
 60. Debajit Sarma, Masters, Solid State/Inorganic Chemistry, SK SAKIR HOSSAIN,,
 61. Snehasis Daschakraborty, PhD, Interaction and Dynamics of Supercooled Water, Vikas Dubey,,
 62. Snehasis Daschakraborty, PhD, Dynamics of glass forming liquids, Shivam Dueby,,
 63. Snehasis Daschakraborty, PhD, Molecular dynamics of Model Cell Membrane, Shakkira E.,,
 64. Snehasis Daschakraborty, PhD, Role of Osmolytes in protecting cell membrane of extremophiles, Archita Maiti,,
 65. Snehasis Daschakraborty, PhD, Dynamics of Supercooled Water under Confinement, Golam Rosul Khan,,
 66. Snehasis Daschakraborty, PhD, Dynamics of Lipid in Raft Membrane, Abhay Kumar,,
 67. Snehasis Daschakraborty, PhD, Adsorption of Volatile surfactants on water surface, Tonmoy Sharma, Dr. Rishi Raj,
 68. Snehasis Daschakraborty, Bachelors, Dimensionality in dynamics of supercooled water, Supriya Pathak,,

69. Subrata Chattopadhyay, PhD, Amine functional polymers: synthesis and applications, Mohd. Avais (thesis submitted)
70. Subrata Chattopadhyay, PhD, Polymers via TAD based click reactions, Sulbha Kumari
71. Subrata Chattopadhyay, PhD, Chitosan based polymers, Jyoti Devi Katiyar
72. Subrata Chattopadhyay, PhD, Stimuli-responsive polymers, Soumen Ghosh.
73. Subrata Chattopadhyay, M.Sc., Linear polyamino-amides, Lalit Kumar Pandey
74. Subrata Chattopadhyay, M.Sc., Polymers via alder-ene reactions, Priyansu Singh

Sponsored Research

1. SAIF (institute project) (DST Govt of India, 500 Lakhs) PI: As Head and PI (Prof. Md. Lokman H. Choudhury); CO-PIs: Na
2. Design and Development of Visible Light-Driven Multicomponent Reactions Using Organophotocatalysis. (SERB, DST, Govt. of India, 45 Lakhs) PI: Prof. Md. Lokman H. Choudhury ; CO-PIs: NA
3. Amides and Imidates a Versatile Synthons for Organic Chemists: A Synthetic Exploration for Biologically Relevant Functionalized Organic Molecules, Scope and Mechanism (CSIR, New Delhi, 17 Lakhs) PI: Dr. Amit Kumar ; CO-PIs: NA
4. Diffusion of Lipid in Laterally Heterogeneous Cell Membrane (CSIR, 10.9 Lakhs) PI: Snehasis Daschakraborty ; CO-PIs: NA
5. Exploratory Synthesis of Functionalized Luminescent Metal Organic Frameworks (LMOFs) and their Sensing Applications. (Council of Scientific And Industrial Research (CSIR), 11 Lakhs) PI: Debajit Sarma ; CO-PIs: NA
6. Permanent Dropwise Condensation via Amphiphilic Additives in Vapor Phase (DST (Indo Korea), 30.3326 Lakhs) PI: Dr. Rishi Raj ; CO-PIs: Dr. Snehasis Daschakraborty
7. Study of novel carbeneous nanofillers like carbon dot in polyurethane elastomers (Manali

- Petrochemical Ltd, 21 Lakhs) PI: Dinesh Kotness ; CO-PIs: Prolay Das
8. Glycodiversification: Design and Synthesis of Biologically Important Conformationally Constrained NonClassical Bicyclic Sugars via Activation of C(sp³)-H bonds (SERB New Delhi, 43 Lakhs) PI: Dr. Amit Kumar ; CO-PIs: NA
9. Functional Polymers and Materials from Chitosan Using Green Click Inspired Reactions (Council of Scientific And Industrial Research, 14.5 Lakhs) PI: Dr. Subrata Chattopadhyay ; CO-PIs: NA
10. Rational Design and Synthesis of Functionalized Metal-organic Frameworks/gels for Biomimetic Heterogeneous Catalysis (Science & Engineering Research Board (SERB), 24.31 Lakhs) PI: Debajit Sarma ; CO-PIs: NA
11. Mechanism of Hydroxide Ion Transfer through Anion Exchange Membrane in Anion Exchange Membrane Fuel Cell: Investigation using Molecular Dynamics Simulation (SERB, 23.65 Lakhs) PI: Snehasis Daschakraborty ; CO-PIs: NA

Awards

1. Snehasis Daschakraborty (2022-03-16) Life Membership
2. Debajit Sarma (2022-03-15) Life Membership
3. Debajit Sarma (2022-02-22) Life Membership
4. Snehasis Daschakraborty (2021-09-09) Elected Member
5. Ranganathan Subramanian (2021-05-02) Associate Editor
6. Ranganathan Subramanian (2021-05-01) Member
7. Ranganathan Subramanian (2021-05-01) Life Member
8. Md Lokman Hakim Choudhury (2021-04-09) CAS REGISTRY@ INNOVATOR certificate
9. Amit Kumar (2021-04-01) Life time membership
10. Amit Kumar (2021-04-01) Life time membership

Journals

1. Avais, M., Kumari, S., & Chattopadhyay, S. (2021). Degradable and processable polymer monoliths with open-pore porosity for selective CO₂ and iodine adsorption. *Soft Matter*, 17(26), 6383-6393., 63 (2021)
2. Katiyar, J. D., & Chattopadhyay, S. (2022). Quantitative functionalization of chitosan using green and efficient azetidinium-amine reactions. *Carbohydrate Polymers*, 287, 119324., 116 (2021)
3. Baghel, A. S., Aghi, A., & Kumar, A. (2021). Ru(II)-Catalyzed Controlled Cross-Dehydrogenative Coupling of Benzamides with Activated Olefins via Weakly Coordinating Primary Amides. *The Journal of Organic Chemistry*, 86(14), 9744-9754., 66 (2021)
4. Das, P., Rahaman Molla, M., Kumar, A., & Thakur, R. (2022). *o*Cyanobenzoate: A Recyclable and Reusable Stereodirecting Group for O-Glycosylation via Pd(0)-catalyzed Ferrier Rearrangement. *ChemistryAn Asian Journal*, 17(3), e202101156., 53 (2021)
5. Thakur, R., Jaiswal, Y., & Kumar, A. (2021). Primary amides: Sustainable weakly coordinating groups in transition metal-catalyzed C-H bond functionalization reactions. *Tetrahedron*, 93, 132313., 40 (2021)
6. Gautam, R. K., Bapli, A., Jana, R., & Seth, D. (2021). Photophysics of thiazole orange in deep eutectic solvents. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 258, 119812., 54 (2021)
7. Bapli, A., Jana, R., Pandit, S., & Seth, D. (2021). Selective prototropism of lumichrome in the liposome/graphene oxide interface: A detailed spectroscopic study. *Journal of Molecular Liquids*, 339, 116738., 114 (2021)
8. Bapli, A., Seth, S., Pandit, S., & Seth, D. (2021). Graphene oxide-controlled neutral versus cationic form of a red emitting dye: enhancement of fluorescence by graphene oxide. *Chemical Communications*, 57(89), 11855-11858., 119 (2021)
9. Ahmed, S. A., Meena, A., & Seth, D. (2021). Thermodynamic behaviour of binary mixture of 1,3-dimethoxyimidazolium bis(trifluoromethylsulfonyl) imide and water. *Journal of the Indian Chemical Society*, 98(11), 100217., 7 (2021)
10. Jana, R., Gautam, R. K., Bapli, A., & Seth, D. (2022). Photodynamics of biological active flavin in the presence of zwitterionic surfactants. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 264, 120304., 54 (2021)
11. Pandit, S., Bapli, A., & Seth, D. (2022). Photophysics of a cyanine dye in the protein-surfactant aggregates. *Journal of Molecular Liquids*, 346, 118276., 114 (2021)
12. Jana, R., & Seth, D. (2022). Photophysical study of styryl derivatives with macrocyclic host and the effect of addition of cholesterol and neurotransmitter. *Journal of Photochemistry and Photobiology A: Chemistry*, 427, 113842., 52 (2021)
13. Rao, M. S., & Hussain, S. (2021). TEMPO-mediated aerobic oxidative synthesis of 2-aryl benzoxazoles via ring-opening of benzoxazoles with benzylamines. *Synthetic Communications*, 51(17), 2684-2694., (2021)
14. Rao, M. S., & Hussain, S. (2021). DABCO-mediated decarboxylative cyclization of isatoic anhydride with aryl/heteroaryl/alkylacetonitriles under microwave conditions: Strategy for the synthesis of substituted 4-quinolones. *Tetrahedron Letters*, 76, 153187., (2021)
15. Chowdhury, A., Kumari, S., Khan, A. A., Chandra, M. R., & Hussain, S. (2021). Activated carbon loaded with Ni-Co-S nanoparticle for superior adsorption capacity of antibiotics and dye from wastewater: kinetics and isotherms. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 611, 125868., (2021)
16. Rao, M. S., & Hussain, S. (2021). LUDOX HS-40

- Catalyzed Pot, Atom and Step Economic (PASE) Synthesis of Pyran Annulated Heterocyclic Scaffolds. *Polycyclic Aromatic Compounds*, 1-12, (2021)
17. Shetty, S., Baig, N., Hassan, A., Al-Mousawi, S., Das, N., & Alameddine, B. (2021). Fluorinated Iron (ii) clathrochelate units in metalorganic based copolymers: improved porosity, iodine uptake, and dye adsorption properties. *RSC advances*, 11(25), 14986-14995., 167 (2021)
 18. Ansari, M., Hassan, A., Alam, A., & Das, N. (2021). A mesoporous polymer bearing 3D-Triptycene, OH and azo-functionalities: Reversible and efficient capture of carbon dioxide and iodine vapor. *Microporous and Mesoporous Materials*, 323, 111242., 170 (2021)
 19. Hassan, A., Alam, A., Ansari, M., & Das, N. (2022). Hydroxy functionalized triptycene based covalent organic polymers for ultra-high radioactive iodine uptake. *Chemical Engineering Journal*, 427, 130950., 248 (2021)
 20. Ansari, M., Bera, R., & Das, N. (2022). A triptycene derived hypercrosslinked polymer for gas capture and separation applications. *Journal of Applied Polymer Science*, 139(1), 51449., 175 (2021)
 21. Ansari, M., Mallik, S., Jana, A., Nayak, A., & Das, N. (2021). Photoresponsive polymers with dangling triptycene units as efficient receptor for fullerene C60. *Journal of Polymer Science*, 59(23), 2959-2971., 155 (2021)
 22. Ansari, M., & Das, N. (2022). Triptycene-based porous photoluminescent polymers with dual role: efficient capture of carbon dioxide and sensitive detection of picric acid. *Materials Today Chemistry*, 23, 100723., 36 (2021)
 23. Kumar, S., Hassan, A., Das, N., & Koh, J. (2022). Triazine based nanoarchitectonics of porous organic polymers for CO₂ storage. *Materials Letters*, 313, 131757., 155 (2021)
 24. Bhakta, A. K., Kumari, S., Hussain, S., Belkhiri, S., Lo, M., Mascarenhas, R. J., ... & Mekhalif, Z. (2021). Simultaneous formation of CuO nanoflowers and semi-spherical nanoparticles onto MWCNT surface. *Emergent Materials*, 4(2), 403-411, (2021)
 25. Sharma, P., Sarma, P., Frontera, A., Hussain, S., Verma, A. K., & Bhattacharyya, M. K. (2021). Energetically significant anti-parallel -stacking and unconventional anion- interactions in phenanthroline based Ni (II) and Cu (II) coordination compounds: Antiproliferative evaluation and theoretical studies. *Inorganica Chimica Acta*, 516, 120082., (2021)
 26. Das, A., Sharma, P., Frontera, A., Barcelo-Oliver, M., Verma, A. K., Ahmed, R. S., ... & Bhattacharyya, M. K. (2021). Supramolecular assemblies involving biologically relevant antiparallel -stacking and unconventional solvent driven structural topology in maleato and fumarato bridged Zn (ii) coordination polymers: antiproliferative evaluation and theoretical studies. *New Journal of Chemistry*, 45(29), 13040-13055, (2021)
 27. Sharma, P., Nath, H., Frontera, A., Barcelo-Oliver, M., Verma, A. K., Hussain, S., & Bhattacharyya, M. K. (2021). Biologically relevant unusual cooperative assemblies and fascinating infinite crown-like supramolecular nitrate water hosts involving guest complex cations in bipyridine and phenanthroline-based Cu (ii) coordination compounds: antiproliferative evaluation and theoretical studies. *New Journal of Chemistry*, 45(18), 8269-8282., (2021)
 28. Das, A., Sharma, P., Frontera, A., Verma, A. K., Barcelo-Oliver, M., Hussain, S., & Bhattacharyya, M. K. (2021). Energetically significant nitrile nitrile and unconventional CH (nitrile) interactions in pyridine based Ni (II) and Zn (II) coordination compounds: Antiproliferative evaluation and theoretical studies. *Journal of Molecular Structure*, 1223, 129246., (2021)
 29. Kumar, B., Rao, M. S., Kumar, P., Hussain, S., & Das, S. (2020). Spectrophotometric investigation of 5-

- nitroso-6-aminouracil and its methyl derivative in methanol by selective complexation with bivalent metal ions. *Journal of Molecular Structure*, 1221, 128827., (2021)
30. Chowdhury, A., Kumari, S., Khan, A. A., & Hussain, S. (2021). Synthesis of mixed phase crystalline CoNi₂S₄ nanomaterial and selective mechanism for adsorption of Congo red from aqueous solution. *Journal of Environmental Chemical Engineering*, 9(6), 106554., (2021)
 31. Khan, A. A., Molla, A., Chowdhury, A., Kumari, S., & Hussain, S. (2021). Surface-Charge-Controlled synthesis of ZnIn₂S₄ Nanosheet-Based materials for selective adsorption of organic dyes. *ACS Applied Nano Materials*, 4(4), 4114-4128., (2021)
 32. Kumari, S., Chowdhury, A., Khan, A. A., & Hussain, S. (2021). Controlled surface functionalization of Ni-S nanostructures for pH-responsive selective and superior pollutants adsorption. *Journal of Hazardous Materials*, 415, 125750., (2021)
 33. Thakre, D., Ali, S. R., Mehta, S., Alam, N., Ibrahim, M., Sarma, D., ... & Banerjee, A. (2021). Polyoxovanadates with ethylidene-pyridine functionalized bisphosphonate ligands: synthesis, structure, spectroscopic characterization, magnetic, and antibacterial studies. *Crystal Growth & Design*, 21(8), 4285-4298., (2021)
 34. Bhaumick, P., & Choudhury, L. H. (2022). Multicomponent click polymerization for the synthesis of coumarin containing 1, 4-polytriazoles and their application as dye adsorbent. *Polymer*, 243, 124580., 67 (2021)
 35. Yadav, R., Bhaumick, P., Choudhury, L. H., & Parvin, T. (2022). Synthesis of pentacyclic pyran fused pyrazolo benzo [h] quinolines by multicomponent reaction and their photophysical studies. *ChemistrySelect*, 7(8), e202104124., 45 (2021)
 36. Indra, S., Subramanian, R., & Daschakraborty, S. (2021). Interaction of volatile organic compounds acetone and toluene with room temperature ionic liquid at the bulk and the liquid-vacuum interface. *Journal of Molecular Liquids*, 331, 115608., (2021)
 37. Guleria, K., & Subramanian, R. (2022). Quantum Chemical and Chemical Kinetic Investigation on Hydrogen Abstraction Reactions of CF₃CF₂C(O)OCH₃ and CHF₂CF₂C(O)OCH₃ with OH Radicals and Fate of Haloalkoxy Radicals. *ACS Earth and Space Chemistry*, (2021)
 38. Guleria, K., & Subramanian, R. (2022). Theoretical study of mechanisms and kinetics of reactions of the O (3P) atom with alkyl hydroperoxides (ROOH) where (R= CH₃ & C₂H₅). *Computational and Theoretical Chemistry*, 1208, 113547., (2021)
 39. Belal, M., Sarkar, S., Subramanian, R., & Khan, A. T. (2022). Synthetic utility of biomimicking vanadium bromoperoxidase and n-tetrabutylammonium tribromide (TBATB) in organic synthesis. *Organic & Biomolecular Chemistry*, (2021)
 40. Yadav, R., Parvin, T., Panday, A. K., & Choudhury, L. H. (2021). Synthesis of styryl-linked fused dihydropyridines by catalyst-free multicomponent reactions. *Molecular Diversity*, 25(4), 2161-2169., 26 (2021)
 41. Ali, D., Parvin, T., & Choudhury, L. H. (2022). Visible Light-Mediated C(sp²)H Selenylation of Amino Pyrazole and Amino Uracils in the Presence of Rose Bengal as an Organophotocatalyst. *The Journal of Organic Chemistry*, 87(2), 1230-1239., 62 (2021)
 42. Yadav, P., Kumar, R., Srikrishna, S., Pandey, A. K., Choudhury, L. H., Upadhyay, C., & Singh, V. P. (2022). A reversible and efficient probe for dual mode recognition of Al³⁺ and Cu²⁺ with logic gate behaviour: Crystal structure, theoretical and in-vivo bio-imaging investigations. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 267, 120552., 59 (2021)

43. Dubey, V., Dueby, S., & Daschakraborty, S. (2021). Breakdown of the Stokes-Einstein relation in supercooled water: The jump-diffusion perspective. *Physical Chemistry Chemical Physics*, 23(36), 19964-19986., 86 (2021)
44. Erimban, S., & Daschakraborty, S. (2021). How does excess phenylalanine affect the packing density and fluidity of a lipid membrane?. *Physical Chemistry Chemical Physics*, 23(48), 27294-27303., 86 (2021)
45. Mallik, S., Erimban, S., Kaleeswaran, S., Kumar, S., Daschakraborty, S., & Nayak, A. (2021). Unambiguous Determination of Electrostatically Driven Molecular Packing in a Triphenylene Surfactant Complex Monolayer. *Advanced Materials Interfaces*, 8(13), 2100187., 74 (2021)
46. Maiti, A., & Daschakraborty, S. (2021). How Do Urea and Trimethylamine N-Oxide Influence the Dehydration-Induced Phase Transition of a Lipid Membrane?. *The Journal of Physical Chemistry B*, 125(36), 10149-10165., 60 (2021)
47. Kiefer, P. M., Daschakraborty, S., Pines, D., Pines, E., & Hynes, J. T. (2021). Electron Flow Characterization of Charge Transfer for Carbonic Acid to Strong Base Proton Transfer in Aqueous Solution. *The Journal of Physical Chemistry B*, 125(41), 11473-11490., 60 (2021)
48. Erimban, S., & Daschakraborty, S. (2021). Permeation pathway of two hydrophobic carbon nanoparticles across a lipid bilayer. *Journal of Chemical Sciences*, 133(4), 1-17., 24 (2021)
49. Maiti, A., & Daschakraborty, S. (2022). Can Urea and Trimethylamine-N-oxide Prevent the Pressure-Induced Phase Transition of Lipid Membrane?. *The Journal of Physical Chemistry B*, 126(7), 1426-1440., 60 (2021)
50. Dubey, V., & Daschakraborty, S. (2022). Translational Jump-Diffusion of Hydroxide Ion in Anion Exchange Membrane: Deciphering the Nature of Vehicular Diffusion. *The Journal of Physical Chemistry B*, 126(12), 2430-2440., 60 (2021)
51. Korutla, S., Guillon, G., Honvault, P., & Tammineni, R. R. (2021). Differential cross sections and product ro-vibrational distributions for $16\text{O}+36\text{O}_2$ and $18\text{O}+32\text{O}_2$ exchange reactions. *Chemical Physics Letters*, 776, 138648., (2021)
52. Korutla, S., Koner, D., Varandas, A. J., & Tammineni, R. R. (2021). Quantum and Classical Dynamics of the $\text{N}(2\text{D})+\text{N}_2$ Reaction on Its Ground Doublet State $\text{N}_3(12\text{A})$ Potential Energy Surface. *The Journal of Physical Chemistry A*, 125(25), 5650-5660., (2021)

Departmental Activities

1. Debajit Sarma - In-charge of Single Crystal X-ray (SAIF) and Powder X-ray diffractometer.
2. Debajit Sarma - Dept. Faculty-in-Charge-Seminars.
3. Neeladri Das - Member Dept. academic committees such as DAPC, DC for JRF/SRF.
4. Amit Kumar - Faculty Incharge- 500 MHz NMR (SAIF,IIT Patna).
5. Neeladri Das - Member, Rate contract committee.
6. Neeladri Das - Member faculty recruitment committee.
7. Prolay Das - Time table coordinator.
8. Neeladri Das - PhD scholar selection committee.
9. Md Lokman Hakim Choudhury - HOD, Dept. of Chemistry and SAIF from Nov 2021.
10. Md Lokman Hakim Choudhury - 400 MHz NMR in charge till Oct 2021.
11. Ranganathan Subramanian - Member in DC of PhD Students.
12. Ranganathan Subramanian - Member of Department Purchase Committee.
13. Tammineni Rajagopala Rao - Member, Department Purchase committee for the FY 2021-22.
14. Amit Kumar - PhD coordinator.
15. Amit Kumar - Convener for rate contract of Chemicals and Glasswares.

16. Amit Kumar - In-charges of several high end equipments.
17. Debabrata Seth - Secretary of DAPC Chemistry w.e.f 11 April 2019 to till date.
18. Debabrata Seth - Member of faculty recruitment committee for Chemistry department 2021-22.

Institute Activities by Faculty Members

1. Neeladri Das - Director Nominee for faculty recruitment activity in KV-IIT Patna.
2. Debajit Sarma - Physical Verification of Library Books.
3. Sahid Hussain - Member of senate IIT Patna till 08-03-2022.
4. Debabrata Seth - Senate member of IIT Patna from 8th March 2022 for one year..
5. Neeladri Das - organized National Science Day in IIT Patna in February 2022.
6. Neeladri Das - Member senate till Feb, 2022.
7. Neeladri Das - Active participation in SAIF, IIT Patna activities.
8. Neeladri Das - Vice-President, Institute Innovation Council, IIC IIT Patna.
9. Prolay Das - Professor in-charge, Undergraduate affairs.
10. Debajit Sarma - Member Library Advisory Committee.
11. Neeladri Das - Participated in Faculty recruitment activities.
12. Subrata Chattopadhyay - Head, SAIF, IIT Patna (March 2019 - Nov 2021).
13. Tammineni Rajagopala Rao - Warden, Dr. A. P. J Kalam Hostel, Blocks A and B since 11 November 2021 .
14. Sahid Hussain - HoD, Chemistry till 30/10/2021.
15. Md Lokman Hakim Choudhury - Chairman of Security verification committee .
16. Debabrata Seth - Chairman JAM, IIT PATNA, w.e.f from 21.10.2021 for one year.
17. Neeladri Das - PIC-Library till October 2021.
18. Amit Kumar - Committee Member in Campus

Amenities.

19. Subrata Chattopadhyay - Faculty Advisor for 2019 Batch M.Sc in Chemistry (July, 2019 to May, 2021).
20. Amit Kumar - Vice-President, IIT Patna Club.
21. Debabrata Seth - Member of IAPC from 11th April 2019 to till date..
22. Debabrata Seth - Senate member of IIT Patna.

Professional Activities by Faculty Members

1. Debajit Sarma - Reviewer of several peer review international journals , viz., Inorganic Chemistry , ACS applied nano materials, ACS applied energy materials, JACS Gold, Journal of Solid State Chemistry, Indian Journal of Chemistry-Section A, etc..
2. Prolay Das - Guest lecturer, Applied Science Department of National Institute of Technical Teachers Training and Research Chandigarh.
3. Neeladri Das - Resource person in refresher course organized by Patna University.
4. Prolay Das - DBT nominated Institute Biosafety Committee member (External) of Central University of South Bihar.
5. Neeladri Das - Key note lecture in the 13th International e-Conference on Advancements in Polymeric Materials (APM-2022) Probing Innovative & Sustainable Product Design and Manufacturing, organized by CIPET:SARP ARSTPS, Chennai thro virtual platform during March 08-12, 2022.
6. Debabrata Seth - Given Invited Lecture in the workshop on "Surface Chemistry: Colloids and Interface Aspects with Applications" at Sardar Vallabhbai National Institute of Technology Surat, on 6th January 2022..
7. Neeladri Das - Keynote lecture in National Seminar on Science & Technology for Sustainable Development with Women Empowerment, LS college Muzaffarpur, BRA Bihar University on 03.12.2022 .
8. Debabrata Seth - Associate Editor, Frontier in

- Chemistry (Physical Chemistry Chemical Physics section) from November 2021.
9. Debabrata Seth - Associate Editor, Frontier in Physics (Physical Chemistry Chemical Physics section) from November 2021..
 10. Ranganathan Subramanian - External Expert (DSC), for Pre Registration Seminar of PhD student NIT Patna.
 11. Amit Kumar - Reviewed several project for Govt. of India, SERB, CSIR.

Seminar, Conference and Workshop Organised

1. Amit Kumar - Convener:-Topic: Important Aspects of Organic Chemistry for Sustainable Industrial Development Date: 29-30th Oct.2021, IIT Patna (Convener) Participants: 75.

Other Academic Activities

1. Debabrata Seth - Reviewer : Soft Matter, published by the Royal Society of Chemistry..
2. Subrata Chattopadhyay - Invited Talk: Multifunctional Nearly Monodisperse Biocompatible Polyethylene glycol Periodic Copolymers via aza-Michael Reactions by Dr. Subrata Chattopadhyay at 13th International e-conference on Advancements in Polymeric Materials (APM-2022) organized by Central Institute of Petrochemicals Engineering & Technology (CIPET), Chennai, 8-12, March, 2022.
3. Debabrata Seth - Reviewer : Chemical Physics Impact, Published by Elsevier.
4. Debajit Sarma - 15 Biennial DAE-BRNS Symposium on Nuclear and Radiochemistry (NUCAR-2021)-Invited Speaker - Title of the Talk "Functional Metallogel and Framework Materials for Environmental Remediation and Sequestration of Radio Nuclides"-Anushaktinagar, Mumbai .
5. Debabrata Seth - Reviewer : Microchemical Journal, Published by Elsevier.
6. Debabrata Seth - Reviewer : Chemical Papers, Published by Springer.
7. Debabrata Seth - Reviewer : International Journal of Heat and Mass Transfer, Published by Elsevier.
8. Tammineni Rajagopala Rao - Delivered invited talk at "THEORETICAL CHEMISTRY SYMPOSIUM-2021", organized by IISER Kolkata, IACS Kolkata, Kalyani University and S.N. Bose National Centre for Basic Sciences Kolkata held between 11 - 14 December 2021.
9. Amit Kumar - Invited talk, NOST-OCC, Chennai- Glycosylation and Glycodiversification: An Important aspect of Carbohydrate Chemistry.
10. Amit Kumar - Invited Talk -58th Annual Convention of Chemists (ACC) of the Indian Chemical Society (ICS), IISER Kolkata -A Promising Synthetic Route for O-Glycosidic Bond Formation and Glycodiversification.
11. Snehasis Daschakraborty - Invited Seminar in the Dept. of Chemical Biological and Macromolecular Sciences, S. N. Bose National Center for Basic Sciences, Kolkata (Virtual Mode) on Adaptation of Cell membrane of Extremophiles.
12. Subrata Chattopadhyay - Invited Talk: Aza-Michael reactions as a tool to prepare functional polymers and materials by Dr. Subrata Chattopadhyay at International Online Conference on Materials Science and Technology (ICMT 2021) organized by Mahatma Gandhi University, Kottayam, Kerala, India, November 12-14, 2021..
13. Debabrata Seth - Reviewer : Journal of Photochemistry & Photobiology, A: Chemistry, Published by Elsevier.
14. Snehasis Daschakraborty - Invited Talk in the Conference entitled "Physical Chemistry Physical Biology" on Jump-diffusion of water molecules in supercooled water and aqueous solution..
15. Snehasis Daschakraborty - Invited Talk, Current Trends in Theoretical Chemistry (CTTC-2020), Virtual Mode, BARC, India, Title: Small Phenylalanine Clusters are Detrimental to Lipid Membrane: a Mechanism for the Excess

- Phenylalanine Toxicity in Phenylketonuria.
16. Debabrata Seth - Reviewer : Journal of Photochemistry & Photobiology, A: Chemistry, Published by Elsevier.
 17. Debabrata Seth - Reviewer : Journal of Chemical Research, published by the SAGE.
 18. Debabrata Seth - Reviewer : Journal of Molecular Liquids, Published by Elsevier.
 19. Debabrata Seth - Reviewer : Chemical Physics Impact, Published by Elsevier.
 20. Debabrata Seth - Reviewer : Industrial Crops & Products, Published by Elsevier .
 21. Amit Kumar - Resource person : UGCsponsored "Human Resource Development Centre Ranchi University, Ranchi"-Frontiers of Pericyclic Reactions: A Molecular Orbital Approach.
 22. Debabrata Seth - Reviewer : ChemistrySelect, published by the Wiley.
 23. Debabrata Seth - Reviewer : Physical Chemistry Chemical Physics, published by the Royal Society of Chemistry..
 24. Subrata Chattopadhyay - Invited Talk: Aliphatic processable functional porous polymers: Hierarchical synthesis via colloidal templating and application towards removal of pollutants by Dr. Subrata Invited Talk: Chattopadhyay at 160th Birth Anniversary Celebration of Acharya P.C. Ray & International Seminar (YSC 2021) Organized by Indian Chemical Society, August 1-8, 2021..
 25. Debabrata Seth - Reviewer : Microchemical Journal, Published by Elsevier.
 26. Snehasis Daschakraborty - Invited Seminar in the Dept. of Chemistry, Scottish Church College, Kolkata (Virtual Mode) on Adaptation of Cell membrane of Extremophiles.
 27. Debabrata Seth - Reviewer : The Journal of Physical Chemistry, Published by American Chemical Society.
 28. Debajit Sarma - Progress and Challenges in Modern Day Science- PCMDS-2021-Invited Speaker - Title of the Talk "Functional Metallogel and Framework Materials for Environmental Remediation and Related Applications B. Borooah College, Guwahati.
 29. Subrata Chattopadhyay - Invited Talk: Hyperbranching Polymerization Induced Self-assembly: from Polymer Colloids to Aliphatic Functional Porous Polymers by Dr. Subrata Chattopadhyay International Conference on Recent Advances in Science at International Conference on Recent Advances in Science organized by Invertis University, April 30 - May 1, 2021..

Any Other Information

1. Neeladri Das - Submitted research project for funding to CSIR and SERB.

CIVIL AND ENVIRONMENTAL ENGINEERING

Head: Dr. Vaibhav Singhal



PROF. T.N. SINGH, DIRECTOR, IIT PATNA

Professor
Geotechnical Engineering



DR. AMARNATH HEGDE

Assistant Professor
Geotechnical Engineering



DR. ARVIND KUMAR JHA

Assistant Professor
Geotechnical Engineering



DR. AVIK SAMANTA

Assistant Professor
Structural Engineering



DR. BACHU ANILKUMAR

Assistant Professor
Transportation Engineering



DR. KOUSHIK ROY

Assistant Professor
Structural Engineering



DR. OM PRAKASH

Assistant Professor
Water Resources Engineering



DR. PRADIPTA CHAKRABORTY

Assistant Professor
Geotechnical Engineering



DR. RAMAKRISHNA BAG

Assistant Professor
Geotechnical Engineering



DR. SOURAV GUR

Assistant Professor
Structural Engineering



DR. SUBRATA HAIT

Associate Professor
Environmental Engineering



DR. SUDHIR VARMA

Assistant Professor
Transportation Engineering



DR. SYED K K HUSSAINI

Assistant Professor
Transportation Engineering



DR. TRISHIKHI RAYCHOUDHURY

Assistant Professor
Environmental Engineering



DR. VAIBHAV SINGHAL

Assistant Professor
Structural Engineering



DR. VISHAL DESHPANDE

Assistant Professor
Water Resources Engineering

Research Area

1. Om Prakash, Groundwater flow and contaminant transport modeling Groundwater Impact Assessment (quality, quantity, risk analysis, vulnerability mapping) Salt water intrusion modeling Stochastic optimization and AI based groundwater management Groundwater surface water interactions
2. Sourav Gur, Multiscale/ Multiphysics Modeling, Smart Material, Vibration Control, Structural Optimization, Failure and Risk Assessment
3. Anilkumar Bachu, Intelligent Transportation Systems, Public Transportation, Traffic Flow Modelling, Naturalistic Driving Studies, Traffic Operations and Management
4. Subrata Hait, Conventional and Ecological Sanitation
5. Subrata Hait, Removal of Micropollutants from Aqueous Matrices
6. Subrata Hait, Water and Wastewater Treatment
7. Subrata Hait, Organic Waste Management by Composting and Vermicomposting
8. Subrata Hait, E-waste Management
9. Subrata Hait, Solid and Hazardous Waste Management
10. Subrata Hait, Waste Treatment and Resource

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| <p>Recovery</p> <p>11. Subrata Hait, Pollution Prevention and Resource Recovery</p> <p>12. Ramakrishna Bag, Geotechnical and Geoenvironmental Engineering, Unsaturated and expansive soil mechanics, High level radioactive waste disposal, Energy Geotechnics</p> <p>13. Syed Khaja Karimullah Hussaini, Rail Track Geotechnology</p> <p>14. Syed Khaja Karimullah Hussaini, Transportation Geotechnics</p> <p>15. Syed Khaja Karimullah Hussaini, Ground Improvement</p> <p>16. Koushik Roy, Soil-Structure Interaction</p> <p>17. Koushik Roy, Nonlinear System Identification</p> <p>18. Koushik Roy, Bridge Health Monitoring</p> <p>19. Koushik Roy, Stochastic Damage Quantification</p> <p>20. Koushik Roy, Structural Damage Detection</p> <p>21. Vaibhav Singhal, Seismic behavior of reinforced concrete and masonry structures</p> <p>22. Vaibhav Singhal, Seismic evaluation and rehabilitation of structures</p> <p>23. Vaibhav Singhal, Small-scale modeling of structural systems for real time dynamic testing</p> <p>24. Vaibhav Singhal, Earthquake damage surveys and disaster mitigation and preparedness</p> <p>25. Amarnath Hegde, Geotechnical Engineering; Ground Improvement and Geosynthetics; Transportation Geotechnology; Soil Dynamics and Vibration Isolation; Stability of Earth Retaining Structures</p> <p>26. Vishal Deshpande, Surface water hydraulics and surface hydrology</p> <p>27. Pradipta Chakraborty, Soil Dynamics and Geotechnical Earthquake Engineering</p> <p>28. Pradipta Chakraborty, Soil Heterogeneity</p> <p>29. Pradipta Chakraborty, Ground Improvement</p> <p>30. Pradipta Chakraborty, Probabilistic Methods in Engineering</p> <p>31. Sudhir Varma, Transportation Engineering</p> | <p>32. Arvind Kumar Jha, Soil Stabilization by Admixtures</p> <p>33. Arvind Kumar Jha, Environmental Geotechnics</p> <p>34. Arvind Kumar Jha, Ground Improvement Techniques</p> <p>35. Arvind Kumar Jha, Bio-Geotechnics</p> <p>36. Arvind Kumar Jha, Geoenvironmental Engineering</p> <p>37. Arvind Kumar Jha, Geotechnical Engineering</p> <p>38. Arvind Kumar Jha, Rock Mechanics and Underground Excavation</p> <p>39. Avik Samanta, Structural Engineering, Structural Fire Engineering, Earthquake Engineering</p> |
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Teaching

SI, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

1. Vishal Deshpande, Summer, CE111, 1-0-3-5, 343,
2. Vaibhav Singhal, Spring, CE220, 3-0-0-6, 55,
3. Vaibhav Singhal, Spring, CE526, 3-0-0-6, 7,
4. Sudhir Varma, Autumn, CE549, 3-0-0-6, 42, Pavement Materials
5. Vaibhav Singhal, Spring, CE111, 1-0-3-5, 90, Tutor
6. Sudhir Varma, Autumn, CE595, 0-0-3-3, 33, Civil Engineering Lab I, 50% course shared
7. Vaibhav Singhal, Autumn, CE321, 3-0-0-6, 48,
8. Sudhir Varma, Spring, CE218, 1-0-3-5, 56, Infrastructure Drawing and Estimation, 50% course shared
9. Sudhir Varma, Spring, CE324, 3-0-0-6, 48, Transportation Engineering, 50% course shared
10. Sudhir Varma, Spring, CE392, 0-0-3-3, 77, Transportation Engineering Laboratory, 50% course shared
11. Avik Samanta, Autumn, CE547, 3-0-0-6, 12,
12. Avik Samanta, Spring, CE320, 3-0-0-6, 48, Core (without any lab and tutorial)
13. Avik Samanta, Autumn, CE393, 0-0-0-3, 74, For 2 batches (18 and 19 batches).

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14. Om Prakash, Spring, CE534, 3-0-0, 13,
15. Om Prakash, Spring, CE394, 0-0-3, 78, Combined two batches
16. Syed Khaja Karimullah Hussaini, Spring, CE528, 3-0-0-6, 43,
17. Syed Khaja Karimullah Hussaini, Autumn, CE293, 0-0-3-3, 104, Lab was conducted for two batch of students
18. Syed Khaja Karimullah Hussaini, Autumn, CE203, 3-0-0-6, 56,
19. Amarnath Hegde, Autumn, CE111, 0-3-0-3, 90,
20. Amarnath Hegde, Autumn, CE545, 3-0-0-6, 10,
21. Amarnath Hegde, Spring, CE292, 0-0-3-3, 56,
22. Amarnath Hegde, Spring, CE214, 3-0-0-6, 56,
23. Ramakrishna Bag, Autumn, CE319, 3-0-0-6, 48,
24. Ramakrishna Bag, Autumn, CE491, 0-0-3-3, 29,
25. Ramakrishna Bag, Autumn, CE111, 0-0-0-3, 90, Tutorial, started late due to pandemic
26. Ramakrishna Bag, Spring, CE582, 3-0-06, 6,
27. Ramakrishna Bag, Spring, CE582, 3-0-06, 6,
28. Ramakrishna Bag, Spring, CE 596, 0-0-3-3, 31, Due to covid, two batces were conducted together
29. Ramakrishna Bag, Summer, CE111, 0-0-3-3, 90, Due to pandmic pending course is being conducted
- 30.. Anilkumar Bachu, Spring, CE318, 3-0-0-6, 48,
31. Anilkumar Bachu, Spring, CE324, 3-0-0-6, 48,
32. Anilkumar Bachu, Spring, CE392, 0-0-3-3, 77,
33. Anilkumar Bachu, Others, CE111, 1-0-3-5, 93, Winter Session
34. Anilkumar Bachu, Autumn, CE491, 0-0-3-3, 29,
35. Anilkumar Bachu, Autumn, CE507, 1-2-0-6, 17,
36. Anilkumar Bachu, Autumn, CE543, 3-0-0-6, 41,
37. Koushik Roy, Autumn, CE211, 3-0-0-6, 56,
38. Koushik Roy, Autumn, CE505, 3-0-0-6, 19,
39. Koushik Roy, Spring, CE506, 1-2-0-6, 16,
40. Koushik Roy, Spring, CE318, 3-0-0-6, 48,
41. Koushik Roy, Autumn, CE491, 0-0-3-3, 29,
42. Koushik Roy, Spring, CE526, 3-0-0-6, 8,
43. Arvind Kumar Jha, Autumn, CE571, 3-0-0-6, 40, Departmental Elective
44. Arvind Kumar Jha, Autumn, CE111, 1-0-3-5, 91, Tutorial
45. Arvind Kumar Jha, Spring, CE216, 3-0-0-6, 56, B Tech Core Course
46. Arvind Kumar Jha, Spring, CE570, 3-0-0-6, 37, Departmental Elective
47. Sourav Gur, Autumn, CE505, 3-0-0-6, 18,
48. Sourav Gur, Autumn, CE517, 3-0-0-6, 10,
49. Sourav Gur, Spring, CE218, 1-0-3-5, 56, Theory And Lab both
50. Sourav Gur, Spring, CE512, 3-0-0-6, 18,
51. Subrata Hait, Autumn, CE111, 1-0-3-5, 86, B.Tech 1st Year Core Course. Involved in practical for Gr 11 and 12.
52. Subrata Hait, Autumn, CE303, 3-0-0-6, 48, B.Tech Core Course
53. Subrata Hait, Autumn, CE391, 0-0-3-3, 77, B.Tech Laboratory Course. Conducted the laboratory course for two batches (2018 and 2019) together.
54. Vaibhav Singhal, Autumn, CE393, 0-0-3-3, 77, Conducted for two batches
55. Subrata Hait, Spring, CE102, 1.5-0-0-3, 510, B.Tech 1st Year Core Course. Taught in two batches for entire semester: Gr. 1 to 6 (batch 1) and Gr. 7 to 12 (batch 2).
56. Subrata Hait, Spring, CE596, 0-0-3-3, 31, M.Tech Laboratory Course. Co-Lab Instructors: Drs. R. Bag & V. Deshpande
57. Vaibhav Singhal, Autumn, CE595, 0-0-3-3, 32, Conducted for two batches
58. Pradipta Chakrabortty, Autumn, CE317, 3-0-0-6, 48,
59. Pradipta Chakrabortty, Autumn, CE111, 1-0-3-5, 90, Involved in practical tutorial classes
60. Pradipta Chakrabortty, Spring, CE530, 3-0-0-6, 7,
61. Pradipta Chakrabortty, Spring, CE506, 1-2-0-6, 16, M.Tech course

62. Vishal Deshpande, Spring, CE314, 3-0-0-6, 48,
63. Vishal Deshpande, Spring, CE596, 0-0-3-3, 31,
64. Vishal Deshpande, Spring, CE111, 1-0-3-5, 511,

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Vaibhav Singhal, PhD, Strengthening of Weak Masonry Walls using Wire Reinforced Cementitious Matrix (WRCM), Dattatreya Tripathy,, Ongoing
2. Vaibhav Singhal, PhD, Damage Detection in Flexural Members using Vibration-Based Techniques, Arif Faridi, Dr. Koushik Roy, Ongoing
3. Vaibhav Singhal, PhD, Seismic Design and Performance Verification of Confined Masonry Walls for Medium-rise Buildings, Bonisha Borah, Prof. Hemant Kaushik (IITG) is Supervisor, IIT Guwahati, External Supervisor (Synopsis submitted)
4. Avik Samanta, PhD, Behavior of steel structures under fire, Saurabh Suman,,
5. Avik Samanta, PhD, Behavior of cold-formed steel structures under fire, Ravikant Singh,,
6. Avik Samanta, PhD, Behavior of steel plated structures at elevated temperature, Saurabh Shukla,,
7. Avik Samanta, PhD, Reliability analysis of beams and columns at elevated temperature, Prabhat Kumar Singh,,
8. Syed Khaja Karimullah Hussaini, Phd, Evaluation of rubber coated aggregate as ballast, Md. Naquib Alam, NA,
9. Om Prakash, PhD, Characterization of Unknown Groundwater Pollution Sources In Terms Of Source Locations And Source Flux Release History, Anirban Chakraborty, , Successfully completed
10. Syed Khaja Karimullah Hussaini, Phd, Use of steel slag as railway ballast, Atif Hussain, NA,
11. Avik Samanta, Masters, Vibration Control Of MDOF Buildings Using MultiTuned Liquid Dampers, Aditya Kumar,,
12. Om Prakash, PhD, Management of Coastal Aquifers Using Simulation Optimization, Subhajit Dey,, Thesis submitted
13. Syed Khaja Karimullah Hussaini, Phd, Performance assessment of polyurethane reinforced ballast, KVS Prasad, NA,
14. Om Prakash, PhD, Impact of Discharge Fluctuation on Morphological Changes in River, Kumar Abhishek Kishore, Dr. Vishal Deshpande,
15. Syed Khaja Karimullah Hussaini, Phd, Discrete element modelling of ballasted tracks, Md Hussain, NA, Part time student
16. Avik Samanta, Bachelors, Effects of Truss Behavior on Critical Temperatures of Angle Steel Truss Member Exposed to Uniform Fire, Ravi Kiran,,
17. Om Prakash, PhD, Urban Flood Risk Assessment of Patna Under Climate Change Scenario, Ahmad Rashid,,
18. Syed Khaja Karimullah Hussaini, Phd, Performance assessment of high speed ballasted track, Abhishek Gaurav, NA, Part time student
19. Om Prakash, Masters, Modeling surface water groundwater interactions, Ajay Kumar Karn , , CCompleted
20. Syed Khaja Karimullah Hussaini, Masters, An experimental study on degradation behaviour of polyurethane reinforced ballast under cyclic loading, Krishlay Kumar Keshav, NA,
21. Om Prakash, Masters, Sustainable groundwater management in IIT Patna Campus, Vishwajeet, ,
22. Syed Khaja Karimullah Hussaini, Bachelors, Assessment of railway ballast with and without fouling, Kristam Sravani, NA,
23. Om Prakash, Bachelors, CORRECTING THE AMBIVALENCE IN SATELLITE BASED RAINFALL DATA, Rajveer Tholiya,,
24. Om Prakash, Bachelors, FLOOD RISK ASSESSMENT OF MALAPPURAM DISTRICT, KERALA, Roopesh Pal,,

25. Syed Khaja Karimullah Hussaini, Bachelors, An Experimental Study on Degradation of Polyurethane-Stabilized Ballast by Los Angeles Abrasion Test, Adivi Yasaswini Haindavi Saraswathi, NA,
26. Ramakrishna Bag, PhD, Behavior of energy pile under various pipe configuration, Mithun Mandal (1821Ce12), , Converted to part-time after registration seminar, employed as JE, Govt. of W.B.
27. Sourav Gur, Bachelors, Analysis of non-structural components in base-isolated structures during earthquakes, Preetam Kumar Singh, ,
28. Sourav Gur, Bachelors, Analysis of Non-Structural Elements in Single Story Building, Hardik Agrawal, ,
29. Sourav Gur, Masters, EFFECT OF TEMPERATURE AND STRAIN RATE ON THE SEISMIC PERFORMANCE OF SHAPE MEMORY ALLOY (SMA) DAMPER RETROFITTED BUILDING AND COMPARISON WITH YIELD DAMPER, Shubham Kashyap, ,
30. Anilkumar Bachu, Bachelors, Use of Clustering and Deep Learning Approaches for Bus Travel Time Prediction, Varanasi Kamal Kaushik, ,
31. Anilkumar Bachu, Bachelors, Impact of Travel Restrictions on the Environment and Travel Time Reliability due to COVID-19, Ananya Singh, ,
32. Anilkumar Bachu, Masters, Development of Driving Cycle for Electric Vehicles under Indian Traffic Conditions, Piyush Kumar Pandey, ,
33. Anilkumar Bachu, Phd, Behavioral Monitoring of Professional Drivers using Video and Speech Analytics: Detection of Risky Driving Behavior, Gaurav Kumar, ,
34. Anilkumar Bachu, Phd, Analysis and Modelling of Driver Behavior using Naturalistic Driving Data under Indian Traffic Condition , Ankit Kumar Kushwaha, ,
35. Subrata Hait, PhD, Fungal and Enzyme-catalyzed Bioleaching of Metals from E-waste, Mr Amber Trivedi (1621CE05), , Institute Fellow
36. Ramakrishna Bag, PhD, Thermal-Hydraulic-Mechanical-Chemical (THMC) Behaviour of two Indian Bentonites: Application to Engineered Barrier System, Koteswara Rao Jadda (Roll No: 1721CE02), , Viva voce completed on 28/02/2022
37. Ramakrishna Bag, PhD, Use of biochar in geotechnical Engineering application, Shailesh Kumar Yadav (Roll No: 2021ce26), , Comprehensive exam completed
38. Ramakrishna Bag, PhD, Use of red mud as barrier material of landfill liner , Pramadhanatha Reddy (Roll No 2121CE18), , Course work completed
39. Ramakrishna Bag, PhD, Thermo-hydro-mechanical-geochemical behaviour of smectite clay under thermal and hydraulic gradients, Banavath Prasad Nayak (Roll No: 2121ce19), , Course work completed
40. Subrata Hait, PhD, Removal of Emerging Contaminants from Aqueous Matrices, Ms Bhavini Saawarn (1921CE08), , Research (UGC) Fellow
41. Syed Khaja Karimullah Hussaini, Phd, Application of elastomeric polyurethane to improve the performance of ballasted rail track, Dinesh Gundavaram, NA, Thesis Submitted for evaluation
42. Subrata Hait, PhD, Occurrence, Fate and Removal of Microplastics from Aqueous Matrices, Ms Neha Parashar (1921CE10), , Research (UGC) Fellow
43. Subrata Hait, PhD, Metallurgical Recovery of Metals from Spent Lithium Ion Batteries, Ms Anusha Vishwakarma (2021CE08), , Research (UGC) Fellow.
44. Ramakrishna Bag, PhD, Use of pre fabricated drains and vaccum consolidation technique to improve soft soil properties, Thy Truc Doan (Roll No: 2021CE22), Dr. Arvind Kumar Jha, Comprehensive Exam completed

45. Subrata Hait, PhD, Adsorptive Removal of Emerging Contaminants from Aqueous Matrices, Mr Byomkesh Mahanty (2021CE10), Dr. Sahid Hussain, Institute Fellow.
46. Ramakrishna Bag, Masters, THERMO-MECHANICAL BEHAVIOUR OF ENERGY PILE IN SUMMER MODE, PRANAW AMBASTHA (Roll No: 2011CE11), Dr. Ajay Thakur (Dept. of Physics), Viva voce completed on 31/05/2022
47. Subrata Hait, Masters, Degradation and Removal of Microplastics from Aqueous Matrices, Mr Shubham Raj (2111CE09),,
48. Subrata Hait, Bachelors, Intelligent Detection and Quantification of Microplastics in Aqueous Matrices, Mr Jamisetty G V S N Susanth (1801CE13),,
49. Subrata Hait, Bachelors, Solar Photovoltaic Modules: Systematic Characterization, Toxicity Assessment and Life Cycle Assessment using SimaPro, Mr Ketan Kumar Sinha (1801CE14),,
50. Ramakrishna Bag, Bachelors, PREDICTION OF HYDRAULIC CONDUCTIVITY OF CLAYEY SOIL USING REGRESSION LEARNING AND ANN TECHNIQUES, KOMANDURI KAUSHIK (1801CE15),, Completd in May 2022
51. Ramakrishna Bag, Bachelors, Effect of sludge deposited at the bottom of pond on Geotechnical properties of silty soil, ABhishek Kumar (1801Ce01),, Yet to complete
52. Ramakrishna Bag, Bachelors, Effect of rainfall intensity and suction strength on stability of slope, Shivam Prakash (Roll Number: 1701CE24),, Completed May 2021
53. Ramakrishna Bag, Bachelors, EFFECT OF VEGETATION ON SLOPE STABILITY, Neeraj Paraliya (Roll no: 1701CE17),, Completed in May 2021
54. Amarnath Hegde, Phd, Vibration Isolation using cellular confinement systems : Experimental and numerical studies, Dr. Hasthi Venkateswarlu, , Completed in October, 2021
55. Amarnath Hegde, Phd, Dynamic response of MSE wall, Mr. Tirtha Sathi Bandopadhyay, Dr. Pradipta Chakraborty,
56. Amarnath Hegde, Phd, Performance Evaluation of Geogrid Reinforced Recycled Marginal Backfill Materials , Ms. Sanjana Sarkar, ,
57. Amarnath Hegde, Phd, Vibration isolation using dual trenches, Mr. Nitish Jauhari, Dr. Pradipta Chakraborty,
58. Amarnath Hegde, Phd, Performance of stone columns in expansive soils, Mr. Razib Hussain, ,
59. Amarnath Hegde, Phd, Bio-geotechnics in soft clays , Mr. Shailendra Kumar Singh, Dr. Arvind Kumar Jha,
60. Amarnath Hegde, Masters, Performance of MSE wall with sustainable backfills subjected to Railway Loading , Mr.Pushpraj Mandloi, ,
61. Amarnath Hegde, Bachelors, Effect of infill materials on geocell reinforced beds, Mr. Prashant Kumar Singh, ,
62. Amarnath Hegde, Bachelors, Performance and sustainability analysis of reinforced railway and road embankment, Mr. Shashwat Vijay, ,
63. Vishal Deshpande, PhD, Bedform hydrodynamics in alluvial channels, Pradyumna Kumar Behera, NA,
64. Vishal Deshpande, PhD, Bedload determination for the rivers in the region of Bihar, Kumar Abhishek Kishor, Dr. Om Prakash,
65. Vishal Deshpande, PhD, Environmental Engineering, Preetam Kumar, NA,
66. Vishal Deshpande, Bachelors, BTP, Rajendra kumar, ,
67. Vishal Deshpande, Bachelors, BTP, BHATT MAURYA MANDAR, ,
68. Vishal Deshpande, Bachelors, BTP, VIJAYA NIVRUTTI GONUGADE, ,
69. Vishal Deshpande, Bachelors, BTP, DEEPANSH GUPTA, ,
70. Koushik Roy, Bachelors, Wavelet-based Damage Detection Algorithm for Multi-Storey Building,

- Mohd Jakir,,
 71. Koushik Roy, Bachelors, Damage Detection Considering Soil-Structure Interaction Phenomenon, Rajeev Kumar Tilak,,
 72. Koushik Roy, Masters, Seismic Response Control of Connected Buildings with Super-Elastic SMA Damper and Comparison with Yield Damper, Pranay Singh, Dr. Sourav Gur,
 73. Koushik Roy, PhD, Drive through motion for fault detection in Bridges, Debojyoti Paul,,
 74. Koushik Roy, PhD, Structural Damage Detection considering nonlinearity and Chaos, Sayandip Ganguly,,
 75. Koushik Roy, PhD, Spectral Element Method-based Structural Health Monitoring in Presence of SSI, Saranika Das,,
 76. Koushik Roy, PhD, Bridge Health Monitoring using dynamic response, Md Arif Faridi, Dr. Vaibhav Singhal,
 77. Pradipta Chakraborty, Bachelors, Statistical Models for Estimation of Settlement in Isolated Footings Resting on Reinforced Soil, ABHISHEK SINGH, NA,
 78. Pradipta Chakraborty, Bachelors, One Dimensional Site-Specific Ground Response Analysis of IIT Patna Campus Soil Using DEEPSOIL, G Maheswar Reddy, NA,
 79. Pradipta Chakraborty, Masters, Dynamic Stability of Railway Embankment Slopes Improved by Natural Fiber, Sanjay Kumar Ram, NA,
 80. Pradipta Chakraborty, PhD, Assessment of Thin Layer effect on Dynamic behaviour of Piled-Raft Foundation, Priyam Mishra, NA,
 81. Pradipta Chakraborty, PhD, Vibration Isolation of foundation resting near heterogeneous soil slope, Lokesh Sharan Srivastava, NA,
 82. Pradipta Chakraborty, PhD, Isolation Effectiveness of Dual Open Trenches in Screening Ground Vibrations, Nitish Jauhari , Dr. Amarnath Hegde,
 83. Pradipta Chakraborty, PhD, Characterization and collapsibility assessment of alluvial sand containing collapsible lump, Abhik Paul, NA,
 84. Pradipta Chakraborty, PhD, Experimental and numerical studies on the dynamic response of MSE (Mechanically Stabilized Earth) wall , Tirtha Sathi Bandyopadhyay, Dr. Amarnath Hegde,
 85. Arvind Kumar Jha, Phd, Bio-mediated Soil Improvement, Mr. Abhishek Tarun, , Full Time
 86. Arvind Kumar Jha, Phd, Application of Nanomaterials for Soil/Ground Improvement , Mr. Ajeet Kumar, , Full Time
 87. Arvind Kumar Jha, Phd, Bio-improvement of Fine Grained Soils, Mr. Shailendra Kumar Singh, Dr. Amarnath Hegde, Part Time
 88. Arvind Kumar Jha, Phd, Use of PVDs Drains and Vacuum Surcharge to Stabilized Soft Clay, Mrs. Thy Doan, Dr. Arvind Kumar Jha, International Student - Full time
 89. Arvind Kumar Jha, Phd, Rock Mechanics and Tunneling, Mr. Gaurav Kumar Mathur, Dr. Gaurav Tiwari, IIT K, Full Time
 90. Sudhir Varma, Bachelors, Comparison of Pavement Condition Measurement from Windshield and Detailed Distress Survey, Peddamile Sushma,,
 91. Arvind Kumar Jha, Phd, Analytical Study of Cavern Structures, Mr. Shivam Pandey, Professor T N Singh, Full Time
 92. Sudhir Varma, Bachelors, Determination of Relation Between Soaked-Unsoaked CBR and Simple Test Parameters for Soils in Bihar, Rahul Gupta, ,
 93. Sudhir Varma, Masters, Automated Identification and Quantification of Potholes and Cracks in Rural Roads using Image Analysis, Avinash Mishra,,
 94. Arvind Kumar Jha, Phd, Application of Marble Dust as a Geomaterial, Mr. Ankush Kumar Jain, Dr. Arvind Kumar Jha , External Student, Manipal University Jaipur, Jointly Supervised with Dr.

- Parwez Akhtar; Thesis Submitted
95. Sudhir Varma, PhD, Evaluation of Steel slag aggregates with waste plastic in asphalt mix, Hitesh Kumar, ,
 96. Arvind Kumar Jha, Phd, Sulphate Contamination of Untreated and Treated Soils, Ms. Shivanshi, Dr. Arvind Kumar Jha, External Student, Manipal University Jaipur, Jointly Supervised with Dr. Parwez Akhtar; Thesis Draft Under Process
 97. Sudhir Varma, PhD, Effect of aggregate shape on performance of hot mix asphalt, Deepansh Yadav, ,
 98. Arvind Kumar Jha, Masters, Assessing the effect of metal sulphates on the behaviour of lime stabilized expansive soil , Mr. Avadhesh Kumar, , Full Time
 99. Arvind Kumar Jha, Masters, Rock Mechanics, Mr. Uday Shankar Yadav, , Full Time: International Students
 100. Sudhir Varma, PhD, Two phase hot mix asphalt using antistripping agent for dense mixes, Ajit Kumar, ,
 101. Arvind Kumar Jha, Bachelors, LONGIVETY POTENTIAL (WETTING-DRYING AND FREEZE-THAW) OF LIME TREATED SULPHATIC SOIL (BLACK COTTON SOIL) , Mr. Shashank Kumar, ,
 102. Sudhir Varma, PhD, Investigating the rutting sensitivity of asphalt mixtures and appropriate laboratory test methods for hot climate regions: a case study of the State of Qatar , Haissam Sebaaly, Dr. Sudhir Varma, University: University of Pretoria, South Africa. Supervisor : Prof JW Maina, Co-supervisor: Dr. Sudhir Varma
 103. Arvind Kumar Jha, Bachelors, DYNAMIC BEHAVIOUR OF SLOPE STABILITY OF BIOREACTOR LANDFILL, Mr. Chetram Nakwal, ,
 104. Vaibhav Singhal, Masters, Lateral Load Behavior of Random Rubble Stone Masonry with Different Configurations of Horizontal Bands, Shivendra Kumar Maurya, , Ongoing
 105. Vaibhav Singhal, Masters, Lateral Load Response of Shear Yielding Damper with Superelastic Shape Memory Alloy Bars, Chirag V Pede , , Completed
 106. Vaibhav Singhal, Bachelors, Product Development for Automated Crack Detection System, Daksh Bhatnagar, , Completed
 107. Vaibhav Singhal, Bachelors, Crack Detection in Concrete Structures using CNN, Rakesh Raushan, Completed
 108. Vaibhav Singhal, PhD, Performance evaluation of superelastic metallic damper for retrofitting of structures, Sonali Upadhaya, Dr. Sourav Gur, Ongoing
 109. Vaibhav Singhal, PhD, Development of Low-cost Precast Sandwich Panels, Abhinav Anand , , Ongoing
 110. Vaibhav Singhal, PhD, Strengthening of Confined Masonry Walls for In-plane loads, Akshay Gupta, Ongoing

Sponsored Research

1. Performance Evaluation of Cement Concrete Pavements in Rural Roads (National Rural Infrastructure Development Agency Ministry of Rural Development, Govt. of India, 25.36 Lakhs) PI: Sudhir Varma; CO-PIs: Koushik Roy
2. Analysis and Modelling of Driver Behavior using Naturalistic Driving Data under Indian Traffic Conditions (SERB, 28 Lakhs) PI: Bachu Anilkumar; CO-PIs: NA
3. Design and Development of Portable Solar Incinerator for Disposal of Bio-Medical Waste (Department of Science and Technology, Govt. of India, 29.26 Lakhs) PI: Dr. Subrata Hait; CO-PIs: NA
4. Development of Guidelines for Seismic Evaluation and Strengthening of Old Masonry Buildings in Bihar Based on a Pilot Study (Bihar State Disaster Management Authority, Bihar, 13.49 Lakhs) PI: Vaibhav Singhal; CO-PIs: NA
5. Experimental and Numerical Investigation of Interlocking Details for Stone Masonry under

- Quasi-Static Cyclic Loading (Building Construction Department, Bihar, 9.58 Lakhs) PI: Vaibhav Singhal ; CO-PIs: NA
6. Robust and reliability based design optimization and performance assessment of superelastic shape memory alloy (SMA) damper for seismic vibration control of structures (Science and Engineering Research Board (SERB), 16.7249 Lakhs) PI: Sourav Gur ; CO-PIs: NA
 7. Performance based bituminous mix and road design (Science and Engineering Research Board (SERB), 28.38 Lakhs) PI: Dr. Sudhir Varma ; CO-PIs: NA
 8. Experimental evaluation of THM processes in smectite clay and their impact on key barrier functions (DAE - BRNS, , 35.4735 Lakhs) PI: Dr Ramakrishna Bag ; CO-PIs: Dr Vishal Deshpande
 9. Study of variation in the flow hydrodynamics around a circular bridge pier in a sand mined stream channel (SERB Govt. of India, 27.27 Lakhs) PI: Dr. Vishal Deshpande ; CO-PIs: NA
 10. Performance Assessment of Roads Constructed Using Waste Plastics (National Rural Infrastructure Development Agency (NRIDA), 20.5 Lakhs) PI: Dr. Sudhir Varma ; CO-PIs: Dr. Subrata Hait
 11. Seismic Strengthening of Unreinforced Masonry Buildings using Ferrocement Bands (CSIR, 11.5 Lakhs) PI: Vaibhav Singhal ; CO-PIs: Hemant B Kaushik
 12. Bio-electrochemical Analysis and Systematic Enhancements in Microbial Fuel Cells for Bioelectricity Generation (Department of Biotechnology, Govt. of India, 14.2 Lakhs) PI: Dr. Subrata Hait ; CO-PIs: Dr. Vikash Kumar
 13. Seismic Design and Performance Verification of Confined Masonry Walls for Medium-Rise Buildings (DST-SERB, 26.4 Lakhs) PI: Vaibhav Singha ; CO-PIs: NA
- Designers & Consultant, 25500 Lakhs) PI: Avik Samanta ; CO-PIs: NA
2. Vetting of design and drawings of structures for rejuvenation of Bhairava Talab project under Bhagalpur smart city Limited. (Pyramid designers and consultant, Ahmedabad, 12 Lakhs) PI: Dr. Vaibhav Singhal and Dr. Amarnath Hegde ; CO-PIs: NA
 3. Review of Design and Drawing of structures for Rejuvenation of Bhairva Talab Project under the Bhagalpur Smart City Limited (Pyramid Designers & Consultant, 11.8 Lakhs) PI: Dr. Vaibhav Singhal and Dr. Amarnath Hedge ; CO-PIs: NA
 4. Vetting of Design and Drawings of Sewerage Network of Biharsharif Smart City, Bihar (Bhugan Infracon Pvt. Ltd., Patna, Bihar, 7.375 Lakhs) PI: Dr. Subrata Hait ; CO-PIs: NA
 5. Proof checking of adequacy report of Jhansi-Mau Ranipur section of Jhansi - Manikpur double line project of North Central Railway, Jhansi (S2F Consultancy and Construction Pvt. Ltd, 1.33 Lakhs) PI: Dr. Vaibhav Singhal ; CO-PIs: NA
 6. Vetting of Design and Drawings of 25 MLD Pumping Station, I&D Works, and Rising Main at Danapur, Patna, Bihar (Bhugan Infracon Pvt. Ltd., Patna, Bihar, 4.425 Lakhs) PI: Dr. Subrata Hait, Dr. Avik Samanta ; CO-PIs: NA
 7. Vetting of Design Documents for Integrated Command and Control Center (ICCC) and Smart Components of Muzaffarpur Smart City (Shapoorji Pallonji and Company Private Limited, Mumbai, Maharashtra, 11.8 Lakhs) PI: Dr. Raju Halder, Dr. Samrat Mondal, Dr. Atul Thakur, Dr. Subrata Hait ; CO-PIs: NA
 8. Vetting of Design and Drawings of 15 MLD STP and 3 Nos. of IPSs for Muzaffarpur Smart City, Bihar (Toshiba Water Solutions Pvt. Ltd., Gurugram, Haryana , 15.93 Lakhs) PI: Dr. Subrata Hait , Dr. Avik Samanta ; CO-PIs: Dr. Mohd. Kaleem Khan, Dr. Manabendra Pathak, Dr. S. Sivasubramani

Consultancy Projects

1. Vetting of Structural Design Drawings (Piramid

9. Vetting of Design and Drawings of Sewerage Network of Muzaffarpur Smart City, Bihar (Toshiba Water Solutions Pvt. Ltd., Gurugram, Haryana , 7.375 Lakhs) PI: Dr. Subrata Hait ; CO-PIs: NA
10. Liquefaction Analysis and vetting of Structural Design Calculations and Structural Drawings for the Construction of Nalanda College of Engineering Extension Phase - II at Chandi (SL Consultants Pvt. Ltd., 101695 Lakhs) PI: Avik Samanta, Pradipta Chakraborty ; CO-PIs: NA
11. Vetting of Structural Drawings for Construction of Nalanda College of Engineering Extension phase II at Chandi, Nalanda (Sen & Lall Consultants Pvt. Ltd., Patna, Bihar, 1.01 Lakhs) PI: Dr. Pradipta Chakraborty ; CO-PIs: Dr. Avik Samanta
12. Review of design of various services for the office complex and residential quarters at Wadala (M/s Sikka Associates, New Delhi, 13.28 Lakhs) PI: Om Prakash ; CO-PIs: Dr. M K Khan, Dr. M Pathak, Dr. S Subramani, Dr. R Jha, Dr. S Hait
13. Peer Review of the Design of Various Services for the Office Complex & Residential Quarters at Wadala (Sikka Associates, New Delhi, 13.275 Lakhs) PI: Dr. Mohd. Kaleem Khan ; CO-PIs: Dr. Manabendra Pathak, Dr. S. Sivasubramani, Dr. Rajib Jha, Dr. Subrata Hait, Dr. Om Prakash
14. Vetting of Design and Drawing of Sewerage Network at Hajipur, Bihar (Toshiba Water Solutions Pvt. Ltd., Gurugram, Haryana in JV with Kevadiya Construction Pvt. Ltd., Patna, Bihar , 11.8 Lakhs) PI: Dr. Subrata Hait ; CO-PIs: NA
15. Preliminary Investigation for Making Assessment of Civil and Mechanical Structure/Components and Feasibility Report for Renovation of Existing Old STP Unit at Beur, Patna (Bhugan Infracon Pvt. Ltd., Ahmedabad, Gujarat, 1.062 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khan, Dr. Subrata Hait, Dr. Vaibhav Singhal
16. Vetting of drawings and design of 6.5 MLD STP at Maner, Bihar (SIMA Labs, Maner, Bihar, 5 Lakhs) PI: Syed K K Hussaini ; CO-PIs: Dr. Avik Samanta; Dr. Subrata Hait
17. Vetting of Drawings and Documents of 6.5 MLD STP and Allied Infrastructures at Maner, Patna, Bihar (Sophisticated Industrial Materials Analytic Labs Pvt. Ltd., Patna, Bihar, 4.8675 Lakhs) PI: Dr. Avik Samanta, Dr. Syed K.K. Hussaini, Dr. Subrata Hait ; CO-PIs: NA
18. Testing and analysis of three bentonite samples (NTPC Barh, 1 Lakhs) PI: Dr. Amarnath Hegde, Dr. Arvind Jha, Dr. Ramakrishna Bag, Dr. Pradipta Chakraborty ; CO-PIs: NA
19. Foundation Recommendation for Nephrology Block, IGIMS, Patna (Universal Contractors & Engineers Pvt. Ltd., Greater Noida, UP, 1 Lakhs) PI: Dr. Amarnath Hegde ; CO-PIs: NA
20. Vetting of MEP Drawings of RIO and NEPHRO Block in IGIMS Patna (Universal Contractors and Engineers Pvt. Ltd., Greater Noida, Uttar Pradesh, 3.835 Lakhs) PI: Dr. S. Sivasubramani ; CO-PIs: Dr. Mohd. Kaleem Khan, Dr. Subrata Hait
21. Technical Assessment of Suitability of Vibro compaction for the Construction of Type-I, III, & V Residential Quarters at ITBP, Kathihar, Bihar (Central Public Works Department (CPWD), Bhagalpur, Bihar, 1 Lakhs) PI: Dr. Amarnath Hegde ; CO-PIs: NA
22. Third Party Quality Assurance of Up-gradation of Patna Medical College & Hospital, under PMSSY (Phase IV) (CPWD, 25.9742 Lakhs) PI: Dr. Ramakrishna Bag, Dr. Vishal Deshpande, Dr. Sourav Gur, Dr. Koushik Roy, Dr. Arvind Kumar Jha, Dr. Bachu Anilkumar ; CO-PIs: NA
23. Proof Checking of Detail design and drawings of three Rail over bridges (ROBs) in replacement of L.C. No.-KJ-3 (Rly km 4/0-1), SK-369 (Rly km 145/1-2) and SK-367 (Rly km 140/9-10) in Katihar-Balrampur Section of KIR Division, 3.Client: Bihar State Road Development Cooperation Ltd. Patna-800014, Bihar (Bihar State Road

- Development Cooperation Ltd. Patna-800014, Bihar, 944000 Lakhs) PI: VAIBHAV SINGHAL, Arvind KUMAR JHA; CO-PIs: NA
24. Proof Checking of Detail design and drawings of three Rail over bridges (ROBs) (BSRDC Ltd., Govt. of Bihar, 9.44 Lakhs) PI: Dr. Vaibhav Singhal ; CO-PIs: Dr. Arvind K Jha
 25. Design vetting of Improvement of water supply system in Bhagalpur Municipal Corporation BWSP (Building Construction Department, Govt. of Bihar, 2.95 Lakhs) PI: Om Prakash ; CO-PIs: Subrata Hait
 26. Design vetting of construction of Pipeline Network using Horizontal Directional Drilling methodology for integration of Underpass Sumps at various locations under Ram Manohar Lohia Path Chakra (Bihar Rajya Pul Nirman Nigam Limited, Govt. of Bihar, 1.48 Lakhs) PI: Om Prakash ; CO-PIs: Amarnath Hegde
 27. Vetting of Raw Water Rising Main of Bhagalpur Water Supply Project Phase - 2 (Bihar Urban Infrastructure Development Corporation Ltd. (BUIDCo), Patna, Bihar, 2.95 Lakhs) PI: Dr. Subrata Hait, Dr. Om Prakash ; CO-PIs: NA
 28. Technical vetting of detailed project report of development of street vending zone project of Bhagalpur Smart City (Bhagalpur Smart City Ltd, 1.33 Lakhs) PI: Dr. Sudhir Varma, Dr. Subrata Hait, Dr. Arvind Kumar Jha ; CO-PIs: NA
 29. Liquefaction Assessment of the Site Proposed for Lohia Path Chakra, Hartali More, Bailey Road, Patna (Soil Tech Engineers Pvt. Ltd. Patna, 1.2 Lakhs) PI: Dr. Pradipta Chakraborty ; CO-PIs: Dr. Amarnath Hegde, Dr. Ramakrishna Bag and Dr. Arvind Kumar Jha
 30. Liquefaction analysis of two locations as part of upcoming Lohia Path Chakra project between Lalit Bhawan and Vidyut Bhawan on Bailey Road in Patna (Soil Tech Engineers Private Limited, Patna, 6 Lakhs) PI: Dr. Amarnath Hegde; Dr. Arvind Kumar Jha; Dr. Pradipta Chakraborty; Dr. Ramakrishna Bag ; CO-PIs: NA
 31. Soil Sample Testing of Balance Work of Starter Ash Dyke Stage-II of NTPC Barh (NTPC Barh, 2 Lakhs) PI: Dr. Amarnath Hegde, Dr. Arvind Jha, Dr. Ramakrishna Bag, Dr. Pradipta Chakraborty ; CO-PIs: NA
 32. Vetting of hydraulic design and drawings of the 3.55 km pipeline network linking the underground sumps at different locations in Patna (Shri Ganeshay Construction, Patna, 1 Lakhs) PI: Dr. Amarnath Hegde & Dr. Om Prakash ; CO-PIs: NA
 33. Third party inspection of sewerage projects under Namami Gange Program (Client: Urban Development and Housing Department ,Govt. of Bihar, Patna, 200 Lakhs) PI: Dr. Amarnath Hegde, Dr. Sudhir Varma, Dr. Subrata Hait, Dr. Avik Samanta, Dr. Syed K.K. Hussain ; CO-PIs: NA
 34. Third Party Quality Assurance (TPQA) in Up-gradation of Patna Medical College & Hospital, Patna under PMSSY (Phase-IV) (Central Public Works Department (CPWD) PATNA, 26 Lakhs) PI: Dr. Ramakrishna Bag ; CO-PIs: Dr. Bachu Anilkumar; Dr. Sourav Gur; Dr. AK Jha; Dr. Koushik Roy; Dr. Vishal Deshpande; Prof. Jawar Singh; Dr. Surajit Kumar Paul
 35. Testing and analysis of two soil samples (A and B), NTPC Barh (NTPC Barh, 0.4 Lakhs) PI: Dr Pradipta Chakraborty ; CO-PIs: Dr. Arvind Kumar Jha, Dr. Amarnath Hegde, Dr. Ramakrishna Bag
 36. Design Vetting of Sewer network & Allied Structures, STP and I & D Allied Works for Chhapra Town under Namami Gange Program, Client: Chevrox Constructions Private Limited (Namami Gange Program, Client: Chevrox Constructions Private Limited, 663750 Lakhs) PI: AKJ, SH, VS ; CO-PIs: NA
 37. Design Vetting of Sewer Network and Allied Structures, STP and I&D Allied Works for Chhapra Town under Namami Gange Program (Chevrox Constructions Private Limited, Ahmedabad, Gujarat, 6.6375 Lakhs) PI: Dr. Arvind Kumar Jha,

Dr. Vaibhav Singhal, Dr. Subrata Hait ; CO-PIs: NA

38. State specific Action Plan for water sector in Bihar (Water and Land Management institute (WALMI) Patna, 38.64 Lakhs) PI: Dr. Vishal Deshpande ; CO-PIs: Dr Ramakrishna Bag, Dr. Sudhir Varma
39. State Technical Agency Consultancy services for PMGSY Roads , Value: 0.00 Lakhs; PI: Dr. Sudhir Varma Co-PIs: Dr Ramakrishna Bag, Dr. S Hait, Dr K Roy ((Client: National Rural Infrastructure Development Agency, Ministry of Rural Development, 1 Lakhs) PI: Dr. Sudhir Varma ; CO-PIs: Dr Ramakrishna Bag, Dr. Koushik Roy, Dr. Subrata Hait
40. Review of structural design of Pre-stressed Precast Concrete Bleachers (Shapoorji Palonji and Company Private Limited, 1.62 Lakhs) PI: Dr. Vaibhav Singhal ; CO-PIs: NA
41. TPI of Namami Gange Project (BUIDCO, Bihar, 78 Lakhs) PI: Dr. Syed K. K. Hussaini ; CO-PIs: Dr. Subrata Hait; Dr. Avik Samanta, Dr. Sudhir Varma, Dr. Amarnath Hegde
42. Third Party Inspection of Ongoing Projects Related to National Mission for Clean Ganga (Urban Development and Housing Department, Govt. of Bihar, 180 Lakhs) PI: Dr. Amarnath Hegde, Dr. Sudhir Varma, Dr. Syed K.K. Hussaini, Dr. Avik Samanta & Dr. Subrata Hait ; CO-PIs: NA
43. Structural Design Review of Budha Smriti Stupa of Stone Masonry and Museum at Vaishali, Bihar (Bihar Construction Department, Govt. of Bihar, 17.25 Lakhs) PI: Dr. Vaibhav Singhal and Dr. Koushik Roy ; CO-PIs: NA

Patents (filed/Granted)

1. Patent Name: Sterilizing Device and Method Thereof, Status: Published, Ref. No: 202041030019, Patent Owner: Subrata Hait

Technology Transfer

1. Draft Indian Standard Confined Masonry for Earthquake Resistance Code of Practice (CED-39 committee, Bureau of Indian Standard, 0 Lakhs)

Awards

1. Avik Samanta (2022-03-31) Life Member
2. Arvind Kumar Jha (2022-03-28) Associate Editor
3. Arvind Kumar Jha (2022-02-26) Member
4. Ramakrishna Bag (2022-02-22) Review Editor on the Editorial Board of Geotechnical Engineering (specialty section of Frontiers in Built Environment).
5. Arvind Kumar Jha (2022-01-28) Review Editor
6. Amarnath Hegde (2022-01-14) Exceptional reviewer of the year (2021)
7. Amarnath Hegde (2022-01-03) Member of TC218: Technical Committee on Reinforced Fill Structures
8. Vaibhav Singhal (2022-01-01) Associate Member
9. Vaibhav Singhal (2022-01-01) Lifetime Member
10. Vaibhav Singhal (2022-01-01) Member of Drafting Committee for Bihar Earthquake Disaster Management Guidelines
11. Avik Samanta (2021-12-26) Dr Jai Krishna Prize - 2021
12. Arvind Kumar Jha (2021-12-16) Co-chair of technical session (theme: Ground Improvement Technique)
13. Amarnath Hegde (2021-11-01) Featured in the list of top 2% scientists of the world in single year category (2020)
14. Pradipta Chakraborty (2021-08-09) The Institution of Engineers (India) Membership
15. Arvind Kumar Jha (2021-07-26) Executive Committee Member
16. Arvind Kumar Jha (2021-07-12) Co-chair of technical session
17. Subrata Hait (2021-07-05) Fellow
18. Subrata Hait (2021-05-24) Academic Editor, PLOS Water
19. Syed Khaja Karimullah Hussaini (2021-04-06) Review Editor: Frontiers in Built Environment: Transportation and Transit Systems.

20. Subrata Hait (2021-04-05) Member
21. Subrata Hait (2021-04-05) Member
22. Subrata Hait (2021-04-05) Member
23. Subrata Hait (2021-04-05) Member
24. Subrata Hait (2021-04-05) Academic Editor, PLOS ONE
25. Subrata Hait (2021-04-05) Member, Editorial Board, SN Applied Sciences
26. Subrata Hait (2021-04-05) Coordinator & Nodal Faculty
27. Amarnath Hegde (2021-04-01) Life membership
28. Om Prakash (2021-04-01) Affiliate Member of American Society of Civil Engineers
29. Om Prakash (2021-04-01) Member of International Association of Hydrogeologists
5. Syed K. K. Hussaini and Dinesh Gundavaram. (2022). Shear strength and drainage characteristics of Elastomeric Polyurethane treated coal-fouled ballast, *Transportation Research Record*, 2676(1), 704717., 44 (2021)
6. Dinesh Gundavaram and Syed K. K. Hussaini. (2022). Closure to Influence of Coal Fouling on the Shear Behaviour of Elastan-treated Railroad Ballast, *Journal of Materials in Civil Engineering*, ASCE, Accepted, 45 (2021)
7. A Hussain and Syed K K Hussaini (2022), "Use of steel slag as railway ballast: A review", *Transportation Geotechnics*., 28 (2021)
8. Dinesh Gundavaram and Syed K. K. Hussaini. (2021). Influence of Coal Fouling on the Shear Behaviour of Elastan-treated Railroad Ballast, *Journal of Materials in Civil Engineering*, ASCE, 33(9), 45 (2021)

Journals

1. Venkateswarlu, H., Sharma, S., & Hegde, A. (2021). Performance of genetic programming and multivariate adaptive regression spline models to predict vibration response of geocell reinforced soil bed: A comparative study. *International Journal of Geosynthetics and Ground Engineering*, 7(63). [https:// doi.org/ https://doi.org/10.1007/s40891-021-00306-6](https://doi.org/https://doi.org/10.1007/s40891-021-00306-6), 18 (2021)
2. Moghaddas Tafreshi S. N, Zakeri R, Dawson A and Hegde, A. (2022). Compressive wave isolation of lightweight equipment very close to a vibration source using a rubber sheet. *International Journal of Geomechanics*, ASCE, 22(1): 04021263., 45 (2021)
3. Hegde, A. and Anand, A. (2022). Resistivity correlations with SPT-N and shear wave velocity for Patna soil in India. *Indian Geotechnical Journal*. 52(1) 161-173., 13 (2021)
4. Venkateswarlu, H and Hegde, A. (2022). Behavior of geocell reinforced bed subjected to vibration loading: Insights from 3D numerical studies. *Geosynthetics International*, DOI: <https://doi.org/10.1680/jgein.21.00050>, 26 (2021)
9. K V S Prasad and Syed K K Hussaini, (2022) "Review of different stabilization techniques adapted in ballasted tracks", *Construction and Building Materials*, Volume 340, 2022, 127747,, 108 (2021)
10. Nair, G., Kumar, B. A., & Vanajakshi, L. (2022). Mapping Bus and Stream Travel Time Using Machine Learning Approaches. *Journal of Advanced Transportation*, 2022, 112. <https://doi.org/10.1155/2022/9743070>, 37 (2021)
11. Gracious, R., Kumar, B. A., & Vanajakshi, L. (2021). Performance Evaluation of Passenger Information Systems. *Transportation in Developing Economies*, 8(1). <https://doi.org/10.1007/s40890-021-00140-5>, (2021)
12. Bachu, A. K., Reddy, K. K., & Vanajakshi, L. (2021). BUS TRAVEL TIME PREDICTION USING SUPPORT VECTOR MACHINES FOR HIGH VARIANCE CONDITIONS. *Transport*, 36(3), 221234. <https://doi.org/10.3846/transport.2021.15220>, (2021)
13. Nithishwer, M., Kumar, B. A., & Vanajakshi, L.

- (2021). Deep learning just data or domain related knowledge adds value?: bus travel time prediction as a case study. *Transportation Letters*, 111. <https://doi.org/10.1080/19427867.2021.1952042>, 20 (2021)
14. Shivanshi, Jha, A. K., Singh, V. B., Jain, A. K. (2021). Effect of soluble gypsum on swell behaviour of lime treated expansive soil a micro-level investigation. *An International Journal of Geomechanics and Geoengineering*, Taylor and Francis, <https://doi.org/10.1080/17486025.2021.1975046>, 14 (2021)
 15. Jha, A. K. (2022). Microbiological processes in improving the behavior of soils for civil engineering applications: A critical appraisal. *Journal of Hazardous, Toxic, and Radioactive Waste, ASCE*, 26(2), 03122001. [https://doi.org/10.1061/\(ASCE\)HZ.2153-5515.0000686](https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000686), 17 (2021)
 16. Jain, A. K., Jha, A. K., Akhtar, M. P. (2022). Assessing the swelling and permeability behaviour of novel marble dust-bentonite with sand-bentonite mixes for use as a landfill liner material. *Indian Geotechnical Journal*, Springer, <https://doi.org/10.1007/s40098-022-00602-6>, 13 (2021)
 17. Shivanshi, Jha, A. K., Akhtar, M. P. (2022). Influence of soluble sodium sulphate contamination on physical and strength behavior of untreated and lime treated soil. *KSCE Journal of Civil Engineering*, Springer, DOI: <https://doi.org/10.1007/s12205-022-1964-6>, 34 (2021)
 18. Jain, A. K., Jha, A. K., Kumar, A., Akhtar, M. P., Geotechnical properties and microanalyses of marble dust-bentonite as an alternative geomaterial of sand-bentonite mixes. *Geomechanics and Geoengineering: An International Journal*, Taylor and Francis, DOI: <https://doi.org/10.1080/17486025.2022.2083696>, 14 (2021)
 19. Gur, S., & Frantziskonis, G. N. (2021). Design of porous and graded NiTi smart energy absorbers considering synthetic uncertainty in parameters. *Journal of Intelligent Material Systems and Structures*, 32(16), 1759-1780., 37 (2021)
 20. Gur, S., Roy, K., & Singh, P. (2022). Seismic performance assessment of adjacent building structures connected with superelastic shape memory alloy damper and comparison with yield damper. *Structural Control and Health Monitoring*, 29(5), e2926., 48 (2021)
 21. Chakraborty, P., Nilay, N. & Das, A. Effect of Silt Content on Liquefaction Susceptibility of Fine Saturated River Bed Sands. *Int J Civ Eng* 19, 549561 (2021)., 24 (2021)
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 23. Large strain dynamic characteristics of quaternary alluvium sand with emphasis on empirical pore water pressure generation model. (*European Journal of Environmental and Civil Engineering*)., 29 (2021)
 24. Angshuman Das, Pradipta Chakraborty, Artificial neural network and regression models for prediction of free-field ground vibration parameters induced from vibroflotation, *Soil Dynamics and Earthquake Engineering*, Volume 148, 2021, 106823, 47 (2021)
 25. Nilay, N., Chakraborty, P. & Popescu, R. Liquefaction Hazard Mapping Using Various Types of Field Test Data. *Indian Geotech J* 52, 280300 (2022), 13 (2021)
 26. Das, A., Chakraborty, P. Simple models for predicting cyclic behaviour of sand in quaternary alluvium. *Arab J Geosci* 15, 385 (2022)., 41 (2021)
 27. A. Samanta, MZ Hussain (2021), Natural vibration period of buildings located at soft soil sites in Patna, *The Indian Concrete Journal* 95 (8)., (2021)
 28. S. Suman, A. Samanta (2021). Behavior of

- laterally unsupported monosymmetric steel I-section beams at elevated temperature under non-uniform moments, *Structures*. 33 33243356. (2021)
29. Palagala, V. Y., & Singhal, V. (2021). Structural score to quantify the vulnerability for quick seismic assessment of RC framed buildings in India. *Engineering Structures*, 243, 112659., 83 (2021)
 30. Borah, B., Singhal, V., & Kaushik, H. B. (2021). Assessment of seismic design provisions for confined masonry using experimental and numerical approaches. *Engineering Structures*, 245, 112864., 83 (2021)
 31. Borah, B., Kaushik, H. B., & Singhal, V. (2022). Lateral load-deformation models for seismic analysis and performance-based design of confined masonry walls. *Journal of Building Engineering*, 48, 103978., 69 (2021)
 32. Jadda, K., & Bag, R. (2022). The fabric evaluation of two Indian bentonites subjected to different suctions and consolidation pressures. *Engineering Geology*, 298, 106535., 69 (2021)
 33. Bag, R., Bharti, A., Jadda, K., & Sai Kumar, M. L. S. (2022). Comparative Study Between MLR and ANN Techniques to Predict Swelling Pressure of Expansive Clays. *Geotechnical and Geological Engineering*, 1-13., 32 (2021)
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 35. Jadda, K., & Bag, R. (2022). Thermochemical Effect on Swelling Pressure and Microstructure of Monovalent and Divalent Indian Bentonites. *Journal of Hazardous, Toxic, and Radioactive Waste*, 26(1), 04021039., 22 (2021)
 36. Shakya, D., Agarwal, M., Deshpande, V., & Kumar, B. (2022). Estimating Particle Froude Number of Sewer Pipes by Boosting Machine-Learning Models. *Journal of Pipeline Systems Engineering and Practice*, 13(2), 04022012., (2021)
 37. Das, S. and Roy, K. (2022), A state-of-the-art review on FRF-based structural damage detection: Development in last two decades and way forward, *International Journal of Structural Stability and Dynamics*, 22(2): 2230001, 30 (2021)
 38. Anjneya, K. and Roy K. (2021), Acceleration time history dataset for a 3D miniature model of a shear building with structural damage, *Data in Brief*, 38:107337, 50 (2021)
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 43. Shakya, D., Deshpande, V., Agarwal, M., & Kumar, B. (2022). Standalone and ensemble-based machine learning techniques for particle Froude number prediction in a sewer system. *Neural Computing and Applications*, 1-17., 99 (2021)
 44. Agarwal, M., Deshpande, V., Katoshevski, D., & Kumar, B. (2021). A novel Python module for

statistical analysis of turbulence (P-SAT) in geophysical flows. *Scientific Reports*, 11(1), 1-20., 206 (2021)

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Conference

1. Sarkar, S and Hegde, A. (2021). Hyperbolic and hardening soil model parameters for geogrid reinforced steel slag. *Proceedings of Eighth Indian Young Geotechnical Engineers Conference-2021*, 21-23 October, Chennai, Paper ID TH-4-17 (CD-ROM), Duration-3 Days (2021)
2. Sarkar, S and Hegde, A. (2022). Strength enhancement of geogrid reinforced marginal backfill materials in triaxial condition. *Geotechnical Special Publication 331*, ASCE, (Geo-Congress 2022). 467-476., Duration-4 Days (2021)
3. Dinesh Gundavaram and Syed K. K. Hussaini. (2022). Effect of polyurethane stabilization and coal fouling on drainage behaviour of railroad ballast, *Proceedings of the 2022 Joint Rail Conference*, (accepted), NA (2021)
4. Dinesh Gundavaram and Syed K. K. Hussaini. (2021). Stabilization of railroad ballast using polyurethane under various coal fouling conditions, *Proceedings of the 2021 Joint Rail Conference*, JRC 2021, 2021, V001T01A003., NA (2021)
5. Jha, A. K., and Ali, Md Arshad (2022). Physical and Hydraulic Conductivity Behaviour of Sand- and Slag- Bentonite Mixes Modified Using Nanoclay Particles. *1st International Conference on Recent Advances in Sustainable Environment (RAiSE 2022)*, Shobhit University Gangoh and Shobhit Institute of Engineering & Technology Meerut, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, India, STEM-Research Society during February 26-27, 2022., Duration-2 Days (2021)
6. Gurjar, Dharmendra Kumar and Jha, A. K. Influence of Slope Geometry and Decomposition Time-Age on Stability of Bioreactor Landfills Numerical Analyses. *Proceedings of Indian Geotechnical Conference 2021*, December 16-18, 2021, NIT Tiruchirappalli., Duration-3 Days (2021)
7. Jain, A. K., Jha, A. K., Akhtar, M. P. (2021). Effect of electrolyte concentrations on swelling behaviour of sand- and marble dust-bentonite mixes. *IOP Conf. Series: Earth and Environmental Science 796* (2021) 012068, doi:10.1088/1755-1315/796/1/012068 (open access), 17 (2021)
8. Shivanshi, Jha, A. K., Akhtar, M.P. (2021). Physical and geotechnical perspectives of gypsum on lime stabilized expansive soil: a critical appraisal. *IOP Conf. Series: Earth and Environmental Science 796* (2021) 012064, doi:10.1088/1755-1315/796/1/012064 (open access), 17 (2021)
9. A. Paul, and P. Chakraborty, (2021). Assessment of Collapse Potential of Lumped Soil in Alluvial Deposit by Double Consolidation Tests. *4th Conference of the Arabian Journal of Geosciences (CAJG 2021)*, Duration-4 Days (2021)
10. Aaditaya Raj Roshan, A. Das, and P. Chakraborty, (2021). Effect of Variabilities in Motion Characteristics and Bedrock Depth on Seismic Ground Response Assessment. *4th Conference of the Arabian Journal of Geosciences (CAJG 2021)*, Duration-4 Days (2021)
11. Singhal, V., Tripathy, D. and Meghwal, P., (2021). Shear and Flexure Behavior of Historical Lime Masonry Strengthened with Fibre Reinforced Cementitious Matrix, *17th World Conference on Earthquake Engineering (17WCEE)*, Sendai, Japan., 00 (2021)
12. Singhal, V., Tripathy, D. and Kaushik, H. B., (2021). Seismic Strengthening of Heritage Masonry Building: A Case Study, *17th World Conference*

- on Earthquake Engineering (17WCEE), Sendai, Japan., 00 (2021)
13. Tripathy, D. and Singhal, V., (2021). Strengthening of Mud Masonry Assemblages Using Wire Reinforced Cementitious Matrix (WRCM), 17th World Conference on Earthquake Engineering (17WCEE), Sendai, Japan., 00 (2021)
 14. Borah, B., Kaushik, H. B. and Singhal, V., (2021). Effectiveness of Code Approaches in Seismic Design of Confined Masonry Walls, 17th World Conference on Earthquake Engineering (17WCEE), Sendai, Japan., 00 (2021)
 15. Borah, B., Kaushik, H. B. and Singhal, V., (2022). Application of V-D Strut Model for Analysis and Design of Multi-Story Confined Masonry Buildings, Proceedings of the 2nd International Conference on Materials, Mechanics and Structures (ICMMS 2022), Kozhikode, India., 00 (2021)
 16. Tripathy, D., Gupta, A. and Singhal, V., (2021). Experimental Investigation on Flexural Performance of Masonry Wallettes Strengthened with Cementitious Matrix Grid, Mechanics of Masonry Structures Strengthened with Composite Materials, Italy., 00 (2021)
 17. Singh, P., Gur, S. and Roy, K. Seismic Performance of Coupled Buildings Connected by Yield and SMA Dampers, 12th Structural engineering convention 2021 (SEC2021), MNIT Jaipur, India - 302017, December 19-22, 2021, Duration-4 Days (2021)
 18. Paul, D. and Roy, K. "Performance evaluation of a damage indicator using strain, acceleration and displacement-based bridge weigh-in-motion", International Conference on Advances in Mechanics, Modelling, Computing and Statistics (ICAMMCS-2022), BITS Pilani, Pilani, India - 333031, March 19-21, 2022, Duration-3 Days (2021)
 19. Pedapudi, B.R.B., Hait, S., & Thakur, A. (2021). Multi-layer perceptron-based classification of recyclable plastics from waste using hyperspectral imaging for robotic sorting. In: Proceedings of the AIR2021: Advances in Robotics - 5th International Conference of The Robotics Society, June 30-July 4, 2021, Kanpur, Uttar Pradesh. <https://doi.org/10.1145/3478586.3480644>, Duration-5 Days (2021)
 20. Shakya, D., Agarwal, M., Deshpande, V., Kumar, B. (2021). Data Driven approaches for Estimation of Particle Froude Number in a Sewer System. In HYDRO 2021- International Conference (Hydraulics, Water Resources and Coastal Engineering). Surat., Duration-3 Days (2021)
 21. Kumar, S., Agarwal, M., Deshpande, V., Kumar, B. (2021). Estimation of time-dependent pier scour depth using Ensemble and Boosting based Data Driven Approaches. In HYDRO 2021- International Conference (Hydraulics, Water Resources and Coastal Engineering). Surat., Duration-3 Days (2021)

Text Books

1. C.M. Hussain, Subrata Hait : Advanced Organic Waste Management: Sustainable Practices and Approaches Published by Elsevier, <https://www.elsevier.com/books/advanced-organic-waste-management/hussain/978-0-323-85792-5> (2021)

Book Chapters Published

1. Hegde, A. and Venkateswarlu H : Civil Engineering for Disaster Risk Reduction: Vibration Isolation of Foundation Systems Using Geosynthetic Barriers Published, (2021)
2. Jha A.K., Sharma M. (2021). : Proceedings of the Indian Geotechnical Conference 2019. Lecture Notes in Civil Engineering, vol 137. Springer, Singapore.: Effect of WettingDrying Cycles on Strength Behavior of Lime Stabilized Expansive Soil Published (2021)
3. Jain, A.K., Kumar, A., Jha, A.K. : Proceedings of the Indian Geotechnical Conference 2019 . Lecture Notes in Civil Engineering, vol 134. Springer, Singapore: Physical and Swell Behaviour of

- SandBentonite and Marble DustBentonite Mixes Published (2021)
4. Shivanshi, Singh V. B., Jha A. K. (2021). : Proceedings of the Indian Geotechnical Conference 2019. Lecture Notes in Civil Engineering, vol 136. Springer, Singapore. : Geotechnical Properties of Lime Treated Soil Contaminated with Sulphatic Water Published (2021)
 5. Shivanshi, Jha, A. K., Jain, A. K., & Akhtar, M. P. : Ground Improvement Techniques: Select Proceedings of 7th ICORAGEE 2020, 51, Lecture Notes in Civil Engineering, Springer Nature: Effect of Sulphate Contamination on Lime-Stabilized Black Cotton Soil Published (2021)
 6. P. Chakraborty, and A. Das : In Challenges and Innovations in Geomechanics.: Free Field Ground Vibration Due to Ground Improvement Induced Vibration Published, (2021)
 7. T.S. Bandyopadhyay, P. Chakraborty, and A. Hegde : Ground Improvement Techniques: Shake Table Studies to Assess the Effect of Reinforced Backfill Parameters on Dynamic Response of MSE Walls Published, (2021)
 8. S.K. Nandan, T.S. Bandyopadhyay, and P. Chakraborty, : Proceedings of the Indian Geotechnical Conference 2019: Effect of Backfill Sand Density on Dynamic Response of Mechanically Stabilized Earth (MSE) Walls Published, (2021)
 9. K Jadda, SK Injamala, R Bag : Proceedings of the Indian Geotechnical Conference 2019: Hydro-mechanical Behavior of Glass Fiber Reinforced Clay Barriers Published (2021)
 10. R Bag, K Jadda : Proceedings of the 1st Indo-China Research Series in Geotechnical and Geoenvironmental Engineering: The Effect of Sand Ratio on Suction and Swelling Pressure of Two BentoniteSand Mixtures Published (2021)
 11. Anshu Priya, Subrata Hait, C.M. Hussain : Environmental Management of Waste Electrical and Electronic Equipment: Process engineering for bioleaching of metals from waste electrical and electronic equipment Published (2021)
 12. K. Kanaujia, A Trivedi, K. Upvan, Subrata Hait : Environmental Management of Waste Electrical and Electronic Equipment: Hybrid bioleaching - An emerging technique for extraction of critical metals from WEEE Published (2021)
 13. Neha Parashar, Subrata Hait : Pollution Control Technologies: Current Status and Future Prospects: Occurrence, Fate, and Removal of Microplastics in Sewage Treatment Plants (STPs) Published (2021)
 14. Amber Trivedi, Subrata Hait : Integrated Approaches Towards Solid Waste Management: Influence of Initial pH on Bioleaching of Selected Metals from e-Waste Using *Aspergillus niger* Published (2021)
 15. Nipoon Gupta, Amber Trivedi, Subrata Hait : Integrated Approaches Towards Solid Waste Management: Column Leaching of Metals from PCB of End-of-Life Mobile Phone Using DTPA Under Oxidising Condition Published (2021)
 16. Neha Parashar, Subrata Hait, C.M. Hussain : Advanced Organic Waste Management: Sustainable Practices and Approaches: Implications of COVID-19 pandemic on waste management practices: Challenges, opportunities, and strategies towards sustainability Published (2021)
 17. S. Shukla, Subrata Hait : Advanced Organic Waste Management: Sustainable Practices and Approaches: Smart waste management practices in smart cities: Current trends and future perspectives Published (2021)
 18. Neha Parashar, Subrata Hait : Environmental Degradation: Challenges and Strategies for Mitigation: Plastic Waste Management: Current Overview and Future Prospects Published (2021)
 19. Chakraborty A, and Prakash, O : Modeling and Simulation of Environmental Systems, A Computation Approach: Intervention of Computational Models for Groundwater

Pollution Source Characterization Published, (2021)

Other Publications

Sl, Title, Authors, Publisher, Online Link, Type

1. Effects of Loading Pattern on Critical Temperature of Cold-Formed Compound Flexural Members, R. Singh & A. Samanta, Springer, https://doi.org/10.1007/978-3-030-80312-4_23, In Lecture Notes in Civil Engineering, pp. 273-281
2. Parametric Study of Cold-Formed Lipped Channel Flexural Members Under Fire Hazard, R. Singh, R., & A. Samanta, Springer, Singapore, https://doi.org/10.1007/978-981-16-6978-1_8, In Resilient Infrastructure (pp. 107-117)
3. Acceleration time history data for experimental shear building model (Kumar Anjneya & Koushik Roy), Anjneya, K and Roy K., Mendeley, <https://data.mendeley.com/datasets/snmz587n/vb/2>, Dataset
4. Investigating damage evolution in flexible pavement using falling weight deflectometer, Rahul Raj and Sudhir Varma, 2021 International Conference on Resource Sustainability Sustainable Pavement Technologies, IIT Tirupati, Video
5. Laboratory investigation of usability of dust obtained from continuous type asphalt plant water-based-dust-extractor in hot mix asphalt, Hitesh Kumar, Sudhir Varma and Ankit Rai, 2021 International Conference on Resource Sustainability Sustainable Pavement Technologies, IIT Tirupati, Video
6. Ashghal Recycling Manual, Dr. Osman Elhussien, Dr. Sudhir Varma, Engr. Moaaz Hashim, Engr. Effrosyni Plexousaki, Prof. Ezio Santagata, Engr. Haissam Sebaaly, Engr. Chiara Simonetti, Engr. Glyn Holleran and Engr. Irina Holleran, Ashghal Center for Research & Development, Public Works Authority, Qatar, Book

Student Activities by Faculty Members

Departmental Activities

1. Avik Samanta - CAD Lab incharge.
2. Avik Samanta - Old Workshop Incharge.
3. Avik Samanta - DAPC member.
4. Sudhir Varma - Web Site Coordinator.
5. Sudhir Varma - Department Purchase committee Member.
6. Koushik Roy - Member of departmental purchase committee (April 2020 - May 2022).
7. Subrata Hait - Member, DAPC.
8. Vaibhav Singhal - Chairman (Ex-officio HoD), Departmental Academic Programme Committee (DAPC) (28th October, 2021 Till date).
9. Vaibhav Singhal - Faculty Advisor, M.Tech (Civil Engineering) 2021-23 Batch.
10. Koushik Roy - Faculty Advisor, MTech by Research Programme (July 2017 - till now).
11. Vaibhav Singhal - Faculty in-charge, Civil and Environmental Engineering Workshop, IIT Patna (2021 Till date).
12. Subrata Hait - Faculty Advisor, B.Tech Civil Engineering 2019 Batch.
13. Subrata Hait - Faculty In-charge, Environmental Engineering Laboratory.
14. Koushik Roy - Laboratory in-Charge, Structural Engineering Laboratory (March 2021 - till now).
15. Om Prakash - Hydraulics and Water Resources Engineering Laboratory In-charge.
16. Om Prakash - Departmental PhD Coordinator.
17. Sourav Gur - Department Timetable coordinator.
18. Anilkumar Bachu - In-Charge for Faculty Meeting, DCEE.
19. Anilkumar Bachu - Faculty In-Charge, Association of Civil Engineers (ACE).
20. Anilkumar Bachu - Member, Department Purchase Committee.
21. Anilkumar Bachu - Member, Department Academic Program Committee.

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| <p>22. Anilkumar Bachu - Faculty Advisor for M.Tech (2020-22).</p> <p>23. Syed Khaja Karimullah Hussaini - Lab In-Charge: Geomatics Engineering.</p> <p>24. Syed Khaja Karimullah Hussaini - Lab In-Charge: Transportation Engineering.</p> | <p>15. Koushik Roy - Professor in-charge of PG programs (April 2019 - October 2021).</p> <p>16. Koushik Roy - Senate Member, IIT Patna (October 2017 - October 2021).</p> <p>17. Om Prakash - PIC OMS.</p> <p>18. Koushik Roy - Member, shortlisting committee (screening of the applications), TIH IIT Patna .</p> <p>19. Sourav Gur - Warden, Kalam Hostel (C&D wing).</p> <p>20. Subrata Hait - Professor In-charge (PIC), WTP-STP.</p> |
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Institute Activities by Faculty Members

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| <p>1. Vaibhav Singhal - Chairman, Construction Committee Incubation Center, IIT Patna (2017 Till date).</p> <p>2. Vaibhav Singhal - Member, Smart City Research Group, IIT Patna (2020 - Till date).</p> <p>3. Arvind Kumar Jha - Member, Senate, IIT Patna (08.03.2022 till date).</p> <p>4. Arvind Kumar Jha - Member, Research Scholar Day, IITP, 2022.</p> <p>5. Arvind Kumar Jha - Member, Committee for administrative/purchase/development activities of New Guest House, IIT Patna.</p> <p>6. Subrata Hait - Convener, Market Establishment and Licensing Committee (MELC).</p> <p>7. Anilkumar Bachu - PIC for NSS (Nov 2021 - Till date).</p> <p>8. Ramakrishna Bag - Head, Institute Works Department.</p> <p>9. Vaibhav Singhal - Head, Institute Works Department (12th March, 2019 10th November 2021).</p> <p>10. Vaibhav Singhal - Member, Institute School Committee, IIT Patna (March, 2019 November 2021).</p> <p>11. Vaibhav Singhal - Task Force Member, COVID-19, IIT Patna (2020-10th November 2021).</p> <p>12. Vaibhav Singhal - Member (Ex-officio HoD), Institute Senate (28th October, 2021 Till date).</p> <p>13. Vaibhav Singhal - Head of the Department (HoD), Civil and Environmental Engineering (28th October, 2021 Till date).</p> <p>14. Anilkumar Bachu - Institute Representative, JEE Advanced (2021).</p> | <p>21. Subrata Hait - Member, Institute Transport Committee (ITC).</p> <p>22. Subrata Hait - Member, Purchase Committee, Sophisticated Analytical Instrument Facility (SAIF).</p> <p>23. Sudhir Varma - IWD Associate Head.</p> <p>24. Anilkumar Bachu - PIC for Landscaping (Aug 2019 to Aug 2021).</p> <p>25. Syed Khaja Karimullah Hussaini - PIC: Market Establishment Committee.</p> |
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Professional Activities by Faculty Members

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| <p>1. Vaibhav Singhal - Member of DSC Committee of three students of NIT Patna.</p> <p>2. Vaibhav Singhal - Reviewer for various International Journals: Engineering Structures, Journal of Archaeological Science, Practice Periodical on Structural Design and Construction, Journal of Building Engineering, Structures and Applied Science.</p> <p>3. Om Prakash - Keynote lecture at Institutions of Engineers India at Patna.</p> <p>4. Subrata Hait - Manuscript Reviewer, Environmental Research (Elsevier).</p> <p>5. Vaibhav Singhal - Member, Expert Committee to evaluate/select the project proposals received under Student Project Programme of BCST.</p> <p>6. Koushik Roy - Invited Talk on Dynamics of Smart Structures integrated with Shape Memory Alloys and applications to Civil Structures in a five-day ATAL-AICTE short term FDP programme on</p> | |
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- Shape memory alloy modelling, its applications to wearable devices and smart structures at LNM Institute of Information Technology Jaipur, Rajasthan, January 03 - 07, 2022.
7. Amarnath Hegde - Co-chair, Technical Session on Slope stability and Landslides during Indian Geotechnical Conference-2021, Tiruchirappalli, India.
 8. Syed Khaja Karimullah Hussaini - Reviewer: Sensors.
 9. Syed Khaja Karimullah Hussaini - Reviewer: Journal of Materials in Civil Engineering.
 10. Syed Khaja Karimullah Hussaini - Reviewer: International Journal of Geomechanics.
 11. Sudhir Varma - Performance Evaluation of Quality Monitors engaged in 3rd tier of quality monitoring, prescribed under PMGSY.
 12. Subrata Hait - Expert Member, Recruitment/ Selection Committee, Patna Metro Rail Corporation Ltd., Patna, Bihar.
 13. Amarnath Hegde - Co-chair, Technical Session on Computational Geotechnics, Eighth Indian Young Geotechnical Engineers Conference (8IYGEC 2021), Chennai.
 14. Vaibhav Singhal - Invited Lecture: Learning from the Performance of Structures in Past Earthquakes, during Short Term Training Programme Organised by UGC Human Resource Development Centre, Jawaharlal Nehru Technological University, Hyderabad.
 15. Ramakrishna Bag - IR for JEE Advanced Exam.
 16. Sudhir Varma - ATAL FDP on Recent Advances in Pavement Analysis, Design and Evaluation.
 17. Amarnath Hegde - Delivered invited talk on Sustainable Ground Improvement using Geosynthetics during AICTE Sponsored Faculty Development Program on Advanced Ground Improvement Techniques, organized by Department of Civil Engineering Samrat Ashok Technological Institute, Vidisha, MP.
 18. Amarnath Hegde - Delivered invited talk on Role of Geosynthetics in Sustainable Infrastructure Developments during webinar on Sustainable Advancement in Geotechnical Engineering Practices, organized by Department of Civil Engineering NIT Patna.
 19. Amarnath Hegde - Delivered invited talk on "Preparing the Ground for Better Future: Role of geosynthetics" during Faculty Development Program on Contemporary Challenges and Recent Advancements in Civil Engineering, organized by Department of Civil Engineering NMAM Institute of Technology, Nitte, Karnataka.
 20. Sudhir Varma - Detailment of NQMs /STAs for the scrutiny of high cost proposals for PMGSY -III Batch-I 2021-22 for the state of Bihar.
 21. Subrata Hait - Manuscript Reviewer, Cleaner Materials (Elsevier).
 22. Vaibhav Singhal - Invited Lecture: Response Spectrum and Time-History Analysis, during ATAL Online FDP on Design and Construction of Tall Building Structures Organised by Department of Civil Engineering, Vasavi College of Engineering..
 23. Subrata Hait - Manuscript Reviewer, SN Applied Sciences (Springer).
 24. Subrata Hait - Manuscript Reviewer, Chemosphere (Elsevier).
 25. Subrata Hait - Member, Hon'ble High Court Patna-mandated Expert Committee by DST, Govt. of Bihar, Review of Equivalence of Syllabus of Diploma in Civil Engineering and Diploma in Civil Engineering (Public Health & Environmental Engineering) in the matter of Komal Kumari versus State of Bihar (C.W.J.C. No. 2926/2020).
 26. Koushik Roy - Invited Talk on Vibration Control of Civil Structures using Smart Actuators and Sensors in a five-day ATAL-AICTE short term FDP programme on Introduction to Smart Materials and its Mathematical Modelling at IIT Jammu, July 12 - 16, 2021.
 27. Subrata Hait - Manuscript Reviewer, Science of the Total Environment (Elsevier).

28. Amarnath Hegde - Delivered invited talk on "Advances in Geosynthetics Engineering" during Faculty Development Program on Advances in Civil Engineering organized by Department of Civil Engineering, Atria Institute of Technology, Bangalore.
29. Subrata Hait - Manuscript Reviewer, Journal of Environmental Chemical Engineering (Elsevier).
30. Subrata Hait - Manuscript Reviewer, Environmental Science and Pollution Research (Springer).
31. Subrata Hait - Manuscript Reviewer, PLOS ONE (PLOS).
32. Vaibhav Singhal - Invited Lecture: Evaluation and Rehabilitation of Masonry Structures, during One Week Online Short Term Training Programme Organised by Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology (SRIT)..
33. Anilkumar Bachu - Convener for Social Media Committee, Transportation Research Group of India (Nov 2020 - Till Date).
34. Vaibhav Singhal - Invited Lecture: Evaluation and Retrofitting of Reinforced Concrete as per IS 15988, during One Week Online Short Term Training Programme Organised by Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology (SRIT).
35. Subrata Hait - Coordinator & Nodal Faculty, MoU between DWSC Bhojpur & IIT Patna for SLWM & ODF+ activities.
36. Subrata Hait - External Member, Doctoral Committee, Department of Civil Engineering, NIT Patna.
37. Vaibhav Singhal - Member, Recruitment/ Selection Committee, Patna Smart City, Govt. of Bihar, Bihar State Disaster and Management Authority, Govt. of Bihar, Bihar Vikas Mission, Govt. of Bihar & Bihar State Building Construction Corporation Limited, Govt. of Bihar, India.
38. Sudhir Varma - PMGSY, State Technical Agency, Bihar Coordinator IIT Patna.

Seminar, Conference and Workshop Organised

1. Anilkumar Bachu - Coordinator :-Short Term Course on Advanced Techniques for Traffic Data Analysis, Visualization, and State Estimation for Indian Cities, Online (Coordinator) Participants: 150.
2. Vaibhav Singhal - Convener:-Experimental and Analytical Techniques for Evaluating the Seismic Strengthening Measures for Masonry Structures, IIT Patna (Convener) Participants: 50.
3. Amarnath Hegde - Member, organizing committee, :-Webinar on Sustainable Advancement in Geotechnical Engineering Practices, Online (Member, organizing committee,) Participants: 50.

Other Academic Activities

1. Subrata Hait - Invited talk on "Emerging Trends in Metallurgical Recovery of Metals from E-waste for a Circular Economy", Prof. Pushpak. P. Oza Memorial Lecture on Emerging Trends in Environmental Engineering Stream, March 16, 2022, Government Engineering College, Bhuj & L.D. College of Engineering, Ahmedabad, Gujarat.
2. Arvind Kumar Jha - Submitted research project proposal in MATRICS, SERB, DST, India.
3. Arvind Kumar Jha - Submitted research project proposal in SARAS, Northern Coalfields Limited, Singrauli, India.
4. Arvind Kumar Jha - Introduced Elective course "CE570 Rock Engineering" for UG, PG, Doctoral Student in 2021.
5. Ramakrishna Bag - Conducted registration seminar as external doctoral committee member of NIT Patna PhD student.
6. Anilkumar Bachu - Invited Talk on Applications of Machine Learning for Efficient Public Transit Systems, Faculty Development Programme On

Emerging Transportation Technologies For Sustainable Smart Cities, Thiagarajar College of Engineering, Madurai.

7. Arvind Kumar Jha - Delivered an expert lecture on Seepage analysis through soil mass and its application organized by Manipal University Jaipur, 12th November, 2021.
8. Arvind Kumar Jha - Delivered an expert lecture on Flow through the soil mass and its application organized by Manipal University Jaipur, 08th November, 2021.
9. Arvind Kumar Jha - Delivered an expert lecture on the Short-term course (STC) entitled Advances in Geotechnical and Geo-Environmental Engineering (AGGE) organized by NIT Patna and IGS Bihar and Jharkhand Chapter, 25th-29th October, 2021.
10. Arvind Kumar Jha - Delivered the guest expert lecture on the occasion of engineers day on the Recent Advances in Geotechnical Engineering and its Importance in Civil Engineering organized by Government Polytechnic Daman, U.T. Administration of Dadra & Nagar Haveli and Daman & Diu at 15 September 15, 2021. .
11. Anilkumar Bachu - Invited Talk on AI & ML for Efficient Public Transit Systems in Faculty Development Program on Artificial Intelligence in REAL LIFE, PESITM, Shivamogga.
12. Arvind Kumar Jha - Delivered an expert lecture on 5-day online Faculty Development Program (FDP) on "Sustainability Engineering", sponsored by AICTE, ATAL learning academy and organized by RTU KOTA during 05th 09th, July, 2021..
13. Subrata Hait - Invited talk on "Engineering Endeavors for Metallurgical Recovery of Metals from E-waste for Circular Economy: Prospects and Challenges", National Workshop on Recycling Metals, Plastics & Scrap Tyres: Circular Economy Roadmap to Build Green India, June 21, 2021, Pillai HOC College of Engineering & Technology (PHCET), Rasayani, Maharashtra.
14. Anilkumar Bachu - Invited Talk on Empirical to

Theory based Modelling of Indian Traffic in International Conference on Contemporary and Sustainable Infrastructure, SJB Institute of Technology, Bengaluru.

15. Arvind Kumar Jha - Delivered three expert lectures on 5-day e-FDP on REACH 2021 organized by Department of Civil Engineering, Dr. Sudhir Chandra Sur Institute of Technology & Sports Complex, Dum Dum, Kolkata-700074 during 05th to 09th April, 2021.

Any Other Information

1. Arvind Kumar Jha - Several Journal/Conference Papers Reviewed for Engineering Geology, Springer Journal of Hazardous, Toxic, and Radioactive Waste, ASCE Journal of Geotechnical and Geoenvironmental Engineering, ASCE Geotechnique, ICE Publication Soils and Foundations Journal, Elsevier Publication Arabian Journal of Geosciences, Springer International Journal of Damage Mechanics, SAGE Journal Geotechnical and Geological Engineering, Springer Journal of Ground Improvement (Proceedings of the ICE), ICE KSCE Journal of Civil Engineering, Springer Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Science Direct Geomechanics and Engineering, An International Journal, Techno Press Construction and Building Materials, Elsevier Environmental Geotechnics, ICE Advances in Cement Research, ICE publication Soil Mechanics (Book), Oxford University Press (India) Indian Geotechnical Journal, Springer Innovative Infrastructure Solutions, Springer Computer Modeling in Engineering & Sciences, Tech Science Press Transportation in Developing Economies, Springer.
2. Arvind Kumar Jha - DRC Expert committee member of 5 doctoral students of NIT Patna, India.
3. Arvind Kumar Jha - DRC committee member of doctoral students of IIT Patna, India.

COMPUTER SCIENCE AND ENGINEERING

Head: Dr. Sriparna Saha



DR. ABYAYANANDA MAITI

Assistant Professor

Online Algorithms, Complex Networks, Social Networks



DR. ARIJIT MONDAL

Assistant Professor

CAD for VLSI, Analog EDA



DR. ASIF EKBAL

Associate Professor

Natural Language Processing, Data Mining and Machine Learning Applications, Information Extraction, Text Mining



PROF. JIMSON MATHEW

Professor

Fault Tolerant Computing, VLSI Design and Methodologies, Deep learning Architectures and Applied Time series Analysis



DR. JOYDEEP CHANDRA

Associate Professor

Online Social Networks, Complex Networks, Machine Learning



DR. MAYANK AGARWAL

Assistant Professor

Wireless Network, Wi-Fi Security, Discrete Event Modeling



PROF. RAJIV MISRA

Professor

Distributed Systems, Cloud Computing, Big Data Computing, Consensus in Blockchain, Cloud IoT Edge Computing, Adhoc Networks and Sensor Networks



DR. RAJU HALDER

Associate Professor

Formal Methods for Analysis and Verification, Blockchain and Smart Contract, Programming Languages, Information Systems Security



DR. SAMRAT MONDAL

Associate Professor

Security & Privacy, Database & Data Mining Applications, and Energy management & intelligent transportation systems



PROF. SOMANATH TRIPATHY

Professor

Blockchain, Cloud security, IoT Security, Machine Learning security



DR. SOURAV KUMAR DANDAPAT

Assistant Professor

Wireless Networking, Mobile Social Computing, Human Computer Interaction



DR. SRIPARNA SAHA

Associate Professor

Machine Learning, Text Mining, Pattern Recognition, Multiobjective Optimization, Bio-Text Mining, Bioinformatics, Soft Computing



DR. SUMAN KUMAR MAJI

Assistant Professor

Image Processing, Machine Learning & AI, Computer Vision, Biomedical Imaging, Bioinformatics



DR. CHANDRANATH ADAK

Assistant Professor

Computer Vision, Document Image Analysis, Data Science, Deep Learning, Reinforcement Learning, and AI-related subjects.

Research Area

1. Mayank Agarwal, Wireless Security
2. Mayank Agarwal, ML application in Open Channel Hydraulics
3. Mayank Agarwal, Network Security
4. Mayank Agarwal, Discrete Event System
5. Mayank Agarwal, 802.11 Wifi Networks
6. Raju Halder, Blockchain and Smart Contract
7. Raju Halder, Formal Methods
8. Raju Halder, Program Analysis and Verification
9. Raju Halder, Programming Languages
10. Raju Halder, Information Systems Security
11. Abyayananda Maiti, Online Algorithms, Optimization, Complex Networks
12. Jimson Mathew, Applied Time Series Analysis
13. Suman Kumar Maji, Image Processing, Machine Learning & AI, Computer Vision, Biomedical Imaging
14. Samrat Mondal, Security & Privacy, Electric Vehicle Applications, Machine Learning Application,
15. Rajiv Misra, Distributed Systems, Cloud Computing, Big Data Computing, Consensus, Cloud IoT Edge Computing, Adhoc & Sensor Networks and UAVs.
16. Arjit Mondal, Real time cyber physical systems
17. Arjit Mondal, Deep learning
18. Arjit Mondal, Smart grid
19. Somanath Tripathy, Federated Learning
20. Somanath Tripathy, Cyber Security
21. Asif Ekbal, Artificial Intelligence, Natural Language Processing, Machine Learning
22. Somanath Tripathy, Blockchain
23. Sourav Kumar Dandapat, Online Social Network, Disaster Management, Spatial Spreading
24. Joydeep Chandra, Intelligent Transportation Systems
25. Joydeep Chandra, Online Social Networks
26. Joydeep Chandra, Network Science
27. Joydeep Chandra, Machine Learning on Graphs
28. Joydeep Chandra, Machine Learning
29. Jimson Mathew, Fault Tolerant Computing
30. Jimson Mathew, Applied Machine Learning
31. Jimson Mathew, High Performance Computing Systems
32. Sriparna Saha, Natural Language Processing, Machine Learning, Deep Learning, Bioinformatics

Teaching

SI, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

1. Jimson Mathew, Autumn, CS575, 2-0-2-6, 14,
2. Jimson Mathew, Autumn, CS322, 0-0-3-3, 79,

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3. Sourav Kumar Dandapat, Spring, CS102, 3-0-0-6, 511, Shared with Dr. Mayank and Dr. Joydeep
4. Sourav Kumar Dandapat, Spring, CS112, 0-0-3-3, 365, Shared with Dr. Abyayananda, Dr. Raju
5. Asif Ekbal, Autumn, CS561, 3-0-0, 44,
6. Asif Ekbal, Autumn, CS571, 3-0-3, 69,
7. Asif Ekbal, Spring, CS566, 3-0-0, 16, Shared with Dr. Sriparna Saha
8. Asif Ekbal, Spring, CS566, 3-0-0, 63, Shared with Dr. Sriparna Saha
9. Asif Ekbal, Spring, CS563, 3-0-0, 88,
10. Asif Ekbal, Spring, CS563, 3-0-0, 62,
11. Jimson Mathew, Spring, CS225, 3-0-0-6, 89, Shared with Dr Somanath Tripathy
12. Asif Ekbal, Autumn, CS564, 3-0-0, 73, Shared with Dr. Sriparna Saha
- 13, Suman Kumar Maji, Autumn, CS541, 3-0-0-6, 23, Feedback 4.816/5
- 14, Asif Ekbal, Spring, CS511, 3-0-0, 20, Shared with Dr. Raju Halder
- 15, Suman Kumar Maji, Autumn, CS559, 0-0-3-3, 21, Feedback 4.719/5
- 16, Asif Ekbal, Spring, CS511, 3-0-0, 13, Shared with Dr. Raju Halder
17. Suman Kumar Maji, Spring, CS372, 3-0-0-6, 20, Feedback 4.704/5
18. Suman Kumar Maji, Spring, CS592, 0-0-4-4, 20, Feedback 4.872/5
19. Arjit Mondal, Autumn, CS206, 3-1-0-8, 89, Shared with Prof. Halder
20. Arjit Mondal, Spring, CS244, 3-0-0-6, 225, Shared with Prof. Dandapat
21. Sriparna Saha, Autumn, CS 564, 3-0-0-6, 100, Shared with Dr. Asif
22. Arjit Mondal, Spring, CS551, 3-0-0-6, 83,
23. Sriparna Saha, Autumn, CS501, 3-0-0-6, 15,
24. Arjit Mondal, Spring, CS399, 0-0-3-6, 80, Shared with Prof. Mathew
25. Sriparna Saha, Spring, CS 341, 3-0-0-6, 79, Shared with Prof. Jimson
26. Arjit Mondal, Spring, CS299, 0-0-3-6, 80, Shared with all
27. Sriparna Saha, Spring, CS342, 0-1-3-5, 81,
28. Sriparna Saha, Spring, CS566, 3-0-0-6, 22, Shared with Dr. Asif
29. Raju Halder, Autumn, CS577, 3-0-0-6, 92,
30. Raju Halder, Autumn, CS206, 3-1-0-8, 88, Shared with Dr. Arijit Mondal
31. Raju Halder, Spring, CS112, 0-0-3-3, 380, Shared With Dr. Sourav Kumar Dandapat and Dr. Abyayananda Maiti
32. Raju Halder, Spring, CS511, 3-0-0-6, 20, Shared with Dr. Asif Ekbal
33. Raju Halder, Spring, CS578, 3-0-0-6, 48,
34. Sourav Kumar Dandapat, Spring, CS244, 3-0-06, 225, Shared with Dr. Arijit
35. Abyayananda Maiti, Autumn, CS303, 3-1-0-8, 78,
36. Abyayananda Maiti, Spring, MC504, 0-0-3-3, 16,
37. Abyayananda Maiti, Spring, CS514, 3-0-0-6, 38,
38. Abyayananda Maiti, Spring, CS112, 0-0-3-3, 365, Shared with Dr. Raju Halder and Dr. Sourav Kumar Dandapat
39. Rajiv Misra, Spring, CS565, 3-0-0-6, 94, Class of BTech, MTech and Phd students
40. Rajiv Misra, Autumn, CS555, 2-0-2-6, 54, Class of BTech, MTech and Phd students
41. Somanath Tripathy, Spring, cs225, 3-0-0-6, 80,
42. Somanath Tripathy, Spring, cs547, 3-0-0-6, 30,
43. Somanath Tripathy, Autumn, CS321, 3-0-0-6, 70,
44. Somanath Tripathy, Autumn, cs579, 3-0-0-6, 30,
45. Joydeep Chandra, Autumn, CS544, 3-0-0-6, 26,
46. Joydeep Chandra, Spring, CS358, 3-0-0-6, 79, Before MidSem
47. Joydeep Chandra, Spring, CS359, 0-0-3-6, 79, Before MidSem
48. Joydeep Chandra, Spring, CS101, 3-0-0-6, 260, After Midsem
49. Mayank Agarwal, Autumn, CS384 Python Programming, 2-0-2-6, 143,

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| <p>50. Mayank Agarwal, Spring, CS102, 3-0-0-6, 511, Shared with Dr. Joydeep and Dr. Sourav</p> <p>51. Samrat Mondal, Spring, CS392, 3-0-0-6, 58, For Btech CS</p> <p>52. Samrat Mondal, Spring, CS515, 0-0-3-3, 20, For MTech CS</p> <p>53. Samrat Mondal, Autumn, CS354, 3-0-0-6, 78, For BTech CS</p> <p>54. Samrat Mondal, Autumn, CS355, 0-0-3-3, 78, For BTech CS</p> <p>55. Suman Kumar Maji, Summer, CS112, 0-0-3-3, 113, Feedback 4.03/5</p> <p>56. Jimson Mathew, Spring, CS226, 0-0-3-3, 89,</p> <p>57. Jimson Mathew, Spring, CS399, 0-0-4-4, 78, Shared with Dr Arijit Mondal</p> <p>58. Jimson Mathew, Spring, CS341, 3-0-0-6, 79, Shared with Dr Sriparna Saha</p> <p>59. Jimson Mathew, Spring, EE514, 3-0-0-6, 9,</p> | <p>Pandey,,</p> <p>7. Sriparna Saha, PhD, Dialogue Systems, Subrata Das,,</p> <p>8. Somanath Tripathy, Masters, Collaborative Learning in Hyper-Dimensional Computing, Dharmendra Tiwari,,</p> <p>9. Sriparna Saha, Masters, Multimodal Recommendation System, Daipayan Chakdar,,</p> <p>10. Somanath Tripathy, Masters, Blockchain based Reliable Data Transfer for Intelligent Transport System, Badavath Shraavan Naik,,</p> <p>11. Sriparna Saha, Masters, Multimodal Summarization, Sourajit Mukherjee,,</p> <p>12. Somanath Tripathy, Masters, Reverse Dialouge Generator for Chatbots, Tama Ray Chowdhury,,</p> <p>13. Sriparna Saha, Masters, Assessments of Stress State in Driver using Multimodal Physiological Signals, Vishal Singh Roha,,</p> <p>14. Somanath Tripathy, Bachelors, MKSDB : Multi-keyword Fuzzy Search over Encrypted Documents using Blockchain, Chandrawanshi Mangesh Shivaji,,</p> <p>15. Sriparna Saha, Masters, Gender Identification using Multimodal Social Media Data, Abhishek Singh,,</p> <p>16. Somanath Tripathy, Bachelors, BASDB : Blockchain Assisted Secure Database Search, Puspesh Kumar,,</p> <p>17. Sriparna Saha, Masters, Federated Learning for Cancer Prognosis Prediction, Manohar Kumar,,</p> <p>18. Sriparna Saha, Masters, Information retrieval from relational database using natural language, Durgesh Vikram Yadav,,</p> <p>19. Sriparna Saha, Masters, Development of Natural Language Understanding Module, Ashutosh Kumar Trivedi,,</p> <p>20. Mayank Agarwal, Bachelors, Ensemble model for forecasting Time Series, Samrathpreet Singh Randhawa,,</p> <p>21. Sriparna Saha, Masters, An Unsupervised approach for cyberbullying detection in code-</p> |
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Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

- | | |
|---|--|
| <p>1. Sriparna Saha, PhD, Development of Techniques for Cancer Prognosis Prediction and Its Applications in Healthcare, Nikhilanand Arya,,</p> <p>2. Sriparna Saha, PhD, Investigations on Tools and Techniques for Complaint Mining, Apoorva Singh,,</p> <p>3. Sriparna Saha, PhD, Cyberbullying Detection from social media posts in Code-Mixed Languages, Krishanu Maity, Prof. Pushpak Bhattacharyya,</p> <p>4. Sriparna Saha, PhD, Investigation of role of human-inspired learning in developing intelligent virtual assistants, Abhishek Tiwari, Prof. Pushpak Bhattacharyya, PMRF fellowship awardee</p> <p>5. Sriparna Saha, PhD, Biomedical image analysis, Pranab Sahoo, Dr. Samrat Mondal, UGC JRF</p> <p>6. Somanath Tripathy, Masters, Malware Detection using Machine Learning Technique, Amar</p> | <p>7. Sriparna Saha, PhD, Dialogue Systems, Subrata Das,,</p> <p>8. Somanath Tripathy, Masters, Collaborative Learning in Hyper-Dimensional Computing, Dharmendra Tiwari,,</p> <p>9. Sriparna Saha, Masters, Multimodal Recommendation System, Daipayan Chakdar,,</p> <p>10. Somanath Tripathy, Masters, Blockchain based Reliable Data Transfer for Intelligent Transport System, Badavath Shraavan Naik,,</p> <p>11. Sriparna Saha, Masters, Multimodal Summarization, Sourajit Mukherjee,,</p> <p>12. Somanath Tripathy, Masters, Reverse Dialouge Generator for Chatbots, Tama Ray Chowdhury,,</p> <p>13. Sriparna Saha, Masters, Assessments of Stress State in Driver using Multimodal Physiological Signals, Vishal Singh Roha,,</p> <p>14. Somanath Tripathy, Bachelors, MKSDB : Multi-keyword Fuzzy Search over Encrypted Documents using Blockchain, Chandrawanshi Mangesh Shivaji,,</p> <p>15. Sriparna Saha, Masters, Gender Identification using Multimodal Social Media Data, Abhishek Singh,,</p> <p>16. Somanath Tripathy, Bachelors, BASDB : Blockchain Assisted Secure Database Search, Puspesh Kumar,,</p> <p>17. Sriparna Saha, Masters, Federated Learning for Cancer Prognosis Prediction, Manohar Kumar,,</p> <p>18. Sriparna Saha, Masters, Information retrieval from relational database using natural language, Durgesh Vikram Yadav,,</p> <p>19. Sriparna Saha, Masters, Development of Natural Language Understanding Module, Ashutosh Kumar Trivedi,,</p> <p>20. Mayank Agarwal, Bachelors, Ensemble model for forecasting Time Series, Samrathpreet Singh Randhawa,,</p> <p>21. Sriparna Saha, Masters, An Unsupervised approach for cyberbullying detection in code-</p> |
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- mixed Indian languages., Romit Raj,,
22. Mayank Agarwal, Bachelors, Hostel Management System, Balbeer Yadav,,
 23. Sriparna Saha, Bachelors, Motivational and Empathetic Response Generation in Online Mental Health Support, Vaibhav Gakhreja,,
 24. Mayank Agarwal, Bachelors, Mess Rebate web portal, Yash Garg,,
 25. Sriparna Saha, Bachelors, Extractive Summarization using Optimized Clustering and Data-mining techniques, Kundarapu Harshavardhan,,
 26. Mayank Agarwal, Bachelors, A Payroll Management System for Research and Development (R&D) Department, IIT Patna, Mahesh Babu,,
 27. Sriparna Saha, Bachelors, Automatic Knowledge Graph Construction from Financial Documents, Kamal Choudhury,,
 28. Mayank Agarwal, Bachelors, PR Module for IIT Patna, Vinay Kumar Meena,,
 29. Sriparna Saha, Bachelors, Skin Cancer Dermoscopy Images Classification via Deep Learning Ensemble, Pabbathi Haindhavi,,
 30. Mayank Agarwal, Bachelors, IIT Patna Web-based RnD data utility, Anirban Nandi,,
 31. Sriparna Saha, Bachelors, Towards Personalized Persuasive Dialogue Generation for Adversarial Task Oriented Dialogue Setting, Abhijeet Shivaji Khandwe,,
 32. Mayank Agarwal, Masters, Intrusion Detection System for AwiD Dataset Using ML and DL methods, Vivek,,
 33. Sriparna Saha, Bachelors, Towards Developing a Multi-Modal Video Recommendation System, Pingali Venkata Sriram,,
 34. Mayank Agarwal, Phd, ML methods for Open channel Hydraulics, Deepti Shakya,,
 35. Mayank Agarwal, Phd, Application of ML methods for Open channel Hydraulics, Sanjit Kumar,,
 36. Mayank Agarwal, Phd, Using AI based System for Peer Review Assistance, Prabhat Kumar Bharti,,
 37. Joydeep Chandra, PhD, Analyzing Social Media for Crisis Response Coordination, Shalini Priya, Sourav Kumar Dandapat,
 38. Joydeep Chandra, PhD, Unsupervised Graph Based Name Disambiguation Approaches for Bibliographic Records, K.M. Pooja, Samrat Mondal,
 39. Raju Halder, PhD, Formal Analysis and Verification of Database Applications for Safety and Security Properties, Mr. Md. Imran Alam, , Ph.D. Degree Awarded
 40. Raju Halder, PhD, Towards Persistency, Distributiveness and Data Format Independency in Database Watermarking, Mrs. Sapana Rani, , Thesis under Review
 41. Raju Halder, PhD, Formal Verification of Smart Contracts, Mr. Md Tauseef Alam, Dr. Abyayananda Maiti, The Prime Minister's Research Fellow
 42. Raju Halder, PhD, Formal Analysis of Smart Contracts, Mr. Fajge Akshay Madhukarrao, , Visvesvaraya PhD Fellow
 43. Raju Halder, PhD, Privacy-Preserving Blockchain-Based Solutions to Machine Learning, Mr. Sujit Chowdhury,,
 44. Raju Halder, PhD, Development of Secure Blockchain-based Applications, Ms. Swagatika Sahoo,,
 45. Raju Halder, PhD, Machine Learning-based Solutions to Blockchain and Cryptocurrency, Ms. Medhasree Ghosh, Dr. Joydeep Chandra,
 46. Raju Halder, PhD, Development of Lizard-like Robotic Spy Surveillance System, Mr. Rajeswar Yadav, Dr. Gourinath Banda (IIT Indore), Under IMPRINT-II Project
 47. Raju Halder, PhD, Application of Blockchain Technology, Mr. Sudhir Kumar, Dr. Samrat Mondal, Part-time
 48. Raju Halder, PhD, Application of Blockchain

- Technology, Mr. Chandra Mohan Kumar, , Part-time
49. Raju Halder, Masters, Distributed vs Federated Learning for Deep Q-Learning Task, Satish Kumar, ,
 50. Raju Halder, Masters, Battery Swapping System for EVs using Blockchain, Satya Prakash Tiwari, ,
 51. Raju Halder, Masters, Deep Learning Approach for Forecasting the Transactional Amount in Blockchain Network, Sufal Sikder, ,
 52. Raju Halder, Bachelors, A Blockchain Based E-Prescription, Dacharla Venkata rao, ,
 53. Sourav Kumar Dandapat, PhD, Understanding the Impact of Geography using Online Social Network, Rimjhim, None,
 54. Raju Halder, Bachelors, Digital Subrogation Using Blockchain, Jella Sri Harsha Vardhan Prasad, ,
 55. Sourav Kumar Dandapat, PhD, Privacy Concern in Location Based Services, Pratima Biswas, Dr. Ashok Singh Sairam,
 56. Raju Halder, Bachelors, Digital Subrogation Using Blockchain, Kalluri Ameeth, ,
 57. Sourav Kumar Dandapat, PhD, Rumour detection using Social Networking Data, Saswata Roy, Dr. Joydeep Chandra,
 58. Sourav Kumar Dandapat, PhD, Disaster Summarization using Social Networking Data, Piyush Kumar Garg, None,
 59. Raju Halder, Bachelors, BLRS: An Automated Land Records Management System using Blockchain Technology, Saksham Jha, ,
 60. Sourav Kumar Dandapat, PhD, Emotion Cause Detection using Textual Conversation, Srishti Gupta, None,
 61. Sriparna Saha, Phd, Process Optimization and Development of Computational Models To Study Biosurfactant Production, Varsha Singh, I Am The External Supervisor, Registered In Birla Institute Of Technology Mesra: Ranchi, India; Thesis Submitted
 62. Abyayananda Maiti, Masters, Image Classification via New 2nd Order Optimization Algorithms Based on Linear Conjugate Gradient Descent Algorithm, Furqan Yaqub Khan, ,
 63. Abyayananda Maiti, Phd, Recommender System With Users Characteristics And Side Information, Supriyo Mandal, ,
 64. Abyayananda Maiti, Phd, Violence Detection In Social Media Images, Jyoti Chaudhary, ,
 65. Abyayananda Maiti, Phd, Non-Convex Optimization In Deep Learning, Krutika Verma, ,
 66. Somanath Tripathy, Bachelors, Fraud Detection Dashboard Design, Bablu Kumar, ,
 67. Abyayananda Maiti, PhD, Blockchain, Md. Tauseef Alam, Dr. Raju Halder,
 68. Somanath Tripathy, Bachelors, Credit Card Fraud Detection, Sushant Singh, ,
 69. Somanath Tripathy, Bachelors, A Tool for Static Analysis for Binaries, Abhishek Chopra, ,
 70. Jimson Mathew, Masters, Efficient Approaches for GAN Generated Image Detection, Parva Singal, ,
 71. Jimson Mathew, Masters, Situational Microblog data aware based Online Extractive Summary Generation, Shivani Rana, ,
 72. Jimson Mathew, PhD, fake Speech/ Audio Detection, Naseem Babu, ,
 73. Jimson Mathew, PhD, Deep Learned Time Series Modeling and Analysis, Neha Permanic, Mayank Aggarwal,
 74. Jimson Mathew, Masters, Analysis of Machine Learning Models for Emotion Recognition, Amiya Bisoi, ,
 75. Jimson Mathew, Masters, Deep learned Masked Face recognition using Knowledge Distillation, Mohit Kumar, ,
 76. Jimson Mathew, Masters, Effective approaches for time-series prediction and anomaly detection using deep learning and neural ordinary differential equation., Shivam, ,
 77. Jimson Mathew, Masters, A new approach for

- Image Sentiment Analysis using Swin Transforme, Snigdha Bardhan,,
78. Jimson Mathew, Masters, Deep learning based classification and segmentation for Cerebral Arterial Stroke Image, Lalit,,
79. Jimson Mathew, Bachelors, Development of an Artificial Intelligence System for Comprehensive Stroke Imaging, Aarya Varat Joshi,,
80. Jimson Mathew, Bachelors, Intelligent Crop Doctor, Bhumika Shivani,,
81. Jimson Mathew, Bachelors, Learning how to learn: Descending down Steep Curves, Amish Mittal,,
82. Jimson Mathew, Bachelors, Attendance System Based On Facial Recognition, Aryan Kothari,,
83. Jimson Mathew, PhD, Deep learning for person re-identification, Mayank Sha,,
84. Suman Kumar Maji, Bachelors, Super-Resolution for Automatic Number Plate Recognition, Joshika,,
85. Suman Kumar Maji, Bachelors, Finding missing person using artificial intelligence, Sohil Kumar Lamba,,
86. Suman Kumar Maji, Bachelors, Grade sheet generator module, Roshan Kumar,,
87. Suman Kumar Maji, Bachelors, Brain Tumor Detection using U-Net, Sahil Sharma,,
88. Suman Kumar Maji, Bachelors, Sriyans, Dropout strategy for Self2Self denoising from single image,,
89. Suman Kumar Maji, Phd, Image Restoration under Mixed Gaussian-Impulse Noise using Model and Data Driven Approaches, Hazique Aetesam, Dr. Jerome Boulanger, MRC Lab of Molecular Biology Cambridge
90. Sourav Kumar Dandapat, Bachelors, Spatial Spread Analysis, CHANTI SAI VENKATA REDDY, None,
91. Sourav Kumar Dandapat, Bachelors, Android App development for mental health counseling and legal aid app, Maramreddy Maheeth Reddy, None,
92. Sourav Kumar Dandapat, Bachelors, Web Based App development for mental health counseling and legal aid app, Musukula Nitesh Reddy, None,
93. Samrat Mondal, PhD, Towards Improving the security of some authentication and attribute based access control protocols, Suryakanta Panda,,
94. Sourav Kumar Dandapat, Bachelors, Disaster Tweet Summarization, Souhardya Das Chowdhury, None,
95. Jimson Mathew, PhD, Deep Visual Domain Adaptation, Mrinalini Tiwari, Dr Sriparna Saha,
96. Sourav Kumar Dandapat, Bachelors, Disaster Tweet Classification, Yarramala Dishith Chandra, None,
97. Sourav Kumar Dandapat, Bachelors, Rumour Detection Using Deep Learning, ABHAY SINGH, None,
98. Arjit Mondal, Phd, Demand side management in Smart grid, Pranay Kumar Saha, Prof. Samrat Mondal, Thesis submitted
99. Arjit Mondal, Phd, Computer Vision using Deep Learning, Fazail Amin, Prof. Jimson Mathew,
100. Arjit Mondal, Phd, Algorithms for Electric Vehicles, Sanghamitra Mishra, Prof. Samrat Mondal,
101. Arjit Mondal, Phd, Time series analysis, Jyoti Kumari, Prof. Jimson Mathew,
102. Arjit Mondal, Phd, Obscene Detection, Sandeep Kumar Patel,,
103. Arjit Mondal, Phd, Fake image Detection, Surbhi Raj, Prof. Jimson Mathew,
104. Arjit Mondal, Phd, Person reindentification, Ranjit Kumar Mishra, Prof. Jimson Mathew,
105. Arjit Mondal, Phd, Demand Side Management in Smart Grid, Ritam Sarkar, Prof. Samrat Mondal,
106. Arjit Mondal, Phd, Defense against adversarial examples, Shubhajit Dutta, Prof. Parth P Chakrabarti, I am co-guiding IIT Kharagpur

- student.
107. Arjit Mondal, Phd, AI for Meal Planning, Sourasis Das, Prof. Parth P Chakrabarti, I am co-guiding IIT Kharagpur student
 108. Arjit Mondal, Phd, Scheduling in Cloud Computing, Dipankar Mandal, Prof. Arnab Sarkar, I am co-guiding IIT Kharagpur student.
 109. Arjit Mondal, Phd, AI for Manufacturing, Suraj Meshram, Prof. Arnab Sarkar, I am co-guiding IIT Kharagpur student
 110. Arjit Mondal, Phd, Control Schedule Co-design, Ashiqur Rahaman Molla, Prof. Soumyajit Dey, I am co-guiding IIT Kharagpur student
 111. Arjit Mondal, Phd, AI for Agriculture, Anamika Dey, Prof. Pabitra Mitra, I am co-guiding IIT Kharagpur student
 112. Asif Ekbal, PhD, Low Resource Neural Machine Translation Through Multilinguality and Data Augmentation, Sukanta Sen, Prof. Pushpak Bhattacharyya, Graduated
 113. Asif Ekbal, PhD, Predicting Temporal Orientation from Texts, Sabyasachi Kamila, Prof. Pushpak Bhattacharyya, Graduated
 114. Rajiv Misra, Bachelors, Deep Reinforcement Learning assisted real-time wildfire fighting system using Unmanned Aerial Vehicles, Shashwat Mahajan,,
 115. Rajiv Misra, Bachelors, Optimizing Molecular Generation using Deep Reinforcement Learning on Azure Machine Learning Platform, Ritwiz Sinha,,
 116. Asif Ekbal, PhD, Studies In Aspects of Peer Review: Novelty, Scope, Research Lineage, Review Significance, and Peer Review, Tirthankar Ghosal, Prof. Pushpak Bhattacharyya, Graduated
 117. Rajiv Misra, Bachelors, Deep Reinforcement Learning Based Optimizations for Electric Vehicle, Vasireddy Siva Subhang,,
 118. Asif Ekbal, PhD, Dialogue Understanding and Generation Inducing Affective and Multimodal Knowledge, Maujama Firdaus, Prof. Pushpak Bhattacharyya, Graduated
 119. Rajiv Misra, Bachelors, Using A3C Algorithm for UAVs Joint Scheduling and Resource Allocation problem, Saubhik Kumar,,
 120. Rajiv Misra, Bachelors, Deep Reinforcement based Task Offloading system in Satellite-Terrestrial Networks, Kolaparathi Vamsi,,
 121. Rajiv Misra, Bachelors, Multi-agent Reinforcement Learning for reducing peak electricity demands of a district., Basa Sai Rohan,,
 122. Samrat Mondal, PhD, Intelligent EV Charge Scheduling, Sanghamitra Mishra, Dr. Arijit Mondal,,
 123. Samrat Mondal, PhD, Optimal Path Finding for Multi UAVs, Shashank Srivastava, Dr. Raju Halder,,
 124. Asif Ekbal, PhD, Investigations into Affect and Novelty Aware Misinformation Detection, Rina Kumari,, Thesis defence awaited
 125. Rajiv Misra, Masters, Spectrum Management for UAV Network in Critical, Nutan Kumari,,
 126. Samrat Mondal, PhD, EV Battery Swapping Management, Arun Vikram, Prof. Jimson Mathew,,
 127. Asif Ekbal, PhD, Neural Machine Translation in Low Resource and Noisy Settings, Kamal Kumar Gupta, Prof. Pushpak Bhattacharyya, Project funded
 128. Somanath Tripathy, PhD, Blockchain and its Applications, Susil Kumar Mohanty,,
 129. Asif Ekbal, PhD, Empathetic and Politeness Oriented Conversation, Kshiti Misra, PMRF Fellow
 130. Somanath Tripathy, PhD, Privacy-Preserving Collaborative Machine Learning, Harsh Kasyap,,
 131. Samrat Mondal, PhD, Intelligent Scheduling in a Smart Microgrid, Ritam Sarkar, Dr. Arijit Mondal,,
 132. Asif Ekbal, PhD, Knowledge Grounded Dialogue System, Deeksha Varshney,, Will submit by the end of this year (Industry Funded)
 133. Somanath Tripathy, PhD, Cloud security, Partha Sarathi Chakraborty,,

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134. Asif Ekbal, PhD, Sentiment-preserved MT, Divya Singh,,
135. Somanath Tripathy, PhD, Access Control in IoT, Soniya Rohilla, Dr. Sandip Chakraborty, IITKGP,
136. Samrat Mondal, PhD, Fake video analysis, Kumari Akanksha, Dr. Maheshkumar H. Kolekar,
137. Asif Ekbal, PhD, Multilingual and Code-mixed Sentiment Analysis , Mamta, , Will submit at the beginning of the next year (Project funded)
138. Somanath Tripathy, PhD, Malware Analysis, Narendra Singh Lodhi,,
139. Samrat Mondal, PhD, ML Application in Forensics Analysis, TIBEBU BEKELE SHANA,,
140. Asif Ekbal, PhD, Knowledge Grounded Personalized Dialogue Agent , Zishan Ahmad , Prof. Pushpak Bhattacharyya , Project funded
141. Somanath Tripathy, PhD, Cyber Security, Debasmita Manna, ,
142. Samrat Mondal, PhD, Video Analysis, Ajay Kumar, Prof. Jimson Mathew,
143. Asif Ekbal, PhD, Textual Entailment and QA , Tanik Saikh, Prof. Pushpak Bhattacharyya , Project funded
144. Asif Ekbal, PhD, Hate Speech Detection , Prashant Kapil,, UGC JRF
145. Rajiv Misra, PhD, A Deep Learning Framework for Predicting Landslides, ABHIJIT KUMAR, Prof T.N.Singh (Civil and Environmental Engg and Director),
146. Asif Ekbal, PhD, Explainable AI , Ratnesh Joshi , , UGC JRF
147. Asif Ekbal, PhD, AI in Scholarly Communication , Prabhat Bharti, Dr. Mayank Agarwal , QIP
148. Asif Ekbal, PhD, Dialogue Generation and QA , Aizan Jafar , , Project funded
149. Asif Ekbal, PhD, Code-mixed Language Model , Arindam Chatterjee , , Industry Sponsored
150. Rajiv Misra, PhD, DEEP LEARNING MODELS FOR PROGNOSTICS AND HEALTH MANAGEMENT OF IIOT BASED DEGRADATION SYSTEMS, SOURAJIT BEHERA, ,
151. Asif Ekbal, PhD, Multimodal Sentiment and Emotion Analysis , Dushyant Singh Chauhan , Prof. Pushpak Bhattacharyya , PMRF (through industry)
152. Rajiv Misra, PhD, NETWORK SLICING IN 5G/6G NETWORKS, ROHIT KUMAR GUPTA, ,
153. Asif Ekbal, PhD, Cross-Lingual and Multilingual Event Monitoring , Sovan Kumar Sahoo, Prof. Pushpak Bhattacharyya , Project funded
154. Rajiv Misra, PhD, DEEP GENERATIVE MODEL FOR NOVEL MOLECULE GENERATION IN DRUG DISCOVERY, AMIT RANJAN, ,
155. Asif Ekbal, Masters, Unknown Intent Detection in Dialogue Agent, Prerna Prem, ,
156. Asif Ekbal, Masters, Multimodal Aspect based Sentiment Analysis and KG Aware Generation , Aseem Arora, ,
157. Asif Ekbal, Masters, AI in Peer Review, Sandeep Kumar, , Now PhD with PMRF Fellowship
158. Asif Ekbal, Masters, Exploring Knowledge Grounding for Personalized Dialogue Generation, Shukla Aditya Manishbhai, ,
159. Asif Ekbal, Masters, Empathy, Distress and Emotion-aware Multitask Framework for Personality Detection, Tanisha, ,
160. Asif Ekbal, Masters, Emotion and Novelty aware Multilingual Multimodal Misinformation Detection, Vipin Gupta, ,
161. Rajiv Misra, PhD, Deep Reinforcement Learning based Optimal EV Charging Problem, Shivendu Mishra, ,
162. Asif Ekbal, Bachelors, Hate Speech and Sentiment Analysis , Amit Priynkar, ,
163. Asif Ekbal, Bachelors, Question-Answering, Ankit Kumar, ,
164. Raju Halder, Bachelors, BLRS: An Automated Land Records Management System using Blockchain Technology, Somenath Sarkar, ,
165. Asif Ekbal, Bachelors, Interactive Neural Machine Translation, BOPANADhanvanth, ,
166. Rajiv Misra, PhD, Edge AI based social distance

- tracker using IOT-camera, Vaneet Kaur, Prof T.N.Singh (Civil and Environmental Engg and Director),
167. Asif Ekbal, Bachelors, Dialogue Agent forHealthcare, SHREYASHVILASGEDKAR,,
 168. Raju Halder, Bachelors, AgroBLF: A Blockchain-Based Framework for Smart Agriculture, Oindrila Bhadra,,
 169. Asif Ekbal, Bachelors, Multimodal Dialogue Systems, Rizwan Khan,,
 170. Asif Ekbal, Bachelors, Explainable Multi-Modal Novelty and Emotion based Fake News Detection, Nischal N,,
 171. Asif Ekbal, Bachelors, Mental Health Chatbot Assisting in Depression Disease, Sawan Kumar,,
 172. Asif Ekbal, Bachelors, Oneliner generation from the articles, Jonishbhai Bharatbhai Solanki,,
 173. Asif Ekbal, Bachelors, Identification of Contribution Triplets and Novelty Detection of Research Articles via Knowledge Graph, Ammaar Ahmad,,
 174. Rajiv Misra, PhD, Energy saving and cut carbon emissions in Cloud Data Center using Deep Learning, Shivani Tripathy, Prof T.N.Singh (Civil and Environmental Engg and Director),
 175. Samrat Mondal, PhD, Unsupervised Graph Based Name Disambiguation Approach for Bibliographic Records, KM Pooja, Dr. Joydeep Chandra,
 176. Samrat Mondal, PhD, Video domain adaptation, OBSA GILO WAKUMA, Prof. Jimson Mathew,
 177. Samrat Mondal, PhD, Intelligent operation strategies for smart microgrid & electric vehicle on demand system, Pranay Kumar Saha, Dr. Arijit Mondal,
 178. Samrat Mondal, PhD, Video Analysis, KAVITHA HASSAN YOGARAJ,,
 179. Samrat Mondal, PhD, Application of Blockchain, Sudhir Kumar, Dr. Raju Halder,
 180. Samrat Mondal, Masters, 3D Graphics Driver Analysis, JETTI PREMKUMAR,,
 181. Samrat Mondal, Masters, ANALOG IP/SUB SYSTEM LIBERTY CHARACTERIZATION METHODOLOGY, SAURABH SUNIL KATKAR,,
 182. Samrat Mondal, Bachelors, Bi Objective Eco Routing for Electric Vehicles, KUNJ TANEJA,,
 183. Rajiv Misra, PhD, Smart city and Buildings with Multi-agent Reinforcement Learning, Manoj Kumar Balwant,,
 184. Samrat Mondal, Bachelors, Electric Vehicle Charge Scheduling, Garima Jain,,
 185. Samrat Mondal, Bachelors, A Robust & Light-Weight Assignment Submission Portal, Hrishabh Raj,,
 186. Samrat Mondal, Bachelors, Vehicle-On-Demand System Interface, Yash Prasad,,
 187. Samrat Mondal, Bachelors, Placement of Electric Vehicle Charging Stations in a City, Saumya Prakash,,
 188. Rajiv Misra, PhD, Deep Meta Q-learning based Multi-Task Offloading in Edge Cloud Systems , ASWINI GHOSH,,
 189. Samrat Mondal, Bachelors, Reinforcement Learning Agents on Player Designed Custom Obstacle Courses, Suraj Bakawat,,
 190. Jimson Mathew, PhD, Deep Learning based solutions for damage detection, Semantic Search and Annotation, Divya Singh, Mayank Aggarwal,
 191. Rajiv Misra, PhD, Reinforcement Learning based Swarm Drones coordination, NELSON SHARMA,
 192. Jimson Mathew, PhD, Deep learned Anomaly Detection, Jyothi Kumari, Arijit Mondal,
 193. Jimson Mathew, PhD, Development of an Artificial Intelligence System for Comprehensive Stroke Imaging and Prognostication , Rishi Raj,,
 194. Jimson Mathew, PhD, Artificial Intelligence Powered Remote Sensing , Ved Prakash Singh,,
 195. Jimson Mathew, PhD, Domain Adaptation, Pranav Kumar,,
 196. Jimson Mathew, PhD, Person Re-Identification models and implementations , Ranjit Kumar

- Mishra, Arijit Mondal,
197. Sriparna Saha, PhD, Towards Sentiment aware Multi-modal Dialogue Systems, Tulika Saha, Prof. Pushpak Bhattacharyya, Graduated on 8th November 2021
 198. Joydeep Chandra, Masters, Multidimensional Motif Based Author Name Disambiguation in Dynamic Network, Avinash Singh,,
 199. Sriparna Saha, PhD, Advanced Machine Learning Algorithms for Streaming Data, Dr. Dipanjyoti Paul, Prof. Jimson Mathew, Graduated on 24th May 2022
 200. Joydeep Chandra, Masters, Explaining Crisis through Aspect Added Attention Framework, Vaishali Joshi,,
 201. Sriparna Saha, PhD, Automatic Authorship Identification and Profiling, Chanchal Suman, Prof. Pushpak Bhattacharyya, submitted thesis on 8th April, 2022
 202. Joydeep Chandra, Masters, Summarization of Twitter Streaming Data using BERT, Umesh Kumar,,
 203. Sriparna Saha, PhD, Development of Techniques for Image Image Captioning and Summarization, Santosh Mishra, Prof. Pushpak Bhattacharyya, Submitted thesis on June 06, 2022
 204. Sriparna Saha, PhD, Designing Multi-modal Frameworks to Predict Protein-protein Interactions, Kanchan Jha, , Synopsis given on 25th May 2022
 205. Sriparna Saha, PhD, Transfer Learning, Mrinalini Tiwari, Prof. Jimson Mathew,
- Translation Involving Bengali, Konkani, Maithili, Marathi and Hindi, (NLTM, Meity, 120.77 Lakhs) PI: Asif Ekbal (from IIT Patna) ; CO-PIs: NA
3. Artificial Intelligence Powered Remote Sensing based Lightning and Hailstorm Alert System (IIRS, 3760000 Lakhs) PI: Jimson Mathew ; CO-PIs: NA
 4. Bhashini: Indian Language to Indian Language Machine Translation System (NLTM, Meity, 24.36 Lakhs) PI: Asif Ekbal (From IIT Patna) ; CO-PIs: NA
 5. 191013K06: Distributed Systems and Machine Learning (Global Initiative for academic network(GIAN)-MHRD Govt of India, 6.08 Lakhs) PI: Prof Rajiv Misra ; CO-PIs: NA
 6. Multi-modal Abstractive Summarization with Multi-modal Output (TIH, IIT Patna, 30 Lakhs) PI: Dr. Sriparna Saha ; CO-PIs: NA
 7. Edge-AI based Social-Distance Tracker IoT-Camera (Vishleshan-i-hub-foundation IIT Patna, 29.99 Lakhs) PI: Prof Rajiv Misra ; CO-PIs: other faculty
 8. Forensics analysis of video files for the possible existence of unauthorized manipulation (TIH, IIT Patna, 29.27 Lakhs) PI: Dr. Samrat Mondal ; CO-PIs: Dr. Maheshkumar H. Kolekar
 9. Real-time anomaly detection in traffic video streams (TIH, IIT Patna, 29.83 Lakhs) PI: Dr. Maheshkumar H. Kolekar ; CO-PIs: Dr. Samrat Mondal
 10. Deep Learning and Neural Networks (TCS, 3.07 Lakhs) PI: Asif Ekbal ; CO-PIs: NA
 11. Novel Multi-modal Recommendation Systems for Online Video Recommendation (SONY Research India Private Limited, 15.77 Lakhs) PI: Sriparna Saha ; CO-PIs: NA
 12. An Empathetic Knowledge Grounded Conversational System for Mental Health Counseling and Legal Assistance (TIH Anubhuti, IIIT Delhi, 30 Lakhs) PI: Asif Ekbal ; CO-PIs: NA
 13. Multimodal cyber-bully detection in ASEAN Languages (Science & Engineering Research

Sponsored Research

1. HealthChain: Blockchain-Based Decentralized Framework with AI-based Predictive Capabilities for Tracking Long-Term Impact of Health Pandemic (National Informatics Center, Govt. of India, 63.442 Lakhs) PI: Joydeep Chandra and Raju Halder ; CO-PIs: None
2. Vidyaapati: A System for Bidirectional Machine

- Board (SERB), 9.9 Lakhs) PI: Dr. Sriparna Saha ; CO-PIs: Dr. Kitsuchart Pasupa, Dr. Manjeevan Singh Seera
14. CRISIL-IIT Patna Collaboration (CRISIL Pvt. Ltd, 21 Lakhs) PI: Dr. Sriparna Saha ; CO-PIs: NA
 15. Center of Excellence for Bihar Govt Polytechnics Institutes (Bihar Govt, Science & Technology Department, 6615 Lakhs) PI: Other faculty ; CO-PIs: Prof Rajiv Misra & other faculty
 16. Knowledge Grounded Persona Aware Empathetic Conversational Agent (Accenture , 11.2 Lakhs) PI: Asif Ekbal ; CO-PIs: NA
 17. Development of Multimodal Personalized Persuasive Virtual Agent for Sales Agent (Accenture Pvt Ltd, 11 Lakhs) PI: Dr. Sriparna Saha ; CO-PIs: NA
 18. Percuro-A Holistic Solution for Clinical Text Mining (Wipro, 40 Lakhs) PI: Asif Ekbal ; CO-PIs: The duration is tentative (extendable)
 19. AI based 6G Network Slicing for multi-UAV prototype (MeitY Govt of India, 63.02 Lakhs) PI: Prof Rajiv Misra ; CO-PIs: Dr Asif Ekbal
 20. ITP- Prithvi AI Research Collaboration (Prithvi AI, 15 Lakhs) PI: Dr. Sriparna Saha ; CO-PIs: NA
 21. AI enabled dashboard to track Key Performance Indicators of State Plan of Action for children of Bihar (UNICEF Bihar, 8.14 Lakhs) PI: Dr. Mayank Agarwal ; CO-PIs: Dr. Jimson Mathew
 22. Development of an Artificial Intelligence System for Comprehensive Stroke Imaging and Prognostication (DBT, 1832460 Lakhs) PI: Jimson Mathew ; CO-PIs: NA
 23. AI based Covid-19 Binder: Discover Molecule-Structure for binding Covid-19 using Generative Adversarial Network (GAN) (Microsoft AI for Health COVID-19 Grant award (ID: 00011000011)(Microsoft, Redmond USA), 0 Lakhs) PI: Prof Rajiv Misra and Amit Ranjan ; CO-PIs: NA
 24. Product Review and Conversation Machine Translation (Flipkart , 36 Lakhs) PI: Asif Ekbal ; CO-PIs: Unrestricted Faculty Grant
 25. Speech to Speech Machine Translation (PSA, Govt of India, 12.93 Lakhs) PI: Prof. Pushpak Bhattacharyya ; CO-PIs: Dr. Asif Ekbal
 26. IT Patna Centre of Excellence in Cyber Crime Prevention against Women and Children -AI based Tools for Women and Children Safety by IIT Patna (Ministry of Home Affairs, 284 Lakhs) PI: Prof. Jimson Mathew, Dr. Asif Ekbal ; CO-PIs: Dr. Sriparna Saha, Dr. Arijit Mondal, Dr. Joydeep Chandra, Dr. Sourav Dandapat, Dr. Abyayananda Maiti, Prof. Somanath Tripathy
 27. Cyber Crime Prevention Against Women and Children (MHA, 284.66 Lakhs) PI: Prof. Jimson Mathew; Dr. Asif Ekbal ; CO-PIs: Prof. Somanath Tripathy; Dr. Sriparna Saha; Dr. Joydeep Chandra; Dr. Arijit Mondal; Dr. Abyayananda Maiti; Dr. Sourav Kumar Dandapat
 28. IIT Patna Centre of Excellence in Cyber Crime Prevention Against Women and Children (Ministry of Home Affairs, 284.668 Lakhs) PI: Pushpak Bhattacharyya ; CO-PIs: Joydeep Chandra; Arijit Mondal; Jimson Mathew; Sourav Kumar Dandapat; Abyayananda Maiti; Sriparna Saha; Asif Ekbal; Somanath Tripathi
 29. AI-based Tools for Women and Child Safety (MHA, 28466800 Lakhs) PI: Prof. P. Bhattachary ; CO-PIs: Somanath Tripathy, Jimson Mathew, Sriparna Saha, Asif Ekbal, Arijit Mondal, Joydeep Chandra, S.K Dandpat, A. Maiti
 30. IIT Patna Centre of Excellence in Cyber Crime Prevention against Women and Children -AI-based Tools for Women and Child Safety (BPRD, MHA, 284 Lakhs) PI: Prof. Pushpak Bhattacharyya ; CO-PIs: Arijit Mondal; Jimson Mathew; Joydeep Chandra; Sourav Dandapat; Abyay Maiti; Asif Ekbal; Sriparna Saha; Somanath Tripathy
 31. Privacy Preserving Smart Contract based Technique to Perform Secure Computation in Cloud Storage: Design and Analysis (SERB, 6.6 Lakhs) PI: Somanath Tripathy ; CO-PIs: NA

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| <p>32. HELIOS - Hate, Hyperpartisan, and Hyperpluralism Elicitation and Observer System (Wipro, 39.2 Lakhs) PI: Asif Ekbal; CO-PIs: NA</p> <p>33. Autonomus Goal-oriented and Knowledge Grounded Conversational Agent (Accenture , 21 Lakhs) PI: Asif Ekbal (with others); CO-PIs: NA</p> <p>34. Distributed EV charge scheduling and consensus based control for EV charging network (DST-DAAD 2019, 8.82 Lakhs) PI: Prof Rajiv Misra(IIT Patna) and Prof.Dr.-Ing Axel Sikora (Germany) ; CO-PIs: NA</p> <p>35. V2D: Video-to-Description Generation using Deep Learning (DST, 32 Lakhs) PI: Arijit Mondal ; CO-PIs: Prof. Jimson Mathew</p> <p>36. Development of Lizard-like Robotic Spy Surveillance System (Imrpint-II, SERB, 101.5 Lakhs) PI: Dr. Raju Halder; CO-PIs: Dr. Atul Thakur (IIT Patna); Dr. Gourinath Banda (IIT Indore); Dr. Rajarshi Ray (IACS Kolkata); Dr. Ansuman Bhattacharya (IIT Dhanbad)</p> <p>37. Deep Learned Detection and Classification of Multiple Intrusions Using WDM Intensity and Phase-Sensitive OTDR in Underwater Environment (NRB, DRDO, 51 Lakhs) PI: Arijit Mondal ; CO-PIs: Prof. Sumanta Gupta; Prof Jimson Mathew</p> <p>38. Improving Regional Transportation Services using GPS Data (MHRD, 53.4905 Lakhs) PI: Joydeep Chandra ; CO-PIs: Sourav Kumar Dandapat; Joao Mendes Moreira; Niloy Ganguly</p> <p>39. Sevak- An Intelligent Indian Language Chatbot (Imprint2C, SERB, 58 Lakhs) PI: Asif Ekbal ; CO-PIs: NA</p> <p>40. Information Retrieval via Knowledge Graphs Developed for Aircraft Accidents Database and Aircraft Manuals (Imprint-2, 50.36 Lakhs) PI: Prof. Pushpak Bhattacharyya ; CO-PIs: Asif Ekbal</p> <p>41. Development of Planning and Designing Tool for Smartly Adopting Electric Vehicles in Indian Cities (DST (IMPRINT-II), 56 Lakhs) PI: Prof. Samrat Mondal ; CO-PIs: Arijit Mondal; Prof. Jimson Mathew</p> | <p>42. Visvesvaraya Young Faculty Research Fellowship (Meity, 37 Lakhs) PI: Asif Ekbal ; CO-PIs: NA</p> <p>43. Low-Cost Energy Efficient Cloud for Cyber Physical Disaster Management Systems (Department of Science & Technology, 21.775 Lakhs) PI: Prof Rajiv Misra ; CO-PIs: Dr Asif Ekbal</p> <p>44. Dynamic Knowledge Natural Language Generation (Samsung Research , 14.5 Lakhs) PI: Asif Ekbal (agreement) ; CO-PIs: Dr. Sriparna Saha and Prof. Pushpak Bhattacharyya</p> <p>45. Sentiment, Emotion, Sarcasm and Hate Speech Detection (SESH) (CDOT, 42.95 Lakhs) PI: Asif Ekbal (Coordinating PI as per the agreement) ; CO-PIs: Dr. Sriparna Saha and Prof. Pushpak Bhattacharyya</p> <p>46. Development of Adaptive Algorithms for Solving Many-Objective Optimization Problems: Application in Machine Learning (SERB, DST, 16.97 Lakhs) PI: Dr. Sriparna Saha ; CO-PIs: NA</p> <p>47. A Software Tool for the Planning and Design of Smart Micro Power Grids (DST (IMPRINT-I), 80 Lakhs) PI: Arijit Mondal; Prof. R K Behera ; CO-PIs: NA</p> <p>48. A Platform for Cross-lingual and Multilingual Event Monitoring in Indian Languages, (Imprint-1, 85.39 Lakhs) PI: Asif Ekbal; Pushpak Bhattacharyya ; CO-PIs: NA</p> <p>49. Centre of Excellence for Natural Language Processing (Elsevier , 216 Lakhs) PI: Prof. Pushpak Bhattacharyya ; CO-PIs: Asif Ekbal; Sriparna Saha</p> |
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Consultancy Projects

1. Vetting of design documents for Integrated Command and Control Center (ICCC) and Smart Components of Muzaffarpur Smart City (Shapoorji Pallonji And Company Private limited, 11.8 Lakhs) PI: Dr. Raju Halder; Dr. Samrat Mondal; Dr. Atul Thakur; Dr. Subrata Hait ; CO-PIs: NA
2. Vetting Solution Documents of Master System

- Integrator for Integrated Command and Control Center for Bhagalpur Smart City (Bhagalpur Smart City Limited, 7.34 Lakhs) PI: = "Prof. ; CO-PIs: NA
3. Vetting of Design Documents for Integrated Command and Control Center for Muzzafarpur Smart City (Shapoorji Pallonji And Company Private Limited & SP Center, 11.8 Lakhs) PI: Dr. Raju Halder, Dr. Samrat Mondal, Dr. Atul Thakur and Dr. Subrata Hait; CO-PIs: NA
 4. Vetting solution document of master system integrator for integrated command control center Bhagalpur Smart City (Bhagalpur Smart City Limited, 7.34 Lakhs) PI: Prof. Jimson Mathew, Prof. Somanath Tripathy, Prof. Rajiv Misra, Dr. Sriparna Saha, Dr. Samrat Mondal, Dr. Arijit Mondal, Dr. Joydeep Chandra, Dr. Mayank Agarwal; CO-PIs: NA
 5. Vetting solution documents of Master System Integrator for Integrated Command and Control Center Bhagalpur Smart City (Bhagalpur Smart City, 8.34 Lakhs) PI: Arijit Mondal, Jimson Mathew, Joydeep Chandra, Mayank Agarwal, Rajiv Misra, Samrat Mondal, Somanath tripathy, Sriparna Saha ; CO-PIs: NA
 6. Regarding vetting of solution -Bhagalpur Smart City (Bhagalpur Smart City, 7.3 Lakhs) PI: Other faculty; CO-PIs: Prof Rajiv Misra & others
 7. NMIMS- Big Data on Cloud (Tata Consultancy Services, 1.87 Lakhs) PI: Prof Rajiv Misra ; CO-PIs: Dr Sriparna Saha
 8. Data Modeling and Visualization: Course Design and Implementation, Assessment Content Creation, Live Lecture, Community Moderation and Live Lecture (Under TCS Ion Industry Honour Certification Scheme, 3.77 Lakhs) PI: = "Dr. ; CO-PIs: NA
 9. IHC Big Data on Cloud (Tata Consultancy Services Ltd, 3.7 Lakhs) PI: Prof Rajiv Misra ; CO-PIs: Dr Sriparna Saha

Patents (filed/Granted)

1. Patent Name: SYSTEM AND METHOD FOR DETECTION OF BANNED OBJECTS FROM IMAGES IN REAL-TIME USING INTELLIGENCE AT THE EDGE, Status: Filed, Ref. No: Filed Response to First Examination report for Indian patent application No: 202031006618 || LRN: P4087-IN, Patent Owner: Rajiv Misra
2. Patent Name: Dynamic goal-oriented dialogue with virtual agents,, Status: Filed, Ref. No: D20-406/04395-PR-US, 2021, Patent Owner: Sriparna Saha
3. Patent Name: Generating Knowledge Graph from Conversations. Submitted as US Patent, Status: Filed, Ref. No: D20-402/04260-00-US, Patent Owner: Asif Ekbal

Awards

1. Asif Ekbal (2022-03-01) Top Computer Science Researcher List
2. Asif Ekbal (2022-02-22) Senior PC Member
3. Raju Halder (2022-02-11) IEEE Membership
4. Sriparna Saha (2022-02-02) Associate Editor of IEEE Transactions on Computational Social Systems
5. Suman Kumar Maji (2022-01-19) Member IEEE
6. Asif Ekbal (2022-01-01) Program Committee Chair
7. Sriparna Saha (2021-10-25) Name is included in the list of top 2% of scientists of their main subfield discipline (Artificial Intelligence and Image Processing), across those that have published at least five papers (a survey conducted by Stanford University)
8. Asif Ekbal (2021-10-19) Top-2% Scientists
9. Sriparna Saha (2021-10-01) Associate Editor of Engineering Applications of Artificial Intelligence
10. Raju Halder (2021-09-20) Best Paper Award
11. Sriparna Saha (2021-08-01) Machine Learning with Applications
12. Sriparna Saha (2021-07-01) Associate Editor of IEEE/ACM Transactions on Computational

- Biology and Bioinformatics (impact factor: 3.71).
13. Sriparna Saha (2021-07-01) Associate Editor of Expert Systems with Applications
 14. Sriparna Saha (2021-07-01) Academic Editor of PLOS ONE
 15. Sriparna Saha (2021-07-01) Associate Editor of Neurocomputing
 16. Asif Ekbal (2021-04-21) Track Chair, Language Resources and Evaluation
 17. Sriparna Saha (2021-04-01) Associate Editor of IEEE Internet Computing

Journals

1. H. Yahia, N. Schneider, S. Bontemps, L. Bonne, G. Attuel, S. Dib, V. Ossenkopf, A. Turiel, A. Zebadua, D. Elia, S. K. Maji, F. G. Schmitt, J.-F. Robitaille, Description of turbulent dynamics in the interstellar medium: multifractal/microcanonical analysis I. Application to Herschel observations of the Musca filament, *Astronomy & Astrophysics (EDP Sciences)*, 2021., 123 (2021)
2. H. Aetesam, S. K. Maji and H. Yahia, Bayesian Approach in a Learning-Based Hyperspectral Image Denoising Framework, *IEEE Access*, 9, 169335-169347, 2021., 164 (2021)
3. R. K. Thakur and S. K. Maji, AGSDNet: Attention and Gradient based SAR Denoising Network, *IEEE Geoscience and Remote Sensing Letters*, 19, 1-5, 2022, 68 (2021)
4. R. K. Thakur and S. K. Maji, Gradient and Multi Scale Feature Inspired Deep Blind Gaussian Denoiser, *IEEE Access*, 10, 34170-34184, 2022., 164 (2021)
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99. Ranjan, A., & Misra, R. (2022). Training Generative Adversarial Networks(GANs) over Parameter Server and Worker Node Architecture . In International Conference on Machine Learning and Big Data Analytics . Springer., NA (2021)
100. Singh, A., Nazir, A., & Saha, S. (2022, April). Adversarial Multi-task Model for Emotion, Sentiment, and Sarcasm Aided Complaint Detection. In European Conference on Information Retrieval (pp. 428-442). Springer, Cham., 58 (2021)
101. Jain, R., Mavi, V., Jangra, A., & Saha, S. (2022, April). WIDAR-Weighted Input Document Augmented ROUGE. In European Conference on Information Retrieval (pp. 304-321). Springer, Cham., 58 (2021)
102. Anindya Sundar Das and Sriparna Saha. 2021. Self-supervised Image-to-Text and Text-to-Image Synthesis. In Neural Information Processing: 28th International Conference, ICONIP 2021, Sanur, Bali, Indonesia, December 8-12, 2021, Proceedings, Part IV. Springer-Verlag, Berlin, Heidelberg, 415426. https://doi.org/10.1007/978-3-030-92273-3_34, 35 (2021)
103. A Singh, S. Dey, A. Singha, S. Saha (2021), "Sentiment and Emotion-aware Multi-modal Complaint Identification", in AAAI 2022 (core rank A*), 180 (2021)
104. Santosh Kumar Mishra, Sriparna Saha , and Pushpak Bhattacharyya (2021), "A Scaled Encoder Decoder Network for Image Captioning in Hindi", In proceedings of ICON 2021: 18th International Conference on Natural Language Processing, NIT Silchar, December 16-19, 2021., Duration-4 Days (2021)
105. Santosh Kumar Mishra, Darsh Kaushik, Sriparna Saha , and Pushpak Bhattacharyya (2021), "Wikipedia Current Events Summarization using

Particle Swarm Optimization", In proceedings of ICON 2021: 18th International Conference on Natural Language Processing, NIT Silchar, December 16-19, 2021., Duration-4 Days (2021)

Text Books

1. B Mishra, Jimson Mathew, P Patra : Artificial Intelligence Driven Circuits and Systems Published by Springer Nature, <https://link.springer.com/book/10.1007/978-981-16-6940-8?noAccess=true> (2021)

Book Chapters Published

1. Singh, V. P., Khedikar, S., Mathew, J., & Garg, T. : Artificial Intelligence of Things for Weather Forecasting and Climatic Behavioral Analysis (pp. 130-143). IGI Global.: Singh, V. P., Khedikar, S., Mathew, J., & Garg, T. (2022). Harnessing Artificial Intelligence for Drought Management. In Artificial Intelligence of Things for Weather Forecasting and Climatic Behavioral Analysis (pp. 130-143). IGI Global. Published (2021)
2. Singh, V. P., Khedikar, S., Mathew, J., & Kulshrestha, L. : Artificial Intelligence of Things for Weather Forecasting and Climatic Behavioral Analysis : Soil-Water Management With AI-Enabled Irrigation Methods. Published (2021)
3. Khedikar, S., Singh, V. P., Mathew, J., & Bandi, V. : Artificial Intelligence of Things for Weather Forecasting and Climatic Behavioral Analysis : Intelligent Agrometeorological Advisory System. Published (2021)
4. V. K. Rai, S. Tripathy, Jimson Mathew : Security of Internet of Things Nodes: Multi-bit True Random Number Generator for IoT Devices using Memristor Published (2021)
5. Neeraj Kumar Singh, Akshay M. Fajge, Raju Halder, Md. Imran Alam : Distributed Computing to Blockchain: Architecture, Technology, and Applications: Formal Verification and Code Generation for Solidity Smart Contracts Published, (2021)

6. Raju Halder, Md. Imran Alama, Akshay M. Fajge, Neeraj Kumar Singh, Agostino Cortesi : Distributed Computing to Blockchain: Architecture, Technology, and Applications: Analyzing Information Flow in Solidity Smart Contracts Published, (2021)
7. Suryakanta Panda and Samrat Mondal : Machine Learning for Biometrics: Concepts, Algorithms and Applications: An Efficient and Untraceable Authentication Protocol for Cloud Based Healthcare System Published (2021)
10. Suman Kumar Maji - Department academic program committee (DAPC).
11. Suman Kumar Maji - Mtech by research coordinator 2021.
12. Suman Kumar Maji - Mtech coordinator 2021 batch.
13. Suman Kumar Maji - Department purchase committee.
14. Samrat Mondal - Department Purchase Committee Member from 2018 .
15. Sourav Kumar Dandapat - Faculty Advisor of CSE 2020 batch.

Educational Packages

SI, Title, Level, Authors, Type, Online Link

- 1, Deep Learning and Neural Network, BTech, MTech, PhD and Industry Professionals , Asif Ekbal, Video and audio,

Other Publications

SI, Title, Authors, Publisher, Online Link, Type

- 1, PARL: Enhancing Diversity of Ensemble Networks to Resist Adversarial Attacks via Pairwise Adversarially Robust Loss Function, Manaar Alam, Shubhajit Datta, Debdeep Mukhopadhyay, Arijit Mondal, Partha Pratim Chakrabarti, arXiv, [https:// arxiv.org/abs/2112.04948](https://arxiv.org/abs/2112.04948), arXiv preprint

Student Activities by Faculty Members

Departmental Activities

1. Suman Kumar Maji - Department Library in charge.
2. Abyayananda Maiti - Department Purchase Committee member.
3. Samrat Mondal - BTech CS First Year Faculty Advisor for 2021 Batch.
4. Sriparna Saha - Head.
5. Rajiv Misra - Member Purchase Committee.
6. Jimson Mathew - Head of the CSE Department.
7. Arjit Mondal - CSE PhD Coordinator.
8. Jimson Mathew - B Tech AI Co-ordinator.
9. Sriparna Saha - Associate Dean Research and Development.

16. Abyayananda Maiti - Mtech CSE 2020 batch Faculty Advisor.
17. Raju Halder - DAPC Secretary.
18. Mayank Agarwal - Time Table Co-ordinator.
19. Mayank Agarwal - Syllabus Change Committee .
20. Samrat Mondal - Department PhD Coordinator from Dec 2018 to September 2021.
21. Samrat Mondal - DAPC Member since 2018.

Institute Activities by Faculty Members

1. Raju Halder - RSD 2022 Convener.
2. Samrat Mondal - Computer Center Purchase Committee Member since Feb 2022.
3. Samrat Mondal - MELC Member since Jan 2022.
4. Suman Kumar Maji - Library Advisory Committee.
5. Abyayananda Maiti - TIH Purchase committee member.
6. Rajiv Misra - Convener TiH-Academic Committee to Develop Curriculum for MTech-AI Program.
7. Rajiv Misra - Chairman GATE.
8. Joydeep Chandra - Head of the Department (Computer Center).
9. Rajiv Misra - Member Purchase Committee for Computer Center.
10. Asif Ekbal - Professor In-Charge, Post Graduate Program .

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| <ol style="list-style-type: none"> 11. Rajiv Misra - Lead- Sub-committees for Smart city Research focus of IIT Patna. 12. Samrat Mondal - PIC CA (includes the role of PIC Guesthouse, PIC Landscape and PIC Market) since Aug 2021. 13. Suman Kumar Maji - Institute Stock Verification Committee. 14. Somanath Tripathy - Associate Dean, Administration. 15. Samrat Mondal - Committee Member WGRC since 2019. 16. Abyayananda Maiti - Institute Library Committee member. 17. Abyayananda Maiti - Associate Head, Computer Center. 18. Mayank Agarwal - PIC Automation. | <ol style="list-style-type: none"> 8. Sriparna Saha - Speaker for AICTE-ISTE Sponsored Online Workshop organized by Shree Rayeshwar Institute of Engineering and Information Technology, GOA. 9. Sriparna Saha - Member of Board of Studies Meeting CSE BIT, Mesra. 10. Sriparna Saha - Delivered a talk in Expert Talk Series organized by South Asian University, New Delhi. 11. Sriparna Saha - Speaker of 5-Day International Research Workshop on Advances in Deep Learning and Applications (WADLA 2.0) during 21-25th of Feb 2022 organized by Indian Institute of Information Technology, Sri City, Chittoor.. |
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Professional Activities by Faculty Members

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| <ol style="list-style-type: none"> 1. Sriparna Saha - Speaker of one day workshop on "Machine Intelligence and Applications" held on March 30, 2022 at Indian Statistical Institute, Kolkata, to celebrate the 29th foundation day of Machine Intelligence Unit.. 2. Sriparna Saha - PMRF Data Science review committee member. 3. Sriparna Saha - Speaker of Distinguished Researcher Speaker Series (DRSS) organized by Accenture Pvt. Ltd. 4. Suman Kumar Maji - Speaker at Faculty Development Program (FDP) on Computer Vision & its Applications organised by Institute of Engineering and Management (IEM) Kolkata.. 5. Sriparna Saha - Delivered a talk on "Multi objective optimization in summarization" in FDP organized by E & ICT Academy, NIT Warangal and HIT Haldia. 6. Suman Kumar Maji - Technical Program Committee member for IAPR Computer Vision Image Processing (CVIP) 2022 conference in VNIT Nagpur.. 7. Sriparna Saha - Delivered talk on "Multimodal Information Processing: Applications in | <ol style="list-style-type: none"> Dialogue Systems and Summarization" in ICMI Pre-Conference Workshop . 11. Sriparna Saha - Speaker of ISTE-AICTE FDP on Multi-Objective Optimization: Algorithms and Engineering Applications organized by GEC Valsad. 12. Sriparna Saha - Speaker of FDP on Innovations and Research Trends in Artificial Intelligence (Online Mode), 21-26 February, 2022 organized by Banasthali Vidyapith. 13. Suman Kumar Maji - Technical Program Committee member for Computer Vision Machine Intelligence (CVMI) 2022 conference in IIIT Allahabad.. 14. Sriparna Saha - Delivered talk at Natural Language Processing (FDP) organized by NIT Patna from 7th FEB to 18th Feb 2022. 15. Sriparna Saha - Associate Editor of IEEE Transactions on Computational Social Systems. 16. Raju Halder - Invited Talk on "Robot Operating System (ROS)" in ATAL FDP conducted by LBRCE, Mylavaram, Andhra Pradesh. 17. Sriparna Saha - PhD thesis examiner of Visvesvaraya Technological University (VTU). 18. Sriparna Saha - Tutorial on "Summarization" in ICDMAI 2022. |
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20. Sriparna Saha - Speaker of AICTE-ISTE sponsored workshop on "Emerging Trends, Issues and Challenges in Machine Learning and Big Data", from 5th -11th January ,2022 organized by University of Engineering & Management (UEM), Jaipur..
21. Sriparna Saha - Speaker of 4-day hybrid event " IEEE SPS Seasonal School on Recent Advances in Artificial Intelligence for Signal Processing from 28th - 31st December 2021 organizing by VNR Vignana Jyothi Institute of Engineering and Technology in association with SPS IEEE Hyderabad Section and WIE AG IEEE Hyderabad Section..
22. Sriparna Saha - PhD thesis examiner of Amrita Vishwa Vidyapeetham- Kochi Campus.
23. Arjit Mondal - Organizing Chair, 7th International Conference on Data Science and Engineering.
24. Sriparna Saha - Speaker of Linguistics, ML and Uncertainty Theory, 2021, the 5 Days' International Webinar organised by the School of Applied Science and Humanities of Haldia Institute of Technology from 14-18 December 2021..
25. Sriparna Saha - Delivered a Session on Research & Publishing in Sony Research India.
26. Raju Halder - Invited Talk on "Blockchain Technology" in ATAL FDP at IIIT Guwahati .
27. Raju Halder - Invited Talk on "Blockchain Technology" in ATAL FDP at IIITDM Kancheepuram.
28. Suman Kumar Maji - IEEE Member.
29. Sriparna Saha - Speaker of data-science talk series at IIT Palakkad.
30. Sriparna Saha - Speaker of ACM W event celebrating women in computing.
31. Sriparna Saha - Delivered a talk organized by Women in Computer Science (WiCS) group at the Indian Institute of Technology Madras.
32. Sriparna Saha - Speaker of IEEE CS Flagship Event 2021 - DeepTech.AI.
33. Sriparna Saha - Delivered a talk at NIT Goa.
34. Sriparna Saha - PhD thesis evaluator and viva-voce examiner of BITS Pilani - Hyderabad Campus.
35. Sriparna Saha - Speaker of AICTE ATAL FDP entitled " Application of AI, ML and DL in Smart Healthcare " from 09-27-2021 to 01-101-2021, at the Department of CSE, Maulana Abul Kalam Azad University of Technology, WB..
36. Raju Halder - Invited Talk on "Robot Operating System (ROS)" in AICTE Training and Learning (ATAL) FDP at IIT Patna with Dr. Atul Thakur.
37. Sriparna Saha - PhD thesis evaluator and viva-voce examiner of IIIT Delhi.
38. Sriparna Saha - PhD thesis examiner of BIT, Mesra.
39. Sriparna Saha - Speaker of ODSC APAC conference.
40. Sriparna Saha - Speaker of 2- Weeks online FDP on "Advanced Optimization Techniques and Hands on with MATLAB/SCILAB" from 6 to 17 Sept 2021 organized by EICT academy coordinators at MNIT Jaipur, IIT Guwahati, NIT Patna and IIITDM Jabalpur.
41. Sriparna Saha - Speaker of NLP Panel Discussion, ODSC APAC 2021.
42. Sriparna Saha - Speaker of FDP on "Research Applications in Artificial Intelligence and Machine Learning", held in the Department of Computer Science & Engineering, Haldia Institute of Technology from 6th-10th September 2021.
43. Sriparna Saha - Speaker at 38th Foundation day of C-DOT (Centre for Development of Telematics) on Friday, 3rd September, 2021 (a series of technical talks under G. B. Memamsi Lecture series.).
44. Sriparna Saha - Speaker of FDP on Deep Learning and Applications from August 23 to September 3, 2021 organized by E&ICT

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- Academies established by the Ministry of Electronics and Information Technology, Gol..
45. Sriparna Saha - Speaker of 6-days AICTE Sponsored Short Term Training Programme (STTP) on New Avenues of Emotion Recognition at Maulana Abul Kalam Azad University of Technology, West Bengal.
 46. Sriparna Saha - Speaker of One-week online Faculty Development Programme (FDP) on Network Science: Theory, Challenges and Applications under the ATAL AICTE FDP programme from 23rd August 2021 to 27th August 2021 organized by Amity University Rajasthan, Jaipur, India..
 47. Raju Halder - Invited talk on "Blockchain Technology: A Potential Game Changer" online organized by G. N. S. University, Rohtas, Bihar. .
 48. Sriparna Saha - Speaker at One-week Faculty Development Program (FDP) on Machine Learning: Techniques, Applications and Challenges (03rd to 07th Aug 2021) organized by ORIENTAL INSTITUTE OF SCIENCE & TECHNOLOGY, BHOPAL.
 49. Sriparna Saha - Key Note Speaker in One Day National Webinar on Emerging Capabilities of Artificial Intelligence" (online mode) Organized by Department of Computer Engineering, Mizoram University (A Central University) , Aizawl, in association with Computer Society of India (CSI), Kolkata Chapter.
 50. Sriparna Saha - Speaker of AICTE sponsored STTP on IoT and its Application in Industries organized by Sikkim Manipal Institute of Technology.
 51. Sriparna Saha - Speaker of AI Seminar of LG IIT B Joint Program.
 52. Raju Halder - Keynote Talk on "Introduction to Blockchain Technology: A Potential Game Changer" in International Symposium on Blockchain Technology organized by Bharat Institute of Engineering and Technology, Hyderabad.
 53. Sriparna Saha - Speaker of AICTE STTP Tools and Techniques for Machine Learning and its Applications organized by MAKAUT, West Bengal.
 54. Sriparna Saha - Speaker of Short Term Course on Data Analytics and Predictive Technologies organized by I-DAPT Hub Foundation, IIT (BHU) during July 05-10, 2021.
 55. Raju Halder - Conference Session Chair: DATA 2021.
 56. Sriparna Saha - Session Chair of NLDB (26th International Conference on Natural Language & Information Systems) 2021 organized in Germany from June 23-25 2021.
 57. Sriparna Saha - invited resource person for AICTE sponsored Short Term Training Programme (STTP) under AQIS on Data science and Machine learning.
 58. Raju Halder - Invited Talk on "Robot Operating System (ROS)" in AICTE Training and Learning (ATAL) FDP at IIT Patna with Dr. Atul Thakur.
 59. Sriparna Saha - Editorial board of PLOS ONE (impact factor: 3.240, h5-index: 175)..
 60. Sriparna Saha - Talk in a FDP organized by Narula Institute of Technology, West Bengal.
 61. Sriparna Saha - Associate Editor of IEEE/ACM Transactions on Computational Biology and Bioinformatics.
 62. Sriparna Saha - Associate Editor of Expert Systems with Applications ((impact factor: 5.452, h5-index: 111).
 63. Sriparna Saha - MTech thesis examiner of NIT Durgapur.
 64. Sriparna Saha - PhD Thesis Examiner and Viva-voce examiner of Amrita Viswa Vidyapeetham.
 65. Sriparna Saha - MTech thesis examiner of IIT Kharagpur.
 66. Sriparna Saha - Delivered a webinar on " Machine Learning" in PCST, Bhopal, India.
 67. Raju Halder - Program Committee Member and reviewer: FDSE 2021, DATA 2021, ACSS 2021,

CISIM 2021.

68. Raju Halder - Journal Reviewer: IEEE Transactions on Reliability, Sadhana, International Journal of Web Information Systems.
69. Sriparna Saha - Associate editor of IEEE Internet Computing (IF 2.68).

Seminar, Conference and Workshop Organised

1. Rajiv Misra - Convener and Technical Program Chair:-2nd International Conference on Machine Learning and Big Data Analytics (ICMLBDA) 2022, Online (Convener and Technical Program Chair) Participants: 45.
2. Rajiv Misra - Sponsored by ICPS-DST Funded Project no 319 (participation was free) :-3-days Workshop on Intelligent Edge Computing for Cyber Physical System and Cloud Computing, Online (Sponsored by ICPS-DST Funded Project no 319 (participation was free)) Participants: 15.
3. Asif Ekbal - Organizing Committee Member :- First Workshop on Multimodal Fact Checking and Hate Speech Detection, In conjunction with AAAI 2022 (Organizing Committee Member) Participants: 32.
4. Samrat Mondal - Reviewer and Session Chair:- IEEE Indicon 2021, Guwahati (Reviewer and Session Chair) Participants: 12.
5. Jimson Mathew - Organizing Chair:-7th International Conference on Data Science and Engineering (2021 ICDSE), IIT Patna (Organizing Chair) Participants: 100.
6. Samrat Mondal - Organizing Chair:- International Conference on Data Science & Engineering (ICDSE 2021), IIT Patna (Organizing Chair) Participants: 30.
7. Jimson Mathew - Organizing Chair:- International Conference on Information Systems Security (ICISS), IIT Patna (Organizing Chair) Participants: 60.
8. Samrat Mondal - Organizing Chair:-17th International Conference on Information and

Systems Security, IIT Patna (Virtual mode) (Organizing Chair) Participants: 30.

9. Somanath Tripathy - Technical Program Co-Chairs:-17th International Conference on Information Systems Security (ICISS), IIT Patna (Technical Program Co-Chairs) Participants: 60.
10. Rajiv Misra - Sponsored by MeitY Funded Project no 529 (participation was free):-HACKATHON : 5G Slicing for application in UAV , Online (Sponsored by MeitY Funded Project no 529 (participation was free)) Participants: 10.
11. Rajiv Misra - Convener and Technical Program Chair:-6th International Conference on Internet of Things and Connected Technologies (ICIoT) 2021, Online (Convener and Technical Program Chair) Participants: 24.

Other Academic Activities

1. Arijit Mondal - Guest lectures on AI for CPS at IIT Kharagpur.
2. Arijit Mondal - Lecture on "Big Data" in Short term course namely IoT with AI and Data Science.
3. Asif Ekbal - Talk in Accenture Global Seminar Series on "Persona, Empathy and Knowledge Grounded Persuasive Conversational System ".
4. Rajiv Misra - Reviewer for Journal "Software: Practice and Experience" Wiley.
5. Asif Ekbal - Invited talk on "Neural Machine Translation in Low-resource Language" , Speech Synthesis, University of Kerala .
6. Asif Ekbal - Invited talk on "Neural Machine Translation:, FDP on Deep Learning for NLP, NIT Andhra Pradesh .
7. Sriparna Saha - Senior Program Committee member of AAAI 2022 .
8. Rajiv Misra - Reviewer for Journal "International Journal of Communication Systems", Wiley.
9. Rajiv Misra - Expert Lecture(Online) in 5-days ATAL-FDP on "Deep Learning and Computer Vision" Organized by KNIT Sultanpur: Topic Deep Learning and Computer Vision.

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| <p>10. Rajiv Misra - Reviewer for Journal "Computer Networks", Elsevier.</p> <p>11. Joydeep Chandra - Certificate Course on Data Analytics and Business Intelligence in collaboration with BSE BI.</p> <p>12. Sriparna Saha - Young Research Symposium Chairs of CODS-COMAD 2022 9th ACM IKDD CODS and 27th COMAD.</p> <p>13. Asif Ekbal - PhD Thesis Evaluator, BITS Pilani .</p> <p>14. Asif Ekbal - Invited Talk on "Unimodal and Multimodal Conversational AI", Tutorial on Conversational AI, organized by Samsung, ICON 2021.</p> <p>15. Asif Ekbal - Invited Talk at "Workshop on Conversational AI in Indian Languages", ICON 2021 .</p> <p>16. Asif Ekbal - Panelist on "'Parsing and its applications: Current Status and Future Perspectives", ICON 2021.</p> <p>17. Sriparna Saha - Special session organizer of ICONIP 2021 held in Indonesia from December 08-12, 2021 on the topic of "Smart Home Technologies & Services for the Wellbeing and Sustainability of Society"..</p> <p>18. Sriparna Saha - Special session organizer of IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2021) held during December 4th 7th 2021 in Orlando, Florida, USA, on the topic of "Computational Intelligence for Natural Language Processing"..</p> <p>19. Rajiv Misra - Expert Lecture(Online) in Cloud computing training course for BEL Employees Organized by IIT Roorkee Topic: Advances in Cloud Computing: Live VM Migration, Cloud Native Computing, Kubernetes.</p> | <p>20. Rajiv Misra - Reviewer for Journal "Knowledge-Based Systems", Elsevier.</p> <p>21. Asif Ekbal - AI Workshop, LG Soft.</p> <p>22. Asif Ekbal - Invited talk on "Deep Learning for Sentiment Analysis", IEEE Rajasthan Section.</p> <p>23. Rajiv Misra - Expert Lecture(Online) in Government Officers Training (GoT): On Blockchain Technology, Organized by NIELIT: Topic Consensus in Blockchain.</p> <p>24. Asif Ekbal - Deep Learning for Fine-grained to Multimodal Sentiment Analysis, International Workshop on Computational Analysis of Undesired Texts on Social Media, Bangladesh .</p> <p>25. Asif Ekbal - PhD thesis evaluator, IIT Madras .</p> <p>26. Asif Ekbal - MTrch Thesis Evaluation, IIT Kharagpur.</p> <p>27. Asif Ekbal - PhD thesis evaluation, Au-KBC, Chennai.</p> |
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Any Other Information

1. Asif Ekbal - Google Scholar Citation: 5734; h-index: 39; i10-index: 159.
2. Mayank Agarwal - FDP AICTE _ISTE Induction/Refresher program -CyberSecurity, LMNIT Jaipur, Jan 2022.
3. Samrat Mondal - EVXplorer startup company formation as an outcome of our Research Project entitled .
4. Arjit Mondal - EVXolorer, Start-up, Team member.
5. Arjit Mondal - DeepGaze, Start-up, Team member.
6. Mayank Agarwal - AICTE Sponsored online FDP on Information and Cyber Security, Guru Jambheshwar University of Science and Technology, Hisar, Sep 2021.

ELECTRICAL ENGINEERING

Head: Dr. Ahmad Ali



DR. AHMAD ALI

Associate Professor

Control Systems, Evolutionary algorithms, New tuning strategies for controller design, Relay based system identification



PROF. JAWAR SINGH

Professor

Semiconductor Devices/ Microelectronics/ VLSI/ Modeling and Simulation of Classical and Non- classical devices, Neuromorphic Computing Device and Circuits



DR. KAILASH CHANDRA RAY

Associate Professor

VLSI architectural design, VLSI Signal Processing, Digital VLSI Design, Hardware design methodologies, FPGA based System Design, CORDIC



DR. MAHESHKUMAR H. KOLEKAR

Associate Professor

Digital Image Processing, Digital Signal Processing, Digital Video Processing, Video Surveillance, Multimedia Communication, Signal Processing for communication, Tele-medicine, Medical Signal and Image Processing, Neuroscience, Neuro-cognition



DR. PRAMOD KUMAR TIWARI

Associate Professor

Semiconductor Devices and Circuits



PROF. PREETAM KUMAR

Professor

Physical Layer issues in Wireless Communications, Signal Processing for Communication Systems, VLSI for Communication, Wideband Antenna Design, Underwater Communications



DR. RAJIB KUMAR JHA

Associate Professor

Digital Image and Video Processing, Medical Imaging, Stochastic resonance for signal and image processing applications, Machine learning and Deep learning



DR. RANJAN KUMAR BEHERA

Associate Professor

Design and Fabrication of Power Electronics Circuits, Control of Electrical Drives, Application of Nonlinear Control Theory to Power Electronics and Electric Drives, Pulse Width Modulation Techniques for Power Electronics



DR. S. SIVASUBRAMANI

Associate Professor

Power System Optimization, Smart Grid



DR. SANJOY KUMAR PARIDA

Associate Professor

Optimal Operation and Control of Power System; Power System Dynamics; Wide-Area Monitoring, Control and Protection; Microgrid Operation, Control and Protection



DR. SAURABH KUMAR PANDEY

Assistant Professor

Optoelectronics Devices, Semiconductor thin films, Photovoltaic, Sensors, Microelectronics/VLSI device modeling and simulation, MEMS



DR. SUDHIR KUMAR

Assistant Professor

Wireless Sensor Networks, Internet of Things (IoT), Molecular and MIMO Communications, Applications of Signal Processing and Machine Learning. Topics of current interests: Location based services, Tracking, Navigation, Clustering, Anomaly Detection, Supervised and Unsupervised Learning for Smart Environments, Activity Recognition, Molecular and MIMO Communications



DR. SUMANTA GUPTA

Associate Professor

Digital Signal Processing for Communication, Coherent Optical Communication, Photonic Integrated Circuits (PICs), All-Optical Signal Processing, Design, Characterization, and Optimization of Fiber-Optic Transmission Systems and Networks



DR. SHO VAN BHAUMIK

Associate Professor

Statistical signal processing, Nonlinear estimation, Aerospace target tracking and Smart material. Solar Cells. Micro-Nanoelectronics, MEMS, Modeling & Simulation. Power System Dynamics; Wide-Area Monitoring, Control and Protection; Microgrid Operation, Control and Protection



DR. SUDHAN MAJHI

Associate Professor

Signal processing for wireless communication, blind signal classification, blind signal synchronization, blind parameter estimation, secrecy capacity of cognitive radios and cooperative communications, MIMO, OFDM, MIMMO-OFDM, SC-FDMA, NOMA, UWB systems, receiver design and implementation on testbed, and Sequence design for wireless communication



DR. UDIT SATIJA

Assistant Professor

Bio-medical signal processing, Wearable healthcare monitoring, Human activity monitoring, Machine and deep learning, Signal processing for wireless communication, Compressed sensing, Cognitive radios, Internet of things



DR. YATENDRA KUMAR SINGH

Associate Professor

RF MEMS, Computational Electromagnetics



DR. AMIT KUMAR SINGH

Assistant Professor

mm-Wave Antennas for 5G and beyond, Intelligent adaptive metasurfaces (IRS) and antennas for beyond-5G applications, IRS for 5G and beyond, Easy deployable reflectarray antenna for microsatellite applications, SDR, and SDR Based Radar for Detection and Ranging.

Research Area

1. Preetam Kumar, 5G & 6G Communication, Physical Layer issues in Wireless Communications, Signal Processing for Communication Systems, VLSI for Communication, Wideband Antenna Design, Underwater Communications.
2. Jawar Singh, Semiconductor Devices and Circuits, Hardware Security, Device and Circuits for AI Accelerators, and Neuromorphic Computing
3. Saurabh Kumar Pandey, Simulation and Fabrication: Semiconductor Optoelectronics Devices II-VI & III-V based thin films & Hetrostructure Thin film solar cells & MEMS based devices
4. Amit Kumar Singh, Millimeter-wave antenna designs for 5G and beyond, IRS for 5G and beyond Metasurface and meta-antenna design, Easy deployable reflectarray antenna for microsatellite application, Metamaterial absorber and FSS, Microwave imaging for biomedical applications, SDR based radars for detection and ranging, Drone Technology
5. Rajib Kumar Jha, Digital Image and Video Processing, Medical Image Processing, Stochastic Resonance based Image Processing
6. Udit Satija, Signal Processing
7. Udit Satija, Biomedical Signal Processing
8. Udit Satija, Machine and Deep Learning
9. Udit Satija, Signal Processing for Communication
10. Kailash Chandra Ray, VLSI and Embedded System
11. Ahmad Ali, Robust Control, Model Free Control
12. Ranjan Kumar Behera, Power Electronics Converters. Electrical Machines and High-Performance Drives. Micro and smart grid Solar and Wind Energy Integration. Solar tree design for rural electrification
13. Sumanta Gupta, Photonics for AI
14. Sanjoy Kumar Parida, Power System Operation and Control
15. Sumanta Gupta, Fiber Optic Distributed Sensor
16. Sumanta Gupta, Optical Communication and Photonics
17. Sanjoy Kumar Parida, Microgrid Dynamics, Control and Protection
18. Sanjoy Kumar Parida, Power System Dynamics, Control and Protection
19. Pramod Kumar Tiwari, Semiconductor Devices
20. S Sivasubramani, Power Systems
21. Yatendra Kumar Singh, RF and Microwave, Radio Frequency Integrated Circuits, Analog Integrated Circuits
22. Shovan Bhaumik, Signal processing and control
23. Maheshkumar H Kolekar, Digital Signal, Image and Video Processing
24. Maheshkumar H Kolekar, Artificial Intelligence
25. Maheshkumar H Kolekar, Deep Learning for video surveillance
26. Maheshkumar H Kolekar, Biomedical Signal and Image Processing
27. Maheshkumar H Kolekar, Neuroscience
28. Sudhir Kumar, Wireless Sensor Networks
29. Sudhir Kumar, Internet of Things (IoT)
30. Sudhir Kumar, Molecular Communications
31. Sudhir Kumar, Signal Processing
32. Sudhir Kumar, Machine and Deep Learning

Teaching

Sl, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

1. Shovan Bhaumik, Autumn, EE555, 3-0-0-6, 17,
2. Shovan Bhaumik, Spring, EE370, 3-0-0-6, 78,
3. Preetam Kumar, Autumn, EE530, 3, 17,
4. Preetam Kumar, Autumn, EE330, 3, 76,
5. Preetam Kumar, Spring, EE560, 3, 73,
6. Jawar Singh, Autumn, EE 515, 0-0-3-3, 10,
7. Jawar Singh, Spring, EE 513, 3-0-0-6, 15,
8. Jawar Singh, Autumn, EE 511, 3-0-0-6, 15,
9. Ahmad Ali, Autumn, EE 205, 3-0-0-6, 80,

10. Ahmad Ali, Autumn, EE372, 0-0-3-3, 63,
11. Ahmad Ali, Spring, EE350, 3-0-0-6, 65,
12. Ranjan Kumar Behera, Autumn, EE570, 3-0-0-6, 6,
13. Ranjan Kumar Behera, Spring, EE 382, 3-0-0-6, 75,
14. Ranjan Kumar Behera, Autumn, EE484, 0-0-3-3, 64,
15. Sanjoy Kumar Parida, Autumn, EE485, 0-0-3-3, 85, UG Course
16. Sanjoy Kumar Parida, Spring, EE281, 0-0-3-3, 86, UG Course
17. Sudhir Kumar, Autumn, EE530, 3-0-0-6, 18, Feedback score 4.70 out of 5
18. Sanjoy Kumar Parida, Spring, EE280, 3-0-0-6, 86, UG Course
19. Sanjoy Kumar Parida, Spring, EE549, 3-0-0-6, 8, PhD Course
20. Sudhir Kumar, Spring, EE541, 0-0-3-3, 16, Feedback score 4.59 out of 5
21. Sanjoy Kumar Parida, Autumn, EE486, 3-0-0-6, 85, UG Course
22. Maheshkumar H Kolekar, Spring, EE528, 3-0-0-6, 12, Deep Learning for Video Surveillance System
23. Maheshkumar H Kolekar, Spring, EE591, 0-0-4-4, 12,
24. Maheshkumar H Kolekar, Autumn, EE523, 3-0-0-6, 25, Advanced Biomedical Signal Processing
25. Maheshkumar H Kolekar, Autumn, EE221, 3-0-0-6, 87, Signals and Systems
26. Maheshkumar H Kolekar, Autumn, EE101, 0-1-0-2, 46,
27. S Sivasubramani, Autumn, EE381, 3-0-0-6, 75,
28. S Sivasubramani, Autumn, EE101, 3-1-0-8, 100, I handled only tutorial lectures.
29. S Sivasubramani, Spring, EE280, 3-0-0-6, 86,
30. S Sivasubramani, Spring, EE281, 0-0-1-3, 43,
31. S Sivasubramani, Spring, EE549, 3-0-0-6, 5,
32. Yatendra Kumar Singh, Spring, EE203, 3-0-0-6, 75, Analog Integrated Circuits, BTech
33. Yatendra Kumar Singh, Autumn, EE540, 3-0-0-6, 24, Radio Frequency Integrated Circuits, MTech elective
34. Yatendra Kumar Singh, Spring, EE204, 0-0-3-3, 75, Analog Lab for BTechs
35. Saurabh Kumar Pandey, Autumn, EE201, 3-0-0-6, 87,
36. Saurabh Kumar Pandey, Spring, EE573, 3-0-0-6, 75,
37. Saurabh Kumar Pandey, Spring, MH502, 3-0-0-6, 12,
38. Udit Satija, Autumn, EE512, 3-0-0-6, 15, Feedback-4.37/5
39. Udit Satija, Autumn, EE520, 3-0-0-6, 19, 4.42/5 Feedback
40. Udit Satija, Spring, EE320, 3-0-0-6, 75, 3.75 Feedback
41. Udit Satija, Spring, EE321, 0-0-3-3, 75,
42. Sudhir Kumar, Spring, EE535, 3-0-0-6, 12, Feedback score 4.91 out of 5
43. Pramod Kumar Tiwari, Autumn, EE200, 3-0-0-6, 84,
44. Pramod Kumar Tiwari, Spring, EE507, 3-0-0-6, 19,
45. Kailash Chandra Ray, Autumn, EE516, 0-0-3-3, 7,
46. Kailash Chandra Ray, Autumn, EE563, 3-0-0-6, 21,
47. Kailash Chandra Ray, Spring, EE311, 0-0-3-3, 75,
48. Kailash Chandra Ray, Spring, EE309, 3-0-0-6, 75,
49. Pramod Kumar Tiwari, Spring, EE204, 0-0-3-3, 85,
50. Sumanta Gupta, Spring, EE341, 3-0-0-6, 75, Electromagnetic Theory and Applications
51. Sumanta Gupta, Autumn, EE330, 3-0-0-6, 75, Communication Systems
52. Sumanta Gupta, Autumn, EE532, 3-0-0-6, 15, Optical Communication
53. Sumanta Gupta, Autumn, EE331, 0-0-3-3, 75, Communication Laboratory
54. Sumanta Gupta, Spring, EE533, 0-0-3-3, 15, Communication System Engineering Lab-II

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Maheshkumar H Kolekar, PhD, Deep Learning Based Anomaly detection in traffic video sequences, Samprit Bose,,
2. Maheshkumar H Kolekar, PhD, Full duplex wireless communication using intelligent reflecting surfaces, Simmi Ayub, Dr Maheshkumar H kolekar,
3. Maheshkumar H Kolekar, PhD, Interference mitigation in wireless communication using sequences, Sushant Kumar Jha, Dr Maheshkumar H Kolekar,
4. Maheshkumar H Kolekar, Masters, Human Activity Recognition Using Convolution LSTM, Shubham,,
5. Maheshkumar H Kolekar, Masters, Fall Detection for Elderly Patients using Deep Learning techniques, Priyesh D Hemrom,,
6. Maheshkumar H Kolekar, Masters, Coronary Artery Disease Prediction using ECG and PCG, B Keerthi Tejaswini,
7. Maheshkumar H Kolekar, Masters, Automated detection of diabetic subject using deep learning methodology, A. Nagarani,,
8. Preetam Kumar, PhD, DFRFT-OFDM SCHEMES FOR WIRELESS COMMUNICATION, SHUBHAM ANAND, NA,
9. Preetam Kumar, PhD, NOMA BASED 5G COMMUNICATIONS, ASHISH, NA,
10. Maheshkumar H Kolekar, Bachelors, Parkinsons Disease Detection from EEG signals using Deep Learning, Ananya Varshney,,
11. Preetam Kumar, PhD, IRS BASED 6G COMMUNICATION, ADITYA KUMAR, DR AMIT KUMARSINGH,
12. S Sivasubramani, Bachelors, PROBABILISTIC POWER FLOW ANALYSIS USING APPROXIMATE METHODS, KYASA SAI SONAAL,,
13. Preetam Kumar, PhD, OFDM BASED RADAR COMMUNICATION, MANJIT SINGH, NA,
14. S Sivasubramani, Bachelors, SHORT TERM LOAD FORECASTING USING ARTIFICIAL NEURAL NETWORKS, PURVA GOSWAMI,,
15. Maheshkumar H Kolekar, Bachelors, Fall detection using RNN (LSTM) for smart wearable devices, Aryan Kumar,,
16. Preetam Kumar, PhD, DEEP LEARNING, KRISHNA MOHAN RAI,,
17. S Sivasubramani, Bachelors, OPTIMAL SITING AND SIZING OF DISTRIBUTED GENERATORS IN DISTRIBUTION SYSTEMS CONSIDERING UNCERTAINTIES, LUTFORRAHMAN,,
18. Jawar Singh, Masters, DCO and PLL drivers for GNSS applications, Adireddy Venkata Pavan Kumar Reddy,,
19. Maheshkumar H Kolekar, Bachelors, A-VAE: Attention based Variational Autoencoder for Traffic Video Anomaly Detection, Ashwani Yadav,
20. Preetam Kumar, PhD, SDR FOR WIRELESS COMMUNICATION, LUCKY KUMAR, DR AMIT KUMARSINGH,
21. S Sivasubramani, Bachelors, OPTIMAL PLACEMENT OF PLUG-IN HYBRID ELECTRIC VEHICLES IN RESIDENTIAL DISTRIBUTION GRID, PARIMI SAI SYAMA SRIKAR,,
22. Jawar Singh, Masters, SEMANTIC SEGMENTATION AND ITS APPLICATIONS IN REAL TIME, Sunil Kumar,,
23. Preetam Kumar, Masters, LLR BASED RECEIVER DESIGN, SHUBHAM SABUD,,
24. Jawar Singh, Masters, Placement and Routing through Deep Reinforcement Learning , Anil Kothapalli,,
25. Maheshkumar H Kolekar, Bachelors, Cardiac Arrhythmia Classification using DWT-based features and Deep Learning, Rishabh Agarwal,,
26. Preetam Kumar, Masters, VLSI DESIGN, JENY KHAN,,
27. Jawar Singh, PhD, Enhanced Thermoelectric Efficiency in Armchair Silicene Nanoribbons,

- ANKIT SIROHI, Ongoing
28. Maheshkumar H Kolekar, Bachelors, Image Super Resolution using GAN (SRGAN), Satyam Kumar,,
 29. Preetam Kumar, Bachelors, OBLIVIOUS TRANSFER FOR BEC CHANNEL, ANUJ YADAV,,
 30. Jawar Singh, PhD, Subthreshold Modeling of GAA MOSFET including the Effects of Process-Induced Inclined Sidewalls, Tripty Kumar, Dr P K Tiwari, Ongoing
 31. Preetam Kumar, Bachelors, DEEP LEARNING FOR OFDM COMMUNICATION, SHIVANI,,
 32. Jawar Singh, PhD, Design and Optimization of CMOS Devices for Dynamic Memories and Spiking Neural Networks, Neha Kamal, , Thesis Submitted and Received both Reports Satisfactory
 33. Preetam Kumar, Bachelors, NOMA COMMUNICATION, KISHAN KUMAR SINGH,,
 34. Jawar Singh, PhD, CAPACITORLESS MEMORY FOR NEUROMORPHIC APPLICATIONS: DESIGN AND SIMULATIONS, Alok Kumar Kamal, , Thesis Submitted and Received both Reports Satisfactory
 35. Preetam Kumar, Bachelors, MIMO-NOMA , GAURAV PRATAP SINGH,,
 36. Saurabh Kumar Pandey, PhD, Design and Fabrication of Eco-Freindly Perovskite Solar Cell, Raghvendra,,
 37. Jawar Singh, PhD, Devices and Circuits for Neuromorphic Computing , Akankhsa Thakur, , Ongoing
 38. Preetam Kumar, Masters, EDA TOOLS, ANU PRABHAKAR,,
 39. Saurabh Kumar Pandey, PhD, Modeling, Fabrication and Analysis of Memristor based devices, Chandraprakash,,
 40. Jawar Singh, PhD, Physically Unclonable Functions, Sankeep Kumar Pandey,, Ongoing
 41. Saurabh Kumar Pandey, Masters, Design and Modeling of Pressure Sensor devices, Lalit Singh Bisht,,
 42. Preetam Kumar, Bachelors, MIMO-NOMA COMMUNICATION, GAURAV PRATAP SINGH, NA,
 43. Udit Satija, PhD, Automated Electroencephalogram Artifacts Removal And Cognitive Task Classification Methods For Edge Devices Implementation, Ms. Manali Saini, Dr. Udit Satija, Co-Guide: Dr. Madhur Deo Upadhyay, Shiv Nadar University, Greater Noida, UP. Status: Defended in May 2022.
 44. Kailash Chandra Ray, PhD, Low Computational Complexity Harmonic Wavelet Transform: Algorithm, Architecture and Analysis, Pritiranjana Khatua,,
 45. Kailash Chandra Ray, PhD, Design and development of domain specific RISC-V based computing system, Satyam Shukla,,
 46. Kailash Chandra Ray, PhD, Development of wireless sensor node and system for monitoring of illegal activity in forest environment, Vivek Singh, Dr. Somnath Tripathy,
 47. Saurabh Kumar Pandey, PhD, Design and Optimization of Perovskite Solar Cell, Dolly Kumari,,
 48. Saurabh Kumar Pandey, PhD, Design and analysis of Sensor devices, Gaurav Kumar,,
 49. Ahmad Ali, Bachelors, Modified ADRC for time varying disturbances , Divya Shankar Anand,,
 50. Ahmad Ali, Bachelors, Tuning of PID controllers for stable and unstable FOPTD system, Amit Kumar,,
 51. Ahmad Ali, Bachelors, Dominant pole placement with PID controllers, Abhishek Kumar,,
 52. Ahmad Ali, Bachelors, Full state feedback LQR integral control of fuel cell integrated boost converter, Saikat Halder,,
 53. Ranjan Kumar Behera, PhD, MODELING, CONTROL, AND PERFORMANCE ANALYSIS OF SINGLE-STAGE GRID-CONNECTED INVERTER IN AC MICROGRID, JITENDRA KUMAR SINGH,,
 54. Ranjan Kumar Behera, PhD, CONTROL OF GRID

- INTEGRATED PV SYSTEM , SURYAPRAKASH, Dr Arijit Mondal,
55. Ahmad Ali, PhD, Unified ADRC for time varying disturbances, Faraz Haider, ,
 56. Ranjan Kumar Behera, Phd, Grid Integrated Renewal Energy , SWAPAN KUMAR BAKSI, ,
 57. Ahmad Ali, PhD, QFT based tuning for power electronic converters, Akansha Dwivedi, ,
 58. Ranjan Kumar Behera, Phd, EV Charger, PIYALI PAL, ,
 59. Ahmad Ali, PhD, All stabiling controller design for a class of processes, Md Imran Kalim, ,
 60. Ranjan Kumar Behera, Phd, ANN based fault Identification, PIYALI MONDAL, ,
 61. Ranjan Kumar Behera, Phd, Wireless Charger, RANJIB KUMAR BEHERA, ,
 62. Ranjan Kumar Behera, Phd, Dual EV motor Drives, AMIT KUMAR, ,
 63. Ranjan Kumar Behera, Phd, FPIM Drive, SESADRI BHUSAN SAHOO, ,
 64. Ranjan Kumar Behera, Masters, Magnetic Gear, Santan Suman, Dr Ranjan Kumar Behera,
 65. Ranjan Kumar Behera, Bachelors, Switch Allocation Problems In Electric Power Distribution Systems, Rohit Kumar, ,
 66. Sumanta Gupta, Bachelors, Intrusion Detection and Classification Using Optical Fibre, Aviral Agrawal, ,
 67. Ranjan Kumar Behera, Bachelors, Health Monitoring And Home Automation System using IoT, Ranveer Kumar, ,
 68. Sumanta Gupta, Bachelors, Design of Optical Interference Unit for Photonic Neural Network, Jay Kabra, ,
 69. Ranjan Kumar Behera, Bachelors, Urban Energy Management Using Machine Learning Techniques, Swati Kumari, ,
 70. Sumanta Gupta, Bachelors, Parameter Estimation in an Optical Fibre System Using Deep Learning, Yuvi Dhelawat, ,
 71. Ranjan Kumar Behera, Bachelors, Closed Loop Control of Solar PV with battery for isolated Power Supply, M Mahathi, ,
 72. Sumanta Gupta, Bachelors, K-means and Kplus-means based detection for multi-modulation format in FSO communication system using PD-NOMA, Aparsh Gupta, ,
 73. Ranjan Kumar Behera, Bachelors, Modeling and Managements of Battery, Vijay Kumar, ,
 74. Sumanta Gupta, PhD, Performance Estimation of Passive Silicon Photonic Devices Including Stress-Optic Effect, Sneha Kumari, , Defended The Thesis
 75. Ranjan Kumar Behera, Bachelors, Control Design of a PFC With Harmonic Mitigation Function for Small Hybrid AC/ DC Buildings, ADITYA RAO, ,
 76. Sumanta Gupta, PhD, EXPERIMENTAL INVESTIGATION OF POWER AND WAVELENGTH DIVISION MULTIPLEXED SHORT RANGE OPTICAL TRANSMISSION SYSTEMS, Debi Pada Jana, , Defended The Thesis
 77. Sumanta Gupta, PhD, High Capacity Free Space Optical Communication Systems, Abhishek Mani Shukla, ,
 78. Sumanta Gupta, PhD, Underwater Visible Light Communication, Gopal Krishna, ,
 79. Sumanta Gupta, PhD, Intrusion Detection System Using Optical Fiber, Shruti Verma, ,
 80. Pramod Kumar Tiwari, PhD, Semiconductor Devices, Bikash Singh, , Part Time
 81. Udit Satija, PhD, Respiratory Diseases Analysis (Exact Title TBD), Mr. Arka Roy, NA,
 82. S Sivasubramani, Phd, Optimal Planning of Electric Vechicle Charaging Stations in a Distribution Network , Arindam Sadhukhan, ,
 83. Udit Satija, PhD, Heart Sound and Cough Sound Analysis (Exact title TBD), Ms. Ayushi Pal, NA,
 84. Jawar Singh, PhD, Design of Silicon Root of Trust and Security Analysis of IoT Protocols, Swati, Rrof Jimson Mathew, Ongoing
 85. S Sivasubramani, Phd, Optimal Placement of DGs in Microgrids, Ramprakash, ,

86. Udit Satija, PhD, Specific emitter Identification for drone, Mr. Aditya Kumar Singh, NA,
87. Sanjoy Kumar Parida, Bachelors, Fault Detection and Classification using Neural Network, Avishek Singh, NA, NA
88. Sanjoy Kumar Parida, Bachelors, FREQUENCY MEASUREMENT USING PRONYs ESTIMATION METHOD, Pandranki Kiran, NA, NA
89. S Sivasubramani, Phd, Application of Game Theory in Smart Grids, Divya Rashmi, ,
90. Sanjoy Kumar Parida, Bachelors, A PHASOR MEASUREMENT ALGORITHM BASEDON PHASE-LOCKED LOOP, Pappu Siva Kumar, NA, NA
91. S Sivasubramani, Phd, Scheduling of Electric Vehicels, Jajna Prasad Sahoo, ,
92. Yatendra Kumar Singh, PhD, Matching Networks for RF Power Amplifiers, Shadab Rabbani, n/a, Part time Scholar
93. Sanjoy Kumar Parida, Bachelors, Adaptive Schemes for Distance Protection, Shreyansh Anand, NA, NA
94. Udit Satija, Masters, TBD, Mr. Kunja Kishore Mohalik, NA, NA
95. Kailash Chandra Ray, PhD, Monitoring and detection of Myocardial Infarction using signal processing technique, Garima Sahu, ,
96. Udit Satija, Bachelors, GDMD based R peak Detection and Deep Learning Based Arrhythmia Classification, Ms. Riya Kumari, NA,
97. Sanjoy Kumar Parida, PhD, Small Signal Stability Assessment and Enhancement of Inverter-Fed Autonomous Microgrid Using IMC, Naresh Kumar Vemula, NA, NA
98. Kailash Chandra Ray, PhD, Domain Specific RISC-V based embedded computing system, Sujeet Kumar, ,
99. Udit Satija, Bachelors, Compressed Autoencoder based EEG Denoising Framework for Edge Devices, Vaishnavi Goyal, NA,
100. Yatendra Kumar Singh, PhD, Dual Band RF Power Amplifiers, Sandip Kumar, n/a, Part Time Scholar
101. Kailash Chandra Ray, PhD, Hardware Accelerator for edge computing system, Punyesh Kumar Jha,
102. Udit Satija, Bachelors, Detecting Schizophrenia Using Deep Learning on EEG Spectrogram Images, Rishabh, NA,
103. Yatendra Kumar Singh, PhD, CMOS Frequency Synthesizers with Low jitter, Saurabh Kumar, n/a, Visvesvaray Scholar
104. Kailash Chandra Ray, PhD, RISC-V based LoRa LoRa stack and MODEM, Nilpa Kumari, ,
105. Udit Satija, Bachelors, Leaf disease detection and classification using convolutional neural network, Prashant, NA,
106. Sanjoy Kumar Parida, PhD, Novel Approaches for Mitigation of Circulating Current in Parallel Inverter Based Microgrid System, Md Asif Hasan, NA, NA
107. Yatendra Kumar Singh, PhD, CMOS Phase locked loop for generating low spur signals , Brajesh Kumar, n/a, Institute Scholar
108. Sanjoy Kumar Parida, PhD, Data Driven and Machine Learning Based Intelligent Protection Schemes for AC Microgrid, Adhishree, NA, NA
109. Yatendra Kumar Singh, PhD, Doherty RF Power amplifier, Amaresh Kumar, n/a, Institute Scholar
110. Sudhir Kumar, PhD, Audio Signal Analytics, Shadab Azam Siddique, ,
111. Yatendra Kumar Singh, PhD, Filtering RF Power Amplifier, Manoj Kumar, n/a, Institute Scholar
112. Yatendra Kumar Singh, Masters, FAST LOCKING INTEGER-N PLL FOR 5G APPLICATION, Shiksha Pancheswar, n/a,
113. Kailash Chandra Ray, PhD, Development of COTS based hardware platform for forest monitoring, Ritesh Kumar, ,
114. Yatendra Kumar Singh, Masters, PRE-SILICON VERIFICATION OF CYCLIC REDUNDANCY CHECK IP ON SoC & SoC ENVIRONMENT AUTOMATION, Ved Prakash Pandey, Vaibhav Gupta, STMicroelectronics, Noida
115. Yatendra Kumar Singh, Masters,

- METHODOLOGY FOR GENERATING AN INTERFACE FOR LIBERTY CHARACTERIZATION, Shilpi Sagar, Navneeth Krishnan, NXP Semiconductors, Noida
116. Yatendra Kumar Singh, Bachelors, Plagiarism Detector using Tokenization along with Hashing for Efficient Comparison, Nikhil Kumar, n/a,
117. Kailash Chandra Ray, PhD, Design and development of customized portable hardware for diagnosis of MI, AKANKSHA GUPTA, ,
118. Yatendra Kumar Singh, Bachelors, Design and simulation of charge pump PLL in LTspice, Prashant Meena, n/a,
119. Kailash Chandra Ray, Masters, VLSI Architecture of Re-configurable Restoring Divider and Square rooters, Jyoti Agrahari, ,
120. Kailash Chandra Ray, Masters, VHDL IMPLEMENTATION OF PARTIAL DE-COMPRESSION IN CO-PROCESSOR, Shashank Raj, , Deepankar Bhattacharjee (Mentor,IBM) , Girish Gopala Kurup (Mentor, IBM), Parvathi Rachakonda (Manager, IBM)
121. Yatendra Kumar Singh, Bachelors, High Frequency and Low-Power Phase-locked Loop, Prince Meena, n/a,
122. Pramod Kumar Tiwari, PhD, Semiconductor Devices, Rahul Raj, , Part Time
123. Kailash Chandra Ray, Bachelors, Design of Spatial Hardware Accelerator Architecture for Convolutional Neural Networks, Akash Balaji, ,
124. Pramod Kumar Tiwari, PhD, Investigation of Si/SiGe MOSFETs, Pushp Raj, ,
125. Kailash Chandra Ray, Bachelors, AUTOMATIC DIAGNOSIS OF SLEEP APNEA USING ARTIFICIAL NEURAL NETWORKS, Ashish Anjan, ,
126. Pramod Kumar Tiwari, PhD, Semiconductor Devices, Subir Das, Jawar Singh, ,
127. Kailash Chandra Ray, Bachelors, AUTOMATIC DIAGNOSIS OF SLEEP APNEA USING CONVOLUTIONAL NEURAL NETWORKS, Vaibhav Goel, ,
128. Pramod Kumar Tiwari, PhD, Exploration of novel MOSFET structures, S S Katta, ,
129. Pramod Kumar Tiwari, PhD, Modeling simulation and characterization of GAA MOSFETs, Asraf Maniyar, ,
130. Pramod Kumar Tiwari, PhD, Impact of Self-Heating on the electrical characteristics of NW GAA MOSFETs, PSTN Srinivas, NA,
131. Kailash Chandra Ray, Bachelors, AUTOMATIC DIAGNOSIS OF SLEEP APNEA USING DEEP LEARNING, Manimeli Rishikanth, ,
132. Shovan Bhaumik, PhD, IMPROVED GAUSSIAN APPROXIMATED FILTERS FOR NONLINEAR STATE ESTIMATION, Kundan Kumar, NIL,
133. Shovan Bhaumik, PhD, REMOTE STATE ESTIMATION WITH DELAYED AND MISSING MEASUREMENTS, Ranjeet Kumar Tiwari, NIL,
134. Shovan Bhaumik, PhD, Sensor management for underwater tracking, VED PRAKASH DUBEY, NIL,
135. Shovan Bhaumik, PhD, Underwater surveillance and tracking , ROHIT KUMAR SINGH, NIL,
136. Shovan Bhaumik, PhD, Battery state of charge estimation, JAFFAR ALI LONE, Nutan Kumar Tomar,
137. Shovan Bhaumik, PhD, Signal processing with towed array sonar, SHREYA DAS, NIL,
138. Shovan Bhaumik, PhD, State estimation with non Gaussian noise, JOYDEB SAHA, ,
139. Sudhir Kumar, Phd, Human Health Behavior Informatics With Mitigated Device Heterogeneity For Smart Healthcare Networks, Pritam Khan, , Completed in April 2022
140. Sudhir Kumar, Phd, Smart Device Localization In IoT Networks Under Fading Conditions With Mitigated Device Heterogeneity, Ankur Pandey, , Completed in Feb. 2022
141. Sudhir Kumar, Phd, Parameter Estimation in Molecular Communication Networks, Ajit Kumar, ,
142. Sudhir Kumar, Phd, Fog Computing in IoT Networks, Mohit Kumar Saxena, ,
143. Sudhir Kumar, Phd, Healthcare data analytics,

- Vikash Rajak,,
144. Sudhir Kumar, Phd, Leaf Disease Detection, Rahul Bhardwaj, Dr. Rajib Kumar Jha,
 145. Sudhir Kumar, Masters, Localization of Sensor in Mobile Environment, Vinita Kumari,,
 146. Sudhir Kumar, Masters, Analysis of error performance of LIS assisted NOMA, Nishu Kumar,,
 147. Sudhir Kumar, Bachelors, TPKE: Task Partitioning based Knapsack Optimization in Fog-Enabled IoT Networks, Anmol Chaddha, , Final Year B.Tech. Project
 148. Sudhir Kumar, Bachelors, Localization in IoT Networks Using Deep Learning, Soham Roy, , Final Year B.Tech. Project
 149. Sudhir Kumar, Bachelors, Wi-Fi CSI based Device-Free Human Activity Recognition System, Mohammad Zeeshan, , 3rd Year Design Project
 150. Sudhir Kumar, Bachelors, Audio Denoising using Discrete Wavelet Transform, Mayank Kumar, , 3rd Year Design Project
 151. Sudhir Kumar, Bachelors, Audio denoising using Fourier Transform-based Techniques, S N Krishnan,, 3rd Year Design Project
 152. Sudhir Kumar, Bachelors, Max-Margin Deep Generative Models for (Semi-)Supervised Learning, Utkarsh Pathak, , 3rd Year Design Project
 153. Maheshkumar H Kolekar, PhD, Abnormal Activity Recognition using Deep Learning, Nazia Aslam, ,
 154. Maheshkumar H Kolekar, PhD, Deep Learning Based Algorithms for Video Surveillance, Abhishek Ray,,
- Sponsored Research**
1. CCTV Storage Media Recovery and Enhancement Software Tool Using Artificial Intelligence Techniques (Ministry of Home Affairs, Directorate of Forensic Science Services, Govt of India, 22 Lakhs) PI: Dr Maheshkumar H Kolekar ; CO-PIs: Dr Samrat Mondal
 2. Design and Development of Silicon Artificial Neuron and Synapse for Brain Inspired Computing (SERB DST Govt of INDIA, 31.42 Lakhs) PI: Prof Jawar Singh ; CO-PIs: Dr P K Tiwari
 3. Statistical Modeling of Generic α - κ - η - μ Fading Model for Smart Device Localization (Science and Engineering Research Board (SERB), Government of India, 6.6 Lakhs) PI: Dr. Sudhir Kumar ; CO-PIs: NA
 4. A Novel Versatile Memristor Model for neural network/neuromorphic computing applications (SERB-DST, 6.6 Lakhs) PI: Saurabh Kumar Pandey ; CO-PIs: NA
 5. Design and Development of Silicon Artificial Neuron and Synapse for Brain-Inspired Computing Architectures (DST, 33 Lakhs) PI: Jawar Singh ; CO-PIs: Pramod Kumar Tiwari
 6. Design and Development of Memristor for Neuromorphic Application (SERB- DST, 21.7 Lakhs) PI: Saurabh Kumar Pandey ; CO-PIs: NA
 7. Auditory Scene Analysis in Audio Signal Processing using Deep Learning Methods (TIH IIT Patna, 30 Lakhs) PI: Dr. Sudhir Kumar ; CO-PIs: Prof. Jawar Singh
 8. Forensics analysis of video files for the possible existence of unauthorized manipulation (DST New Delhi (under NM-ICPS TIH IITP), 29.2 Lakhs) PI: Dr Samrat Mondal ; CO-PIs: Dr Maheshkumar H Kolekar
 9. Fault-Tolerant Control of Five-Phase Induction Motor Drive for Industrial Applications (MeitY, 23 Lakhs) PI: Dr Ranjan Kumar Behera ; CO-PIs: Dr. Sanjoy Kumar Parida
 10. Design and Implementation of Specific Emitter Identification System for Detecting Malicious UAVs/Drones and Transmitters (Science and Engineering Research Board (SERB), 28.91 Lakhs) PI: Dr. Udit Satija ; CO-PIs: NA
 11. Pathological Speech and Video Based Behaviour Analysis for Smart Healthcare (TIH-IIT Patna, 30 Lakhs) PI: Prof. Preetam Kumar ; CO-PIs: Dr. Udit Satija

12. Real-time Anomaly Detection in Traffic Video Streams (DST New Delhi (under NM-ICPS) TIH IIT Patna, 29 Lakhs) PI: Dr Maheshkumar H Kolekar ; CO-PIs: Dr Samrat Mondal
13. Establishing the Centre of Excellence in Govt Polytechnic Colleges (Department of Science and Technology, Govt of Bihar , 6700 Lakhs) PI: Prof Jawar Singh ; CO-PIs: Prof RK Mishra; Dr P K Tiwari
14. Energy Kit (TBI FIST IIT Patna, 10 Lakhs) PI: Dr Ranjan Kumar Behera ; CO-PIs: Suryaprakas; Piyal Pal; Swapan
15. Axial Flux Motor Design (NEMI-Neo Electric Mobility Innovations, 10 Lakhs) PI: Dr Ranjan Kumar Behera ; CO-PIs: NA
16. Development of Wearable Intelligent Electroencephalogram (EEG) Signal Analysis IoT Enabled System For Unsupervised Mental-Health Monitoring and Behavior Analysis (Indian Council of Medical Research (ICMR), New Delhi, 22 Lakhs) PI: Dr. Udit Satija ; CO-PIs: Dr. Sudhir Kumar
17. Development of Wearable Intelligent Electroencephalograms (EEG) Signal Analysis IoT-Enabled System for Unsupervised Mental-Health Monitoring and Behaviour Analysis (ICMR, 22.19 Lakhs) PI: Dr. Udit Satija ; CO-PIs: Dr. Sudhir Kumar
18. Leaf Disease Detection and Severity Estimation using Deep Learning based Image processing Method (Science and Engineering Research Board (SERB), Government of India, 21.5 Lakhs) PI: Dr. Rajib Kumar Jha ; CO-PIs: Dr. Sudhir Kumar
19. Modeling, Simulation and Fabrication of Novel GAA FETs (GITA/DST, 38.6 Lakhs) PI: Pramod Kumar Tiwari ; CO-PIs: NA
20. Passive Torpedo Tracking using Towed Array (DRDO, 29.25 Lakhs) PI: Dr Shovan Bhaumik ; CO-PIs: Dr Subrata Kumar
21. Application of Non-Convex Game in Demand Side Management of an Electric Utility (Science and Engineering Research Board, 6.6 Lakhs) PI: Sanjoy Kumar Parida ; CO-PIs: NA
22. Efficient Multicarrier Waveform Design for Next Generation Non-Orthogonal Multiple Access for Wireless Mobile Communication (MeitY, New Delhi, 64.57 Lakhs) PI: PREETAM KUMAR ; CO-PIs: NA
23. Wide Area Multi-Node Distributed Control to Improve Power System Stability for Indian Context (Science and Engineering Research Board, 55.2169 Lakhs) PI: Sanjoy Kumar Parida ; CO-PIs: NA
24. Deep Learned Detection and Classification of Multiple Intrusions Using WDM Intensity and Phase Sensitive OTDR in Underwater Environment (Defence Research and Development Organisation, 51.2004 Lakhs) PI: Dr. Arijit Mondal ; CO-PIs: Dr. Sumanta Gupta; Prof. Jimson Mathew
25. Geospatial Location Estimation and Navigation in Autonomous Sensor Networks/Smart City (Department of Science and Technology, Government of India, 28.85 Lakhs) PI: Dr. Sudhir Kumar ; CO-PIs: Dr. A. K. Singh
26. Design and Implementation of OAM Assisted Spectrally Efficient WDM Communication System Using Conventional Optical Fibers (Department of Science & Technology, IMPRINT-II, 76.4326 Lakhs) PI: Dr. Sumanta Gupta ; CO-PIs: Dr. V. R. Dantham
27. Design Development and Characterization of Blue LED and Visible Laser Based Underwater Optical Wireless Communication System (Defence Research and Development Organisation, 24.2486 Lakhs) PI: Dr. Sumanta Gupta ; CO-PIs: Prof. Jimson Mathew
28. SMDP-C2SD: Design and development of Wireless Sensor Node - System On Chip (WSN-SOC) for efficient sensing and monitoring applications (MeitY Delhi , 104.09 Lakhs) PI: Kailash Chandra Ray ; CO-PIs: Arijit Mondal

Consultancy Projects

1. Vetting of Electric Cable, Instrument Design and Drawing submitted by M/s JMC-JWL Joint Venture (Planning. Design & Monitoring UDHD,

- BUIDCO, Patna , 147500 Lakhs) PI: Dr Maheshkumar H Kolekar ; CO-PIs: Dr Sanjoy Kumar Parida
2. Vetting Technical Data Sheet of Electro Mechanical Equipment of STP at Maner, Patna (Sophisticated Industrial Materials Analytic Lab Pvt Ltd, New Delhi, 2.43375 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd Kaleem Khan; Dr. S. Sivasubramani
 3. Peer Review of the Design of Various Services for the Office Complex and Residential Quarters at Wadala (M/s Sikka Associates New Delhi, 13.275 Lakhs) PI: Dr. Mohd Kaleem Khan ; CO-PIs: Dr. S. Sivasubramani; Dr. Rajib K Jha; Dr. Subrata Hair; Dr. Om Prakash; Dr. Manabendra Pathak
 4. Impact Assessment of SmartGram(4G/LTE-A) deployment in villages. (UVACA DIGITAL SYSTEM PVT. LTD., BANGALORE, 147500 Lakhs) PI: Dr Preetam Kumar ; CO-PIs: NA
 5. Vetting of MEP Drawings of RIO and NEPHRO Block in IGIMS Patna (Universal Contractors and Engineers Private Limited, Greater Noida, U.P, 3.835 Lakhs) PI: = "Dr. ; CO-PIs: Dr. Mohd Kaleem Khan; Dr. Subrata Hait

Patents (filed/Granted)

1. Patent Name: A System for Generating Large Number of Random and Secure Bits, Status: Filed, Ref. No: 000, Patent Owner: Jawar Singh
2. Patent Name: LOWPASS TO BANDPASS SWITCHABLE AND TUNABLE FILTER, Status: Published, Ref. No: 201831026300 A, Patent Owner: Yatendra Kumar Singh

Awards

1. S Sivasubramani (2022-03-02) Best Paper Award
2. S Sivasubramani (2022-02-24) Senior Member
3. Saurabh Kumar Pandey (2022-02-10) Faculty Fellowship award in 35th VLSI Design and Embedded Systems (VLSID) Conference 2022
4. Saurabh Kumar Pandey (2021-12-28) Best Paper Award
5. Maheshkumar H Kolekar (2021-10-30) My name

- has appeared in the list of top 2% scientists of the world
6. Udit Satija (2021-10-25) Guest Associate Editor and Review Editor
 7. Udit Satija (2021-10-19) Top 2% Scientists of the world
 8. Saurabh Kumar Pandey (2021-09-24) BRICS Young Scientist
 9. Udit Satija (2021-09-13) BRICS Young Scientist Conclave 2021 under the Cyber-Physical Solutions theme"
 10. Saurabh Kumar Pandey (2021-08-16) Supervision of Best M.Tech Thesis
 11. Jawar Singh (2021-07-01) IETE Fellow
 12. Jawar Singh (2021-05-01) IEI Fellow
 13. Udit Satija (2021-04-17) IEEE Senior Member

Journals

1. Suman, C., Chaudhari, R., Saha, S., Kumar, S., & Bhattacharyya, P. (2022). Investigations in Emotion Aware Multimodal Gender Prediction Systems From Social Media Data. IEEE Transactions on Computational Social Systems., 33 (2021)
2. Khan, P., Ranjan, P., Singh, Y., & Kumar, S. (2021). Warehouse LSTM-SVM-Based ECG Data Classification With Mitigated Device Heterogeneity. IEEE Transactions on Computational Social Systems., 33 (2021)
3. Khan, P., Ranjan, P., & Kumar, S. (2021). AT2GRU: A Human Emotion Recognition Model with Mitigated Device Heterogeneity. IEEE Transactions on Affective Computing., 52 (2021)
4. Khan, P., Khan, Y., & Kumar, S. (2021). Activity-based tracking and stabilization of human heart rate using fuzzy FO-PID controller. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 3(2), 372-381., (2021)
5. Pandey, A., Sequeira, R., & Kumar, S. (2021). SELE: RSS-Based Siamese Embedding Location Estimator for a Dynamic IoT Environment. IEEE Internet of Things Journal, 9(5), 3672-3683., 122

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 8. Khan, P., Khan, Y., Kumar, S., Khan, M. S., & Gandomi, A. H. (2021). HVD-LSTM based recognition of epileptic seizures and normal human activity. *Computers in Biology and Medicine*, 136, 104684., 62 (2021)
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 10. Bhatt, S., Shukla, R., Pathak, C., & Pandey, S. K. (2021). Evaluation of performance constraints and structural optimization of a core-shell ZnO nanorod based eco-friendly perovskite solar cell. *Solar Energy*, 215, 473-481., 90 (2021)
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 12. Ranjan, R., Pareek, P., Gupta, M., & Pandey, S. K. (2021). Numerical Design and Frequency Response of all group-IV alloys based MQW Transistor Laser. *Journal of Computational Electronics* , 20, 17601768 . <https://doi.org/https://doi.org/10.1007/s10825-021-01732-5>, 24 (2021)
 13. Kumar, R. R., Raghvendra, Laha, R., & Pandey, S. K. (2021). Growth and Characterization of ZnO/MgZnO Thin Film Hetero Structures on p Si for Visible Light Detectors. *Semiconductor Science and Technology* , 36, 110 . <https://doi.org/https://doi.org/10.1088/1361-6641/ac0b96>, 42 (2021)
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 96. Agarwal, A., & Kumar, P. (2021). Analysis of Variable Bit Rate Spread FBMC-Based Integrated Satellite Terrestrial Broadcast System. *IEEE Systems Journal*, 16(1), 1301-1312., (2021)
 97. Kumari, S., Srinivas, K. K., & Kumar, P. (2020). Channel and carrier frequency offset equalization for OFDM based UAV communications using deep learning. *IEEE Communications Letters*, 25(3), 850-853., (2021)
 98. Dey, A., Pattanayak, P., Gurjar, D. S., & Kumar, P. (2021). Efficient pilot reuse algorithms for massive MIMO cellular system. *International Journal of Communication Systems*, 34(3), e4682., (2021)

Conference

1. Prakash, R., & Sivasubramani, S. (2021, December). Optimal Planning of DG and Shunt Capacitor in a Harmonic Distorted Distribution Network. In 2021 9th IEEE International Conference on Power Systems (ICPS) (pp. 1-6). IEEE., Duration-3 Days (2021)
2. Rashmi, D., & Sivasubramani, S. (2021, December). A Game Theoretic Approach for Profit Allocation Considering DG And FACTS Devices. In 2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC) (pp. 1-6). IEEE., Duration-3 Days (2021)
3. Prakash, R., Lokeshgupta, B., & Sivasubramani, S. (2022, March). Reliability Improvement of a Radial Distribution System Considering Load Modeling and Energy Management. In 2022 Second International Conference on Power, Control and Computing Technologies (ICPC2T) (pp. 1-6). IEEE., Duration-3 Days (2021)
4. Singh, C. P., Pandey, S. K., & Singh, J. (2021, May). Body Connection Assessment of MOS-Diodes for MOS-Quadrupler based RF Energy Harvesting Circuit. In 2021 Devices for Integrated Circuit (DevIC) (pp. 134-138). IEEE.,

- Duration-2 Days (2021)
5. Pathak, C., & Pandey, S. K. (2021, September). Comprehensive Study and Photovoltaic Performance Analysis of Eco-friendly Perovskite Solar Cell. In 2021 25th International Symposium on VLSI Design and Test (VDAT) (pp. 1-5). IEEE., Duration-3 Days (2021)
 6. Kumari, P., Somay, S., & Pandey, S. K. (2021, December). Design Perspective and Theoretical Analysis of Performance Parameters on CZTS Solar Cell. In 2021 IEEE 18th India Council International Conference (INDICON) (pp. 1-5). IEEE., Duration-3 Days (2021)
 7. 0, Duration-4 Days (2021)
 8. Somay, S., & Pandey, S. K. (n.d.). International Workshop on Physics of Semiconductor Devices (IWPSD). In Springer. Delhi. , Duration-4 Days (2021)
 9. Pandey, A., Sequeira, R., & Kumar, S. (2021, June). Joint Localization and Radio Map Generation using Transformer Networks with Limited RSS Samples. In 2021 IEEE International Conference on Communications Workshops (ICC Workshops) (pp.1-6). IEEE., 31 (2021)
 10. Suman, C., Chaudhari, R., Saha, S., Kumar, S., & Bhattacharyya, P. (2021, July). An Emotion-aided Gender Prediction System. In 2021 International Joint Conference on Neural Networks (IJCNN) (pp.1-8). IEEE., 57 (2021)
 11. Saxena, M. K., & Kumar, S. (2021, July). Differential Scale based Multi-objective Task Scheduling and Computational Offloading in Fog Networks. In 2021 National Conference on Communications (NCC) (pp.1-6). IEEE., 12 (2021)
 12. Kumar, A., & Kumar, S. (2021, December). Localization for Flow assisted Molecular Communication Networks in the Presence of Inter-Symbol Interference. In 2021 IEEE 18th India Council International Conference (INDICON) (pp.1-6). IEEE., 14 (2021)
 13. Zeeshan, M., Pandey, A., & Kumar, S. (2022, January). CSI-based Device-Free Joint Activity Recognition and Localization using Siamese Networks. In 2022 14th International Conference on COMMunication Systems & NETWORKS (COMSNETS) (pp.260-264). IEEE., 21 (2021)
 14. Kumari, T., Singh, J., & Tiwari, P. K. (2021, December). Impact of Non-Rectangular Cross-Section on Electrical Performances of GAA FETs. In 2021 IEEE 18th India Council International Conference (INDICON) (pp. 1-6). IEEE., Duration-3 Days (2021)
 15. Moparthy, S., Tiwari, P. K., & Saramekala, G. K. (2021, March). Genetic algorithm-based threshold voltage prediction of SOI JLT using multi-variable nonlinear regression. In 2021 International Symposium on Devices, Circuits and Systems (ISDCS) (pp. 1-4). IEEE., Duration-3 Days (2021)
 16. Patel, Payal, and Udit Satija. "Performance Analysis o Convolutional Neural Network Based EEG Epileptic Seizure Classification in Presence of Ocular Artifacts." 2021 National Conference on Communications (NCC). IEEE, 2021., NA (2021)
 17. Kalim, M. I., & Ali, A. (2021, June). A graphical technique of controller synthesis with desired closed-loop specifications. In 2021 29th Mediterranean Conference on Control and Automation (MED) (pp. 819-824). IEEE., 16 (2021)
 18. Biswal, T., & Parida, S. K. (2022, March). High impedance fault detection in Microgrid system using Discrete wavelet transform and Support vector machine. In 2022 Second International Conference on Power, Control and Computing Technologies (ICPC2T) (pp.1-6). IEEE., Duration-3 Days (2021)
 19. Kumar, K., Prakash, A., Parida, S. K., Ghosh, S., & Kumar, C. (2021, December). Coordinated Tuning of AVRs and PSSs for Local and Inter-Area Modes of Oscillation in Eastern Regional Grid of India. In 2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC) (pp. 1-6). IEEE., Duration-4 Days (2021)

20. Singh, A., & Parida, S. K. (2021, December). Implementation of Goertzel Algorithm for low cost Synchrophasor Design. In 2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC) (pp. 1-6). IEEE., Duration-4 Days (2021)
21. Haider, F., & Parida, S. K. (2021, December). Privacy Preservation and Classification of Energy Consumption into Theft Using Benign Dataset in Advanced Metering Infrastructure. In 2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC) (pp. 1-6). IEEE., Duration-4 Days (2021)
22. Singh, P., Prakash, A., Kumar, K., & Parida, S. K. (2021, December). Comparative Assessment of Spectral Analysis Methods for Characterizing Forced Oscillation. In 2021 9th IEEE International Conference on Power Systems (ICPS) (pp. 1-6). IEEE., Duration-3 Days (2021)
23. Kalita, K., Anand, S., & Parida, S. K. (2021, September). A Unified Fault Location Algorithm for Online and Offline Application Immune to Synchronized Measurement Errors. In 2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON) (pp. 1-6). IEEE., 16 (2021)
24. Anand, S., Kalita, K., & Parida, S. K. (2021, September). Backup Protection for Mutually Coupled Double-Circuit Multisection Nonhomogeneous Transmission Lines Using Wide-Area Measurements. In 2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON) (pp. 1-6). IEEE., 16 (2021)
25. Kumar, K., Prakash, A., Singh, P., & Parida, S. K. (2021, September). A novel svc based wide-area damping controller for inter-area oscillation. In 2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON) (pp. 1-6). IEEE., 16 (2021)
26. Prakash, A., Singh, P., Kumar, K., & Parida, S. K. (2021, September). Design of TCSC based optimal wide area power system stabilizer for low-frequency oscillation. In 2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON) (pp. 1-6). IEEE., 16 (2021)
27. Rao, S. S., Kolekar, M. H., & Martis, R. J. (2021, July). Frequency Domain Features Based Atrial Fibrillation Detection Using Machine Learning And Deep Learning Approach. In 2021 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT) (pp. 1-6). IEEE., Duration-3 Days (2021)
28. Rao, S. S., Kolekar, M. H., & Martis, R. J. (2021, October). A Deep Learning Based Assisted Tool for Atrial Fibrillation Detection Using Electrocardiogram. In 2021 2nd Global Conference for Advancement in Technology (GCAT) (pp. 1-4). IEEE., Duration-3 Days (2021)
29. Nazia Aslam, Maheshkumar H. Kolekar, "A Probabilistic Approach for Detecting Human Motion in Video Sequence using Gaussian Mixture Model", In International Conference on Emerging Frontiers in Electrical and Electronic Technology, 2022. (IEEE), Duration-3 Days (2021)

Text Books

1. Sudhir Kumar : Fundamentals of Internet of Things Published by Chapman and Hall/CRC Press, [https://www.routledge.com/Fundamentals-of-Internet-of-Things/ Kumar/p/book/9781032126449](https://www.routledge.com/Fundamentals-of-Internet-of-Things/Kumar/p/book/9781032126449) (2021)
2. Jawar Singh, Sudhir Kumar, Umakanta Choudhury (Editors) : Innovations in Cyber Physical Systems Published by Springer, <https://link.springer.com/book/10.1007/978-981-16-4149-7#aboutBook> (2021)
3. Jawar Singh, Sudhir Kumar, Umakanta Choudhury (Editors), : Innovations in Cyber Physical Systems, 2021 Published by Springer, (2021)
4. P K Singh, M. H. Kolekar, S Tanwar, S T Wierzcho, R K. Bhatnagar : Emerging Technologies for

Computing, Communication and Smart Cities
Published by Springer, (2021)

5. M H Kolekar and Vinod Kumar : Biomedical Signal Processing: A Machine Learning and Deep Learning Approach Published by CRC Press, Taylor and Francis Group, (2021)
6. P K Singh, Y. Singh, M. H. Kolekar, A K Kar, J K Chhabra, A Sen : Recent Innovations in Computing Published by Springer, (2021)

Book Chapters Published

1. Priyesh Ranjan, Pritam Khan, Linux Patel, Sephali Shradha Khamari, Ankush Ghosh, Rabindra Nath Saw, and Sudhir Kumar : Applications of AI and IOT in Renewable Energy: Weather-based solar power generation prediction and anomaly detection Published (2021)
2. Pritam Khan, Priyesh Ranjan and Sudhir Kumar : Artificial Intelligence for Future Generation Robotics: Data Heterogeneity Mitigation in Healthcare Robotic Systems leveraging Nelder-Mead Method Published (2021)
3. Pritam Khan, Yasin Khan and Sudhir Kumar : Computationally Intelligent Systems and their Applications: Single Identity Clustering-Based Data Anonymization in Healthcare Published (2021)
4. Sachin Kumar, Rashmi Ranjan and Saurabh Kumar Pandey : Proceedings in Mathematics & Statistics: Performance Analysis of MEMS Capacitive Pressure Sensor with Different Dielectrics Published, (2021)
5. Himanshu Dixit, Deepak Punetha and Saurabh Kumar Pandey : Proceedings in Mathematics & Statistics: Comparative Study and Analysis of Different Perovskite Solar Cells with Inverted Architecture Published, (2021)
6. Amitesh Kumar, Brajendra Singh Sengar, Shalu Chaudhary, Saurabh Kumar Pandey, Sushil Kumar Pandey, Md. Hasan Raza Ansari and Aaryashree : CMOS Analog IC Design for 5G and Beyond, Lecture Notes in Electrical Engineering:

Receiver Architectures for 5G: Current Status and Future Prospects Published, (2021)

7. Arun Kumar, and Pramod Kumar Tiwari: Cutting-Edge Research on Low-Dimensional Nanoelectronic Devices: Physics and Material Science Aspects: Silicon Nanotube FETs: From device concept to analytical model development, Published, (2021)
8. Adhishree Srivastava; S. K. Parida : Electric Power Systems Resiliency: Modelling, Opportunity, and Challenges: Enhancing relay resiliency in an active distribution network using latest data driven protection schemes Published (2021)
9. N Sharma, M H Kolekar : Artificial Intelligence for Neurological Disorders: Dementia Diagnosis with EEG using Machine Learning, Artificial Intelligence for Neurological Disorders Published, (2021)
10. A Ray and M H Kolekar : Applications based Understanding of Machine and Deep Learning Algorithms for Signal and Image Processing: Image Segmentation and Classification Using Deep Learning Published, (2021)

Educational Packages

Sl, Title, Level, Authors, Type, Online Link

1. EE486: Power System Protection, UG/PG, Sanjoy Kumar Parida, Video, <https://www.youtube.com/watch?v=I4uog-zKLHs&list=PLVtNXzzR8XDqU4cE9mygYdKT7EiwwW5Tp>
2. EE280: Electrical Machines, UG, Sanjoy Kumar Parida, Video, <https://www.youtube.com/watch?v=pT64cpbLHZk&list=PLVtNXzzR8XDpebGYh84hMZgyhnX8P6PzC>
3. EE549: Power System Dynamics and Control, PG, Sanjoy Kumar Parida, Video, <https://www.youtube.com/watch?v=TuumNsDSgdQ&list=PLVtNXzzR8XDp2o8cnXYTsNpHGupJ7J9Cc>
4. Radio Frequency Integrated Circuits, MTech, Yatendra K Singh, Video, <https://www.youtube.com/c/YatendraSingh>

Other Publications

SI, Title, Authors, Publisher, Online Link, Type

1. Draft guidelines to improve Equitable Access to Quality Education for SEDGs through Bridge Courses, Earn-while -Learn and Outreach Programmes, Prof. Manikrao Salunkhe, Prof Unnat Pandit, Prof Anil Prabhakar, and Prof Jawar Singh, UGC Report, , Report
2. Power Electronics and High Voltage in Smart Grid, Atma Ram Gupta; Nirmal Kumar Roy; Sanjoy Kumar Parida, Springer, <https://link.springer.com/book/10.1007/978-981-16-7393-1>, Conference Proceedings

Student Activities by Faculty Members

Departmental Activities

1. Sudhir Kumar - Digital Signal Processing B.Tech. lab in-charge, July 2018 - Till.
2. Sudhir Kumar - Department Ph.D. Coordinator, March 2021 - March 2022.
3. Udit Satija - PhD Coordinator.
4. S Sivasubramani - Design Lab In-Charge.
5. Udit Satija - Member-Library Advisory Committee.
6. S Sivasubramani - B.Tech Syllabus and Curriculum Revision.
7. Udit Satija - Member-Departmental Purchase Committee.
8. Saurabh Kumar Pandey - M.Tech Faculty advisor.
9. Sudhir Kumar - Member-Department Purchase Committee, April 2019-August 2021.
10. Yatendra Kumar Singh - Professor in Charge Basic and Digital Lab.
11. Yatendra Kumar Singh - Professor in Charge RF and Microwave Lab.

Institute Activities by Faculty Members

1. Sudhir Kumar - Member-Incubation Center, Nov 2018-Till.
2. Jawar Singh - Project Director TIH.
3. Udit Satija - Computer Center Purchase Committee Member.

4. Maheshkumar H Kolekar - Member, Governing Society, Incubation center.
5. Maheshkumar H Kolekar - Member, Institute Security Committee.
6. Maheshkumar H Kolekar - Member IAPC.
7. Maheshkumar H Kolekar - Member, Merit-cum-Means Scholarship committee for UG students.
8. Preetam Kumar - HEAD, COMPUTER CENTER, IIT PATNA.
9. Udit Satija - Member-House Allotment Committee.
10. Saurabh Kumar Pandey - Professor In-charge GIAN, SPARC and UBA.
11. S Sivasubramani - Chairman Sports.
12. Udit Satija - Warden-Raman and Married Hostel.
13. Sudhir Kumar - Member-TIH IIT Patna of Research Activities, Aug 2021-Till.
14. Sudhir Kumar - Professor in Charge (PIC) - External Relations (Alumni Affairs, International Students Affairs and Ranking), August 2021 - Till.
15. Sudhir Kumar - Professor in Charge (PIC)-Corporate Relations at IIT Patna, Jan 2020-July 2021.
16. Sudhir Kumar - Professor in Charge (PIC)-Tinkerers Lab at IIT Patna, May 2019-July 2021.
17. Yatendra Kumar Singh - Professor in Charge, Incubation Center.
18. Jawar Singh - Associate Dean R & D.
19. Sumanta Gupta - Associate Dean Resource.
20. Yatendra Kumar Singh - Professor in Charge Ranking.

Professional Activities by Faculty Members

1. Preetam Kumar - FACULTY SELECTION COMMITTEE MEMBER, JHARKHAND PUBLIC SERVICE COMMISSION.
2. Udit Satija - Invited talk on "Deep Learning for Biomedical Signals" in online Faculty Development Program at NIT Warangal, organized by department of ECE in association with Electronics & ICT academy, March 2022..

3. Preetam Kumar - FACULTY SELECTION COMMITTEE MEMBER, BIHAR PUBLIC SERVICE COMMISSION,PATNA.
4. Udit Satija - Invited talk on "Modulation Classification" in online FDP on Future Trends in Wireless Communications and Devices (FTWCD-2022) at Rajkiya Engineering College, Sonbhadra, February 2022..
5. Preetam Kumar - Planning & Monitoring Board, SRMIST, CHENNAI.
6. Sudhir Kumar - Chair-IEEE Patna Subsection, Jan 2022-Till.
7. Sudhir Kumar - Web chair-IEEE Patna Subsection, Jan 2021-Dec 2021.
8. Maheshkumar H Kolekar - Invited Member of Board of Governance, for Govt College of Engineering, Chandi, Bihar.
9. Udit Satija - Invited talk on "Biomedical Cyber-Physical System" in online workshop/training school at Indian Institute of Technology (IIT)-BHU funded by the Ministry of Science & Technology, Government of India, and Ministry of Science and ICT, South Korea, October 2021..
10. Udit Satija - Expert talk on "AI & Machine Learning for Bio-Signals in Five-Days FDP on Application of Artificial Intelligence (AI) in Electrical Engineering (EE) for Performance Improvement of Various Sectors (AAIEEPIVS-2021), Madanapalle Institute of Technology & Science, Chittor, AP, August 2021..
11. Udit Satija - Invited talk on "Compressed Sensing (CS) and Sparse Signal Decomposition (SSD)" in AICTE-QIP-STC-Advanced Applications in Signal Processing and Artificial Intelligence at Indian Institute of Technology (IIT) Bhubaneswar, July 2021..
12. Udit Satija - Invited lecture on "Modulation Classification" in AICTE Sponsored QIP Short Term Course on Digital Communication and Communication Networks at Indian Institute of Technology (IIT) Bhubaneswar, June 2021..
13. Saurabh Kumar Pandey - IEEE Senior Member.

Seminar, Conference and Workshop Organised

1. Jawar Singh - Co-coordinator :-Workshop on Promotion of Research Infrastructure and Entrepreneurship in Science and Technology (PRIEST), Indian Institute of Technology Patna (Co-coordinator) Participants: 200.
2. Udit Satija - Coordinator:-Deep Learning-Based Speech Processing Technique for Smart Health and Education System- Concept, Recent Trends, and Key Challenges, IIT Patna (Coordinator) Participants: 38.
3. Sanjoy Kumar Parida - Coordinator:-Workshop on Microgrid Operation, Control and Protection Under Smart Grid Environment, IIT Patna (Coordinator) Participants: 125.
4. Sudhir Kumar - Organizing co-chair:- Symposium on Emerging Technologies for 5G and Beyond , IIT Patna (Organizing co-chair) Participants: 100.

Other Academic Activities

1. Sudhir Kumar - Lectures in Short Term Course on IoT with AI and Data Science, IIT Patna, March 2022.
2. Ranjan Kumar Behera - 1.Invited speaker. Title of presentation is "Making of an Einstein"- An Inspirational Model., at that the KPR Institute of Engineering and Technology, Arasur, Coimbatore, India, on 2nd March 2022.
3. Ranjan Kumar Behera - 2.Invited speaker an AICTE sponsored one-week faculty development program (FDP). Title of presentation is How to prepare for unexpected Reversals, at that the Electrical Engineering Department (EED) of NIT Manipur, India, on 23rd February 2022.
4. Ranjan Kumar Behera - 3.Invited talk of an AICTE-ISTE Sponsored Online Induction/Refresher program on Planning Design of Smart Microgrid with Switched Network System, at that the Electrical Engineering Department (EED) of Bhilai Institute

- of Technology, Bhilai House, Durg, Chhattisgarh-491001, India, on 21st February 2022.
5. Ranjan Kumar Behera - 4. Invited talk in IEEE Young Professional on topics, Time Management, at that the Indian Institute of Technology Mandi, India, on 11th February 2022.
 6. Sudhir Kumar - Invited Webinar on Machine learning/Artificial Intelligent at Bhagalpur College of Engineering, Feb 2022.
 7. Ranjan Kumar Behera - 5. Invited talk of an AICTE-ISTE Sponsored Online Induction/ Refresher program on Optimization of Electric Vehicle Propulsion System Design, at that the Electrical Engineering Department (EED) of Thiagarajar Polytechnic College, Salem, India, on 6th January 2022.
 8. Sudhir Kumar - Presentation on Localization for Flow assisted Molecular Communication Networks in the Presence of Inter-Symbol Interference in INDICON 2021 held at IIT Guwahati, Dec 2021.
 9. Sudhir Kumar - Invited talk in Online Faculty Development Program on Neuronal Dynamic and Neuromorphic Computing at IIT Patna, Dec 2021.
 10. Sudhir Kumar - Nominated by Department of Science and Technology (DST), Government of India for an Invited talk on Geospatial Technology Development: The Future at 21st Edition of Geo-smart India - 2021, at Hyderabad International Convention Center, Dec 2021.
 11. Sudhir Kumar - Expert talk in 2 Days Online National Workshop On Big Data Analytics at SVNIT Surat, Dec 2021.
 12. Jawar Singh - UGC's New Education Policy Guideline Framing Committee Member.
 13. Ahmad Ali - Phd Examiner, Jamia Millia Islamia .
 14. Sudhir Kumar - Invited Talk in Five Days FDP on the Artificial Intelligence under the ATAL Academy Sponsored by AICTE at University College of Engineering and Technology, Vinoba Bhave University, Hazaribag, Jharkhand, Sep 2021.
 15. Sudhir Kumar - Invited talk in One Week Online Faculty Development Program on Recent Advancements and Future Scope of Research in Electrical & Electronics Engineering at Raj Kumar Goel Institute of Technology (RKGIT), Ghaziabad, Sep 2021.
 16. Maheshkumar H Kolekar - Delivered invited talk on, Deep Learning Techniques for Automated Screening of COVID-19, during AICTE-ATAL FDP program on Data Science and Deep Learning, IIIT Allahabad, July 20, 2021.
 17. Sudhir Kumar - Expert talk during the ATAL FDP on Artificial Intelligence in Biomedical Engineering: Current Trends and Future, Sant Longowal Institute of Engineering and Technology Punjab, July 2021.
 18. Sudhir Kumar - Invited talk in an AICTE ATAL online faculty development program (FDP) on Signal Processing and Machine Learning for AI-Driven Healthcare Systems held at IIT Patna, June 2021.
 19. Sudhir Kumar - Invited talk in an online STTP on AI/ML in 5G Communication Technology held at Ramrao Adik Institute of Technology (RAIT), Dr. D. Y. Patil Deemed to be University, Navi Mumbai, June 2021.

Any Other Information

1. Sudhir Kumar - Reviewers of Various IEEE Journals/Transactions/Letters. TPC members of several conferences.
2. Sudhir Kumar - Mentor for DRDO Young Scientist Lab.
3. Sudhir Kumar - Member of Dr. APJ Abdul Kalam Science City Patna.

HUMANITIES AND SOCIAL SCIENCES

Head: Dr. Priyanka Tripathi



DR. ADITYA RAJ

Associate Professor

Sociology of Education, Migration and Diaspora Studies, Development Discourse, Qualitative Research Design, Youth



DR. MEGHNA DUTTA

Assistant Professor

Applied Microeconomics, Panel Data and Cross-Section Econometrics, International Trade, Development Economics.



PROF. NALIN BHARTI

Professor

Macroeconomic Reforms, Labour Economics, WTO and India, International Economy



DR. PAPIA RAJ

Associate Professor

Health Care Management, Population and Public Health, Gender and Development, Environmental Health, Regional Development, Quantitative Methods



DR. PRIYANKA TRIPATHI

Associate Professor

Gender Studies, Indian Writing in English, Short Fiction, Censorship Studies



DR. RICHA CHAUDHARY

Associate Professor

Organizational Behavior, Human Resource Management, Workplace ethics, corporate social responsibility, Environmental sustainability.



DR. RAJENDRA N. PARAMANIK

Assistant Professor

Macro-dynamic modeling, Time Series Analysis, International Economics and Finance



DR. SWETA SINHA

Assistant Professor

Research areas- Sociolinguistics, Phonetics and Phonology, Forensic Linguistics and Language Typology



PROF. SMRITI SINGH

Professor

English language, Exploratory Action research, gamification and literature

Research Area

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Dr Sweta Sinha, Linguistics 2. Dr Sweta Sinha, Language in Society 3. Dr Sweta Sinha, Lesser Known Languages 4. Dr Sweta Sinha, Forensic Linguistics 5. Priyanka Tripathi, Gender Studies, South Asian Fiction, GeoHumanities 6. Smriti Singh, English Language Teaching 7. Smriti Singh, Diasporic Writings 8. Smriti Singh, Postcolonial Literature 9. Smriti Singh, Indian Writings in English 10. Rajendra Narayan Paramanik, International Economics, Time Series Econometrics and Finance 11. Aditya Raj, Sociology of Education, Migration and Diaspora Studies, Development Discourse, Qualitative Research Design, Youth 12. Meghna Dutta, ECONOMICS 13. Richa Chaudhary, Workplace incivility 14. Richa Chaudhary, Workplace loneliness | <ol style="list-style-type: none"> 15. Richa Chaudhary, Workplace gossip 16. Richa Chaudhary, Corporate Social Responsibility 17. Richa Chaudhary, Environmental sustainability 18. Richa Chaudhary, Authentic Leadership 19. Richa Chaudhary, Green Human Resource Management 20. Richa Chaudhary, Workplace ostracism 21. Nalin Bharti, Macroeconomic Reforms, International Trade, Labour Economics, WTO and India 22. Papia Raj, Health Care Management, Population and Public Health, Gender and Development, Environmental Health, Regional Development, Quantitative Methods |
|---|---|

Teaching

- SI, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information
1. Rajendra Narayan Paramanik, Autumn, HS301, 3-0-0-6, 37, Feedback Score-4.71

2. Rajendra Narayan Paramanik, Spring, HS302, 3-0-0-6, 27, Feedback score- 4.762
3. Meghna Dutta, Autumn, HS201, 3-0-0-6, 160,
4. Meghna Dutta, Spring, HS202, 3-0-0-6, 79,
5. Meghna Dutta, Autumn, HS504, 3-0-0-6, 3,
6. Dr Sweta Sinha, Autumn, HS 221, 3-0-0-6, 71,
7. Dr Sweta Sinha, Autumn, HS 725, 3-0-0-6, 7,
8. Dr Sweta Sinha, Spring, HS 103, 2-0.5-1-6, 510,
9. Dr Sweta Sinha, Spring, HS 224, 3-0-0-6, 151,
10. Dr Sweta Sinha, Spring, HS 322, 3-0-0-6, 86,
11. Richa Chaudhary, Spring, HS341, 3-0-0-6, 51, Course feedback= 4.634
12. Richa Chaudhary, Autumn, HS552, 3-0-0-6, 8, Course feedback= 4.918
13. Nalin Bharti, Autumn, HS201, 3-0-0-6, 160,
14. Richa Chaudhary, Spring, HS341, 3-0-0-6, 12, Course feedback= 5
15. Nalin Bharti, Spring, HS202, 3-0-0-6, 185,
16. Nalin Bharti, Autumn, HS451, 2-0-2-6, 5,
17. Nalin Bharti, Spring, HS702, 3-0-0-6, 6,
18. Papia Raj, Autumn, HS531, 3-0-06, 25, Co-taught with Dr.Aditya Raj
19. Papia Raj, Spring, HS232, 3-0-0-6, 160,
20. Papia Raj, Autumn, HS733, 3-0-0-6, 8,
21. Papia Raj, Spring, HS731, 3-0-0-6, 6, Co-taught with Dr. Aditya Raj
22. Aditya Raj, Autumn, HS231, 3-0-0-6, 162,
23. Aditya Raj, Autumn, HS531, 3-0-0-6, 27, Co-Instructor with Dr Papia
24. Aditya Raj, Autumn, HS732, 3-0-0-6, 10,
25. Aditya Raj, Spring, HS734, 3-0-0-6, 6,
26. Aditya Raj, Spring, HS331, 3-0-0-6, 100,
27. Smriti Singh, Autumn, HS513, 2-0-0-4, 175, Compulsory course for MTech and MSc students
28. Smriti Singh, Autumn, HS713, 3-0-0-6, 8, PhD course
29. Smriti Singh, Spring, HS514, 2-0-0-4, 124, Compulsory Course for PhD students

30. Priyanka Tripathi, Autumn, HS715 Modern Short Fiction in English, 3-0-0-6, 9,
31. Priyanka Tripathi, Spring, HS103 Communication Skills for Engineers, 2-0.5-1-6, 511,

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Nalin Bharti, PhD, NTMs in Agricultural Trade: India and its Trading Partners , Chandan Kumar, ,
2. Dr Sweta Sinha, Phd, Animal Imageries and their Conceptualization: Decoding Bengali Media Discourse, Monalisa Bhattacharjee, ,
3. Nalin Bharti, PhD, Trade Facilitation in South Asia, Mamta Kumari, , Defended her thesis .
4. Dr Sweta Sinha, Phd, Speaker Profiling: A Forensic Phonetic Investigation towards Gender Decoding and Dialect and Dialect Identification in Indian English Speech Patterns, Ravina Toppo, ,
5. Dr Sweta Sinha, Phd, Linguistic landscape and Gender (Tentative), Debraj Gogoi, ,
6. Nalin Bharti, PhD, Nudging for Hanwash with soaps in rural Uttar Pradesh , Smita Singh , , Field experiments is over in rural UP
7. Dr Sweta Sinha, Phd, Magahi Morphophonology (Tentative), Vinod Kumar, ,
8. Nalin Bharti, PhD, India-European Union Textile Trade , Toni Sharma, , Part time student. Data analysis is going on.
9. Dr Sweta Sinha, Phd, Fallacy in Media Discourse, Mohit Kumar, ,
10. Nalin Bharti, PhD, Modernization in Textile Industry in India , Kislay Kashyap , , Part time student .Data analysis is going on.
11. Dr Sweta Sinha, Phd, A Grammatocal Sketch of Sanzari Boro (Degree Awarded), Ratul Mahela,
12. Nalin Bharti, PhD, NTMs in South South Trade , Ayesha, ,

13. Priyanka Tripathi, PhD, Women and/in the 1971 War of Bangladesh in Feminist Narratives, Sanjib K Biswas,,
14. Nalin Bharti, PhD, FDI v FII in India's Infrastructure , Aditi , , Paper published and also communicated
15. Priyanka Tripathi, PhD, (Un)dressing the Identity in Select (H)ind(l)pendent Films: Une Perspective Feministe, Vinayak Yashraj,,
16. Nalin Bharti, NULL, Access to Medicine in India under TRIPS , Mritunjay Kumar , , Paper published and also communicated
17. Priyanka Tripathi, PhD, Mapping Migrations: Space and Subjectivity in the Writings of Amitava Kumar, Ajit Anand,,
18. Priyanka Tripathi, PhD, Reconstructing Allahabad: Mapping the Socio-Spatial Interactions in Select Writings of Neelum Saran Gour, Chhandita Das,,
19. Priyanka Tripathi, PhD, Feminist Concerns in Contemporary Indian Women's Crime Fiction , Febin Vijay,,
20. Nalin Bharti, PhD, Natural farming in Jhargram (West Bengal), Dhananjay Patra , , Field work is going on
21. Priyanka Tripathi, PhD, Reconceiving and Reconstructing Female fertility and Artificial Reproductive Technology in Select Indian writings, Soumya Kashyap,,
22. Nalin Bharti, PhD, RDFDI in India , Saurav , , Data collection is going on
23. Priyanka Tripathi, PhD, Traversing the Trails of Gender through New-Age English Childrens Literature in India, Sridhipa Dandapat,,
24. Priyanka Tripathi, PhD, Narrativizing Age and Experience of Women in Select Indian Texts, Debashrita Dey,,
25. Priyanka Tripathi, PhD, Legal and Constitutional tour of Gendered Discourses: A critical study of select Indian texts, Navin Sharma,,
26. Priyanka Tripathi, PhD, Social Media Celebrityship and the Gen-Z Fandom in Modern India, Parvathy N,,
27. Priyanka Tripathi, PhD, Feminist Retellings of female characters in Ramayana, Bhagya Shree Nadamala,,
28. Priyanka Tripathi, PhD, Beyond the Binary: An Epistemological Investigation into the Works of South Asian Feminist Dystopian Fiction in English, Argha Basu,,
29. Priyanka Tripathi, PhD, Decoding Domestic Spaces and Construction of Femininity: A Case Study of Baramulla (Kashmir, India) District, Hilal Ahmad Reshi,,
30. Smriti Singh, PhD, ELT, Sujay Saha , , Thesis submitted
31. Smriti Singh, PhD, Translanguaging, Samrat Bisai,,
32. Smriti Singh, PhD, Myth in Literature, Sanatan Mandal,,
33. Smriti Singh, PhD, Cosmopolitan Literature, Subham Ghosh,,
34. Smriti Singh, PhD, Indentured Writings, Nidhi Jha,,
35. Smriti Singh, PhD, Animal in Literature, Moumita Bala,,
36. Smriti Singh, PhD, Regional Theatre, Manu Mohan,,
37. Smriti Singh, PhD, Posthumanism, Bipasha,,
38. Smriti Singh, PhD, Myth and Comic Literature, Sohini Naiya,,
39. Smriti Singh, PhD, Education and Disability, Chhaya Rana,,
40. Richa Chaudhary, Phd, Loneliness in the Indian Workplace, Mantasha Firoz, NA, Synopsis given on 18th May 2022. The submission will be done by 17th July 2022.
41. Richa Chaudhary, Phd, Workplace Gossip: Motives and Consequences, Aamna Khan, NA, Registration seminar over. In the fourth year of PhD. In the stage of thesis writing

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| <p>42. Richa Chaudhary, Phd, Career success protection and maintenance behaviors, Zeba Rehman, NA, Registration seminar completed.</p> <p>43. Richa Chaudhary, Phd, Incivility in the Indian Workplace, Madhu Lata, NA, In the 5th Year of PhD. Writing thesis. Will be submitting thesis by year end.</p> <p>44. Richa Chaudhary, Phd, Understanding the relationship between Authentic leadership and Work Engagement: , Chinmay Panda, NA, He is a part time student. The registration seminar is over. Chapter writing is in process.</p> <p>45. Rajendra Narayan Paramanik, Phd, Analysis of Indian Business Cycle, Zeeshan N. Ansari , ,</p> <p>46. Rajendra Narayan Paramanik, Phd, International Business Cycle Analysis , Kundan Kumar , ,</p> <p>47. Aditya Raj, PhD, Left Behind Children of Migrants, Madhu M Gohain , ,</p> <p>48. Rajendra Narayan Paramanik, Phd, Health Economics, Kumari Youkta , ,</p> <p>49. Aditya Raj, PhD, Teacher Education, Rashmi , ,</p> <p>50. Aditya Raj, PhD, Bihari Migrants in Kerala, C B Tom , ,</p> <p>51. Aditya Raj, PhD, Nepalese in Bihar, B Bhujel , ,</p> <p>52. Aditya Raj, PhD, Bihari Migrants in Kashmir , H Reshi , , changed supervisor</p> <p>53. Aditya Raj, PhD, Left Behind of Migrants, Bljoy B , ,</p> <p>54. Papia Raj, PhD, Children's Health, Puja Gupta , ,</p> <p>55. Papia Raj, PhD, Health Care, Kundan Kumar , ,</p> <p>56. Aditya Raj, PhD, Madrasa Education, Anwar A Ansari , ,</p> <p>57. Aditya Raj, PhD, Migrants from Jharkhand, Shubham Kumar , ,</p> <p>58. Papia Raj, PhD, Health seeking behaviour, Puja Krishna , ,</p> <p>59. Aditya Raj, PhD, Coursework, Anuska Sinha , ,</p> <p>60. Papia Raj, PhD, Maternal Health, Nilanjana Gupta , ,</p> | <p>61. Papia Raj, PhD, Course work, Anwesha Sarkar , ,</p> <p>62. Papia Raj, PhD, Course work, Tribarna Roy Pakhadhara , ,</p> <p>63. Meghna Dutta, Phd, LABOUR MIGRATION: IMPACT ON WAGES, ASPIRATION AND WELFARE, Shreya Nupur , ,</p> <p>64. Meghna Dutta, Phd, ESSAYS ON INFORMALITY A CONTEMPORARY PERSPECTIVE, Ruchi Kumari , ,</p> <p>65. Meghna Dutta, Phd, A STUDY OF BIHARS MIGRATION PATTERN IN THE CONTEXT OF CHANGES IN INDIA'S GOVERNING STRUCTURE FROM 1991-2015, Rohit Ranjan , ,</p> <p>66. Meghna Dutta, Phd, FIRM DYNAMICS AND CREDIT-CONSTRAINTS : ESSAYS ON INDIAN FIRMS, Debarati Ghosh , ,</p> <p>67. Meghna Dutta, Phd, Maternal Health, Subhasree Ghatak , ,</p> <p>68. Meghna Dutta, Phd, A SOCIOLOGICAL STUDY OF BIHARI MIGRANTS IN KERALA, CHRIS BASTIAN TOM , ,</p> <p>69. Meghna Dutta, Phd, Women Education, Arun Jose , ,</p> |
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Sponsored Research

1. Institutions and Clusters in Handloom Weaving Industry: Evidence from Uttar Pradesh and West Bengal (ICSSR , 0 Lakhs) PI: Manas R Bhowmik ; CO-PIs: Rajendra N. Paramanik and Priyabrata Sahoo
2. Mapping Domestic Abuse and Violence in the time of Covid-19: A Study from Bihar (ICSSR, 1 Lakhs) PI: Priyanka Tripathi ; CO-PIs: Prabha S Dwivedi
3. Farmers' income: Issues determinants and strategies (ICSSR, 0 Lakhs) PI: N.S Dhar ; CO-PIs: Meghna Dutta
4. Diffusion of Environmental Sustainability Innovations in hospitals of Patna region in Bihar state of India (ICSSR under IMPRESS Scheme of MHRD, 1575000 Lakhs) PI: Richa

Chaudhary; CO-PIs: NA

5. mHealth technologies for gender empowerment in Bihar (ICSSR, 7.35 Lakhs) PI: Dr. Papia Raj; CO-PIs: NA

Consultancy Projects

1. Speech Recognition in Agriculture and Finance for the poor in India (Bill and Melinda Gates Foundation, 0 Lakhs) PI: Dr. Prasanta Kumar Ghosh; CO-PIs: NA

Awards

1. Aditya Raj (2022-02-01) LIFE MEMBERSHIP
2. Dr Sweta Sinha (2021-11-14) Certificate of Excellence and Bharat Gaurav Shiksha Puraskar
3. Aditya Raj (2021-11-01) EXPLORE: JOURNAL OF RESEARCH
4. Aditya Raj (2021-11-01) THE JOURNAL OF SOCIAL AND ECONOMIC STUDIES
5. Richa Chaudhary (2021-10-28) Ranked among top 2% scientists in the world by Stanford university for the year 2021
6. Dr Sweta Sinha (2021-05-17) Grant for conducting Faculty Development Programme

Journals

1. Paramanik R N and Bhowmik Manas R. (Forthcoming) Role of entrepreneurship in social enterprises and master weaver enterprises: case of handloom weaving industry, India, InderScience, (2021)
2. Paramanik, R. N., Bhandari, A., & Kamaiah, B. (2021). Financial cycle, business cycle, and policy uncertainty in India: An empirical investigation. *Bulletin of Economic Research*, (2021)
3. Ghosh, D. and Dutta, M. "Investment Behaviour under Financial Constraints: a study of Indian firms, *SN Business and Economics*, Vol. 1, No. 8, pp. 1-15, (2021)
4. Ghosh, D. and Dutta, M., "Credit Constraints and Increased Firm-level Production

Fragmentation Evidence from India", *Global Journal of Emerging Market Economies*. <https://doi.org/10.1177/09749101211067722>, (2021)

5. Ghosh, D. and Dutta, M., "Impact of Financial Performance on Environmental Sustainability in the Presence of Credit Constraints: Evidence from Indian Manufacturing Firms", *Journal of Sustainable Finance and Investment* (accepted), (2021)
6. Mahela, Ratul & Sweta Sinha (2021),, 11 (2021)
7. Bhattacharjee, Monalis a & Sweta Sinha, (2021), "Ecosophy through Jataka Tales", in *Language & Ecology*, International Ecolinguistics Association, NA (2021)
8. Nusrat, Begum & Sweta Sinha (2021), "The Language of the Divine Space" in *Dialectologia*, Forthcoming. <http://www.publicacions.ub.edu/revistes/dialectologia26/forthcoming.as>, 6 (2021)
9. Mahela, Ratul & Sweta Sinha, (2021), "Morphological Processes in SanzariBoro", in *Journal of Language and Linguistic Studies*,, 19 (2021)
10. Lata, M., and Chaudhary, R. (corresponding author) (2022). Workplace Spirituality and Employee Incivility: Exploring the Role of Ethical Climate and Narcissism. *International Journal of Hospitality Management*. 102, 103178, <https://doi.org/10.1016/j.ijhm.2022.103178> (ABDC-A*, Impact factor: 9.237, Elsevier, H5 index: 86, SSCI)., 86 (2021)
11. Lata, M. and Chaudhary, R. (corresponding author) (2021). Workplace Spirituality and Experienced Incivility at Work: Modeling Dark Triad as a Moderator, *Journal of Business Ethics*, 174, 645-667. (Springer, Impact factor= 6.430, H-5 index= 105, An FT 50 and A Category journal rated by ABDC, SSCI listed, Scopus Indexed)., 105 (2021)
12. Chaudhary, R., Lata, M. and Firoz, M. (2022). Workplace Incivility and its Socio-

- demographic Determinants in India. *International Journal of Conflict Management*, 33(3), 357-384. <https://doi.org/10.1108/IJMA-02-2021-0023> (Impact Factor= 2.547, SSCI, ABDC-A, H5 index: 20), 20 (2021)
13. Firoz, M. and Chaudhary, R. (corresponding author) (2021). The impact of workplace loneliness on employee outcomes: what role does psychological capital play?. *Personnel Review*, 51(4), 1221-1247 (<https://doi.org/10.1108/PR-03-2020-0200>) (Scopus listed and an A Category journal rated by ABDC, SSCI, Impact factor: 3.434, H-5 index=37), 37 (2021)
 14. Firoz, M., Chaudhary, R. (corresponding author), and Lata, M. (2021). The socio-demographic determinants of workplace loneliness in India. *Evidence-based HRM: a global forum for empirical scholarship*, 10(4), 17-34. (Emerald Publishers, ABDC-B, H5-index=17, Scopus, 17 (2021)
 15. Kumar, C. and Chaudhary, R. (2021). Environmental Sustainability Practices in Hospitals of Bihar. *Current Research in Environmental Sustainability*, 3., 100106, <https://doi.org/10.1016/j.crsust.2021.100106>, NA (2021)
 16. Chaudhary, R. and Kumar, C. (2021). Innovations and eco-sustainability: exploring the role of organizational environment. *Social Responsibility Journal*, <https://doi.org/10.1108/SRJ-12-2020-0497> (Emerald, Scopus, ESCI, ABDC-B, H-5 index=33), 33 (2021)
 17. Ghosh, S. & Singh, S. (2021). Revisiting the Metanarrative of Two-nation Theory: A Postmodern Study of Salman Rushdie's *Midnight's Children*. *Pertanika Journal of Social Sciences and Humanities*, 29(2), 20 (2021)
 18. Jha, N., & Singh, S. (2021). Challenging Absoluteness and Fixities in the Post-9/11 World. *Agathos: An International Review of the Humanities and Social Sciences*, 12(2), 5 (2021)
 19. Mandal, S., & Singh, S. (2021). Man, Nature, and War: A Post-pastoral Perspective of Easterine Kire's *Mari*. *Literary Oracle*, 4(1), 105112., (2021)
 20. Mandal, S., & Singh, S. (2021). Reconstructing the Past through Personal Hi(story): War, Memory, and Naga Identity in Easterine Kire's *Mari*. *Dialog*, 37, 179193., 7 (2021)
 21. Mandal, S., & Singh, S. (2021). Asserting Naga Cultural Identity and Challenging Colonialism in *Sky is My Father: A Naga Village Remembered*. *Alternative: An International Journal of Indigenous People*, 18(1), 203209., 16 (2021)
 22. Saha, S., & Singh, S. (2021). Investigating the Development of Speaking Skill through Language Games in Technologically Underequipped EFL Classroom. *MEXTESOL Journal*, 45(3), 115., (2021)
 23. Kumar, M., Fatma, A., & Bharti, N. (2022). Access to Medicines and Medical Equipment during COVID-19: Searching Compatibility between the WTO and the WHO. *Access to Medicines and Medical Equipment during COVID-19: Searching Compatibility between the WTO and the WHO*, 78(1), 6887. <https://doi.org/https://doi.org/10.1177/09749284211068461>, 9 (2021)
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25. Kumari , M., & Bharti, N. (2020). Estimating the impact of COVID-19 on South Asia's exports: does trade facilitation matter now more than ever? . *Transnational Corporations Review* , 13 (4), 406421. <https://doi.org/https://doi.org/10.1080/19186444.2021.1911280> , 14 (2021)
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27. Raj, Aditya and S Alam (2022) Witch-hunting and role of education, *Indian Anthropologist* Vol. 57. No. 2, (2021)
28. Krishna, P and Aditya Raj (2002) , (2021)
29. Bhujel, B and Aditya Raj (2002), (2021)
30. Raj, P and A Raj, (2021)
31. Tripathi, P. (2022) Cartographies of Sexual Violence from Delhi to Hathras: An Intersectional Feminist Understanding. *Gender, Place & Culture* (Taylor & Francis, Scopus Listed), (2021)
32. Dey, D and Tripathi, P. (2022). Art and Feminine Iconography: Locating the Aesthetic/Profane body in the Bharat Mata Paintings. *National Identities* (Taylor & Francis, Scopus Listed), (2021)
33. Kashyap, S., & Tripathi, P. (2022). Woman First: Exploring the Precarity of Motherhood in One Part Woman (2010) and Parched (2015). *Quarterly Review of Film and Video*, 1-19. <https://doi.org/10.1080/10509208.2022.2065874.3>. Kashyap, S., & Tripathi, P. (2022). Woman First: Exploring the Precarity of Motherhood in One Part Woman (2010) and Parched (2015). *Quarterly Review of Film and Video*, 1-19. <https://doi.org/10.1080/10509208.2022.2065874.>, (2021)
34. Kashyap, S., & Tripathi, P. (2022). Beyond baby-making: review of the film Mimi (2021). *Media Asia*, 10.1080/01296612.2022.2045829 (Taylor & Francis, Scopus Indexed), (2021)
35. Basu, Argha and Tripathi, P. (2022). Calibrating the Feminine and the Speculative in Selective Short Stories of Vandana Singh. *Critique: Studies in Contemporary Fiction*. 10.1080/00111619.2022.2057213. (Taylor & Francis, Scopus listed), (2021)
36. Anand, Ajit and Tripathi, P. (2022) Anand, Ajit and Tripathi, Priyanka. "Topoanalysis and the City Space in the Literary Writings of Amitava Kumar" *Open Cultural Studies*, vol. 6, no. 1, 2022, pp. 64-75. <https://doi.org/10.1515/culture-2022-0143> (Scopus listed), (2021)
37. Kashyap, Soumya, and Tripathi, P. (2022) Were just business. Were not people: Revisiting Surrogacy through Amulya Malladis, *A House for Happy Mothers Journal of Gender Studies*. 10.1080/09589236.2022.2041408 (Taylor & Francis, Scopus listed)7. Kashyap, Soumya, and Tripathi, P. (2022) Were just business. Were not people: Revisiting Surrogacy through Amulya Malladis, *A House for Happy Mothers Journal of Gender Studies*. 10.1080/09589236.2022.2041408 (Taylor & Francis, Scopus listed), (2021)
38. Bhattacharjee, Partha, and Tripathi, P. (2022). Spit bubbles, speech bubbles, and COVID-19: Creating comics in the age of post-infection India. *Journal of Visual Communication in Medicine*, 2022. 10.1080/17453054.2022.2037408 (Taylor & Francis, Scopus listed)8. Bhattacharjee, Partha, and Tripathi, P. (2022). Spit bubbles, speech bubbles, and COVID-19: Creating comics in the age of post-infection India. *Journal of Visual Communication in Medicine*, 2022. 10.1080/17453054.2022.2037408 (Taylor & Francis, Scopus listed), (2021)
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40. Dey, D and Tripathi, P. (2021). Reconceptualising the (In) Visible Aging Self of Women in Select Bengali Films. *South Asian Popular Culture*. 10.1080/ 14746689.2021.1965312. (Taylor & Francis, Scopus listed), (2021)
41. Das, C and Tripathi, P. (2021). Place-Identity, People, and Existence: Reorienting Heideggerian Dasein towards Postmodern Literary Geography of Allahabad City in Neelum Saran Gours Select Narratives" *Interdisciplinary Literary Studies: A Journal of Criticism and Theory*, vol 23, no. 4, pp. 463-476 (PENN State University Press, Scopus listed) , (2021)
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43. Das, C and Tripathi, P. (2021). Poetics and Politics of Literary Cartography: Secular Allahabad in Neelum Saran Gours Invisible Ink and Requiem in Raga Janki. *GeoHumanities*. <https://doi.org/10.1080/2373566X.2021.1903813> (Taylor & Francis), (2021)
44. Das, C and Tripathi, P. (2021). Through the lens of Gender: Makeover of Atmanirbhar Bharat, Labour Migration and Covid-19 Pandemic. *Indian Journal of Public Administration* (SAGE publications) DOI: 10.1177/001955612111035377, (2021)
45. Anand, A and Tripathi, P. (2021). Analyzing The Abject: A Negotiation Through Extremism And Subalternity in Amitava Kumars Husband Of A Fanatic. *Journal for the Study of Religions and Ideologies*, vol. 20, issue 60, pp 34-47 (Scopus Listed), (2021)
46. Das, C and Tripathi, P. (2021). Exploring the Margins: Reconstructing a Courtesans life in Neelum Saran Gours Requiem in Raga Janki. *CLCWeb: Comparative Literature and Culture*, vol. 23, no. 4 (Purdue University, Scopus Listed) , (2021)
47. Yashraj, V and Tripathi, P. (2021). Its About Me!: Un(dress)ing Hindi Celluloid Feminine Subjective I-dentity. *Media Watch*, DOI: 10.15655/mw/2021/v12i3/165211, (2021)
48. Dey, D and Tripathi, P. (2021). Rethinking Solidarity: De (Gendered) Empathy and (Inter) Subjectivity in Rituporno Ghoshs Films. <https://replito.pubpub.org/pub/r4km6zql/rel ease/1>, (2021)
49. Pal, B, Partha Bhattacharjee, and Tripathi P. (2021). Gendered and Casteist Body: Cast(e) ing and Castigating the Female Body in select Bollywood Films. *Journal of International Womens Studies*, vol. 22, no. 10 (Bridgewater State University, Scopus listed), (2021)
50. Kashyap, S and Tripathi, P. (2021). A Grim Future of Mothers-To-Be in Post-COVID India Feminism in India, <https://feminisminindia.com/2021/08/12/covid-19-maternal-health-india/>, (2021)
51. Bhattacharjee, P and Tripathi, P (2021). Performance beyond the Panel: (S)exploitation and Trafficking in Ram Devinenis Priya and the Lost Girls. *Journal of Gender Studies*. [https://doi.org/ 10.1080/10.1080/09589236.2021.1950660](https://doi.org/10.1080/10.1080/09589236.2021.1950660). (Taylor & Francis, Scopus listed), (2021)
52. Vijay, F and Tripathi, P. (2021). Interrogating Strategies of Justice and Racial Politics: A Post-colonial Reading of Abir Mukherjees A Rising Man. *Rupkatha Journal of Interdisciplinary Studies in Humanities*, DOI: 10.21659/rupkatha.v13n2.20 (Scopus listed), (2021)
53. Khan, T and Tripathi, P. (2021). Editorial. *Rupkatha Journal of Interdisciplinary Studies*

- in Humanities, vol 13, no.1 (Scopus listed), (2021)
54. Bhattacharjee, P and Tripathi, P. (2021). Integrating medical education with graphic narration: interview with Dr. Priyanga Singh. *Journal of Graphic Novels and Comics*, <https://doi.org/10.1080/21504857.2020.1870513> (Taylor & Francis, Scopus listed), (2021)
 55. Bhattacharjee, P. Tripathi, P. and Pal, Bidisha (2021). The problem of gender violence in India was not a legal problem, but a cultural problem: a conversation with comics creator Ram Devineni. *Journal of Graphic Novels and Comics*, <https://doi.org/10.1080/21504857.2021.1918736> (Taylor & Francis, Scopus listed), (2021)
 56. Bhattacharjee, P. and Tripathi, P. (2021). Discovering the Self: In conversation with Dyuti Mittal. *Journal of Graphic Novels and Comics*, <https://doi.org/10.1080/21504857.2021.2010998> (Taylor & Francis, Scopus listed), (2021)
 57. Das, C and Tripathi P. (2022). Interrogating the Literary in Spatial Studies: Interview with Robert T. Tally Jr. *the minnesota review: a journal of creative and critical thought*. vol 98. DOI 10.1215/00265667-9563891 (Duke University Press, Scopus listed), (2021)
 3. Khan, A., & Chaudhary, R. (2021). Do whispers whisk uncivil workplace? Investigating the impact of workplace gossip on incivility. Paper presented at 32nd International Congress of Psychology 2020+, Czech Republic, Prague., NA (2021)
 4. Firoz, M. and Chaudhary, R. (2021). Antecedent & outcomes of workplace loneliness: Role of perceived organizational support. 81st Academy of Management Annual Meeting (Virtual, 29 July - 4 August 2021)., NA (2021)
 5. Lata, M. and Chaudhary, R. (2021), Spiritual workspace and incivility: unraveling the psychological mechanisms and boundary conditions, 81st Academy of Management Annual Meeting (29 July - 4 August 2021)., NA (2021)
 6. Firoz, M. and Chaudhary, R. (2021). Workplace loneliness, personality traits, and organizational citizenship behaviors: A study from India, 37th EGOS (European Group of Organizational Studies) Colloquium 2021. VU University Amsterdam (8-10 July 2021)., NA (2021)
 7. Lata, M. and Chaudhary, R. (2021), Does meaningful work curb onset of workplace incivility? Examining the role of psychopathy. 37th EGOS (European Group of Organizational Studies) Colloquium 2021. VU University Amsterdam (8-10 July 2021)., NA (2021)

Conference

1. Dhananjay Patra, Nalin Bharti and Meghna Dutta, (2021), "Strategic Planning for Zero Budget Natural Farming Development", 8th PAN IIM World Management Conference, pp. 728, ISBN: 9842|ISBN|2021|A,, Duration-3 Days (2021)
2. Lata, M., & Chaudhary, R. (2021). Sense of community at work and instigate incivility: Exploring the role of Machiavellianism. Paper presented at 32nd International Congress of Psychology 2020+, Czech Republic, Prague., NA (2021)
8. Khan, A. and Chaudhary, R. (2022). "Picking "pieces" to play: Gossip as mediator between perceived organizational politics and employee outcomes. Accepted for presentation at the 82nd Annual Meeting of the Academy of Management taking place August 2022, Seattle, Washington, USA. , NA (2021)
9. Khan, A. and Chaudhary, R. (2022). Prattling politics: Examining the effect of perceived organizational politics on workplace gossip. Accepted for presentation at the 82nd Annual

- Meeting of the Academy of Management taking place August 2022, Seattle, Washington, USA. , NA (2021)
10. Bhattacharjee, M. & Sinha, S. (2021, June). Cognitive Interpretation of Animals in Cultural Narratives. Paper presented at the RaAM14 Virtual Conference hosted by Vilnius University, Lithuania., NA (2021)
 11. Ghosh, S., & Singh, S. (2021). Problematising Heteronormativity in Shyam Selvadurais Swimming in the Monsoon Sea and The Hungry Ghosts. . , Duration-4 Days (2021)
 12. Jha, N., & Singh,(2021). Memory and Folktales of the Indian Indentured Laborers., Duration-2 Days (2021)
 13. Mandal, S., & Singh, S. (2021). Asserting Naga Cultural Identity and Challenging Colonialism in Sky is My Father: A Naga Village Remembered. , Duration-1 Days (2021)
 14. Mandal, S., & Singh, S. (2021). Excavating Truth through Historical Fiction: A Critical Study of Easterine Kire's A Respectable Woman., Duration-2 Days (2021)
 15. Aditi, & Bharti, N. (n.d.). In International Conference on Infrastructure Development: Theory, Practice and Policy at Adani Institute of Infrastructure. Ahmedabad. , NA (2021)
 16. Aditi, & Bharti, N. (n.d.). In National E-Conference on National E-commerce & Technology, 2021. Motihari. , NA (2021)
 17. Kumari, M., & Bharti, N. (n.d.). In 7th EIITF Conference on Empirical Issues in Trade and Finance. Kolkata. , NA (2021)
 18. Jaiswal, S., & Bharti, N. (n.d.). In International Conference on Challenges and Opportunities in Intellectual Property Rights in the Digital Age. IIT Roorkee. , NA (2021)
 19. Kumar, M., & Bharti, N. (n.d.). In International Conference on Challenges and Opportunities in Intellectual Property Rights in the Digital Age (online). Roorkee. , NA (2021)
 20. Patra, D., Bharti, N., & Datta, M. (n.d.). In 8th Pan IIM World Management Conference . Kozhikode. , NA (2021)
 21. Patra, D., Bharti, N., & Datta, M. (n.d.). In IIM Visakhapatnam Doctoral Colloquium. Visakhapatnam. , NA (2021)

Text Books

1. Naoyuki Yoshino, Rajendra N. Paramanik, Anoop S. Kumar : Studies in International Economics and Finance Published by Springer, <https://link.springer.com/book/10.1007/978-981-16-7062-6?noAccess=true> (2021)
2. Simi Mehta, Madhu Joshi, Ritika Gupta, Anshula Mehta, Devaki Singh, Sunidhi Agarwal, Eby Atee, Tanya Agrawal, Gby Atee, Reena Kumari, Nalin Bharti, Nitin Tagade : Life in the Era of COVID-19: Impact on Women-Villagemakers of Bihar and Future Prospects Published by IMPRI Impact and Policy Research Institute Foundation, NA (2021)
3. Biswas, S. K., & Tripathi, P. : The Gendered War: Evaluating Feminist Ethnographic Narratives of the 1971 War of Bangladesh Published by Bloomsbury Publishing (IN), <https://www.bloomsbury.com/in/gendered-war-9789354359255/> (2021)

Book Chapters Published

1. Naoyuki Yoshino, K. U. Gopakumar, Rajendra N. Paramanik, Farhad Taghizadeh-Hesary, K. E. Seetha Ram and Ma. Laarni Revilla : Studies in International Economics and Finance: A New Keynesian AD-AS Model for India, Incorporating the Effect of Covid-19 Pandemic Published (2021)
2. Rajendra N. Paramanik and Saswata Guha Thakurata : Neoliberalism in the Emerging Economy of India: Indias recent slowdown and neoliberal regime of accumulation: Is there a link? Published (2021)

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| <p>3. Sugata Marjit and Meghna Dutta : Studies in International Economics and Finance: Essays in Honour of Prof. Bandi Kamaiah: Trade, Unemployment and Inequality in Product Variety Models - An Analytical Survey Published (2021)</p> <p>4. Chaudhary, R. and Firoz, M. : Research Handbook of Green Human Resource Management: Issues, Trends, and Challenges (In press): Modeling Green Human Resource Management and Attraction to Organizations Published (2021)</p> <p>5. Nidhi Jha and Smriti Singh : Mobilizing Narratives: Narrating Injustices of (Im)Mobility: Barren Binaries: Immobility in Migration from Bihar Published (2021)</p> <p>6. Naoyuki Yoshino, Rajendra M Paramanik, Anoop S Kumar (Eds.) : Studies in International Economics and Finance, Essays in Honour of Prof Bandi Kamaiah: Revisiting Literature on Trade Facilitation (TF) in the Context of COVID-19 and South Asia Published (2021)</p> <p>7. Qureshi, Israr, Bhatt, Babita, Shukla, Dharendra Mani (Eds.) : Sharing Economy at the base of the pyramid: Opportunities and Challenges: Sharing Economy in India: Looking Base of the Pyramid Through Critical Infrastructure Published (2021)</p> <p>8. Kashyap, Soumya & Tripathi, P. : Reproductive Justice and Literature Handbook: Surrogacy or Sale: Reflecting upon Reproductive Justice through The House for Hidden Mothers and A House of Happy Mothers Published, (2021)</p> <p>9. Rajendra N. Paramanik , A. Bhandar and B. Kamaiah : Studies in International Economics and Finance : Long Memory and Correlation structure of select stock returns using novel wavelet and fractal connectivity Networks Published (2021)</p> | <p>1. Lack of Quality Higher Education Leads to Brain Drain, Shreya Nupur and Meghna Dutta, Free Press , https://www.freepressjournal.in/education/fpj-ed-lack-of-qualitative-higher-edu-leading-to-brain-drain-and-non-returning-indians, Op-ed</p> <p>2. Towards Creating A Parallel Pandemic Due To Mis-Management of Wastes In Patna, Raj, Papiya and Aditya Raj, Mainstream Weekly, http://mainstreamweekly.net/article11276.html, Journal</p> <p>3. 30 Yeras on, economic reforms have paid off, Gopakumar KU and Rajendra N. Paramanik, Hindu Busienss Line (Newspaper Article), https://www.thehindubusinessline.com/opinion/30-years-on-economic-reforms-have-paid-off/article36386547.ece, News Paper Editorial article</p> <p>4. Economy showing symptoms of stagflation , Rajendra N. Paramanik , Hindu Business Line , https://www.thehindubusinessline.com/opinion/economy-showing-symptoms-of-stagflation/article34683323.ec, Editorial Article</p> <p>5. Why Covid was harder on big economies , Gopakumar KU and Rajendra N. Paramanik, Hindu Business Line , https://www.thehindubusinessline.com/opinion/why-covid-was-harder-on-big-economies/article34823656.ece, Editorial Article</p> |
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Other Publications

Sl, Title, Authors, Publisher, Online Link, Type

Student Activities by Faculty Members

Departmental Activities

1. Dr Sweta Sinha - Department Purchase Committee.
2. Nalin Bharti - Member DC of many students till.
3. Dr Sweta Sinha - Department Representative of Library Advisory Committee.
4. Aditya Raj - Library committee.
5. Priyanka Tripathi - Head of the Department (HSS).

6. Nalin Bharti - Head of the Department till .
7. Smriti Singh - organized talks in the department.
8. Rajendra Narayan Paramanik - DAPC Secretary and Time Table Coordinator.

Institute Activities by Faculty Members

1. Dr Sweta Sinha - Coordinator of CELS.
2. Aditya Raj - Culture committee.
3. Nalin Bharti - Chairman Investment Committee .
4. Smriti Singh - Organized Gandhi Jayanti programme and swachta diwas.
5. Nalin Bharti - Member Tender Committee .
6. Dr Sweta Sinha - Warden Asima Hostel.
7. Rajendra Narayan Paramanik - PIC Outreach.
8. Rajendra Narayan Paramanik - Vice Chairman, Sports .
9. Smriti Singh - Edited convocation Brochure.
10. Rajendra Narayan Paramanik - Co-Convener of 8th Convocation of IIT Patna.
11. Smriti Singh - organized foundation day.
12. Meghna Dutta - PIC-Medical.
13. Nalin Bharti - Member Institute IPR Committee

Professional Activities by Faculty Members

1. Nalin Bharti - As a moderator Web Delivered Policy Talk on A Strategic Framework for Outcome Driven Policy to transform Manufacturing in India, Organized by Impact and Policy Research Institute (IMPRI) New Delhi.
2. Nalin Bharti - Moderated a web policy talk on A strategic Framework for Outcome Driven Policy to Transform Manufacturing in India, March 29th, 2022 organised by IMPRI New Delhi.
3. Smriti Singh - plenary lecture and chairing a session at IIT Bhubaneshwar conference.
4. Nalin Bharti - Delivered a Keynote Address in the Valedictory Session of E-Summit 2022, Amity University, Patna .

5. Nalin Bharti - Delivered a web-lecture Revisiting Privatization and Workers safety nets in India, at Bharti College, University of Delhi..
6. Nalin Bharti - Joined BOS Meeting at Amity University Patna on 3rd March 2022..
7. Nalin Bharti - Joined as a Member Selection Committee, Jharkhand Public Service Commission, Ranchi, Feb 23-24, 2022.
8. Smriti Singh - Panel discussion at St. Joseph's College of Commerce, Bangalore.
9. Nalin Bharti - Moderator in a Web Policy Talk Growth Diversification and Upgrading of Indias Export in Post Reforms Period: Some Policy Implication , by Professor Aradhna Aggarwal, Copenhagen Business School, Organized by Impact and Policy Research Institute (IMPRI) New Delhi..
10. Nalin Bharti - Moderated a talk on Growth, Diversification and Upgrading of Indias Exports in Post-Reforms Period: Some Policy Implications, Delivered by Prof Aradhna Aggarwal, Professor, Copenhagen Business School, Organized by IMPRI New Delhi on 11th January 2022.
11. Dr Sweta Sinha - Invited lecture on Citing Works/ References/ Bibliography in ELRC- CIIL.
12. Smriti Singh - Panel Discussion on Adopt, adapt or design. How do English teachers from different countries work with coursebooks? Organized by MIEF. Shakespeare for English Teachers, Moscow,.
13. Nalin Bharti - Joined Doctoral Committee meeting at NIT Patna .
14. Smriti Singh - Delivered a talk at IIT Roorkee.
15. Smriti Singh - Invited talk Producing Quality Research Challenge in Academics, College of Engineering & Technology, SRM Institute of Science and Technology,.
16. Nalin Bharti - Delivered a talk on Turning Dream for Awas into Reality: Exploring role of

Banks and Non-Banking Institution, Web Seminar on Awas par sambaad at CIMP Patna.

17. Nalin Bharti - Delivered a talk on Privatization and Social Safety Nets for Workers in India , Lecture for Refresher Course on Role of Social Welfare Policy in Indian Economy at Doctor Harisingh Gaur University, Sagar .
18. Nalin Bharti - Moderator, Web Policy Talk by Professor Mukul Ashar on Blue Economy, Port Based Development and Expanding Indias foreign Trade organized by Impact and Policy Research Institute (IMPRI) New Delhi IMPRI .
19. Nalin Bharti - Joined BOS Meeting at Amity University Patna .
20. Smriti Singh - Adjudicated a thesis from University of Madras.
21. Rajendra Narayan Paramanik - Board of Study member of RK Mission College, Narendrapur (Calcutta University).
22. Nalin Bharti - Delivered a talk on Covid 19 : Innovation aur Chunautiyan, in a web seminar ICANGOVERN Insights 30 organized by ICANGOVERN .
23. Dr Sweta Sinha - invited lecture on Language, Culture, Cognition and Metaphors in AICTE sponsored FDP programme organized at IIT Madras.
24. Nalin Bharti - As a discussant on Web Policy Talk on Rural Realities Jharkhand and Bihar Practitioners' Experiences in Tackling the Second Wave in Indian Villages, Organised by Impact and Policy Research Institute (IMPRI) New Delhi..
25. Richa Chaudhary - Guest editor for Special Issue on Corporate Innovations in Response to the COVID-19 Crisis within South Asia in South Asian Journal of Business Studies, ABDC-C Journal published by Emerald (2021). Co-editors: Prof. Birasnav Muthuraj and Prof. Joanne Scillitoe .

Seminar, Conference and Workshop Organised

1. Priyanka Tripathi - Convener:-Cartographies of Gender based Violence: Literary Reflections from South Asia and beyond". 12 -13th March 2022, online (Convener) Participants: 120.
2. Rajendra Narayan Paramanik - Coordinator :- Indian Inequality Since Independence: A Tale of Two Classes by Prof. Vamsi Vakulavaranam of University of Massachusetts, Virtual (Coordinator) Participants: 75.
3. Priyanka Tripathi - Co-Coordinator:-comIN International Conference on Indian Comics, (<https://www.comin20.com/>) 4-5 December 2021, Department of Design, IIT Delhi, online (Co-Coordinator) Participants:45.
4. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
5. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
6. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
7. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
8. Meghna Dutta - Organizer:-Introduction to and Handling of EPWRF India Time Series, Online (Organizer) Participants: 20.
9. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
10. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
11. Papia Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants:485.
12. Papia Raj - Organiser and coordinator:-

- Contemporary Development Debates, Online (Organiser and coordinator) Participants: 485.
13. Papija Raj - Organiser and coordinator:- Contemporary Development Debates, Online (Organiser and coordinator) Participants: 485.
 14. Papija Raj - Organiser and co-ordinator:- Health educations: Need of the hour, Online (Organiser and co-ordinator) Participants: 195.

Other Academic Activities

1. Rajendra Narayan Paramanik - Resource Person for Workshop on Research Methodology at Central University of MANUU, Hyderabad.
2. Richa Chaudhary - Project entitled Predictors and Outcomes of Loneliness in the workplace: A time lagged multi-study investigation submitted under MATRICS scheme to SERB (submitted)..
3. Dr Sweta Sinha - External DC Member for PhD of Ms. Dharna Bhatt at IIIT Vadodara.
4. Papija Raj - Invited lecture at "Refresher Training Programme on Social Science Research Methods for University Teachers, Faculty in Research Institutions and Research Scholars" sponsored by ICSSR.
5. Richa Chaudhary - Project titled What Drives, Limits, and Sustains Pro-environmental Behaviors: India versus Taiwan submitted to ICSSR under ICSSR-MOST (Taiwan) joint call for research proposals 2023..
6. Richa Chaudhary - Project titled An attribution process model to estimate the effects of workplace incivility on employee performance submitted to SERB under Core Research Grant.
7. Rajendra Narayan Paramanik - Invited talk at UPES University, Dehradun on Tax Reform in Budget 2022.
8. Priyanka Tripathi - Thesis Evaluation: Ritu Raj Choudhary, Exploring the Queer Contrast between Self and Society in Selected Reinterpretations of the Mahabharata Manipal University, Jaipur (2022).
9. Rajendra Narayan Paramanik - Invited Talk at Hansraj College (Delhi University) on Pandemic and its Impact on Global Economy .
10. Richa Chaudhary - Project titled Determinants and Ramifications of Elderly Loneliness: India versus Thailand was submitted to ICSSR under ICSSR-NRCT (Thailand) Exchange of Scholar Programme 2020 (under review)..
11. Priyanka Tripathi - Thesis Evaluation: Surabhi Basotia, Postmodern Feminist Perspectives: A Study of Selected 21st Century American Literature and Portrayal of the Characters in Their Film Adaptations Manipal University, Jaipur (2022).
12. Meghna Dutta - Invited speaker in national conference on Raising Agricultural Productivity and Farmers Incomes in Bihar.
13. Dr. Sweta Sinha - External DC member for PhD Pre registration of Ms. Sana Asif at NIT Patna.
14. Priyanka Tripathi - Thesis Evaluation: Salini L R, Censorship in Contemporary India: A Study of Banned Books and Movies from 2000-2018. JNU, Delhi (2021).
15. Dr. Sweta Sinha - Developed a B. Tech elective course Media and Linguistics.
16. Priyanka Tripathi - Thesis Evaluation: A Jagathesh Kumar, Methods of Teaching English Literature: A Case Study of B.A. English Students in Tamil Nadu. JNU, Delhi (2021).
17. Meghna Dutta - Invited talk on Socio-economic Impacts of Water Budgeting IITP WALMI Workshop.
18. Priyanka Tripathi - Newsletter Editor for PSA, UK (from October 2021).
19. Priyanka Tripathi - Thesis Evaluation: Shawan Roy, Envisioning Alternative Modernities: A Study of Selected South Asian Novels in English. BHU, Varanasi (2021).
20. Priyanka Tripathi - UNC-Chapel Hill Collaborative Online International Learning

- (COIL) grant with Pamela Lothspeich, Department of Asian and Middle Eastern Studies for UNC Course: ASIA 721-Transnational Feminisms of the Middle East and South Asia, Fall 2021. <https://global.unc.edu/programs/coil/>.
21. Priyanka Tripathi - Subject Expert English for Gujarat Public Service Commission.
 22. Priyanka Tripathi - Thesis Evaluation: Mahi S Thavarathu, Asian and African Identities in Contemporary Irish Literature: A Comparative Study of Select Irish, Asian-Irish and African-Irish Writings in English JNU, Delhi (2021).
 23. Meghna Dutta - Invited talk on Credit Constraint and Production Re-organization at the Asian Development Research Institute, Patna..
 24. Priyanka Tripathi - Thesis Evaluation: Fathima M, Many Sides of Desire: A Critical Analysis of Select Novels of F. Scott Fitzgerald and Margaret Laurence JNU, Delhi (2021).
 25. Priyanka Tripathi - Thesis Evaluation: Amit Verma, Evaluating the Operations and Programming of Community Radio Stations Operated by Educational Institutions and NGOs of Rajasthan: A Comparative Study Manipal University, Jaipur (2021).
 26. Nalin Bharti - Vetting and moderation of IV and VI semester-end question papers for Central University of Andhra Pradesh in June 2021..
 27. Priyanka Tripathi - Thesis Evaluation: Taranjeet Kaur Chawla, The Portrayal of Interpersonal Relationships and Cultural Values in Indian Reality Television Shows: An Analytical Study Manipal University, Jaipur (2021).
 28. Papiya Raj - Discussant for "The State of Development Discourses" organised by IMPRI.
 29. Priyanka Tripathi - Subject Expert-- English for JNU EE2021 (conducted by NTA).
 30. Priyanka Tripathi - Thesis Evaluation: Rahul Babu Kodali, Corporate Communication Trends in Service Sector of India: Comparative study Manipal University, Jaipur (2021).
 31. Priyanka Tripathi - Subject Expert- English for Chanakya University, Bengaluru (2021).
 32. Priyanka Tripathi - Thesis Evaluation: Geetha S, The Choices of Marriage among the Queer Women and its Repercussions: A Study and Analysis of Select Works in Select Cultures. NIT, Puducherry (2021).

Any Other Information

1. Priyanka Tripathi - Shastri Conference & Lecture Series Grant (SCLSG) to organize an International Conference titled, "Cartographies of Gender based Violence: Literary Reflections from South Asia and beyond". (2021-2022) 12th -13th March 2022..
2. Priyanka Tripathi-Postcolonial Studies Association (PSA) conference grant for organizing two day International Conference titled, "Decolonising the Panel, Deconstructing the Gutter" focusing on the Postcolonial Studies in Comics and Graphic Narratives from South Asia from 25th -26th September 2021..

MATHEMATICS

Head: Dr. Nutan Kumar Tomar



DR. AMIT KUMAR VERMA

Associate Professor

Monotone Iterative Techniques in Abstract Spaces, Upper and Lower Solution Techniques, Nonlinear Singular Boundary Value Problems, Multi Point Boundary Value Problems, Wavelet Transforms, Theoretical Numerical Analysis



DR. BALENDU BHOOSHAN UPADHYAY

Assistant Professor

Nonlinear Optimization, Variational Inequality Semi-infinite Programming, Fixed Point Theory, Differential Manifolds



DR. K. SALONI

Assistant Professor

Commutative Algebra



DR. NUTAN KUMAR TOMAR

Associate Professor

Mathematical Control Theory, Nonlinear Functional Analysis, Optimal Control



PROF. OM PRAKASH

Professor

Rings and Modules (Skew Polynomial Rings, Associated Prime Rings), Algebraic Coding Theory, Algebraic Graph Theory, Algebraic Number Theory



DR. PRASHANT KUMAR SRIVASTAVA

Associate Professor

Mathematical Modeling in Ecology and Epidemiology, Applications of Differential Equations in Biology, Stability and Bifurcation, Mathematical Modeling of HIV dynamics: in vivo



DR. PRATIBHAMOY DAS

Assistant Professor

Numerical Analysis, Moving Mesh Methods, Singular Perturbation, A posteriori Error Estimates, r-refinement Strategy Ordinary and Partial Differential Equations, System of differential Equations, Integral Equations, Fractional Order Equations, Nonlinear Problems



DR. RAHUL KUMAR SINGH

Assistant Professor

Differential Geometry



DR. SHAILESH KUMAR TIWARI

Assistant Professor

Associative Rings and Algebras



DR. SUBHABRATA PAUL

Assistant Professor

Algorithmic Graph Theory



DR. YOGESH MANI TRIPATHI

Associate Professor

Statistical Decision Theory, Statistical Inference

Research Area

1. Amit Kumar Verma, Nonlinear Singular Boundary Value Problems
2. Amit Kumar Verma, Monotone Iterative Technique
3. Amit Kumar Verma, Epitaxial Growth
4. Amit Kumar Verma, Integral Transform
5. Amit Kumar Verma, Non Standard Finite Difference Methods
6. Dr Om Prakash, Rings & Modules, Near Rings, Algebraic Coding Theory, Algebraic Graph Theory, Algebraic Number Theory
7. Subhabrata Paul, Algorithmic graph theory

8. Rahul Kumar Singh, Differential Geometry
9. Prashant Kumar Srivastava, Mathematical modeling in Epidemiology, Ecology, Public health, Management and Communication. Application of Differential Equations. Nonlinear Dynamics and Optimal Control.
10. Yogesh Mani Tripathi, Statistical Decision Theory, Statistical Inference
11. Shailesh Kumar Tiwari, Associative rings and algebra
12. Shailesh Kumar Tiwari, Polynomial identities on prime and semiprime rings
13. Nutan Kumar Tomar, Mathematical Control Theory
14. B. B. Upadhyay, Nonlinear Programming; Variational Inequalities; Nonsmooth Optimization; Hadamard manifolds
12. Subhabrata Paul, Spring, MA426, 3-1-0-8, 26, Course shared with Dr Y M Tripathi
13. Dr Om Prakash, Autumn, MA101, 3-1-0-8, 544, With two other colleagues(one section for each)
14. Dr Om Prakash, Spring, MA424, 3-1-0-8, 28, Half Course
15. Dr Om Prakash, Spring, MA536, 3-0-0-6, 21, Full course
16. Rahul Kumar Singh, Spring, MA524, 3-0-0, 22,
17. Rahul Kumar Singh, Spring, MA526, 3-0-0, 22,
18. Rahul Kumar Singh, Autumn, MA201, 3-1-0-0, 394, Shared with Pratibhamoy Das And B. B. Upadhyay
19. Rahul Kumar Singh, Autumn, MA521, 3-0-0-0, 24,
20. Nutan Kumar Tomar, Autumn, MA429, 3-1-0-8, 27,
21. Nutan Kumar Tomar, Autumn, MA531, 3-0-0-6, 12,
22. Nutan Kumar Tomar, Spring, MA102, 3-1-0-8, 510, Shared with Dr S K Tiwari

Teaching

Sl, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

1. Amit Kumar Verma, Spring, MA422, 3-1-0, 26, Topology
2. Subhabrata Paul, Spring, MA423, 3-0-2-8, 22,
3. Amit Kumar Verma, Spring, MA430, 3-1-0, 26, Numerical Analysis
4. Subhabrata Paul, Spring, MA225, 3-1-0-8, 154, Course shared with Dr Y M Tripathi
5. Amit Kumar Verma, Autumn, MA101, 3-1-0, 520, Advanced Calculus
6. Subhabrata Paul, Spring, MA102, 3-1-0-8, 388, Course shared with Dr S K Tiwari and Dr N K Tomar
7. Amit Kumar Verma, Autumn, MA425, 3-1-0, 26, Real Analysis
8. Subhabrata Paul, Autumn, MA423, 3-0-2-8, 27,
9. Amit Kumar Verma, Spring, MC594, 0-0-4, 15, Seminar Course
10. Subhabrata Paul, Autumn, MA533, 3-0-0-6, 17,
11. Subhabrata Paul, Spring, MA225, 3-1-0-8, 173, Course shared with Dr Y M Tripathi
23. Yogesh Mani Tripathi, Spring, MA225, 3-1-0-8, 174, Shared with Dr. S Paul
24. Yogesh Mani Tripathi, Spring, MA426, 3-1-0-8, 26, Shared with Dr. S Paul
25. Yogesh Mani Tripathi, Spring, MA541, 3-0-0-6, 35,
26. Shailesh Kumar Tiwari, Autumn, MA421, 3-1-0-8, 27,
27. Shailesh Kumar Tiwari, Autumn, MA529, 3-0-0-6, 28,
28. Shailesh Kumar Tiwari, Spring, MA102, 3-1-0-8, 510, I taught this course till mid semester.
29. Dr Om Prakash, Autumn, MA427, 3-1-0-8, 28, Full course
30. Prashant Kumar Srivastava, Autumn, MA504, 3-0-0-6, 22,
31. Prashant Kumar Srivastava, Autumn, MC594, 0-0-4-4, 12, The course was shared.
32. Prashant Kumar Srivastava, Spring, MA539, 3-0-0-6, 12,
33. Prashant Kumar Srivastava, Spring, MA101, 3-1-0-8, 509, The course was shared. Tutorials were taken by tutors.
34. B. B. Upadhyay, Autumn, MA201, 3-1-0-8, 383,

Shared with Prof. Om Prakash

35. B. B. Upadhyay, Autuam, MA525, 3-0-0-6, 23,
36. B. B. Upadhyay, Spring, MA502, 3-0-0-6, 20,
37. B. B. Upadhyay, Spring, MA424, 3-1-0-8, 29,
Shared with Prof. Om Prakash

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Amit Kumar Verma, PhD, On the Stability and Convergence of Non-standard Finite Difference Schemes for a Class of Nonlinear ODEs and PDEs .(Awarded, 28th October 2021), Sheerin Kayenat, NA, NA
2. Amit Kumar Verma, PhD, On a class of nonlinear singular boundary value problems arising in epitaxial growth. (Awarded, 8th March 2022), Biswajit Pandit, NA, NA
3. Amit Kumar Verma, Masters, WAVELETS AND THEIR FRACTIONAL FOURIER TRANSFORM, Zabir Hussain , NA, NA
4. Amit Kumar Verma, Masters, Integral Transforms and Their Properties, Dinesh Khati, NA, NA
5. Amit Kumar Verma, PhD, Numerical Solutions of Nonlinear Partial Differential Equation, Mukesh Kumar Rawani, NA, NA
6. Amit Kumar Verma, PhD, Monotone iterative technique for a class of multi point nonlinear boundary value problem , Nazia Urus, NA, NA
7. Amit Kumar Verma, PhD, Theory of Integral Transforms, Bivek Gupta, NA, NA
8. Amit Kumar Verma, PhD, Theory of Integral Transforms, Navneet Kaur., NA, NA
9. Subhabrata Paul, PhD, Transitivity in graphs, Mr. Kamal Santra, NA, NA
10. Amit Kumar Verma, PhD, Fractional Differential Equation, Loknath Kannaujia, NA, NA
11. Subhabrata Paul, PhD, Vertex-edge domination, Mr. Debojyoti Bhattacharya, NA, NA
12. Amit Kumar Verma, PhD, Mathematical Modeling, Prabhat Kumar, NA, NA
13. Amit Kumar Verma, PhD, NSFD, Vamika Rathi, NA, NA
14. Subhabrata Paul, PhD, SEQUENCE DESIGN FOR WIRELESS COMMUNICATION, Mr. Praveen Kumar, NA, Dr Sudhan Majhi, IISc
15. Subhabrata Paul, PhD, Graph based sequence designing, Mr. Piyush Priyanshu, NA, Dr Sudhan Majhi
16. Subhabrata Paul, Masters, Vizing's conjecture and VC-dimension of graphs, Mr Saswata Jana, NA, NA
17. Rahul Kumar Singh, Masters, Introduction to Riemann Hypothesis, Vivek Singh, ,
18. Rahul Kumar Singh, Masters, Hopf-Rinow Theorem, Suman Biswas, ,
19. Rahul Kumar Singh, PhD, Differential geometry, Subham Paul, ,
20. Rahul Kumar Singh, PhD, Differential Geometry, Priyank Vasu, ,
21. Dr Om Prakash, PhD, Generalization of Jordan Maps Over Rings And Algebras, Arindam Ghosh, , Completed July 2021
22. Rahul Kumar Singh, PhD, Differential Geometry, Siddharth Panigrahi, ,
23. Dr Om Prakash, PhD, Constacyclic Codes Over Finite Commutative Rings and Their Applications, Habibul Islam, , Completed August 2021
24. Dr Om Prakash, PhD, Quantum Codes From Skew and Repeated Root Constacyclic Codes, Ram Krishna Verma, , Completed October 2021
25. Dr Om Prakash, PhD, Algebraic Graph Theory, Mr. Ravindra Kumar, , Persuing
26. Dr Om Prakash, PhD, Algebraic Coding Theory, Ms. Shikha Patel, , Persuing
27. Dr Om Prakash, PhD, Algebraic Coding Theory, Ms. Shikha Yadav, , Persuing
28. Dr Om Prakash, PhD, Algebraic Coding Theory, Mr. Ashutosh Singh, , Persuing
29. Dr Om Prakash, PhD, Algebraic Coding Theory, Mr. Indbar Debnath, , Persuing
30. Dr Om Prakash, PhD, Rings and Modules (Group-

- Rings), Mr. Sh. Aziz, , Persuing
31. Dr Om Prakash, PhD, Skew cyclic codes over the extension of Z_4 and their applications in quantum and DNA computing, Ms. Priyanka Sharma, , Persuing under SERB-DST Project
 32. Dr Om Prakash, Bachelors, A Study of Normal Complement Problem for split metacyclic groups, Mayank Kashyap, , M. Sc. Ilyr (2021-2022)
 33. Dr Om Prakash, Bachelors, A Study on Matrix Product Codes over Finite Commutative Frobenius Rings, Mr. Kashyap Rabha, , M. Sc. II yr (2021-2022)
 34. Yogesh Mani Tripathi, Phd, Inference under censored data, Kundan Singh, Na,
 35. Yogesh Mani Tripathi, Phd, Opttimal plans under progressive censoring, Prakash Chandra, NA,
 36. Yogesh Mani Tripathi, Phd, Inference under double censoring, Chandan Kumar Gupta, Na,
 37. Yogesh Mani Tripathi, Phd, Estimation under generalized progressive hybrid censoring, Rani Kumari, Dr. Rajesh Kumar Sinha, NIT Patna
 38. Yogesh Mani Tripathi, Masters, Classical and Bayesian estimation of Unit Modified Weibull Distribution under Progressively Type-II Censored data, Madhu Dwivedi, NA,
 39. Yogesh Mani Tripathi, Masters, T-X family of distributions using quantile functions, Sandesh Kumar, NA,
 40. Yogesh Mani Tripathi, Masters, On a Discrete Analogue of Exponentiated Gumble Distribution, Suman Basak, NA,
 41. Yogesh Mani Tripathi, Masters, Inference on Multicomponent Stress-Strength Reliability for Unit Kies Distribution Under Progressive Type II Censoring, Tanay Raj, NA,
 42. Shailesh Kumar Tiwari, Masters, Finite field, Narayan Biswas (2012MA12), ,
 43. Shailesh Kumar Tiwari, Masters, Rings of Quotients, Anu Kumari (2012MA05), ,
 44. Shailesh Kumar Tiwari, Phd, Polynomial identities on prime rings, Pallavee Gupta (2021MA15), ,
 45. Shailesh Kumar Tiwari, Phd, Primitive normal elements over finite field, Kaustav Chatterjee (2121ma03), ,
 46. Shailesh Kumar Tiwari, Phd, Primitive pair with prescribed trace over finite field, Aastha Shukla (2121MA18), ,
 47. Prashant Kumar Srivastava, PhD, Nonlinear dynamics and bifurcations in infectious disease models, Tanuja Das, , Thesis submitted
 48. Prashant Kumar Srivastava, PhD, SIRI Models and their analysis, Akriti Srivastava,
 49. Prashant Kumar Srivastava, PhD, HIV in vivo dynamics, Surya Prakash, ,
 50. Prashant Kumar Srivastava, PhD, Mathematical sequence design, Rajen Kumar, Sudhan Majhi,
 51. Prashant Kumar Srivastava, PhD, Optimal control problems in coinfection models, Sonu, ,
 52. Prashant Kumar Srivastava, PhD, Ecological models, Anuj Kumar Umrao, ,
 53. Prashant Kumar Srivastava, PhD, Mathematical sequence design, Aditya Prakash,
 54. Prashant Kumar Srivastava, Masters, A Mathematical Model for the Internet Gaming Addiction, Sajal Debnath, ,
 55. Prashant Kumar Srivastava, Masters, A Mathematical Model of Zika Transmission, Sk Kiran Ajij, ,
 56. Nutan Kumar Tomar, PhD, Observer Design for LTI Descriptor Systems, Juhi Jaiswal, NA, -
 57. Nutan Kumar Tomar, PhD, Functional Observers and Fault Diagnosis, Pabitra Kumar Tunga, NA, -
 58. Nutan Kumar Tomar, PhD, Filtering techniques for Descriptor Systems, Ashna Goel, Dr Shovan Bhaumik (EE), -
 59. Nutan Kumar Tomar, PhD, Observers for nonlinear Descriptor Systems, Rishab Sharma, NA, -
 60. Nutan Kumar Tomar, PhD, Data Driven Control techniques, Pankaj Vadhvani, NA, -
 61. Nutan Kumar Tomar, Bachelors, Study of Controllability Properties of State Space Systems, Bhabatosh Kanungo, NA, -

61. B. B. Upadhyay, PhD, On the Equivalence between Generalized Vector Variational Inequalities and Nonsmooth Interval-Valued Multiobjective Optimization Problems, Priyanka Mishra,
 62. B. B. Upadhyay, PhD, Optimality and Duality for Nonlinear programming Problems, Arnav Ghosh,,
 63. B. B. Upadhyay, PhD, Numerical Optimization for Interval-valued Optimization Problems, Rupesh Kumar Pandey,,
 64. B. B. Upadhyay, PhD, On Nonlinear Optimization Problems, Sushil Kumar Tiwari,,
 65. B. B. Upadhyay, Masters, Image Enhancement Using Dynamic Stochastic Resonance with Parameter Tuning via Particle Swarm Optimization and K-means Clustering, Pankaj Kumar Chahal,,
 66. B. B. Upadhyay, Masters, Saddle Point Optimality and Lagrange Duality for Non-smooth Semi-infinite Mathematical Programming Problems With Equilibrium Constraints Using (,) Invexity and Tangential Subdifferential, Subham Poddar,,
 67. B. B. Upadhyay, Masters, Karush-Kuhn-Tucker Optimality and Duality for Nonsmooth Semi-infinite Multiobjective Programming Problems With Equilibrium Constraints Using V-r-invexity and Tangential Subdifferentials, Mane Vishal Abhimanyu,,
 68. B. B. Upadhyay, Masters, Karush-Kuhn-Tucker Optimality and Duality for Nonsmooth Semi-infinite Multiobjective Programming Problems With Equilibrium Constraints Using V-r-invexity and Tangential Subdifferentials, Mane Vishal Abhimanyu,,
- and its variation (CSIR, 15.16 Lakhs) PI: Dr Subhabrata Paul; CO-PIs: NA
4. Systems described by differential and algebraic equations together: Analysis and Design (SERB, 6.6 Lakhs) PI: Nutan Kumar Tomar ; CO-PIs: NA
 5. Algorithmic study of upper domatic number (SERB, 6.6 Lakhs) PI: Dr Subhabrata Paul ; CO-PIs: NA
 6. Estimation and Prediction with Constrained and Unconstrained Observations (DST, 4 Lakhs) PI: Yogesh Mani Tripathi ; CO-PIs: NA
 7. Impact of information of disease prevalence on the dynamics of diseases: A mathematical study (DST (MATRICS), 6.6 Lakhs) PI: Prashant Kumar Srivastava ; CO-PIs: NA

Awards

1. Dr Om Prakash (2022-01-01) Annual Membership
2. Prashant Kumar Srivastava (2021-07-16) Executive council member ISMMACS

Journals

1. De Filippis, V., Prajapati, B., & Tiwari, S. K. (2022). Some generalized identities on prime rings and their application for the solution of annihilating and centralizing problems. *Quaestiones Mathematicae*, 45(2), 267-305., (2021)
2. Tiwari, S. K. (2022). Identities with generalized derivations in prime rings. *Rendiconti del Circolo Matematico di Palermo Series 2*, 71(1), 207-223., (2021)
3. Prajapati, B., Tiwari, S. K., & Gupta, C. (2022). b-Generalized derivations act as a multipliers on prime rings. *Communications in Algebra*, 50(8), 3498-3515., (2021)
4. Singh, D. P., Lodhi, C., Tripathi, Y. M., & Wang, L. (2021). Inference for twoparameter Rayleigh competing risks data under generalized progressive hybrid censoring. *Quality and Reliability Engineering International*, 37(3), 1210-1231., (2021)
5. Alotaibi, R. M., Tripathi, Y. M., Dey, S., & Rezk, H. R. (2021). Estimation of Multicomponent Reliability

Sponsored Research

1. Offset linear canonical Stockwell transform (DST SERB (Matrics), 660000 Lakhs) PI: Amit Kumar Verma; CO-PIs: None
2. Skew cyclic codes over the extension of Z_4 and their applications in quantum and DNA computing (SERB- DST, 2073720 Lakhs) PI: Dr Om Prakash; CO-PIs: NA
3. Algorithmic aspects of vertex-edge domination

- Based on Progressively Type II Censored Data from Unit Weibull Distribution. *WSEAS Transactions on Mathematics*, 20, 288-299., (2021)
6. Lodhi, C., Tripathi, Y. M., & Wang, L. (2021). Inference for a general family of inverted exponentiated distributions with partially observed competing risks under generalized progressive hybrid censoring. *Journal of Statistical Computation and Simulation*, 91(12), 2503-2526., (2021)
 7. Lodhi, C., Mani Tripathi, Y., & Kumar Rastogi, M. (2021). Estimating the parameters of a truncated normal distribution under progressive type II censoring. *Communications in Statistics-Simulation and Computation*, 50(9), 2757-2781., (2021)
 8. Wang, L., Tripathi, Y. M., Lodhi, C., & Zuo, X. (2022). Inference for constant-stress Weibull competing risks model under generalized progressive hybrid censoring. *Mathematics and Computers in Simulation*, 192, 70-83., (2021)
 9. Wang, L., Wu, S. J., Zhang, C., Dey, S., & Tripathi, Y. M. (2022). Analysis for constant-stress model on multicomponent system from generalized inverted exponential distribution with stress dependent parameters. *Mathematics and Computers in Simulation*, 193, 301-316., (2021)
 10. Wang, L., Wu, K., Tripathi, Y. M., & Lodhi, C. (2022). Reliability analysis of multicomponent stressstrength reliability from a bathtub-shaped distribution. *Journal of Applied Statistics*, 49(1), 122-142., (2021)
 11. Kayal, T., Tripathi, Y. M., Kundu, D., & Rastogi, M. K. (2022). Statistical inference of Chen distribution based on type I progressive hybrid censored Samples. *Statistics, Optimization & Information Computing*, 10(2), 627-642., (2021)
 12. Wang, L., Lio, Y., Tripathi, Y. M., Dey, S., & Zhang, F. (2022). Inference of dependent left-truncated and right-censored competing risks data from a general bivariate class of inverse exponentiated distributions. *Statistics*, 1-28., (2021)
 13. Das, T., & Srivastava, P. K. (2022). Hopf bifurcation and stability switches in an infectious disease model with incubation delay, information, and saturated treatment. *Journal of Applied Mathematics and Computing*, 1-25., 23 (2021)
 14. Kumar, R., Sarkar, P., Srivastava, P. K., & Majhi, S. (2021). A Direct Construction of Asymptotically Optimal Type-II ZCP for Every Possible Even Length. *IEEE Signal Processing Letters*, 28, 1799-1802., 65 (2021)
 15. Mandale, R., Kumar, A., Vamsi, D. K. K., & Srivastava, P. K. (2021). Dynamics of an infectious disease in the presence of saturated medical treatment of holling type iii and self-protection. *Journal of Biological Systems*, 29(02), 245-289., 10 (2021)
 16. Das, T., Srivastava, P. K., & Kumar, A. (2021). Nonlinear dynamical behavior of an SEIR mathematical model: Effect of information and saturated treatment. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 31(4), 043104., 52 (2021)
 17. Bishnu, A., Ghosh, A., Mathew, R., Mishra, G., & Paul, S. (2021). Grid obstacle representation of graphs. *Discrete Applied Mathematics*, 296, 39-51., (2021)
 18. Paul, S., & Ranjan, K. (2021). Results on vertex-edge and independent vertex-edge domination. *Journal of Combinatorial Optimization*, 1-28., (2021)
 19. Paul, S., Pradhan, D., & Verma, S. (2021). Vertex-Edge Domination in Interval and Bipartite Permutation Graphs. *Discussiones Mathematicae: Graph Theory.*, (2021)
 20. Kumar, P., Sarkar, P., Majhi, S., & Paul, S. (2022). A direct construction of even length ZCPs with large ZCZ ratio. *Cryptography and Communications*, 1-10., (2021)
 21. Wang, L., Zhou, Y., Lio, Y., & Tripathi, Y. M. (2022). Inference for Kumaraswamy Distribution under Generalized Progressive Hybrid Censoring. *Symmetry*, 14(2), 403., (2021)
 22. Prakash, O., Islam, H., & Das, S. (2021). On Cyclic

- Codes with Minimal Generating Sets over the Ring Z . Southeast Asian Bulletin of Mathematics, 45(4), NA (2021)
23. Prakash, O., & Patel, S. (2022). Skew cyclic codes over $q[u, v, w]/u^2, v^2, w^2, uv, vu, vw, wv, wu, uw$. Discrete Mathematics, Algorithms and Applications, 14(02), 2150113., (2021)
 24. Islam, H., Prakash, O., & Bhunia, D. K. (2022). On the structure of cyclic codes over $M_2(\mathbb{F}_p)$. Indian Journal of Pure and Applied Mathematics, 53(1), 153-161., (2021)
 25. Islam, H., & Prakash, O. (2021). New Quantum and LCD Codes over Finite Fields of Even Characteristic. Defence Science Journal, 71(5), (2021)
 26. Islam, H., Martnez-Moro, E., & Prakash, O. (2021). Cyclic codes over a non-chain ring Re, q and their application to LCD codes. Discrete Mathematics, 344(10), 112545., (2021)
 27. Prakash, O., Islam, H., Patel, S., & Sol, P. (2021). New quantum codes from skew constacyclic codes over a class of non-chain rings Re, q . International Journal of Theoretical Physics, 60(9), 3334-3352., (2021)
 28. Islam, H., & Prakash, O. (2022). Construction of LCD and new quantum codes from cyclic codes over a finite non-chain ring. Cryptography and Communications, 14(1), 59-73., (2021)
 29. Verma, R. K., Prakash, O., Singh, A., & Islam, H. (2021). New quantum codes from skew constacyclic codes. Advances in Mathematics of Communications., (2021)
 30. Islam, H., Patel, S., Prakash, O., & Sol, P. (2021). A family of constacyclic codes over a class of non-chain rings $\mathcal{A}_{q,r}$ and new quantum codes. Journal of Applied Mathematics and Computing, 1-22., (2021)
 31. Prakash, O., Patel, S., & Yadav, S. (2021). Reversible cyclic codes over some finite rings and their application to DNA codes. Computational and Applied Mathematics, 40(7), 1-17., (2021)
 32. Patel, S., & Prakash, O. (2021). (θ, δ) -Cyclic codes over $\mathbb{F}_q[u, v]/\langle u^2 - u, v^2 - v, uv - vu \rangle$. Designs, Codes and Cryptography, 1-19., (2021)
 33. Kumar, R., & Prakash, O. (2022). Pancyclic zero divisor graph over the ring $\mathbb{F}_q[x, y]$. Discrete Mathematics, Algorithms and Applications, 2250049., (2021)
 34. Verma, R. K., Prakash, O., Islam, H., & Singh, A. (2022). New non-binary quantum codes from skew constacyclic and additive skew constacyclic codes. The European Physical Journal Plus, 137(2), 1-13., (2021)
 35. Patel, S., Islam, H., & Prakash, O. (2022). (f, δ) -skew Polycyclic Codes and Their Applications to Quantum Codes. International Journal of Theoretical Physics, 61(2), 1-15., (2021)
 36. Prakash, O., Yadav, S., Islam, H., & Sol, P. (2022). On \mathbb{Z}_4 -additive constacyclic codes. Advances in Mathematics of Communications., (2021)
 37. Patel, S., Prakash, O., & Islam, H. (2022). Cyclic codes over $M_4(\mathbb{F}_2)$. CRYPTOGRAPHY AND COMMUNICATIONS - DISCRETE STRUCTURES BOOLEAN FUNCTIONS AND SEQUENCES., (2021)
 38. Jaiswal, J., & Tomar, N. K. (2021). Existence Conditions for ODE Functional Observer Design of Descriptor Systems. IEEE Control Systems Letters, 6, 355-360., 25 (2021)
 39. Jaiswal, J., Gupta, M. K., & Tomar, N. K. (2021). Necessary and sufficient conditions for ODE observer design of descriptor systems. Systems & Control Letters, 151, 104916., 140 (2021)
 40. Verma, A. K., Rawani, M. K., & Cattani, C. (2021). A numerical scheme for a class of generalized Burgers' equation based on Haar wavelet nonstandard finite difference method. Applied Numerical Mathematics, 168, 41-54., 79 (2021)
 41. Verma, A. K., Urus, N., & Agarwal, R. P. (2021). Region of existence of multiple solutions for a class of robin type four-point bvp's. Opuscula

- Mathematica, 41(4), 18 (2021)
42. Verma, A. K., & Gupta, B. (2021). Certain properties of continuous fractional wavelet transform on Hardy space and Morrey space., 18 (2021)
 43. Verma, A. K., & Gupta, B. (2019). A note on continuous fractional wavelet transform in \mathbb{R}^n ., 26 (2021)
 44. Kayenat, S., & Verma, A. K. (2022). NSFD schemes for a class of nonlinear generalised advectiondiffusionreaction equation. Pramana, 96(1), 1-13., 54 (2021)
 45. Rawani, M. K., Verma, L., Verma, A. K., & Agarwal, R. P. (2022). On a weakly Lstable time integration formula coupled with nonstandard finite difference scheme with application to nonlinear parabolic partial differential equations. Mathematical Methods in the Applied Sciences, 45(3), 1276-1298., 69 (2021)
 46. Singh, M., Urus, N., & Verma, A. K. (2021). A different monotone iterative technique for a class of nonlinear three-point BVPs. Computational and Applied Mathematics, 40(8), 1-22., 35 (2021)
 47. Tomar, S., Verma, A.K. & Vajravelu, K. An effective method for solving singular boundary value problems with some relevant physical applications. Comp. Appl. Math. 41, 17 (2022). , 35 (2021)
 48. Urus, N, Verma, AK. Existence of solutions for a class of nonlinear Neumann boundary value problems in the presence of upper and lower solutions. 2022; 1- 13. , 69 (2021)
 49. Kayenat, S., & Verma, A. K. (2022). On the choice of denominator functions and convergence of NSFD schemes for a class of nonlinear SBVPs. Mathematics and Computers in Simulation, 200, 263-284., 80 (2021)
 50. Upadhyay, B. B., Antczak, T., Mishra, S. K., & Shukla, K. (2021). Nondifferentiable generalized minimax fractional programming under (ρ) -invexity. Yugoslav Journal of Operations Research, (00), 18-18., Nondifferentiable generalized minimax fractional programming under (ϕ, ρ) -invexity, Yugoslav Journal of Operations Research , Faculty of Organizational Sciences, Belgrade, 11 (2021)
 51. Trean, S., Mishra, P., & Upadhyay, B. B. (2022). Minty Variational Principle for Nonsmooth Interval-Valued Vector Optimization Problems on Hadamard Manifolds. Mathematics, 10(3), 523., Minty Variational Principle for Nonsmooth Interval-Valued Vector Optimization Problems on Hadamard Manifolds, Journal of Mathematics, MDPI, 57 (2021)

Conference

1. Gupta, M. K., Tomar, N. K., Sharma, D., & Jaiswal, J. (2020, December). PD Observer Design for Descriptor Systems with Unknown Inputs: Application to Infinite Bus System. In 2020 5th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE) (pp. 1-5). IEEE., - (2021)
2. Jaiswal, J., Gupta, M. K., & Tomar, N. K. (2021, May). On Functional Observers for Descriptor Systems1. In 2021 American Control Conference (ACC) (pp. 4093-4098). IEEE., 116 (2021)
3. Upadhyay, B. B., & Mishra, P. (2020, February). On Minty variational principle for nonsmooth interval-valued multiobjective programming problems. In Indo-French Seminar on Optimization, Variational Analysis and Applications (pp. 265-282). Springer, Singapore., 24
4. Upadhyay, B. B., & Mishra, P. (2019, December). On Generalized Vector Variational-Like Inequalities and Nonsmooth Multiobjective Programming Problems Using Limiting Subdifferential. In International Conference on Mathematical Analysis and Computing (pp. 443-458). Springer, Singapore., 24

Book Chapters Published

1. R. Radhakrishnan, M. Saha, S. Bhaumik, and N.K. Tomar : Communication and Control for Robotic Systems: Tracking and Interception of a Ballistic Target on Reentry Using Adaptive Gaussian Sum

- Quadrature Filters Published (2021)
2. Patnaik S., Tajeddini K., Jain V. (eds.) : Computational Management. Modeling and Optimization in Science and Technologies, : On interval-valued multiobjective programming problems and vector variational-like inequalities using limiting subdifferential Published (2021)
 3. Anurag Jayswal; T Antczak : Continuous Optimization and Variational Inequalities: Generalized Minty and Stampacchia Vector Variational like Inequalities and Interval valued vector Optimization Problems, Published (2021)

Student Activities by Faculty Members

Departmental Activities

1. Subhabrata Paul - Member of DAPC.
2. Subhabrata Paul - Member of PhD Admission committee.
3. Subhabrata Paul - Member of Faculty Shortlisting Committee.
4. Rahul Kumar Singh - DPC member.
5. Rahul Kumar Singh - DAPC member.
6. Rahul Kumar Singh - Faculty advisor (MSc Mathematics).
7. Prashant Kumar Srivastava - BS Faculty Advisor.
8. Prashant Kumar Srivastava - DAPC Member.
9. Shailesh Kumar Tiwari - Participated in RSD programme as a Judge of poster session.
10. Shailesh Kumar Tiwari - DAPC Secretary.
11. Amit Kumar Verma - Coordinated event on the birth anniversary of Ramanujan on 23rd December 2021..
12. Shailesh Kumar Tiwari - Ph.D coordinator.
13. Dr Om Prakash - Member of the Ph. D. selection committee.
14. Nutan Kumar Tomar - Head, Department of Mathematics since Nov 2021.
15. Dr Om Prakash - All activities of the department have been seen till Oct. 31, 2021, as HoD..
16. Yogesh Mani Tripathi - MTech Coordinator.
17. Shailesh Kumar Tiwari - Member of Departmental Purchase committee (DPC).
18. Prashant Kumar Srivastava - BTech Coordinator.
19. B. B. Upadhyay, Departmental Ph D Coordinator.

Institute Activities by Faculty Members

1. Subhabrata Paul - Member of the Cultural Committee.
2. Rahul Kumar Singh - Associate warden, CV Raman Hostel.
3. Yogesh Mani Tripathi - Library committee .
4. Yogesh Mani Tripathi - PIC Class.
5. Dr Om Prakash - Represents department as HoD till Oct. 31, 2021..
6. Yogesh Mani Tripathi - House allotment committee .
7. Shailesh Kumar Tiwari - Member of Institute Security Committee (ISC).
8. Shailesh Kumar Tiwari - Associate Warden, Kalam Hostel (A & B wing).
9. Subhabrata Paul - PIC, Guest House (till July 2021).
10. Prashant Kumar Srivastava - Chairman JEE Advanced 2021.
11. Prashant Kumar Srivastava - Member Senate.
12. B. B. Upadhyay - Core Member of RSD-22 organizing committee.
13. B. B. Upadhyay - Warden of the C.V. Raman Hostel and Married Scholar Hostel since August 2020 to July 2021.

Professional Activities by Faculty Members

1. Dr Om Prakash - Evaluated 06 theses during April 2021 to March 2022..
2. Prashant Kumar Srivastava - Reviewed for various journals and institutes (PhD).
3. Amit Kumar Verma - Delivered a talk titled On some monotonic iterative schemes and upper-lower Solutions as part of Drakhlin's Seminar on Functional Differential Equations, March 23, 2022 organized by Ariel University, Israel. .

4. Amit Kumar Verma - Delivered a motivational talk on Area and Surface Area in Science Awareness Mela, organized during February 26th-28th, 2022 at Kunwar Inter College Narwar, Mardah Ghazipur..
5. Amit Kumar Verma - Delivered an Invited talk titled Some new existence results for a class of nonlinear SBVP arising epitaxial growth and chaired a session in Recent Developments in Engineering and Technology" (ICRDET-2022) February 25th-26th, 2022 at Anand International College of Engineering, Jaipur..
6. Dr Om Prakash - Invited talk delivered on Mathematics is Fun and Gateway in the Regional mathematics fair/ Workshop at Radiant International School, Khagaul, Patna during Jan. 20, 2022..
7. Dr Om Prakash - Invited talk delivered on To inspire mathematicians to take up high end research in the field of Mathematics in the National Conference on National Mathematics Day-2021 organized by Bihar Mathematical Society and DST- Bihar on Dec. 23, 2021..
8. Dr Om Prakash - Invited talk delivered on Some Applications of Abstract Algebra in the Mathematical Week on Memory of 134th Birth Anniversary of Srinivasa Ramanujan, Govt. Girls' P.G. College, Ujjain, on Dec. 22, 2021.
9. Dr Om Prakash - Invited talk delivered on Some Applications of Abstract Algebra in Coding and Cryptography o the occasion of 134th Birth Anniversary of Srinivasa Ramanujan at the Mahatma Gandhi Central University, Motihari, Bihar, on Dec. 22, 2021. (evening).
10. Dr Om Prakash - Invited talk delivered on Basic of Algebraic Coding Theory in the e-Short Term Training Programme on Algebra and Analysis at SRM Institute of Science and Technology, SRM Nagar, Kattankulathur, Tamilnadu .
11. Dr Om Prakash - Invited talk delivered on Opportunities in Mathematics in the Online Regional Workshop of Indian Women and Mathematics: Research and Opportunities (IWMRO-2021) at Department of Mathematics, IIT Patna .
12. Amit Kumar Verma - Chaired a session in the 87th Annual Conference of Indian Mathematical Society (IMS) organized by the Department of Applied Sciences INEC, MGM University, Aurangabad during December 4-7, 2021..
13. Amit Kumar Verma - IIC Social Media Coordinator.
14. Amit Kumar Verma - Delivered a talk on Polar Curves and Mathematica at the Centre for Applied Mathematics and Computing, Siksha O Anusandhan Deemed to be University on 27th November 2021..
15. Dr Om Prakash - Invited talk delivered on Achievements in Science and Technology of India in Applied Sciences during the event is planned by the Government of India Azadi ka Amrit Mahotsav at Amity Institute of Applied Sciences, Amity University, Noida .
16. Yogesh Mani Tripathi - (1)Chaired a session in International Conference On Mathematical Sciences (ICMS-2021), 07th - 09th October 2021 organized by Department of Mathematics and Humanities, Sardar Vallabhbhai National Institute of Technology, Surat..
17. Dr Om Prakash - Invited talk delivered on Codes over some finite rings in the webinar at Department of Mathematics, School of Applied Sciences, REVA University, Bengaluru .
18. Dr Om Prakash - Invited talk delivered on Skew Polynomial rings in Quantum Computing in AICTE sponsored five days FDP on The Impact of Quantum Computing on Cryptography and Blockchain Technology at Department of Mathematics, GITAM University, Hyderabad .
19. Yogesh Mani Tripathi - Gave a talk: On Bayesian Estimation. Department of statistics, Ravenshaw University, 29th august 2021..
20. Dr Om Prakash - Resource person and delivered a series of lectures on Algebraic Coding Theory and uses of MAGMA software Sponsored FDP Webinar MTRAAM-2021 by AICTE Training and Learning

Academy ATAL at Department of Mathematics and Scientific Computing, MMMUT, Gorakhpur .

21. Dr Om Prakash - Invited talk for the school students of Nalanda district, Bihar on Basic Set Theory under the banner of Bihar Mathematical Society.

Seminar, Conference and Workshop Organised

1. Dr Om Prakash - Coordinator:-Mini MTTS Program, Online (March 05-20, 2022) (Coordinator) Participants: 75.
2. Shailesh Kumar Tiwari - Program Coordinator:- National Mathematics Day, IIT Patna (Program Coordinator) Participants: 50.
3. Subhabrata Paul - Organizing Committee:- International Workshop on Domination in Graphs, IIT Ropar (Organizing Committee) Participants: 50.
4. B. B. Upadhyay - Co-convener:-Indian Women and Mathematics: Research and Opportunities, IIT Patna (Co-convener) Participants: 258.

Other Academic Activities

1. Amit Kumar Verma - Nominated as Senate member from Mathematics Department .
2. Dr Om Prakash - Submitted a new project to SERB DST under Metrics scheme.
3. Nutan Kumar Tomar - Invited lecture, ODE Functional Observers for DAEs. NIT Jamshedpur, October 27, 2021..

4. Nutan Kumar Tomar - Invited lecture, Bihar Mathematical Society, Sep 4, 2021..
5. Nutan Kumar Tomar - Session co-chair, Observers, American Control Conference 2021, Louisiana, USA..

Any Other Information

1. Amit Kumar Verma - Guest House Committee Member.
2. Nutan Kumar Tomar - The paper titled "Existence conditions for ODE functional observer design of descriptor systems, IEEE Control Systems Letters, vol. 6, 2022, pp. 355-360" was also selected by Conference on Decision and Control (CDC) Program Committee for presentation in (virtual) CDC 2021 at Austin, Texas, USA during December 13-15, 2021. CDC is one of the most popular conferences in the field of Control Theory and related areas. Its h-index is 128..
3. Prashant Kumar Srivastava - Keynote Speaker (online) of the BIOMAT 2021 International Symposium on Role of Information and Saturated Treatment in Infectious Disease Models in its 21st symposium held during November 1-5, 2021..
4. Prashant Kumar Srivastava - Invited online talk on Solving Differential Equations in MATLAB in Differential Equations: Theory, Analysis, and Applications with MATLAB (DETAAM-2021) during 12-16 July, 2021 at DIT University, Dehradun.

MECHANICAL ENGINEERING

Head: Dr. Probir Saha



DR. AKHILENDRA SINGH

Associate professor

FEM, XFEM, Meshfree Method, Computational Mechanics, Fracture & Fatigue, Thermal Engineering.



DR. ATUL THAKUR

Associate professor

Bio-inspired Robotics, Physics aware planning of Robotics system and application of Robotics techniques for Micro- manipulation of Biological cell



DR. ANIRBAN BHATTACHARYA

Assistant professor

Incremental Sheet metal Forming, Rapid prototyping. Conventional Machining, Grinding, Non-Conventional machining Welding, Modeling and simulation of manufacturing process



DR. ABHISHEK RAJ

Assistant professor

Microfluidics, Bio mechanics, BioMEMS



DR. ASHWANI ASSAM

Assistant Professor

Computational Fluid Dynamics (CFD), Compressible Fluid Flow, Turbulence Modeling, Rarefield gas flow, Numerical Methods for flow and heat transfer.



DR. ANIRBAN MAHTO

Assistant professor

Manufacturing Processes, Material processing, Tribology



DR. CHIRANJIT SARKAR

Assistant professor

Magnetorheological (MR) Fluids and devices, Tribology, CFD of Grease flow, Design of Bio Medical Devices, Economic in Design



DR. DEEPU.P

Assistant professor

Hydrodynamics Stability, Bio- Physical Aerodynamics, Multi phase Flow



PROF. KARALI PATRA

Professor

Micro Machining techniques, Micro grinding Smart Sensor and actuators, Energy Harvesting.



DR. MOHD. KALEEM KHAN

Associate professor

Nuclear Reactor Safety, Solar Thermal Collectors, Flow boiling in Microchannels, Pool boiling heat transfer enhancement using, Non-Newtonian Fluid Mechanics, Thermohydraulics of Chaotic coils



PROF. MANABENDRA PATHAK

Professor

Computational Fluid dynamics and heat Transfer, Turbulence Modeling, Two Phase flow in Micro and Mini Channels, Dispersion of Particles, Droplets & Bubbles at Micro & Nano Scales, Rheological & Heat Transfer Characteristics of viscoplastic fluids, Nuclear Materials, Solar Thermal Technology



PROF. MAYANK TIWARI

Professor

Machine Dynamics- Rotor Dynamics, Acoustics, Tribology-Rolling Sliding, Fretting and Vacuum Tribology



DR. MURSHID IMAM

Assistant professor

Additive manufacturing, Plastic Deformation, Superplasticity, Friction Stir processing / Welding, Micro structural characterization of Deformed Metals, Finite Element Modeling of Welding machine



DR. PROBIR SAHA

Associate professor

Conventional and Non-Conventional Machining, Welding, Soft Computing in manufacturing process



DR. RISHI RAJ

Associate professor

Boiling Heat Transfer for Thermal Management Application, Colloids and Interfacial Science, Energy Water Food Nexus.



DR. SOMNATH SARANGI

Associate professor

Continuum Mechanics



DR. SUBRATA KUMAR

Associate professor

Heat transfer, Laser Material Processing, Flow of Granular material, CFD



DR. SUDHANSHU SEKHAR PANDA

Associate professor

Tool Condition Monitoring, Soft Computing, Metal cutting and machining, Industrial application of soft computing, Technique in machining, Designing Experiments, Statistical Modeling, Bio Machining, Sensor Calibration



DR. SURAJIT KUMAR PAUL

Assistant professor

Computational Plasticity, Fatigue and Fracture, Sheet metal Forming, Crashworthiness, Finite Element Analysis, Molecular Dynamics

Research Area

1. Mohd Kaleem Khan, Solar-thermal technology
2. Mohd Kaleem Khan, Compact heat exchanger design
3. Mohd Kaleem Khan, Electronic cooling using thermoelectric effect and electrowetting phenomenon
4. Mohd Kaleem Khan, Pool and flow boiling in microchannels
5. Mohd Kaleem Khan, Nuclear reactor safety
6. Mohd Kaleem Khan, Non-Newtonian fluids
7. Anirban Bhattacharya, Mechanics of Materials
8. Anirban Bhattacharya, Friction Stir Welding
9. Anirban Bhattacharya, Incremental Sheet Metal Forming
10. Anirban Bhattacharya, Fiber metal laminates
11. Anirban Bhattacharya, Mechanical Property evaluation of welded joints
12. Murshid Imam, Metal Additive Manufacturing
13. Murshid Imam, Friction stir welding
14. Probir Saha, Micro-EDM, Micro-FSW, Micro-EDG, Additive Friction Stir Deposition (AFS-D)
15. Murshid Imam, Numerical simulation of a welding process
16. Murshid Imam, Superplasticity
17. Mayank Tiwari, Tribology
18. Mayank Tiwari, Rotordynamics
19. Mayank Tiwari, Vibrations
20. Ashwani Assam, Numerical Study of aerothermodynamic analysis of non-equilibrium flows associated with Hypersonic vehicles
21. Ashwani Assam, Training of Neural Network model on Reynolds-averaged Navier-Stokes solutions with high wake formation
22. Ashwani Assam, Flow characteristics of a deformable channel with a superhydrophobic wall
23. Ashwani Assam, Study of Rarefied Gas flows in Microchannels
24. Karali Patra, Modeling & simulation of micro-manufacturing processes
25. Karali Patra, Dielectric elastomer actuators and generators
26. Surajit Kumar Paul, atomistic simulation
27. Surajit Kumar Paul, rolling contact fatigue
28. Surajit Kumar Paul, high strain rate deformation
29. Surajit Kumar Paul, finite element method
30. Anirban Mahato, In situ analysis, high speed imaging, Manufacturing processes, Materials Processing, Tribology
31. Surajit Kumar Paul, cyclic plastic deformation
32. Surajit Kumar Paul, sheet metal forming
33. Surajit Kumar Paul, Fatigue and fracture
34. Sudhansu Sekhar Panda, Signal analysis, Tool condition monitoring, Soft Computing, Metal Cutting and Machining, DOE, Non conventional machining, Applications of Soft Computing for Modeling and Optimization of Manufacturing Processes and Systems, Evolutionary algorithm, Micro Machining, Bio-Material, pursue Research & Development in Biomedical application (root canal treatment, orthopedic surgical treatment), micro manufacturing (micro EDM, Reverse micro EDM, Micro Machining, Micro friction stir welding), Laser shock peening and machining, Welding of dissimilar material, Friction stir processing

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| <p>35. Somnath Sarangi, Continuum Mechanics</p> <p>36. Somnath Sarangi, Condition Monitoring</p> <p>37. Manabendra Pathak, Two-phase flow: flow boiling & pool boiling, Computational fluid dynamics, Solar thermal technology, Nuclear materials</p> <p>38. Rishi Raj, Machine Learning</p> <p>39. Rishi Raj, Microgravity Science</p> <p>40. Rishi Raj, Colloids and Interface Science</p> <p>41. Rishi Raj, Condensation</p> <p>42. Rishi Raj, Boiling</p> <p>43. Rishi Raj, Energy</p> <p>44. Akhilendra Singh, Fatigue and Fracture Mechanics FEM/XFEM/Meshfree Methods ,Computational Mechanics</p> <p>45. Subrata Kumar, Heat Transfer</p> <p>46. Subrata Kumar, Pulsating Heat Pipe</p> <p>47. Subrata Kumar, Laser Material Processing</p> <p>48. Subrata Kumar, CFD</p> <p>49. Chiranjit Sarkar, Magnetorheological Fluid, Brake, Magnetorheometer, Magnetorheological Grease Flow</p> <p>50. Atul Thakur, Robotics</p> <p>51. Deepu P, fluid-structure interaction; hydrodynamic instability; heat transfer in porous media; nonlinear dynamics</p> <p>52. Abhishek Raj, Microfluidics, Biomechanics</p> | <p>7. Anirban Bhattacharya, Spring, ME526, 3-0-0-6, 1, MTech core course (Theory)</p> <p>8. Rishi Raj, Autumn, ME 315, 3-0-2-8, 63, Includes lab component</p> <p>9. Abhishek Raj, Spring, ME567, 3-0-0, 14, Jan-May 2021, Student feedback 5/5</p> <p>10. Rishi Raj, Spring, ME 546, 3-0-0-6, 20,</p> <p>11. Abhishek Raj, Spring, ME542, 3-0-0, 15, Jan - May 2021</p> <p>12. Abhishek Raj, Autumn, MH503, 3-0-0, 41, July-Nov 2021, Student Feedback 4.576/5</p> <p>13. Anirban Bhattacharya, Autumn, ME525, 3-0-0-6, 2, MTech core course (Theory)</p> <p>14. Abhishek Raj, Spring, ME567, 3-0-0, 16, Jan-May 2022, Student Feedback 4.451/5</p> <p>15. Subrata Kumar, Autumn, ME209, 3-1-0-8, 78,</p> <p>16. Ashwani Assam, Autumn, ME503, 3-0-0-6, 35, (Along with Prof. M Pathak)</p> <p>17. Ashwani Assam, Spring, ME541, 3-0-0-6, 8,</p> <p>18. Ashwani Assam, Spring, ME542, 3-0-0-6, 10, (Along with Dr Abhishek Raj)</p> <p>19. Ashwani Assam, Autumn, ME393, 1-0-3-5, 68, (Along with Dr S K Paul)</p> <p>20. Somnath Sarangi, Autumn, me207, 3-0-0-6, 70,</p> <p>21. Somnath Sarangi, Spring, mh504, 3-0-0-6, 12,</p> <p>22. Murshid Imam, Spring, ME102, 3-1-0-8, 509, First Year</p> <p>23. Murshid Imam, Autumn, ME110, 0-0-0-3, 509, First Year</p> <p>24. Murshid Imam, Autumn, ME331, 3-0-06, 61, Fifth Year</p> <p>25. Anirban Mahato, Autumn, ME231, 3-0-2-8, 79,</p> <p>26. Anirban Mahato, Spring, ME332, 3-0-3-9, 62,</p> <p>27. Mohd Kaleem Khan, Autumn, ME537: Refrigeration and Air Conditioning, 3-0-0-6, 29, Feedback score 4.67/5</p> <p>28. Mohd Kaleem Khan, Spring, ME216: Fluid Mechanics, 3-0-2-8, 79, Feedback score 4.788/5</p> <p>29. Mohd Kaleem Khan, Spring, ME314: Applied</p> |
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Teaching

Sl, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

1. Atul Thakur, Autumn, ME512, 3-0-0-6, 33,
2. Atul Thakur, Autumn, MH519, 0-0-3-3, 9,
3. Atul Thakur, Spring, ME312, 3-0-2-8, 62, Shared the course with Prof. Mayank Tiwari
4. Atul Thakur, Spring, ME510, 3-0-0-6, 4,
5. Atul Thakur, Spring, ME520, 0-0-3-3, 9,
6. Anirban Bhattacharya, Autumn, ME110, 0-0-3-3, 511, BTech first year Lab course, (Nov2021-Mar2022) (shared with 4 more Faculties of the

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- Thermodynamics, 3-0-2-8, 61, Co-instructor
30. Probir Saha, Autumn, ME742, 3-0-0-6, 15, Course Feed Back: 4.648/5
 31. Probir Saha, Autumn, ME532, 0-0-3-3, 7, Course Feed Back: 4.167/5
 32. Probir Saha, Autumn, ME531, 0-0-3-3, 1, Course Feed Back: 5/5
 33. Probir Saha, Spring, ME506, 3-0-0-6, 13, Course Feed Back: 4.011/5
 34. Probir Saha, Spring, ME531, 0-0-3-3, 1, Course Feed Back: 5/5
 35. Sudhansu Sekhar Panda, Autumn, ME431, 3-0-0-6, 80,
 36. Sudhansu Sekhar Panda, Autumn, ME292, 0-0-2-2, 80,
 37. Sudhansu Sekhar Panda, Spring, ME544, 3-0-0-6, 80,
 38. Sudhansu Sekhar Panda, Spring, ME110, 0-0-3-3, 80,
 39. Subrata Kumar, Autumn, ME529, 0-0-3-3, 21,
 40. Subrata Kumar, Spring, ME547, 3-0-0-6, 49,
 41. Akhilendra Singh, Autumn, ME533, 3-0-0-6, 50, Course is done by Btech, Mtech, PhD students. Students includes from Mechanical Engg Dept, Materials Engg and Civil Engineering
 42. Subrata Kumar, Spring, ME530, 0-0-3-3, 21,
 43. Akhilendra Singh, Autumn, ME 110, 0--0-3-3, 102, First time conducted online classes with demonstration of job preparation
 44. Mayank Tiwari, Autumn, ME504, 3-0-0, 17,
 45. Mayank Tiwari, Spring, ME534, 3-0-0, 4,
 46. Mayank Tiwari, Spring, ME312, 3-0-2, 61, shared half the course
 47. Mayank Tiwari, Spring, MH502, 3-0-0, 10, shared half the course
 48. Akhilendra Singh, Spring, ME552, 3-0-0-6, 18, Course is done by Btech, Mtech, PhD students. Students
 49. Akhilendra Singh, Spring, ME519, 1-0-4-6, 14, Course was shared with Prof Pathak
 50. Surajit Kumar Paul, Spring, MH507, 0-0-4-4, 23,
 51. Surajit Kumar Paul, Summer, ME110, 0-0-3-3, 511, One of the six instructors
 52. Surajit Kumar Paul, Spring, ME214, 3-0-0-6, 79,
 53. Surajit Kumar Paul, Autumn, ME313, 3-0-3-9, 61, Shared with one faculty member
 54. Manabendra Pathak, Spring, ME314, 3-0-2-8, 61, Feedback score: 4.128
 55. Manabendra Pathak, Spring, ME-519, 1-0-4-6, 13, Feedback score: 4.178
 56. Manabendra Pathak, Autumn, ME503, 3-0-0-6, 38, 4.557
 57. Manabendra Pathak, Autumn, ME529, 0-0-3-3, 22, Feedback score: 4.119
 58. Karali Patra, Autumn, ME501, 3-0-0-6, 37,
 59. Karali Patra, Spring, ME208, 3-0-2-8, 79,
 60. Deepu P, Autumn, ME521, 3-0-0-6, 17,
 61. Deepu P, Autumn, ME529, 0-0-3-3, 21,
 62. Deepu P, Spring, ME522, 3-0-0-6, 11,
 63. Deepu P, Spring, ME530, 0-0-3-3, 21,
 64. Chiranjit Sarkar, Autumn, ME-313, 3-0-3-9, 63,
 65. Chiranjit Sarkar, Autumn, MH-501, 3-0-0-6, 11,
 66. Chiranjit Sarkar, Summer, ME-102, 3-1-0-8, 507,

Guidance

SI, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Akhilendra Singh, Phd, Reliability of electronic devices, Shambhu Kumar, Prof Maynak Tiwari, Shambhu is part time student, working for Vishweswarya project
2. Akhilendra Singh, Phd, Investigation Squeeze Film Damper, Anurag Kumar, Prof. Maynak Tiwari,
3. Akhilendra Singh, Phd, Non Linear Dynamics, Aman Shrivastava, Prof Mayank Tiwari, Student has given his synopsis seminar in March 2022
4. Akhilendra Singh, Phd, Fatigue and Fracture of adhesive bonded joint, Vivek Kumar, , Vivek has successfully passed the comprehensive examination

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5. Akhilendra Singh, Phd, Phase Field Modelling, Harshdeep Sharma,,
6. Mohd Kaleem Khan, PhD, Pool Boiling of nanofluids on different heat transfer surfaces, Arvind Kumar, None, Ongoing
7. Mohd Kaleem Khan, PhD, Blood flow through arteries, Souvik Pabi, Dr. Abhishek Raj, Ongoing
8. Mohd Kaleem Khan, PhD, Thermal management of battery packs of an electric vehicle, Mazhar Husain, Dr. Manabendra Pathak, Ongoing
9. Mohd Kaleem Khan, PhD, Single phase flow and heat transfer through microchannels, Ankur Sharma, None, Ongoing
10. Mohd Kaleem Khan, PhD, Ballooning and burst behavior of pre-oxidized zircaloy-4 cladding tube, Saurabh Sagar, Dr. Manabendra Pathak, Ongoing
11. Mohd Kaleem Khan, PhD, Flow boiling in microchannels, Akash Priy, Dr. Manabendra Pathak, Ongoing
12. Mohd Kaleem Khan, PhD, Thermoelectric material characterization, synthesis and development of Peltier cooler, Rishikesh Kumar, Dr. Manabendra Pathak, Ongoing
13. Mohd Kaleem Khan, PhD, Pool Boiling Heat Transfer Characteristics of Micro-Structured and Coated Surfaces, Atul Ranjan, Dr. Manabendra Pathak, Thesis submitted
14. Mohd Kaleem Khan, PhD, Electrowetting driven droplet for adaptive hotspot cooling for an electronic device , Israr Ahmad, Dr. Manabendra Pathak, Thesis submitted
15. Mohd Kaleem Khan, PhD, Design and Performance Evaluation of a Scheffler Solar Concentrator with Curved Serpentine Receiver Coils system, Desireddy Shashidhar Reddy, None, Awarded
16. Mohd Kaleem Khan, PhD, Design and Performance Evaluation of a Fresnel lens Solar Concentrator with Conical Serpentine Receiver Coils, Kuldeep Awasthi, None, Awarded
17. Mohd Kaleem Khan, Masters, Flow characteristics of low GWP refrigerants in a capillary tube, Shivam Dwivedi, None, Ongoing
18. Mohd Kaleem Khan, Masters, Performance Investigation of a Solar Air Heater Artificially Roughened with Joukowski Airfoil Ribs, Bibhrat Roy, None, Completed
19. Mohd Kaleem Khan, Bachelors, Mobile App for Design of Capillary tube, Anway Bhattacharya and Kuntla Thanmai Reddy, None, Completed
20. Akhilendra Singh, Bachelors, Effect of Environmental Conditions on Mechanical Properties of Adhesively Bonded Joints, Ankit Kumar and Ashutosh Anand ,,
21. Subrata Kumar, PhD, Laser Surface Structuring, Nitish Kumar, , Ongoing
22. Subrata Kumar, PhD, Fluid Flow Through Porous Media , Krishan Sharma, Dr Deepu P, Ongoing
23. Subrata Kumar, PhD, Laser Shock Peening, Abhishek, Dr S S Panda, Ongoing
24. Subrata Kumar, PhD, Heat Pipe for Electronic Cooling, Est Dev Patel, , Ongoing
25. Subrata Kumar, PhD, Pulsating Heat Pipe, Anoop Kumar Shukla, , Ongoing
26. Subrata Kumar, Bachelors, Visualization of 2D motion of a floating and towed Object by Virtual Model, Laxman Kumar, , Completed
27. Subrata Kumar, Bachelors, Visualization of 2D motion of a floating and towed Object by Virtual Model, Narendhiran S, , Completed
28. Subrata Kumar, Bachelors, Animated Simulation of Pulsating Heat Pipe, Tanmay Srivastava, , Completed
29. Subrata Kumar, Bachelors, Animated Simulation of Pulsating Heat Pipe, Rahul Verma, , Completed
30. Ashwani Assam, Masters, Numerical Study of Non-Equilibrium Multi-Species Hypersonic Flows, Shubham Kumar, , Will be defending M-Tech Thesis in Jun 2022
31. Ashwani Assam, Bachelors, Study of Rarefied Gas

- Flows in Microchannels, Neeraj Kumar Gond and Nikhil Anand,,
32. Anirban Bhattacharya, PhD, Mechanical Strength, Damage Analysis and Machining Performance of Fabricated Carbon Fiber Aluminum Laminates, Rishi Kumar Gupta, Dr. Anirban Mahato, Thesis submitted.
 33. Anirban Bhattacharya, PhD, Friction stir welding of dissimilar aluminum alloys with secondary heating, Madhav Raturi, None, Ongoing.
 34. Probir Saha, Phd, Improving Micro-Edm Dressing Process Stability: Assessment Through Monitoring Debris Evacuation In Real-Time During Machining Of Ti-6Al-7Nb, Md. Shamim Shah, NA, Thesis submitted
 35. Anirban Bhattacharya, PhD, Mechanical performance assessment of similar and dissimilar friction stir welded joints, Harish Suthar, Dr. Surajit Kumar Paul, Ongoing.
 36. Probir Saha, Phd, Mechanical and micro-structural characterization of additive friction stirred (AFS) 3D structures made of Al 6061 T6 aluminium powder, Akash Mukhopadhyay, NA, Final Stage
 37. Karali Patra, Bachelors, Sizing and Mass Computations of Hybrid Electric Vehicle, Bandaru Venkat and Bandi Loknath,,
 38. Probir Saha, Phd, Design, Analysis and Fabrication of Micro-pin Fins for Heat Transfer in Electronic Equipment, Deepa Gupta, Dr. Somnath Roy, Final stage
 39. Anirban Bhattacharya, PhD, Tensile and fatigue behaviour of Incremental Sheet Metal Formed components, Mohit Sharma, Dr. Surajit Kumar Paul, Ongoing
 40. Karali Patra, Bachelors, Micro Cyber Physical Machine Tool Monitoring and Maintenance, Satyam Singh (1701ME58) and Anshul Koshyari (1701ME23),,
 41. Probir Saha, Phd, Micro-FSW of dissimilar aluminium alloy, Mayank Verma, NA,
 42. Karali Patra, Masters, Hybrid electric vehicle, Pramod Kumar Modi,,
 43. Probir Saha, Phd, AFS-D of AZ31, Prabhakar Kumar Singh, NA,
 44. Anirban Bhattacharya, PhD, Controlling of plastic flow at tool tip interface in metal cutting, Saurabh Kumar, Dr. Anirban Mahato, Ongoing.
 45. Karali Patra, Masters, Micro cyber physical Machine Tool Monitoring, Aishwarya Archit Pandey,,
 46. Probir Saha, Phd, Establishing a synchronous micro-EDG process using a pencil-shaped micro-PCD tool on SiC wafers, Anang Katayan, NA,
 47. Anirban Bhattacharya, Masters, Studies on Material Flow in Friction Stir Welding of AA6061-T6, Deepak Kumar Gupta, None, Completed.
 48. Karali Patra, PhD, Modeling of micromilling using coated and uncoated cutting tools, Priyabrata Sahu,,
 49. Probir Saha, Masters, Effect of Material Positioning on Mechanical and Micro-structural Characterization of Dissimilar Micro-FSW Joint of AA6061-AA2024 using Featured Tool, Yashraj Asthana, NA, Final Presentation on 27th June 2022
 50. Anirban Bhattacharya, Masters, Studies on influence of strain rate on tensile behaviour of AA6061-T6 friction stir welded joint, Indrajeet Kumar, None, Completed.
 51. Probir Saha, Masters, Experimental investigation and numerical simulation of dissimilar micro-FSW of AA2024-AA6061 with tool offset towards AA2024: Effects of Material Positioning, Abhishek Gupta, NA, Final presentation on 27th June 2022
 52. Probir Saha, Bachelors, SPH modeling of AFS-D, SHUBHOJIT DAS, Vishal, NA, Project completed
 53. Karali Patra, PhD, Dielectric properties for filled elastomers, Ajeet Kumar,,
 54. Surajit Kumar Paul, PhD, Experimentation and

- modeling of mixed mode fatigue crack growth rate, RATHIN MAITY, Akhilendra Singh,
55. Surajit Kumar Paul, PhD, Mechanical Performance Assessment of Similar and Dissimilar Friction Stir Welding Joints, Harish Suthar, Anirban Bhattacharya,
 56. Surajit Kumar Paul, PhD, Experimentation and modeling of rolling contact fatigue, Sudhanshu Kumar, Mayank Tiwari,
 57. Surajit Kumar Paul, PhD, Effect of pre-straining on fatigue and fracture performance of aluminium alloys, Amit Vikram Rex, Akhilendra Singh,
 58. Surajit Kumar Paul, PhD, Influence of hydrogen on fatigue and fracture performance of ferritic-martensitic steel (P91) both at room and elevated temperature, Mahesh Bharati, Akhilendra Singh,
 59. Sudhansu Sekhar Panda, Phd, Electro Chemical Discharge Machining, Mr. Akhilesh Tiwari,,
 60. Surajit Kumar Paul, PhD, Mechanical properties evaluation of the component deformed by incremental sheet forming process, Mohit Sharma, Anirban Bhattacharya,
 61. Anirban Mahato, PhD, Controlling large strain deformation in metal cutting, Ashish Kumar, None,
 62. Somnath Sarangi, Phd, Continuum Mechanics , Rashi Aditi Ranjan, None ,
 63. Sudhansu Sekhar Panda, Masters, Study and Simulation on Impact and Thermal Behaviour of Laminated Glass of Different Interlayers and Thicknesses , Abhishek Raj,,
 64. Surajit Kumar Paul, PhD, Improvement In Ductile and Fatigue Behavior of Materials By The Application of Pulsed Electric Current, Anuranjan Kumar,,
 65. Abhishek Raj, Bachelors, Dynamics of droplets over soft substrate, Neeraj Goyal,,
 66. Anirban Mahato, PhD, Mechanical strength, damage analysis and machining performance of fabricated carbon fiber aluminum laminates, Rishi Kumar Gupta, Dr. Anirban Bhattacharya,
 67. Somnath Sarangi, Phd, Continuum Mechanics , Subrat Kumar Behra, None ,
 68. Sudhansu Sekhar Panda, Masters, simulation study on LG under mechanical load at two different interlayer of EVA and PVB at three interlayer, Akshay Kumar Tiwari,,
 69. Somnath Sarangi, Phd, Condition Monitoring , Vikash Kumar, None ,
 70. Somnath Sarangi, Phd, Condition Monitoring , Sanjeev Kumar, None ,
 71. Somnath Sarangi, Masters, MTP, Shubham Wasnik, None ,
 72. Somnath Sarangi, Masters, MTP, Shubhranshu Sharma, None ,
 73. Anirban Mahato, PhD, Mechanism of fretting wear of advanced engineering materials, Krishnamurti Singh, Dr. Mayank Tiwari,
 74. Manabendra Pathak, Bachelors, Analytical Investigation of Parabolic Trough Collector, Anand Chaudhary and Anand Kishore,,
 75. Manabendra Pathak, Masters, Heat transfer enhancement in solar air heater, Ambuj Rai,,
 76. Manabendra Pathak, Masters, Numerical simulation of film boiling considering thermal radiation effect, Anamitra Phukan,,
 77. Anirban Mahato, PhD, Design of asperity for textured metal surfaces to improve tribological characteristic in sliding: an in situ approach, Amrendra Chandan, None,
 78. Manabendra Pathak, PhD, Turbine blade cooling by microchannels, Ajmit Kumar, , Institute fellow
 79. Manabendra Pathak, PhD, Thermal management of electric vehicles, Mazhar Hussain, Dr. Mohd. Kaleem Khan, Institute fellow
 80. Anirban Mahato, PhD, Development of advanced cutting tools using in situ analysis, Abhishek Bihari, None, Part-time
 81. Manabendra Pathak, PhD, Effect of burnup on ballooning and burst behavior of Zircaloy-4

- cladding tubes under simulated LOCA, Saurabh Sagar, Dr. Mohd. Kaleem Khan, Project fellow
82. Anirban Mahato, PhD, Controlling plastic flow at tool-tip interface in metal cutting, Saurabh Kumar, Dr. Anirban Bhattacharya,
 83. Anirban Mahato, Bachelors, Numerical simulation of residual stresses in laser based additive manufacturing process, Gaurav Kumar Saxena, Ishaan Mishra, Dr. Murshid Imam,
 84. Anirban Mahato, Bachelors, Automation of Quality Analysis in Manufacturing And Building a Web App for Prediction and Detection of Cracks, Jeevana Allu, Nimalikanti V M Dheeraj, None,
 85. Anirban Mahato, Bachelors, A new approach for making micro-wire using machining technique, Thota Vamsik, Venu Manikanta Pamula, None,
 86. Rishi Raj, Phd, Fabricating Eco-Friendly Superhydrophobic Coating and Exploiting Biomass Energy Potential For Sustainable Atmospheric Water Harvesting, Bathina Chaitanya, Dr. Ajay D. Thakur, Thesis Submitted
 87. Rishi Raj, Phd, Modeling and Simulation of Fluid-Fluid Interfaces and Three-Phase Contact Line of Drops and Bubbles on Solid Surfaces, Alok Kumar,, Thesis Submitted
 88. Rishi Raj, Phd, Modeling The Effect Of Contaminants And Lubricant Film On The Modes Of Droplet Evaporation, Madhu Ranjan Gunjan, , Degree Awarded
 89. Rishi Raj, Phd, Design and Development of an Orientation Independent and Wickless Two-Phase Heat Spreader, Nirbhay Kumar, , Degree Awarded, on ISRO Project
 90. Rishi Raj, Phd, Acoustic Characterization of Bubble Behavior For In-Situ Prediction and Control of Boiling Heat Transfer Regimes, Kumar Nishant Ranjan Sinha, , Degree Awarded, on DST Nanomission Project
 91. Manabendra Pathak, PhD, Droplet splashing, Ajit Kumar,, Institute fellow
 92. Rishi Raj, Phd, Off-The-Grid Temperature Controlled Unit For Storage and Processing Of On-Farm Perishables, Sunil, Dr. Ajay D. Thakur, Registration Seminar Completed
 93. Manabendra Pathak, PhD, Flow boiling in microchannels, Akash Priy, Dr. Mohd. Kaleem Khan, Institute fellow
 94. Rishi Raj, Phd, Design, fabrication, and experimental characterization of an off-the-grid humidity control unit for storage and processing of agricultural produce, Rahul Sinha, Dr. Ajay D. Thakur, Comprehensive Seminar Completed, on IMPRINT IIA Project
 95. Manabendra Pathak, PhD, Development of thermoelectric cooling materials, Rishikesh Kumat, Dr. Mohd. Kaleem Khan, Visvesvaraiya Ph.D. fellow
 96. Rishi Raj, Phd, Psychrometry Driven Design of An All-Season Optimal Atmospheric Water Harvester, Abhash Shukla, Dr. Ajay D. thakur, Comprehensive Seminar Completed, on DST WTI Project
 97. Manabendra Pathak, PhD, Heat transfer enhancement in pool boiling, Atul Ranjan, Dr. Mohd. Kaleem Khan, Institute fellow
 98. Rishi Raj, Phd, Development of an Ionic Liquid Based Ultra-High Heat Dissipation Module for Energy Efficient Boiling Systems, Avinash Upadhyay,, On SERB CRG Project
 99. Manabendra Pathak, PhD, Experiments and Modelling of Wall- Bounded flow of Lubricating Magnetorheological Grease, Aashna Raj, Dr. Chiranjit Sarkar, Project fellow
 100. Rishi Raj, Phd, Tonmoy Sharma, Molecular Dynamics Simulations of Volatile Surfactants, Dr. Snehashis Daschakraborty, PMRF Candidate
 101. Manabendra Pathak, PhD, Two-phase flow through microfluidic T-junction, Piyush Kumar, , Institute fellow
 102. Rishi Raj, Phd, Constant Mean Curvature (CMC) Surface-based Energy Minimization Framework

- for Modelling Cheerios Effect on Slippery Surfaces, Md. Quamar Alam,,
103. Manabendra Pathak, PhD, Self-configurable electronic cooling technique, Israr Ahmad, Dr. Mohd. Kaleem Khan, Visvesvaraiya Ph.D. fellow
 104. Rishi Raj, Phd, Permanent Dropwise Condensation via Amphiphilic Additives in Vapor Phase, Rajnish Azad, Dr. Snehashis Daschakraborty, On DST Indo-Korea Project
 105. Rishi Raj, Masters, CFD simulations of boiling acoustics, Monisha Daimari, Dr. Ashwani Assam,
 106. Rishi Raj, Bachelors, Boiling Heat Transfer Regime Classification and Forecasting Using Lstm-Rnn, Harsh Shah,,
 107. Surajit Kumar Paul, PhD, Deformation and Damage Analysis of Fcc And Bcc Nanocrystalline Metals, Ashutosh Rajput,, Synopsis done
 108. Surajit Kumar Paul, PhD, Effect of Pre-Strainig On Tensile and Fatigue Performance For Automotive Dual Phse Steel, Puja Ghosal, , Degree awarded
 109. Abhishek Raj, Bachelors, Dynamics of droplets over soft substrate, Kartikay,,
 110. Abhishek Raj, Bachelors, Viscoelastic fluid flow characteristics through a stenosed channel, Rahul Kumar,,
 111. Abhishek Raj, Bachelors, Viscoelastic fluid flow characteristics through a stenosed channel, Shubham Kumar,,
 112. Abhishek Raj, Masters, Effect of Hydrophobicity on Enhancement of Condensation Heat Transfer Numerical Investigation, Ashok Das, Dr. Ashwani Assam (ME),
 113. Abhishek Raj, PhD, Retention Force of droplets over thin deformable free hanging PDMS mebrane, Syed Ahsan Haider , , I am reviewing manuscript based on the project and would submit within a month.
 114. Abhishek Raj, PhD, Flow Characteristics of microhchannel with deformable and superhydrophobic wall, Kumar Amit, Dr. Ashwani Assam, His paper based on this project is under review in prestigious Physics of fluid journal.
 115. Deepu P, PhD, dynamics of a few forced fluid-structure systems, kamlesh kumar,,
 116. Abhishek Raj, NULL, ML aided techniques for Cell-mechanophenotyping , Yuvraj Kamble, Dr. Atul Thakur (ME), His paper based on this project is under review in Biomechanics and Modelling in mechanobiology Journal.
 117. Deepu P, PhD, flow and heat transfer in rotating helical pipe filled with porous media, krishan sharma, subrata kumar,
 118. Abhishek Raj, PhD, Dynamics of Magnetic droplets inside microchannel, Rohit,,
 119. Deepu P, PhD, forced vibrations of cantilever fiber in a channel, vivek kumar, Ashwani Assam,
 120. Deepu P, PhD, Nonlinear oscillations of viscoelastic filament under gravity waves, SHADAB HASAN,,
 121. Abhishek Raj, PhD, Fluid flow and heat transfer characteristics of stenosed microchannel, Sauvik Pabi, Dr. Md. Kaleem Khan (ME),
 122. Deepu P, PhD, Instability of two layer fluid in a channel with wall slip, ANKUR AGRAWAL,,
 123. Deepu P, Masters, Response of a filament with piezoelectric patches under gravity wave, Vicky Kumar,,
 124. Deepu P, Masters, Coalescence dynamics of bubbles in a Moffat eddy, Abhishek Sikka,,
 125. Deepu P, Bachelors, Aerodynamics of a rotating wing with tubercles, Ashutosh Maurya; Abhishek Kumar Singh,,
 126. Mayank Tiwari, PhD, Fretting, Krishnamurti Singh, Anirban Mahato,
 127. Murshid Imam, PhD, Microstructure-Property Relation and Evolution In Friction Stir Processing of Medium Carbon En-8 Steel, Md Anwar Ali Anshari, Nil,
 128. Mayank Tiwari, PhD, Investigation of Crack Repair Using Piezoelectric Material, Ritesh

- Kumar Singh, Akhilendra Singh, Graduated on November 2021
129. Murshid Imam, PhD, Fabrication of Multi-Layered Functionally Graded Composite Structure Using Friction Stir Additive Manufacturing, Sweta Saroj, Nil,
 130. Murshid Imam, PhD, FRICTION STIR PROCESSING OF NICKEL BASED ALLOYS, DEWANAND PANDIT, Dr. Manoranjan Kar,
 131. Murshid Imam, PhD, STUDIES ON FRICTION STIR ADDITIVE MANUFACTURING OF ALUMINIUM ALLOYS, KISHOR KUMAR JHA, Nil,
 132. Murshid Imam, PhD, Wire Arc Additive Manufacturing of Nickel Based Superalloys, RAJNISH MISHRA, Nil,
 133. Mayank Tiwari, PhD, Compact Squeeze film Damper, Anurag Kumar, Akhilendra Singh,
 134. Murshid Imam, PhD, Direct Metal Laser Sintering/Melting of Refractory Alloys, RUKAIYA AZMA, Nil,
 135. Murshid Imam, PhD, A studies on Tool Pin Profile of Friction Stir Welding of Light Metals, Rahul Kesharwani, Dr. Murshid Imam,
 136. Murshid Imam, Masters, Numerical Modeling of Selective Laser Melting Process Using Combined Cfd-Dem Approach, Dharmendra Kumar, Nil,
 137. Chiranjit Sarkar, PhD, MR Clutch Rheological and Tribology Study, Manish Kumar Thakur, , Awarded
 138. Murshid Imam, Masters, Thermal-Mechanical analysis of layer by layer circular deposition using WAAM, Rashmi Priya, Nil,
 139. Chiranjit Sarkar, PhD, Water based MR fluid with High Sedimentation Stability, Chandra Shekhar Maurya, Dr. Sandip Khan, Thesis submitted
 140. Chiranjit Sarkar, PhD, Investigation of Magnetorheological Grease Flow, Aashna Raj, Prof. Manabendra Pathak, Thesis Submitted
 141. Murshid Imam, Bachelors, Numerical simulation of residual stresses in laser based additive manufacturing process, Ishaan Mishra, Dr. Anirban Mahato,
 142. Mayank Tiwari, PhD, Ergonomic study of manually operated Equipment, Neelesh Kumar Sharma, Atul thakur,
 143. Murshid Imam, Bachelors, Numerical simulation of residual stresses in laser based additive manufacturing process, Gaurav Kumar Saxena, Dr. Anirban Mahato,
 144. Mayank Tiwari, PhD, Reduction in Friction of Rolling Element Bearing, Harsh Kumar, ,
 145. Murshid Imam, Bachelors, EFFECT OF THREAD AND FLAT FACE ON FRICTION STIR WELDING OF DISSIMILAR MATERIAL 6061-T6 AA AND PURE COPPER, Amgothu Sandeep Kumar, Nil,
 146. Mayank Tiwari, PhD, Rolling Sliding Friction, Sudhanshu Kumar, Surajit Paul,
 147. Murshid Imam, Bachelors, Effect of Thread And Flat Face On Friction Stir Welding of Dissimilar Material 6061-T6 Aa And Pure Copper, M Jagan Mohan Chowdary, Nil,
 148. Mayank Tiwari, PhD, Rotor Dynamics with SMA elements, Aman K Srivastava, Akhilendra Singh,
 149. Atul Thakur, PhD, Magnetic micromanipulation of large microscopic biological objects using robotics, Dharmveer Agarwal, ,
 150. Chiranjit Sarkar, PhD, Design of Hybrid Magnetorheometer, Bittu Kumar Singh, , Comprehensive exam passed
 151. Murshid Imam, Bachelors, Semi-Coupled Resolved Computational Fluid Dynamics (CFD) Discrete Element Method (DEM) Simulation of Powder-Based Selective Laser Melting (SLM) for Additive Manufacturing, Ayush Ray, Nil,
 152. Mayank Tiwari, Bachelors, Design And Fabrication Of Pedal Electric Bicycle, ANUSHKAVATS & RISHIKUMAR, ,
 153. Atul Thakur, PhD, Robotic segregation of plastic recyclables using hyperspectral imaging technique, Mukesh Kumar Singh, ,
 154. Chiranjit Sarkar, PhD, Design of Hybrid MR brake, Rakesh Kumar Singh, , Comprehensive Exam

- passed
155. Murshid Imam, Bachelors, Semi-Coupled Resolved Computational Fluid Dynamics (CFD) Discrete Element Method (DEM) Simulation of Powder-Based Selective Laser Melting (SLM) for Additive Manufacturing, Chandan Sharma, Nil,
 156. Atul Thakur, PhD, Dynamically feasible motion planning algorithms for cluttered environments, Pritam Ojha,,
 157. Chiranjit Sarkar, PhD, Micro-mechanical modelling of MR fluid, Danishtah Quamar,,
 158. Mayank Tiwari, Bachelors, Predictive Maintenance of Rotor Stator System , Anjali Thorat (1801ME59) Priyanka Walunj (1801ME45),,
 159. Atul Thakur, PhD, Robotic mechanophenotyping of cells, Yuvaraj Kamble, Dr. Abhishek Raj,
 160. Atul Thakur, PhD, Adhesives for robotic applications, Kadali Manisankar, Prof. Mayank Tiwari,
 161. Atul Thakur, PhD, Ergonomic design of manipulator for simplification of manual cleaning operations , Neelesh Sharma, Prof. Mayank Tiwari,
 162. Surajit Kumar Paul, Masters, Effect of pre-strain on the flow behaviour of automotive steel at different strain rate, Pramod Prakash Dubey,,
 163. Atul Thakur, Masters, Development of experimental setup for robotic sorting of plastic waste, Ajayan,,
 164. Surajit Kumar Paul, Bachelors, Software Development Of Forming Limit Curve, DHEERAJ KANT,,
 165. Atul Thakur, Masters, Analysis and rectification of Vibrations in Hydraulic mould oscillator of continuous slab caster, Akash Gupta, , This project was done by the student at Arcellor Mittal as internship
 166. Surajit Kumar Paul, Bachelors, Software Development Of Forming Limit Curve, GOPAL SINGH RATHORE,,
 167. Atul Thakur, Masters, Prognosis and control of boiling crisis by leveraging acoustic emissions and deep learning., Ninad Pradeep Kuware, Dr. Rishi Raj,
 168. Surajit Kumar Paul, Bachelors, FATIGUE LIFE BY RAINFLOW METHOD, GAURAV MEENA,,
 169. Atul Thakur, Bachelors, Sanitization robot, Tholesay Hareesh and Pranay Waghmare,,
 170. Surajit Kumar Paul, Bachelors, Fatigue Life By Rainflow Method, Adiba Yasmin,,
 171. Atul Thakur, Bachelors, Animal Health Monitoring Tool, Mariya Jojoy and Anisha P B,,
 172. Mayank Tiwari, Masters, Develop a tool to identify and reduce over-testing in test component areas, Aditya Shah, Dr. Atul Thakur,
 173. Atul Thakur, Bachelors, Modelling and Simulation of Adhesive Force and Climbing in a Lizard-Inspired Robot, Akshat Jain and Aman Thakur,,
 174. Mayank Tiwari, Masters, Design, Analysis and Fabrication of Magnetic Gears, Santan Suman, R K Behera,
 175. Akhilendra Singh, Phd, Investigation of Crack Repair Using Piezoelectric Material, Ritesh Kumar, Prof Mayank Tiwari, Student successfully defended his thesis in Nov 2021.
 176. Akhilendra Singh, Phd, Mixed mode fatigue crack growth, Ratin Maity, Dr. S K paul,
 177. Akhilendra Singh, Phd, Investigation of biaxial pre strain fatigue, Amit Vikram Rex, Dr. S K paul,

Sponsored Research

1. Porous membrane based vapour venting technique for performance improvement in microchannel heat sink (CRG, SERB, Department of Science and Technology, Govt. of India, 32.83 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khan
2. Decoding the science of boiling via bubble acoustics: Towards preemptive control of vapor explosion in industrial applications (Swarnajayanti Fellowship - SERB, 334 Lakhs) PI:

3. Rishi Raj ; CO-PIs: NA
Direct Metal Laser Sintering of C103 Refractory Alloy (Defence Research & Development Organization (DRDO), 6.08 Lakhs) PI: Dr. Viswanath Chinthapenta ; CO-PIs: Dr. Murshid Imam
4. Design of a hybrid magneto rheometer operating under compression and shear mode for characterizing rheological and tribological properties of nano smart fluids (DST Nano Mission, 22.41 Lakhs) PI: Dr. Chiranjit Sarkar ; CO-PIs: NA
5. Permanent Dropwise Condensation via Amphiphilic Additives in Vapor Phase (Indo-Korea Bilateral Scheme, DST, 30 Lakhs) PI: Rishi Raj ; CO-PIs: Dr. Snehashis Daschakraborty
6. Influence of hydrogen on fatigue and fracture performance of ferritic-martensitic steel (P91) both at room and elevated temperature (Science & Engineering Research Board (SERB), 36.41 Lakhs) PI: Akhilendra Singh ; CO-PIs: Surajit Kumar Paul
7. Influence of hydrogen on fatigue and fracture performance of ferritic-martensitic steel (P91) both at room and elevated temperature (SERB (DST), 36.41 Lakhs) PI: Dr. Akhilendra Singh ; CO-PIs: Dr. S K Paul
8. Interaction of Vesicles with deformable boundary: mimicking cell-wall interaction in cardiovascular diseases (Science and Engineering Research Board (SERB), GOI, 29.98 Lakhs) PI: Dr. Abhishek raj ; CO-PIs: NA
9. Design and development of hybrid magnetorheological brake and its Tribo effectiveness studies on a brake inertia dynamometer (SERB, 37.23 Lakhs) PI: Dr. Chiranjit Sarkar ; CO-PIs: NA
10. Psychrometry Driven Design and Fabrication of An All-Season Optimal Atmospheric Water Harvester (Water Technology Initiative, DST, 32 Lakhs) PI: Rishi Raj ; CO-PIs: Dr. Ajay D. Thakur
11. Passive Torpedo Tracking using Towed Array (DRDO, 29.25 Lakhs) PI: Dr Shovan Bhaumik ; CO-PIs: Dr Subrata Kumar
12. Study of non-equilibrium flows related to space debris and nano/microfluidics (Department of Science and Technology, 35 Lakhs) PI: Dr Ashwani Assam ; CO-PIs: NA
13. Passive Two-Phase Heat Spreader for Hotspot Mitigation in Microgravity of Space (HSFC ISRO, 31 Lakhs) PI: Rishi Raj ; CO-PIs: NA
14. Development of an Ionic Liquid-based Ultra-High Heat Dissipation Module for Energy Efficient Boiling Systems (CRG Scheme SERB, 47 Lakhs) PI: Rishi Raj ; CO-PIs: NA
15. Surface Active Additives for Enhanced Flow Boiling in Microchannels (DST-RFBR Joint Call , 16 Lakhs) PI: Rishi Raj ; CO-PIs: Dr. Dmitry Zaitsev, Russia
16. Effect of burnup and ballooning and burst behavior of Zircaloy-4 cladding tubes under simulated LOCA (BRNS, 32.99 Lakhs) PI: Dr. Mohd. Kaleem Khan ; CO-PIs: Dr. Mohd. Kaleem Khan
17. Effect of burnup on ballooning and burst behavior of Zircaloy-4 cladding tubes under simulated LOCA (Board of Research in Nuclear Sciences, DAE, Govt. of India, 32.991 Lakhs) PI: Dr. Mohd. Kaleem Khan ; CO-PIs: Dr. Manabendra Pathak
18. Development of low friction rolling element bearings for enhanced Reliability and Efficiency Funding Agency (IMPRINT II SERB & National Bearing Company Pvt. Ltd, Rs. 63.00 Lakhs) PI: Mayank Tiwari ; CO-PIs: Surajit Paul. (NBC Ltd. SERB, 63 Lakhs) PI: Mayank Tiwari ; CO-PIs: Surajit K Paul
19. Effect of cyclic creep in rolling contact fatigue of railways (ASEAN-India STI Cooperation (AISTDF), 20.07 Lakhs) PI: Surajit Kumar Paul ; CO-PIs: NA
20. Development of Lizard-like Robotic Spy Surveillance System (SERB, 101.499 Lakhs) PI: Dr. Raju Halder ; CO-PIs: Dr. Atul Thakur ; Dr.

- Anshuman Bhattacharya; Dr. Rajarshi Ray; Dr. Gourinath Banda
21. Strengthening Interfacial Characterization Facilities: Funds for Improvement of S&T Infrastructure (DST FIST, 290 Lakhs) PI: HoD, ME ; CO-PIs: Rishi Raj and 6 others
 22. Mechanical and micro-structural characterization of additive friction stirred (AFS) 3D structures made of Al6061 T6 aluminium powder. (SERB, 22 Lakhs) PI: Dr. Probir Saha ; CO-PIs: NA
 23. Development of Multi-layered Microstructure Gradient Functionally Graded Composite Material using Friction stir Additive Manufacturing (Science and Engineering Research Board (Department of Science and Technology), 24.961 Lakhs) PI: Dr. Murshid Imam ; CO-PIs: Nil
 24. Developing Interfacial Characterization Facilities (ongoing) (DST-FIST , 290 Lakhs) PI: Head, Mechanical Engineering ; CO-PIs: M Pathak; R Raj; A Mahato; A Bhattacharya; C Sarkar; Deepu P; M Imam; S Kumar; K Patra
 25. Developing interfacial characterization facilities (DST-FIST, 297 Lakhs) PI: Head, Mechanical Engineering ; CO-PIs: M. Pathak, R. Raj, A. Mahato, A. Bhattacharya, C. Sarkar, Deepu P, M. Imam, S. Kumar, K. Patra
 26. Developing interfacial characterization facilities (DST, Funds for Improvement of S&T Infrastructure, (FIST, DST, 297 Lakhs) PI: Head, ME ; CO-PIs: Dr. Manabendra Pathak & other faculty members
 27. Controlling the vibrational dynamics of fluid-carrying flexible tubes via acoustic irradiation (SERB-DST, 26.5 Lakhs) PI: Deepu P ; CO-PIs: NA
 28. Development of an agricultural waste based off-the-grid climate control unit for storage and processing of agricultural produce (IMPRINT II A, 108 Lakhs) PI: Rishi Raj ; CO-PIs: Dr. Ajay D. Thakur
 29. Development of low friction rolling element bearings for enhanced Reliability and Efficiency (Science & Engineering Research Board (SERB), 47.27 Lakhs) PI: Mayank Tiwari ; CO-PIs: Surajit Kumar Paul
 30. Hybrid 3D printing with GMAW-twin wire based additive layer enhanced by friction stir processing (Ministry of Human Resource Development (Scheme for Promotion of Academic and Research Collaboration (SPARC)), 43.185 Lakhs) PI: Dr. Murshid Imam (Indian-PI); Dr. Enrique Jimenez-Melero (Foreign PI) ; CO-PIs: Dr. Viswanath Chinthapenta (Indian CO-PI); Prof. Roger Paul Webb (Foreign CO-PI)
 31. Development of Novel SMA Bearing Support and Retrofit for Enhanced Performances and Durability of Rotating Machinery (UAY MHRD and GE India Pvt. Limited, 100 Lakhs) PI: Prof Maynak Tiwari ; CO-PIs: Dr. Akhilendra Singh; Prof Srinivasan
 32. Design of Asperity for Textured Metal Surfaces to Improve Tribological Characteristic in Sliding: An In Situ Imaging Approach (DST-SERB, 28.96 Lakhs) PI: Anirban Mahato ; CO-PIs: None
 33. Experiments and Modelling of Wall-Bounded flow of Lubricating Magnetorheological Grease (SERB, 18.5 Lakhs) PI: Dr. Chiranjit Sarkar ; CO-PIs: Prof. Manabendra Pathak
 34. Improvement of fatigue and ductile fracture behavior of steel and aluminium alloy specimens by application of pulsed electric current. (Science & Engineering Research Board (SERB), 21.96 Lakhs) PI: Surajit Kumar Paul ; CO-PIs: NA
 35. Development of low cost efficient mechanism for collection of garbage and dirt for municipal corporation panchayats (Swatchta Action Plan, 16.71 Lakhs) PI: Prof. Mayank Tiwari ; CO-PIs: Dr. Atul Thakur
 36. Technological Gap Technology Gap Analysis and Long Term Technological Intervention for Different Cluster in Bihar, (TIFAC, 900000 Lakhs) PI: ; CO-PIs: Dr. S S Panda

Consultancy Projects

1. Pre-delivery Inspection of 150 Nos. E-cart Electric tipper delivered to Patna Municipal Corporation (Shilpi Engineering Works, Nagpur, 2.939 Lakhs) PI: ="Dr. ; CO-PIs: Dr. Mohd. Kaleem Khan; Dr. Anirban Bhattacharya; Dr. Anirban Mahato
2. Pre-delivery inspection of 150 units of Multi units E-cart hydraulic garbage with tipping facility to be delivered to Patna Municipal Corporation (Shilpi Engineering Works, F, bhawani Nagar, Punapur Road, Pardi, bhandara Road, Nagpur-440008, Maharashtra (INDIA), 2.93 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khan; Dr. Anirban Bhattacharya, Dr. Anirban Mahato
3. Pre-delivery inspection of 150 units of Multi utility E-cart hydraulic garbage with tipping facility to be delivered to Patna Municipal Corporation (Shilpi Engineering Works, 2.93 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khna; Dr. A. Bhattacharya; Dr. Anirban Mahato
4. Predelivery inspection of 150 unit Multi-utility E-cart hydraulic garbage with tipping facility (to be delivered to Patna Municipal Corporation) (Shilpi Engineering Works, Nagpur, 2.93 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Md Kaleem Khan; Dr. Anirban Bhattacharya; Dr. Anirban Mahato
5. Vetting technical data sheet of electro-mechanical equipments of STP (6.5 MLD capacity) at Maner, Patna (Sophisticated Industrial Materials Analytic Lab Pvt. Ltd, 2.433 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khna; Dr. S. Sivasubramani
6. Vetting of Technical datasheet of Electromechanical equipment of STP unit (6.5 MLD) at Maner, Patna (Sophisticated Industrial Materials Analytic Lab P Ltd, 2.43375 Lakhs) PI: ="Dr. ; CO-PIs: Dr. Mohd. Kaleem Khan; Dr. Siva Subramani
7. Peer review of the design of various services for the office complex & residential quarters at Wadala (Sikka Associates and Architect, 13.27 Lakhs) PI: Dr. Mohd. Kaleem Khan ; CO-PIs: Dr. M. Pathak; Dr. S. Sibramani; Dr. R. Jha; Dr. S. Hait; Dr. O. Prakash
8. Peer Review of the design of various services for the Customs office complex and residential quarters at Wadala (Sikka Associates Architects P Ltd, Delhi, 13.275 Lakhs) PI: ="Dr. ; CO-PIs: Dr. Manabendra Pathak; Dr. Siva Subramani; Dr. Rajib Jha; Dr. Subrata Hait; Dr. Om Prakash
9. Preliminary assessment of strength of civil and mechanical structure/component and feasibility report for renovation of existing old STP unit at Beur (Bhugan Infracon Pvt. Ltd., 1.062 Lakhs) PI: ="Dr. ; CO-PIs: Dr. Mohd. Kaleem Khan; Dr. Subrata Hait; Dr. Vaibhav Singhal
10. Assessment of civil and mechanical structure/components and feasibility report for renovation of existing old STP unit at Beur (Bhugan Infracon Pvt. Ltd, 1.06 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khna; Dr. S. Hait; Dr. V. Singhal
11. Vetting MEP drawings of RIO and NEPHRO blocks, IGIMS Patna (Universal Contractors & Engineers P. Ltd., 3.835 Lakhs) PI: ="Dr. ; CO-PIs: Dr. Mohd. Kaleem Khan; Dr. Subrata Hait
12. Inspection of 1 road Sweeping Machines (Model 6E), to be delivered Nagar Parishad, Danapur (Har International, 1.41 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khna; Dr. A. Bhattacharya; Dr. Anirban Mahato
13. Inspection of one unit Road Sweeping machine SE-6 (to be delivered to Nagar Parishad Danapur) (HAR International, Ludhiana, Punjab, 1.41 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Md Kaleem Khan; Dr. Anirban Bhattacharya; Dr. Anirban Mahato
14. Inspection of 1 unit of road sweeper machine model SE-6 delivered to Nagar Parishad Danapur (HAR International, Ludhiana, 1.41946

- Lakhs) PI: = "Dr. ; CO-PIs: Dr. Mohd Kaleem Khan; Dr. Anirban Bhattacharya; Dr. Anirban Mahato
15. Pre-delivery inspection of one unit of Road Sweeper machine (model: SE-6) to be delivered to Patna Nagar Parishad Danapur, Patna (HAR International, House NO. 253, Samrala, Ludhiana, Punjab-141114, 1.42 Lakhs) PI: Dr. Manabendra Pathak ; CO-PIs: Dr. Mohd. Kaleem Khan; Dr. Anirban Bhattacharya, Dr. Anirban Mahato
 16. Determine hole expansion ratio (HER) from notch tensile test (Tata Steel Limited, R&D, Jamshedpur, 17.7 Lakhs) PI: Surajit Kumar Paul ; CO-PIs: NA

Patents (filed/Granted)

1. Patent Name: System and Method for Heat Recovery in Gasification Process, Status: Granted, Ref. No: 201831011600, Patent Owner: Rishi Raj
2. Patent Name: A cutting tool, Status: Published, Ref. No: 202031032781, Patent Owner: Anirban Mahato
3. Patent Name: A biaxial stretching device for simultaneously stretching of an elastomer sample, Status: Granted, Ref. No: 378456, Patent Owner: Karali Patra
4. Patent Name: Biaxial planar tensile testing device, Status: Granted, Ref. No: 378451, Patent Owner: Karali Patra
5. Patent Name: An automatic system for blending hydrocarbons, Status: Filed, Ref. No: 202131036758, Patent Owner: Karali Patra
6. Patent Name: AN IMPROVED SYSTEM OF A PASSIVE EXOSKELETON TO REDUCE MANUAL EFFORT IN CARRYING LOAD, Status: Granted, Ref. No: 380646, Patent Owner: Mayank Tiwari

Awards

1. Anirban Bhattacharya (2022-02-28) Member, Editorial Advisory Board of journal- 'Engineering Failure Analysis', Elsevier.
2. Rishi Raj (2022-01-01) Member, Publication Committee, Indian National Academy of

- Engineering (INAE)
3. Rishi Raj (2021-12-28) Keynote Lecture
 4. Rishi Raj (2021-12-18) Prof. K. N. Seetharamu Medal and Prize
 5. Rishi Raj (2021-12-18) Member, Executive Committee, ISHMT
 6. Mohd Kaleem Khan (2021-12-14) Life member, NSFMP since 2018
 7. Mohd Kaleem Khan (2021-11-22) Life Member, ISHMT since 2022
 8. Rishi Raj (2021-11-05) Swarnajayanti Fellowship
 9. Manabendra Pathak (2021-10-31) Listed top 2% scientist in the world
 10. Anirban Bhattacharya (2021-10-19) Top 2% scientist of the world by Stanford University for the year 2020, published by Elsevier
 11. Anirban Bhattacharya (2021-09-14) Guest Editor (along with Prof. Abhay Sharma, KU Leuven, Belgium) of Special Issue 'Current Developments in Welding and Joining Technologies' of journal- Metals
 12. Mohd Kaleem Khan (2021-09-01) Associate Member, ASHRAE since 2010
 13. Mohd Kaleem Khan (2021-08-26) Member, ISES since 2018
 14. Mohd Kaleem Khan (2021-08-22) Member, ASME since 2011
 15. Rishi Raj (2021-07-22) Keynote Lecture

Journals

1. Hedau, G., Raj, R., & Saha, S. K. (2022). Complete suppression of flow boiling instability in microchannel heat sinks using a combination of inlet restrictor and flexible dampener. International Journal of Heat and Mass Transfer, 182, 121937., 108 (2021)
2. Chaitanya, B., Gunjan, M. R., Sarangi, R., Raj, R., & Thakur, A. D. (2022). Per-fluorinated chemical free robust superhydrophobic copper surface using a scalable technique. Materials Chemistry

- and Physics, 278, 125667., 56 (2021)
3. Hedau, G., Raj, R., & Saha, S. K. (2021). Effect of outlet plenum design on flow boiling heat transfer in microchannel heat sinks. *Thermal Science and Engineering Progress*, 23, 100868., 38 (2021)
 4. Gunjan, M. R., Kumar, A., & Raj, R. (2021). Cloaked Droplets on Lubricant-Infused Surfaces: Union of Constant Mean Curvature Interfaces Dictated by Thin-Film Tension. *Langmuir*, 37(22), 6601-6612., 73 (2021)
 5. Sinha, K. N. R., Kumar, V., Kumar, N., Thakur, A., & Raj, R. (2021). Deep learning the sound of boiling for advance prediction of boiling crisis. *Cell Reports Physical Science*, 2(3), 100382., 15 (2021)
 6. Verma, A., Kumar, N., & Raj, R. (2021). Direct prediction of foamability of aqueous surfactant solutions using property values. *Journal of Molecular Liquids*, 323, 114635., 114 (2021)
 7. Assam, A., & Natarajan, G. (2021). A novel least squares finite volume scheme for discontinuous diffusion on unstructured meshes. *Computers & Mathematics with Applications*, 96, 120-130., 56 (2021)
 8. Kumar, D., & Sarangi, S. (2021). A novel class of universal relation for incompressible isotropic electro-viscoelastic materials. *Mechanics Research Communications*, 117, 103784., 66 (2021)
 9. Behera, S. K., Kumar, D., & Sarangi, S. (2021). Modeling of electroviscoelastic dielectric elastomer: A continuum mechanics approach. *European Journal of Mechanics-A/Solids*, 90, 104369., 89 (2021)
 10. Kumar, V., Rai, A., Mukherjee, S., & Sarangi, S. (2021). A Lagrangian approach for the electromechanical model of single-stage spur gear with tooth root cracks. *Engineering Failure Analysis*, 129, 105662., 75 (2021)
 11. Kumar, D., Yadav, V., & Sarangi, S. (2022). Modeling and analysis of an electro-magneto-elastic rotating cylindrical tube actuator. *Journal of Intelligent Material Systems and Structures*, 1045389X211072188., 118 (2021)
 12. Kumar, V., Kumar, A., Kumar, S., & Sarangi, S. (2022). TVMS calculation and dynamic analysis of carburized spur gear pair. *Mechanical Systems and Signal Processing*, 166, 108436., 167 (2021)
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- in Compressible Flows on Hybrid-Unstructured Grid. 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2021), IIT Madras, India, December 17-20, 2022, 3 (2021)
9. A. Ananthajit, Assam, A., Training of Neural Network on Selectively Generated Data for flow over airfoils at higher angle of attack, 48th National Conference on Fluid Mechanics and Fluid Power (FMFP), Paper No. 202, BITS Pilani India, December 27-29, 2021., NA (2021)
 10. Gupta, D., Saha, P., & Roy, S. (n.d.). 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2021). In Surrogate Modeling for Prediction of Thermal Performance of Perforated micro-pin Fins using Artificial Neural Network. Chennai. , 3 (2021)
 11. Srivastava, A. K., Kumar, A., Tiwari, M., & Singh, A. (2021, August). Analytical Study of Dry Whip Phenomena During Rotor-Stator Rub. In International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (Vol. 85475, p. V010T10A014). American Society of Mechanical Engineers., Duration-3 Days (2021)
 12. Kumar, A., & Pathak, M. (2021), Dynamics of droplet impact at a low surface temperature, 48th National Conference on Fluid Mechanics and Fluid Power (FMFP-2021), 27-29 December 2021, BITS Pillani, Duration-3 Days (2021)
 13. Kumar, P., & Pathak, M. (2021), Effect of Slip Wall on the Droplet Formation in a Microfluidic T-junction, 48th National Conference on Fluid Mechanics and Fluid Power (FMFP-2021), 27-29 December 2021, BITS Pillani, Duration-3 Days (2021)
 14. Ahmad, I., Pathak, M. & Khan, M.K. (2021), Electrowetting Induced Dynamics of Microdroplet Oscillation, 48th National Conference on Fluid Mechanics and Fluid Power (FMFP-2021), 27-29 December 2021, BITS Pillani, Duration-3 Days (2021)
 15. Ranjan, A., Pathak, M. & Khan, M.K. (2021), Pool Boiling Heat Transfer of Hydrophobic Surfaces with Different Dynamic Wetting Characteristics, 48th National Conference on Fluid Mechanics and Fluid Power (FMFP-2021), 27-29 December 2021, BITS Pillani, Duration-3 Days (2021)
 16. Upadhyay, A., Kumar, N., Pathak, M. & Raj, R. (2021), Numerical Simulation of Bubble Behavior during Pool Boiling with Foaming Solutions, 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2019) 17-20 December 2021, IIT Madras, Duration-8 Days (2021)
 17. Maurya, C. S., & Sarkar, C. (2022). Field-Induced Viscoelastic and Creep and Recovery Behavior of Water-Based MR Fluids Using Bentonite and Oleic Acid as an Additive. In Materials Science Forum (Vol. 1060, pp. 141-146). Trans Tech Publications Ltd., 28 (2021)
 18. Raj, A., Sarkar, C., & Pathak, M. Numerical Analysis of Magnetorheological Grease Flow Around Heated Rotating Rollers., NA (2021)
 19. Thakur, M. K., & Sarkar, C. (2021). Effect of Sedimentation on Torque Transmission in the Larger Radius Magnetorheological Clutch. International Journal of Mechanical and Materials Engineering, 15(4), 192-196., NA (2021)
 20. 1. Tejas Goyal, Syed Ahsan Haider and, Abhishek Raj, Poroelastic modelling of biological cells, 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC), Paper no-614, Dec 17-20, 2021 (Virtual), IIT Madras, Chennai, Tamilnadu, India., NA (2021)
 21. 2.Gaurav Kumar and, Abhishek Raj, Artificial Neural Network aided prediction of the biophysical Properties of Cells utilizing constriction based microchannel, 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC), Paper no-

- 604, Dec 17-20, 2021 (Virtual), IIT Madras, Chennai, Tamilnadu, India., NA (2021)
22. 0, 70 (2021)
 23. Sharma, K., Kumar, S., Deepu, P. Forced convection in magnetohydrodynamic flow through channels and ducts filled with porous medium 20th ISME Conference on Advances in Mechanical Engineering (19th -21st May, 2022) Rupnagar, India, 2022, NA (2021)
 24. Numerical Study on Effects of Spatial Distribution of Shock Pressure Pulse on the Residual Stress Distribution Field induced by Laser Shock Peening, S S Panda, Abhishek, Duration-1 Days (2021)
 25. Sharma, N. K., Tiwari, M., Thakur, A., & Ganguli, A. K. (2021, June). Biomechanical Simulation and a Detailed Analysis of the Roadside Cleaning Activity. In Congress of the International Ergonomics Association (pp. 183-190). Springer, Cham., Duration-3 Days (2021)
 26. Das, A., Halder, R., & Thakur, A. (2021, December). Deep Reinforcement Learning-Based 3D Exploration with a Wall Climbing Robot. In TENCON 2021-2021 IEEE Region 10 Conference (TENCON) (pp. 863-868). IEEE., Duration-4 Days (2021)
 27. Sarwar, M. M. S., Yadav, R., Samanta, S., Ray, R., Halder, R., Banda, G., ... & Thakur, A. (2021, September). A Robotic Software Framework for Autonomous Navigation in Unknown Environment. In 2021 International Symposium of Asian Control Association on Intelligent Robotics and Industrial Automation (IRIA) (pp. 345-350). IEEE., Duration-5 Days (2021)
 28. Bhattacharya, A., Thakur, A., Banda, G., Ray, R., & Halder, R. (2021, September). Secure Communication System Implementation for Robot-based Surveillance Applications. In 2021 International Symposium of Asian Control Association on Intelligent Robotics and Industrial Automation (IRIA) (pp. 270-275). IEEE., Duration-5 Days (2021)
 29. Ojha, P., & Thakur, A. (2021, September). Real-Time Obstacle Avoidance Algorithm for Dynamic Environment on Probabilistic Road Map. In 2021 International Symposium of Asian Control Association on Intelligent Robotics and Industrial Automation (IRIA) (pp. 57-62). IEEE., Duration-5 Days (2021)
 30. Thakur, A., Halder, R., Banda, G., Ray, R., Bhattacharya, A., & Nishad, S. R. (2021, June). A Lizard-Inspired Quadruped Robot Based on Pressure Sensitive Adhesion Mechanism for Wall Climbing. In Advances in Robotics-5th International Conference of The Robotics Society (pp. 1-5)., Duration-5 Days (2021)
 31. Thakur, A. (2021, June). Trajectory planning in the presence of dynamic obstacles for Anguilliform-inspired robots. In Advances in Robotics-5th International Conference of The Robotics Society (pp. 1-7)., Duration-5 Days (2021)
 32. Thakur, A., Kumar, B., & Bhat, C. (2021, June). Deep Learning Based Real-Time Computation of Thrust for a Robotic Fish. In Advances in Robotics-5th International Conference of The Robotics Society (pp. 1-6)., Duration-5 Days (2021)
 33. Thakur, A. (2021, June). Multi-Layer Perceptron-based Classification of Recyclable Plastics from Waste using Hyperspectral Imaging for Robotic Sorting. In Advances in Robotics-5th International Conference of The Robotics Society (pp. 1-5)., Duration-5 Days (2021)

Book Chapters Published

1. Mukhopadhyay A., Saha P : Advances in Production and Industrial Engineering: Microstructural Characterization of Aluminium Alloy 6061 Powder Deposit Made by Friction Stir Based Additive Manufacturing Published (2021)
2. Mukhopadhaya, Akash., Saha, Probir : Key Engineering Materials: Mechanical characterization of aluminium 6061 powder deposit made by friction stir based additive manufacturing Published (2021)

Educational Packages

Sl, Title, Level, Authors, Type, Online Link

1. Virtual Fluids Lab, UG level, Akshat Jain,; Aman Kumar; Ashutosh Anand; Ashutosh Maurya; Diptanil Sarkar (Developers); Dr. Mohd. Kaleem Khan; Dr. Manabendra Pathak; Dr. Ashwani Assam (Mentors), Mobile app and website versions, <https://me.iitp.ac.in/Virtual-Fluid-Laboratory/>

Departmental Activities

1. Abhishek Raj - Coodinated the design and vetting of proposals for starting M-tech in three distinct specializations; Thermal and Fluids Engineering, Advanced Manufacturing Technology, and Mechanical Design during Jan-April 2022..
2. Deepu P - Served as intevew panel member for selection of Doctoral students in the ME Dept.
3. Anirban Bhattacharya - Coordinating M.Tech course design for M.Tech in Advanced Manufacturing Technology..
4. Deepu P - participated in writing the Fist progress report.
5. Abhishek Raj - Worked as shortlisting committee member for the selection of JTS. Shortlisted..
6. Surajit Kumar Paul - DPC member.
7. Ashwani Assam - ME Department Secretary.
8. Ashwani Assam - Course curriculum Coordinator for proposed MTech (Thermal and Fluids).
9. Probir Saha - Head of the Department.
10. Ashwani Assam - Course curriculum Coordinator (Proposed Executive MTech (MT)).
11. Deepu P - verification of JTS applications.
12. Mohd Kaleem Khan - Served as HoD of Mechanical Engineering for the period 10.03.2019 to 31.10.2021.
13. Ashwani Assam - Course curriculum Coordinator for proposed BTech (Aerospace Engineering).
14. Karali Patra - Faculty Advisor, MTech Mechatronics (2021 batch).
15. Manabendra Pathak - Faculty adviser, B.Tech. first year (2021-25) batch..
16. Ashwani Assam - Faculty Advisor M-Tech - Mechanical 2021.
17. Deepu P - prepared TA roster for spring and autumn semesters 2021.
18. Mohd Kaleem Khan - Prepared videos for the department on the instruction of Hon'ble Chairman BoG in February 2021 and July 2021..
19. Ashwani Assam - Part of the Organizing Team for the upcoming IHMTC-2023 conference at IIT Patna.
20. Deepu P - Examiner for Mtech thesis Viva voce of Brajesh Kumar Dubey (1911CE04).
21. Deepu P - Examiner for Mtech thesis Viva voce of Mr. Vivek Kumar (1911ME18).
22. Abhishek Raj - Compiled the list of selected PhD candidates for thermal and fluid engineering specilization during May and Dec 2021..
23. Akhilendra Singh - Departmental Representative for Vishweshwariya PhD scheme.
24. Akhilendra Singh - Contributed in the admission process of Master and PhD Students.
25. Akhilendra Singh - In Charge Material Testing Laboratory.
26. Abhishek Raj - Woreked as DAPC Secreatry throughout the financial year. Conucted DAPC meetings 4-5 times. Compiled and submitted grades at the end of every semester..
27. Abhishek Raj - Worked as the faculty advisor for M-tech (ME, 2020-2022) batch. Condcuted their various MTP evaluations..
28. Anirban Mahato - Departmental PhD coordinator.
29. Anirban Mahato - Faculty In charge of Advanced Characterization Laboratory.
30. Anirban Mahato - Extending FESEM and Nanoindentation facility for creating funds .
31. Anirban Mahato - Developing Surface Engineering and Manufacturing Laboratory for research.

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| <p>32. Sudhansu Sekhar Panda - TT Co-Ordinator.</p> <p>33. Anirban Bhattacharya - Faculty-in-Charge, Mechanical Engineering Workshop (continuing).</p> <p>34. Anirban Bhattacharya - Faculty-in-Charge, Measurement and Process Analysis Lab (continuing).</p> <p>35. Ashwani Assam - Faculty Advisor for B-Tech (ME) 2020.</p> <p>36. Deepu P - Faculty advisor for Mechanical Engg B.Tech .2017 batch.</p> <p>37. Deepu P - Associate time-table coordinator for the ME Department.</p> <p>38. Deepu P - served as a member in multiple doctoral committees.</p> | <p>12. Mohd Kaleem Khan - Member, Manpower Audit Committee, wherein a comprehensive report was prepared and submitted to Director's office for necessary action.</p> <p>13. Abhishek Raj - Purchased and installed mats, Curtain and Yoga-mats for Yoga Hall, Gymkhana building, where we plan to build a wellness center for IIT Patna. .</p> <p>14. Rishi Raj - Associate Dean of Resources.</p> <p>15. Atul Thakur - Associate Dean Academic.</p> <p>16. Abhishek Raj - Organized an online Interactive session with Acharya Prashant (IIT-IIM Alumnus, Ex-civil servant) at IIT Patna on 4th July 2021..</p> <p>17. Abhishek Raj - Organized and celebrated International Yoga Day 2021 online using WebEx platform. Yoga and Meditation was lead by Dr. Atul Thakur.</p> |
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Institute Activities by Faculty Members

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| <p>1. Anirban Bhattacharya - Member of the Senate, IIT Patna.</p> <p>2. Mohd Kaleem Khan - Senate member till February 2022.</p> <p>3. Abhishek Raj - Organized an online session of Performing Surya Namaskar on the occasion of Maker Sankranti Celebration as per the directions from ministry(14-01-2022) at 8:15 AM.</p> <p>4. Surajit Kumar Paul - Vice-chairman JEE.</p> <p>5. Probir Saha - Convener Institute Innovation council.</p> <p>6. Deepu P - JoSAA document verification.</p> <p>7. Abhishek Raj - Lead meditation session for IIT Patna community during October to December 2021 (10 sessions)..</p> <p>8. Akhilendra Singh - Senate nominee Board of Governor, IIT Patna.</p> <p>9. Surajit Kumar Paul - Library advisory committee.</p> <p>10. Mayank Tiwari - Associate Dean Faculty Affairs.</p> <p>11. Anirban Mahato - Member of shortlisting committee for the various position in FIST-TBI , Adv. No. IITP/FIST/RECQ/2020/03 Dated, 07.05.2021.</p> | <p>18. Abhishek Raj - Organized a webinar along with yourDOST on Staying Emotionally Healthy During COVID-19 by Dr. Jini Gopinath (Chief Psychology Officer with YourDOST) on June 3rd 2021 at 5:00 PM (using Google Meet).</p> <p>19. Abhishek Raj - Taught a series of classes on How to meditate, a total of 30 classes during March 16 June 12 2021. These sessions included theory as well as practice of Yoga and Meditation. More than 100 students, staffs and faculties joined these sessions and got benefitted..</p> <p>20. Abhishek Raj - Counselling and helped more than 20 students personally to resolve and improve their mental health. Names are not disclosed due to confidentiality.</p> <p>21. Abhishek Raj - Took the responsibility of PIC_wellness through the financial year..</p> <p>22. Anirban Mahato - Purchase committee member of Foundation for Innovators in Science and Technology, DST-TBI grant.</p> <p>23. Rishi Raj - Institute IPR Committee .</p> <p>24. Rishi Raj - PET Member, TBI, IIT Patna.</p> <p>25. Rishi Raj - Mentor, IC IITP.</p> |
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Professional Activities by Faculty Members

1. Akhilendra Singh - Delivered a talk on "Investigation of Crack Repair using Piezoelectric Material at IIT Mandi".
2. Akhilendra Singh - Delivered a talk on "FEA Formulation of Beam Elements" at NIT Hamirpur.
3. Manabendra Pathak - Keynote lecture: Understanding flow transitory in two-phase flow microchannel heat sinks 48th National Conference on Fluid Mechanics and Fluid Power 2021..
4. Rishi Raj - Served as the Session Chair and the Technical Program Committee Member (PC) member for the 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2021)..
5. Manabendra Pathak - Expert reviewer of two proposals on microchannel heat sinks and atmospheric water harvesting under SUPRA research grant, Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India, December 2021.
6. Manabendra Pathak - Expert talk: Computational fluid dynamics (CFD) approaches for investigating two-phase flows online short term course (STC) on recent applications of CFD in civil and mechanical engineering, NIT Meghalaya..
7. Deepu P - REVIEWER: IEEE Access.
8. Manabendra Pathak - Expert talk: Nanoparticles enhanced phase changed materials for thermal energy storage SERB sponsored Karyashala on Exposure on Preparation and Characterization of Nanofluids and Nanomaterials at National Institute of Jamshedpur..
9. Akhilendra Singh -Delivered an invited talk on "Introduction to Meshfree Methods" at IIT Ropar
10. Manabendra Pathak - Reviewer, Journal of Thermophysics and Heat Transfer .
11. Manabendra Pathak - Expert reviewer of INSPIRE Awards-MANAK for National Innovation Foundation.
12. Manabendra Pathak - Reviewer, Experimental Thermal and Fluid Science.
13. Mohd Kaleem Khan - Expert member in the selection committee for the post of Technical Officer at IIT(ISM), Dhanbad.
14. Manabendra Pathak - Invited talk: Design & Analysis of a flapping wing for micro air vehicles Webinar on Aero Materials, 3D Imaging & Applications organized by AR & DB (DRDO) and IIT Patna..
15. Mohd Kaleem Khan - Expert member in the selection committee for the post of Technical Officer at IIT(ISM), Dhanbad .
16. Manabendra Pathak - Reviewer, International Journal of Thermal Sciences.
17. Deepu P - REVIEWER: Journal of Fluid Mechanics.
18. Manabendra Pathak - Reviewer, Fuel,.
19. Mohd Kaleem Khan - Delivered an online talk on Design and Thermohydraulic Performance Evaluation of a Solar Concentrating Collector ATAL-AICTE Sponsored Online Faculty Development Programme on Computational Techniques in Engineering, AMU Aligarh..
20. Manabendra Pathak - Reviewer, Journal of Renewable and Sustainable Energy.
21. Manabendra Pathak - Expert talk: Solar tracking mechanism for concentrating and non-concentrating collectors Short term course on Introduction to CFD with applications in Energy Research at Indian Institute of Technology Indore..
22. Manabendra Pathak - Invited talk: Passive heat transfer enhancement techniques for concentrated solar collectors, Virtual Global Conference on Renewable Energy, NIT Patna & WEENTECH..
23. Manabendra Pathak - Reviewer, International Communication in Heat and Mass Transfer.
24. Manabendra Pathak - Reviewer, Applied Thermal

Engineering.

25. Manabendra Pathak - Expert reviewer of one proposal on Experimental Studies on fouling implication in HVAC system under core research grant, Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India.
26. Manabendra Pathak - Expert lecture: Mitigation of the instabilities during two-phase flow in microchannels, 6th Fluid Mechanics and Fluid Power workshop, BITS Pillani. .
27. Manabendra Pathak - Reviewer, International Journal of Heat and Mass Transfer.
28. Manabendra Pathak - Reviewer, ACS Industrial & Engineering Chemistry Research.
29. Anirban Bhattacharya - Reviewer of Journals.
30. Anirban Mahato - Reviewer of SERB.
31. Anirban Mahato - Reviewer of Metallurgical and Materials Transactions A.
32. Anirban Mahato - Reviewer of Bulletin of Materials Science.
33. Anirban Mahato - Reviewer of Philosophical Magazine Letters.
34. Rishi Raj - Reviewer for: International Journal of Heat & Mass Transfer, Applied Thermal Engineering, International Journal of Therm. Sciences, Experimental Thermal and Fluid Sciences, Journal of Heat Transfer Transactions of ASME, Journal of Electronic Packaging Transactions of ASME, Journal of Thermal Science and Engineering Applications Transactions of ASME, Thermal Science and Engineering Progress, Journal of Enhanced Heat Transfer, Langmuir, Soft Matter, Journal of Colloids and Interface Science, Colloids and Surfaces A: Physicochemical and Engineering Aspect, The Journal of Physical Chemistry. .

Seminar, Conference and Workshop Organised

1. Mayank Tiwari - Organizing external talks and member of committee :-VETOMAC 2021,

Member Technical Committee (Organizing external talks and member of committee) Participants: 120.

2. Murshid Imam - Organizer:-National Webinar on "RECENT TRENDS IN METAL 3D PRINTING AND ITS INDUSTRIAL APPLICATIONS", IIT Patna (Organizer) Participants: 110.

Other Academic Activities

1. Murshid Imam - Invited talk on "Recent Advancements in Design and Manufacturing" organized by Mechanical Engineering Section of University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University (AMU) will be organizing one week faculty development program (FDP) during March 22-26, 2022..
2. Mohd Kaleem Khan - External Examiner of a PhD Thesis, Department of Mechanical Engineering, MANIT Bhopal.
3. Rishi Raj - Invited Talk: Decoding the Sound of Boiling for Advance Prediction of Boiling Crisis, Department of Mechanical Engineering, IIT Ropar, February 3, 2022. .
4. Manabendra Pathak - Ph.D. thesis evaluation KIIT University, November 2021.
5. Karali Patra - Invited lecture: Applications of Particle Swarm Optimization in Machining Processes, FDP on DOE and Optimization Techniques 18-23 October, 2021, SRM Institute of Science and Technology..
6. Mohd Kaleem Khan - External expert for the pre-registration seminar of a PhD student on 25.08.2021, Department of Mechanical Engineering, NIT Patna.
7. Rishi Raj - Invited Talk: Boiling Heat Transfer with Foaming Solutions for Terrestrial and Microgravity Applications, Faculty Development Programme (FDP) on Advanced Engineered Surfaces for Phase Change Heat Transfer Application, Department of Chemical Engineering, NIT Calicut, India, July 13, 2021. .

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| <p>8. Manabendra Pathak - Ph.D. thesis evaluation KIIT University, July 2021.</p> <p>9. Murshid Imam - Invited talk on "RECENT TRENDS IN METAL ADDITIVE MANUFACTURING" organized by IQAC and Research & Development Cell, GLA University, Mathura.</p> <p>10. Manabendra Pathak - Ph.D. thesis evaluation, Academy of Scientific and Innovative Research, June 2021.</p> <p>11. Manabendra Pathak - Ph.D. thesis evaluation Kalasalingam Univeristy, May 2021.</p> <p>12. Manabendra Pathak - Ph.D. thesis evaluation NIT Jamshedpur, May 2021.</p> <p>13. Akhilendra Singh - Contributed in Evaluation of PhD Thesis of other Universities and Institutions.</p> | <p>theme of "Human Capacity Development" (Azadi Ka Amrit Mahotsav - Science, Technology and Innovation Ecosystem for Atma Nirbhar Bharat)).</p> <p>3. Mohd Kaleem Khan - Reviewed a research article for Experimental thermal and fluid science, Elsevier.</p> <p>4. Mohd Kaleem Khan - Reviewed a research article for Renewable Energy, Elsevier.</p> <p>5. Mohd Kaleem Khan - Reviewed a research article for Sadhana, Springer.</p> <p>6. Probir Saha - Invited Talk in the Department of Mechanical Engineering, ASHTA, Maharashtra on " Micro-Friction Stir Welding of AA6061-T6 Sheets: Analysis of Process Requisites and Behaviour under one week STTP on Advances in Materials and Manufacturing Techniques.</p> <p>7. Mohd Kaleem Khan - Reviewed a research article for International Journal of Energy Research, Wiley.</p> |
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Any Other Information

1. Mohd Kaleem Khan - Reviewed a research article for Renewable Energy, Elsevier.
2. Ashwani Assam - Given talk on the topic of "Growing as an Inspire Awardee" under the

METALLURGICAL AND MATERIALS ENGINEERING

Head: Dr. Devinder Yadav



DR. ANIRBAN CHOWDHURY

Associate Professor

Materials Chemistry - chemical synthesis - structural and spectroscopic characterisations - thin films & coatings - nanomaterials- sol gel - ceramics



DR. ANUP KUMAR KESHRI

Associate Professor

Plasma spraying, Mechanical and Tribological property of coatings, Graphene Coating, Tailoring Wettability, Thermal Barrier Coatings, Nitride Coatings, Corrosion Resistant Coatings, Wear Resistant Coatings



DR. AJAY KUMAR KALAYNI

Assistant Professor

Electroceramic materials- find application in Actuators, Transducers, Optical, Memory and many energy conversion devices. Research includes: Structure- Property correlation of Dielectric, Ferroelectric, Piezoelectric, Relaxors, Multiferroic, Electrocaloric and other energy conversion Materials.



DR. DINESH KUMAR KOTNEES

Associate Professor

Polymer Science and Technology with specialization in Adhesion, Blends, Composites, Fillers and Bulk/Surface properties of Polymers



DR. DEVINDER YADAV

Assistant Professor

Flash sintering of ceramics, Thermomechanical processing, Electron microscopy, EBSD and texture, Friction stir processing, Structure-property correlation



DR. TAMOGHNA CHAKRABARTI

Assistant Professor

Processing, sintering, characterization and mechanical behavior of ceramics, Ultra High Temperature Ceramics (UHTCs), Computational modelling of sintering and related phenomena, Phase field modelling study of microstructural evolution in phase transformations



PROF. B B AGRAWAL

Visiting Faculty

Process Metallurgy, Iron & Steelmaking, Pellet making, Alternate/Emerging technologies in iron & Steelmaking, Non-ferrous metallurgy, Powder Metallurgy.

Research Area

- Anup Kumar Keshri, Surface Engineering, Plasma Spray Coating, CNTs and Graphene reinforced nanocomposite coatings, Mechanical and Tribological properties of coatings, Process structure property relationship
- Anirban Chowdhury, High temperature materials
- Devinder Yadav, Flash sintering
- Devinder Yadav, Friction stir processing
- Devinder Yadav, Texture and microstructure
- Devinder Yadav, Surface crack repair
- Tamoghna Chakrabarti, Ceramic processing, computational modelling
- Ajay Kumar Kalyani, Electroceramics materials: Ferroelectric, Piezoelectric & Multiferroics
- Dinesh Kumar Kotnees, Polymer science and technology with special reference to synthesis nanomaterials from sustainability perspective
- 30, Co- instructor
- Ajay Kumar Kalyani, Spring, MM304, 3-0-0-6, 28, Co- instructor
- Ajay Kumar Kalyani, Spring, MM504, 3-0-0-6, 18, Co-instructor
- Ajay Kumar Kalyani, Spring, MM202, 3-1-0-6, 30,
- Devinder Yadav, Autumn, MM201, 3-0-0-6, 28,
- Devinder Yadav, Autumn, MM503, 3-0-0-6, 18, Co-instructor
- Devinder Yadav, Spring, MM206, 3-1-0-8, 28,
- Devinder Yadav, Spring, MM302, 3-1-0-8, 28, Co-instructor
- Devinder Yadav, Spring, MM314, 0-0-3-3, 28, Co-instructor
- Devinder Yadav, Spring, MM520, 3-0-0-6, 14, Co-instructor
- Anup Kumar Keshri, Autumn, MM205, 3-1-0-8, 30, Course PI
- Anup Kumar Keshri, Autumn, MM303, 3-0-0-6, 28, Course PI

Teaching

Sl, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

- Tamoghna Chakrabarti, Spring, MM302, 3-1-0-8, 28, As a Co-PI
- Tamoghna Chakrabarti, Spring, MM502, 3-0-0-6, 19, As a PI
- Tamoghna Chakrabarti, Autumn, MM301, 2-0-2-6, 28, As a PI
- Tamoghna Chakrabarti, Autumn, MM307, 3-0-0-6, 28, As a Co-PI
- Ajay Kumar Kalyani, Autumn, MM503, 3-0-0-6, 18, Co- instructor
- Ajay Kumar Kalyani, Autumn, MM203, 3-0-0-6,
- Anup Kumar Keshri, Spring, MM204, 3-1-0-8, 30, Course PI
- Anup Kumar Keshri, Spring, MM504, 3-0-0-6, 15, Course PI (Taught by two faculty)
- Anup Kumar Keshri, Spring, MM210, 0-0-3-3, 58, Lab PI. We have also completed the pending lab for 3rd year (28 students) in this Spring Semester.
- Anirban Chowdhury, Autumn, MM307, 3-0-0-6, 30, Co-instructor
- Anirban Chowdhury, Spring, MM306, 3-0-0-6, 30, principal instructor
- Anirban Chowdhury, Spring, MM304, 3-0-0-6, 30, Co-instructor
- Anirban Chowdhury, Autumn, MM501, 3-0-0-6,

- 14, principal instructor
25. Anirban Chowdhury, Spring, MM519, 0-0-3-3, 14, Co-instructor
 26. Anirban Chowdhury, Spring, MM517, 0-0-4-4, 14, principal instructor
 27. Dinesh Kumar Kotnees, Autumn, MM305, 3-0-0-6, 28, Instructor
 28. Dinesh Kumar Kotnees, Autumn, MM503, 3-0-0-6, 12, Co-Instructor
 29. Dinesh Kumar Kotnees, Autumn, MM519, 0-0-3-3, 12, Co-Instructor
 30. Dinesh Kumar Kotnees, Spring, MM202, 3-1-0-8, 29, Co-Instructor
 31. Dinesh Kumar Kotnees, Spring, MM312, 0-0-3-3, 28, Co-Instructor
 32. Dinesh Kumar Kotnees, Spring, MM520, 0-0-3-3, 16, Co-Instructor
 33. Dinesh Kumar Kotnees, Spring, MM520, 0-0-3-3, 12, Co-Instructor

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Anup Kumar Keshri, PhD, Graphene Based Membrane for Water Desalination with Improved Properties, P. Sai Klran, None, This is a CRG-SERB funded project.
2. Anup Kumar Keshri, PhD, Plasma Sprayed CNT Reinforced Graphene Coated Electrode for the Super Capacitor Applications: Towards Industrialization, Nirranjan, None, This is Indo Hungary funded project by DST International Division.
3. Anup Kumar Keshri, PhD, Plasma Sprayed Nano-diamond reinforced NiCrBSi Nanocomposite Coatings: Substitute to Electroplated Hard Chromium, Abhishek Kumar, None, This is a BRNS funded project.
4. Anup Kumar Keshri, PhD, Plasma Spraying of rare-earth niobates powder and controlling its stoichiometry and porosity for the advanced thermal barrier coating applications, Rahul

Kumar and Satish, , This is a GTMAP-AR&DB funded project.

5. Anup Kumar Keshri, PhD, Development and optimization of cost effective and scalable near net shape plasma sprayed membrane with graded porosity for microfiltration application., Aminul Islam, , This is SERB-IMPRINT II funded Project.
6. Anup Kumar Keshri, PhD, Development of High Temperature Wear and Corrosion Resistant Graphene Nanoplatelates Reinforced Plasma Sprayed Cr₃C₂-NiCr composite Coating for thermal power plant, Shubhendra Kumar, , This is a CPRI funded project
7. Anup Kumar Keshri, PhD, Plasma sprayed Lenthanium Cereate based Thermal barrier Coating, Pushpender Kumar, , Institute Scholar (No Co-Guide)
8. Anup Kumar Keshri, PhD, Plasma sprayed Graphene Coating, Krishnapagari Vijay Kumar, , Institute Scholar (No Co-Guide)
9. Anup Kumar Keshri, PhD, Krishna Kant Pandey, Plasm sprayed Al₂O₃-CNT-GNP reinforced coating,, Institute Scholar (No Co-Guide)
10. Dinesh Kumar Kotnees, PhD, Unique compatibilized thermoplastic elastomer nanocomposites from polypropylene and epichlorohydrin rubber, Harekrishna Panigrahi, NA,
11. Dinesh Kumar Kotnees, PhD, Polymer nanocomposites based on carbon dots, Gorbela B, Dr. Prolay Das,
12. Dinesh Kumar Kotnees, PhD, Polymer nanocomposites based on carbon dots, Smrutiranjana Nayak, NA,
13. Dinesh Kumar Kotnees, PhD, Cold sintering of ceramics in the presence and absence of polymers, Jabaseelan, Dr. Dinesh Kumar Kotnees, Supervisor: Dr. Tamoghna Chakrabarti, Co-Supervisor: Dr. Dinesh Kumar Kotnees

14. Dinesh Kumar Kotnees, Masters, Exploration of large scale synthesis of graphene-like material as a reinforcing agent for polymers, Jefin A Thachil, Dr. Swaminathan Sivaram, Co-Guide is from IISER Pune
15. Dinesh Kumar Kotnees, Masters, Cellulose-nanofiller from renewable source as a reinforcing agent for polymers, Ajish Babu,,
16. Dinesh Kumar Kotnees, Masters, Preparation of nylon-clay nanocomposites using Fuller's earth nanoclay for engineering applications, Ritu Kumari,,
17. Dinesh Kumar Kotnees, Masters, Cold sintering of silica in the absence and presence of polyvinylpyrrolidone , Saif Ahamad, Dr. Tamoghna Chakrabarti,
18. Dinesh Kumar Kotnees, Masters, Unique compatibilized polypropylene/acrylic rubber blend with improved thermoplastic elastomer properties, Vishal Kumar Gupta,,
19. Anup Kumar Keshri, Masters, Corrosion Behaviour of Plasma Sprayed Graphene Nanoplatelets Reinforced Titanium Nitride Coating, Sudha Kumari, None, None
20. Anup Kumar Keshri, Masters, Plasma Sprayed Nano-Diamond Reinforced Titanium Composite Coating with Improved Mechanical Properties, Aakash M Nair, None, None
21. Anup Kumar Keshri, Masters, Microstructural, Mechanical and Tribological behaviour of Nanodiamond reinforced Plasma Sprayed Nickel-Aluminium Coating , Shubhendra Shivam Maurya, None, None
22. Anup Kumar Keshri, Masters, Plasma Sprayed Titanium Coating with Nanodiamond reinforced Composite , Deepak Kumar, None, None
23. Anup Kumar Keshri, Masters, Microstructural and Corrosion Behavior of Plasma Sprayed Nanodiamond Reinforced NiAl Coating, Kamlesh Kumar Mirche, None, None
24. Anirban Chowdhury, Masters, Noteworthy Differences Between Vertical and Horizontally Sintered Ceramic Samples, Faiz Ali, NA, NA
25. Anirban Chowdhury, Masters, CaO-doped tetragonal ZrO₂ nanoparticles as an effective adsorbent for the removal of organic dye waste, Ritesh Singh, NA, published a paper in Applied Surface Science 596, 153651, 2022
26. Anirban Chowdhury, PhD, Burst nucleation assisted synthesis of doped-Zirconia systems, Aditya Arun, NA, NA
27. Anirban Chowdhury, PhD, Ceramic Processing, LAKSHAMAN KUMAR, NA, NA
28. Anirban Chowdhury, PhD, Fire-retardant materials, SRAVAN BOKKA, NA, NA
29. Devinder Yadav, PhD, Flash sintering of ceramics: beyond sintering, Pranav Singh,,
30. Anirban Chowdhury, PhD, Transparent Ceramics, ANNU KUMAR LAKSHYA, NA, NA
31. Devinder Yadav, PhD, Mechanical deformation through flash phenomena in oxide ceramics, Chandan Singh,,
32. Anirban Chowdhury, PhD, High Temperature Ceramics, JEJITTI ARAVIND REDDY, NA, NA
33. Devinder Yadav, Masters, Study of the flash phenomena on single crystal and polycrystals of strontium titanate, Sabyasachi Panda, Dr. Leopoldo Molina-Luna, TU Darmstadt, Germany
34. Devinder Yadav, Masters, Effect of electrical parameters on the sintering behavior, electromechanical behavior and dielectric properties of BaTiO₃ processed by flash sintering , Gaurav Vajpayee, Prof. Michael Hoffmann, Karlsruhe Institute of Technology, Germany
35. Tamoghna Chakrabarti, PhD, Densification of Piezoelectric ceramic by flash Sintering, Kumar Sadanand Arya, N.A.,
36. Tamoghna Chakrabarti, PhD, Flash sintering: understanding the inhomogeneous densification and finding solutions to the

- problem, Ammar Eqbal, N.A.,
37. Tamoghna Chakrabarti, PhD, Combined cold and flash sintering of ceramic, Rohit Raj, N.A.,
 38. Tamoghna Chakrabarti, PhD, Cold sintering of ceramics in presence and absence of polymer, Jabaseelan, Dinesh Kumar Kotnees,
 39. Tamoghna Chakrabarti, Masters, Liquid phase flash sintering of YSZ, Manavendra, N.A.,
 40. Tamoghna Chakrabarti, Masters, Cold sintering of silica, Saif Ahmad, Dinesh Kumar Kotnees,
 41. Ajay Kumar Kalyani, PhD, (K_{0.5}Na_{0.5})NbO₃ based lead free high performance piezoceramics, Ms. Ekta Kumari, ,
 42. Ajay Kumar Kalyani, Masters, Synthesis and Characterization of ferroelectric (x)PbTiO₃- (1-x)Bi(Li_{1/2}Nb_{1/2})O₃ solid solutions, Mr. Niraj Kumar, , 1-Publication: Under review

Sponsored Research

1. Liquid Phase Flash sintering of Ytria Stabilized Zirconia Ceramics (DST-SERB-CRG, 47 Lakhs) PI: Tamoghna Chakrabarti ; CO-PIs: Devinder Yadav; Ajay Kumar Kalyani
2. Electric field and temperature dependent structural and microstructural study in ferroelectric HfO₂- ZrO₂ thin films (DST- SERB, 33 Lakhs) PI: Dr. Ajay Kumar Kalyani ; CO-PIs: None
3. Plasma Spraying of rare-earth niobates powder and controlling its stoichiometry and porosity for the advanced thermal barrier coating applications (AR&DB (DRDO), 72.38 Lakhs) PI: Dr. Anup Kumar Keshri ; CO-PIs: Dr. Rahgavan K Easwaran
4. Cold sintering of ceramics in the presence and absence of polymers (Carborundum Universal Ltd., Chennai, Tamil Nadu (CUMI), 16 Lakhs) PI: Dinesh Kumar Kotnees ; CO-PIs: Tamoghna Chakrabarti
5. Cold sintering of ceramic powders in the presence of polymers (Carborundum Universal Limited, Chennai, Tamil Nadu, India, 16 Lakhs) PI: Dr. Dinesh Kumar Kotnees ; CO-PIs: Dr. Tamoghna Chakrabarti
6. Plasma Sprayed CNT Reinforced Graphene Coated Electrode for the Super Capacitor Applications: Towards Industrialization (DST, 28.2 Lakhs) PI: Dr. Anup Kumar Keshri ; CO-PIs: Dr. Ragahvan K Easwaran (Physics)
7. Graphene Based Membrane for Water Desalination with Improved Properties (CRG-SERB, 33.11 Lakhs) PI: Anup KUMar Keshri ; CO-PIs: None
8. Optimization of corrosion and wear properties in plasma sprayed Fe based metallic glass protective coatings (CRG-SERB, 220000 Lakhs) PI: Prof. Tapas Laha ; CO-PIs: Dr. Anup Kumar Keshri
9. Plasma Sprayed Nano-diamond reinforced NiCrBSi Nanocomposite Coatings: Substitute to Electroplated Hard Chromium (BRNS, 29.51 Lakhs) PI: Dr. Anup Kumar Keshri ; CO-PIs: None
10. Study of novel carbonaceous nanofillers like carbon dots on polyurethane elastomers (Manali Petrochemicals Limited, Chennai, Tamil Nadu, India, 20 Lakhs) PI: Dr. Dinesh Kumar Kotnees ; CO-PIs: Dr. Prolay Das
11. Development and optimization of cost effective and scalable near net shape plasma sprayed membrane with graded porosity for microfiltration application. (SERB-IMPRINT II, 65 Lakhs) PI: Dr. Anup Kumar Keshri ; CO-PIs: Dr. Anirban Chowdhury
12. Study on the densification and fracture properties of piezoelectric ceramics produced by novel flash sintering technique (DST INSPIRE, 35 Lakhs) PI: Tamoghna Chakrabarti ; CO-PIs: N.A.

Consultancy Projects

1. Establishing the Plasma process parameters for CUMIs GNPs, Al₂O₃-GNPs and YSZ-GNPs powder (Carborundum Universal Limited, 15 Lakhs) PI: Dr. Anup Kumar keshri ; CO-PIs: NOne

2. Developing Plasma spray coating on commercial scale (Associated Plasmatron Pvt Ltd., 17 Lakhs)
PI: Dr. Anup Kumar Keshri ; CO-PIs: NA

Patents (filed/Granted)

1. Patent Name: A DEVICE FOR FILTERING WATER AND METHOD OF FABRICATION THEREOF, Status: Filed, Ref. No: 202241014999, Patent Owner: Anup Kumar Keshri
2. Patent Name: Un-modified Fuller's earth reinforced cured elastomeric composite and method thereof, Status: Granted, Ref. No: 201941012523, Patent Owner: Dinesh Kumar Kotnees
3. Patent Name: Plasma Sprayed Carbon Nanotube Reinforced Molybdenum Disulphide Anti-Friction Coating, Status: Filed, Ref. No: 202111042583, Patent Owner: Anup Kumar Keshri
4. Patent Name: Bimodal structure based thermal barrier coating composition, process for preparation thereof, and substrate coated therewith Submitted as, Status: Filed, Ref. No: 202111039562, Patent Owner: Anup Kumar Keshri
5. Patent Name: Rubber Composition for tire bead insulation and pneumatic tire, Status: Published, Ref. No: 201941043079, Patent Owner: Dinesh Kumar Kotnees

Awards

1. Anup Kumar Keshri (2021-08-01) Membership

Journals

1. Islam, A., Mukherjee, B., Pandey, K. K., & Keshri, A. K. (2021). Ultra-fast, chemical-free, mass production of high quality exfoliated graphene. *ACS nano*, 15(1), 1775-1784., 202 (2021)
2. Choudhary, S., Islam, A., Mukherjee, B., Richter, J., Arold, T., Niendorf, T., & Keshri, A. K. (2021). Plasma sprayed lanthanum zirconate coating over additively manufactured carbon nanotube reinforced Ni-based composite: unique performance of thermal barrier coating system

without bondcoat. *Applied Surface Science*, 550, 149397., 111 (2021)

3. Shukla, D. K., Mukherjee, B., Islam, A., & Keshri, A. K. (2021). Peculiar high temperature tribological behaviour of plasma sprayed graphene nanoplatelets reinforced cerium oxide coatings. *Ceramics International*, 47(12), 17809-17812., 88 (2021)
4. Pandey, K. K., Shukla, D. K., Verma, R., & Keshri, A. K. (2021). Mechanical property and adhesion strength of carbon nanofillers reinforced alumina single splats using in-situ picroindentation and nanoscratch test. *Ceramics International*, 47(19), 26800-26807., 88 (2021)
5. Singh, S., Sharma, S., & Keshri, A. K. (2021). Tribological Behaviour of Plasma-Sprayed Graphene Nanoplatelets Reinforced Hydroxyapatite Nanocomposite Coating. *Transactions of the Indian Institute of Metals*, 74(11), 2901-2907., 25 (2021)
6. Singh, S., Pandey, K. K., Balla, V. K., Das, M., & Keshri, A. K. (2021). Corrosion, Wear and In-vitro Biocompatibility Property of Surface Mechanical Attrition Treatment Processed Ti-6Al-4V Alloy. *JOM*, 73(12), 4387-4396., 48 (2021)
7. Pathak, A., Mukherjee, B., Pandey, K. K., Islam, A., Bijalwan, P., Dutta, M., ... & Keshri, A. K. (2022). Processstructureproperty relationship for plasma-sprayed iron-based amorphous/crystalline composite coatings. *International Journal of Minerals, Metallurgy and Materials*, 29(1), 144-152., 23 (2021)
8. Davis, R., Singh, A., Debnath, K., Sabino, R. M., Popat, K., Soares, P., ... & Borgohain, B. (2022). Enhanced Micro-Electric Discharge Machining-Induced Surface Modification on Biomedical Ti-6Al-4V Alloy. *Journal of Manufacturing Science and Engineering*, 144(7), 41 (2021)
9. Verma, R., Sharma, S., Mukherjee, B., Singh, P., Islam, A., & Keshri, A. K. (2022). Microstructural, mechanical and marine water tribological properties of plasma-sprayed graphene

- nanoplatelets reinforced Al₂O₃-40 wt% TiO₂ coating. *Journal of the European Ceramic Society*, 42(6), 2892-2904., 64 (2021)
10. Pandey, K. K., Singh, P., Pathak, A., Bijalwan, P., Dutta, M., Banerjee, A., & Keshri, A. K. (2022). Tailoring the Mechanical, Tribological and Corrosion Behavior of Fe-Based Metallic Glass Coating Synthesized Using Atmospheric Plasma Spraying. *Journal of Thermal Spray Technology*, 1-13., 32 (2021)
 11. Islam, A., Sharma, A., Singh, P., Pandit, N., & Keshri, A. K. (2022). Plasma-sprayed CeO₂ overlay on YSZ thermal barrier coating: Solution for resisting molten CMAS infiltration. *Ceramics International*, 48(10), 14587-14595., 88 (2021)
 12. Rajesh, K., Ghosh, S., Islam, A., Rangaswamy, M. K., Haldar, S., Roy, P., ... & Lahiri, D. (2022). Multilayered porous hydroxyapatite coating on Ti6Al4V implant with enhanced drug delivery and antimicrobial properties. *Journal of Drug Delivery Science and Technology*, 70, 103155., 40 (2021)
 13. Bijalwan, P., Pandey, K. K., Sharma, S., Singh, P., Dan, A., Banerjee, A., ... & Keshri, A. K. (2022). Single-step approach to tune the wettability of plasma sprayed crystalline and amorphous Fe-based coating. *Surfaces and Interfaces*, 30, 101979., 35 (2021)
 14. Islam, A., Raghupathy, B. P. C., Sivakumaran, M. V., & Keshri, A. K. (2022). Ceramic membrane for water filtration: Addressing the various concerns at once. *Chemical Engineering Journal*, 446, 137386., 154 (2021)
 15. Bhandari, S., Mishra, T. P., Guillon, O., Yadav, D., & Bram, M. (2022). Accessing the role of Joule heating on densification during flash sintering of YSZ. *Scripta Materialia*, 211, 114508., (2021)
 16. Kumar, L., Arun, A., & Chowdhury, A. (2021). Can a shape factor in bulk ceramics mitigate unwanted phase transformations?. *Scripta Materialia*, 190, 52-56., 79 (2021)
 17. Kumar, K., & Chowdhury, A. (2021). Reviewing the cases of Nanoscale Heterogeneity in Ceramics: Boon or Bane?. *Materialia*, 16, 101109., 31 (2021)
 18. Arun, A., Kumar, L., & Chowdhury, A. (2021). Structure-property relations for a phase-pure, nanograined tetragonal zirconia ceramic stabilized with minimum CaO doping. *Journal of the American Ceramic Society*, 104(7), 3497-3507., 59 (2021)
 19. Lakshya, A. K., Kumar, L., Kumar, K., & Chowdhury, A. (2022). Crucial dependence of trivial processing factors on the texture-electrical resistivity relationship of La₂Ce₂O₇ ceramic. *Materials Letters*, 314, 131858., 65 (2021)
 20. Kumar, R., Pathak, A., Singh, P., & Kumar, K. D. (2021). In-situ Production and Collection of Bacterial Cellulose on Jute and Flax Mats by Static Cultivation. *Journal of Natural Fibers*, 1-11., 41 (2021)
 21. Singh, P., Kumar, K. D., & Kumar, R. (2022). Degradation of Polyfurfuryl Alcohol-Based Biopolymer by Soil-Burial and Photo-Degradation Methods. *Journal of Polymers and the Environment*, 30(5), 1920-1931., 46 (2021)
 22. Mandal, S., Panigrahi, H., Kumar, K. D., & Das, P. (2022). Unveiling pressure-sensitive adhesiveness of a carbonized polymer dot. *Polymer*, 125102., 67 (2021)

Conference

1. NA, Duration-5 Days (2021)

Text Books

1. Dr. Dinesh Kumar Kotnees and Prof. Anil K. Bhowmick : Rubber to rubber adhesion Published by (Wiley Scrivener Publishing), https://books.google.co.in/books/about/Rubber_to_Rubber_Adhesion.html?id=qPc6EAAAQBAJ&source=kp_book_description&redir_esc=y (2021)

Book Chapters Published

1. Anup Kumar Keshri, Swati Sharma : Thermal Spray Coatings: Instant Tuning of Wettability of

- Metallic Coating Published (2021)
2. Kundan Kumar, Anirban Chowdhury : Encyclopedia of Materials: Plastics and Polymers, Reference Module in Materials Science and Materials Engineering: Nanoscale Heterogeneity in Amorphous and Semi-crystalline Materials: A Technical Perspective, in Elsevier Published (2021)
 3. Bokka S, Chowdhury A : Encyclopedia of Materials: Plastics and Polymers, Reference Module in Materials Science and Materials Engineering: Reviewing the Potential of Novel Nanofillers in Polymer Matrices for Advanced Technological Applications Published (2021)
 4. Bokka S, Chowdhury A : Encyclopedia of Materials: Plastics and Polymers, Reference Module in Materials Science and Materials Engineering: Evolving Trends of Nanotechnology for Medical and Biomedical Applications: A Review Published (2021)
 3. Dinesh Kumar Kotnees - DAPC coordinator, MME department, IIT Patna.
 4. Tamoghna Chakrabarti - DAPC Secretary of MME department .
 5. Dinesh Kumar Kotnees - Faculty advisor B. Tech (MME) 2021 batch.
 6. Devinder Yadav - Head of the department.
 7. Anup Kumar Keshri - Dept. HoD.
 8. Devinder Yadav - M.Tech faculty advisor.
 9. Devinder Yadav - Department library in-charge.

Institute Activities by Faculty Members

1. Anirban Chowdhury - Institute library committee representative.
2. Dinesh Kumar Kotnees - PIC Faculty affairs.

Other Academic Activities

1. Anirban Chowdhury - Invited lecture on "Utilisation of Raman Spectroscopy in Ceramics: Some Case Studies" in the Virtual Webinar and training program on Raman Spectroscopy, jointly organized by Indian Institute of Technology, Kharagpur and HORIBA Scientific India on 11-12 November, 2021..
2. Devinder Yadav - Reviewed papers for: JALCOM; Mater. Charact; Trans IIM; Sadhana; Mater. Des;

Departmental Activities

1. Anirban Chowdhury - B.Tech. faculty advisor (UG batch 2019).
2. Anup Kumar Keshri - Institute Senate Member.

PHYSICS

Head: Dr. Ajay D. Thakur



DR. AJAY D. THAKUR

Associate Professor

Condensed Matter Physics, advanced electronic materials for energy harvesting and sensing applications



DR. ALPANA NAYAK

Assistant Professor

Condensed matter physics (experimental), Nanoionic devices; atomic switches, Scanning probe microscopy, Organic thin films



DR. ARGHYA CHOUDHURY

Assistant Professor

Particle Physics, Collider Physics, Physics beyond the Standard Model, Supersymmetry, Higgs Physics, Dark Matter.



PROF. AWALENDRA K. THAKUR

Professor

Renewable Energy Resources, Composite Nano Structures, Solid State Ionics, Dielectrics and Ferroelectrics, Super Capacitors, E.M.I. Shielding.



DR. AYASH KANTO MUKHERJEE

Asst. Professor

Transport in conjugated polymers, Organic electronic devices, Molecular electronics



DR. JOBIN JOSE

Assistant Professor

Computational atomic and molecular physics



DR. MANAS KUMAR SARANGI

Assistant Professor
Biophysics and Ultrafast Spectroscopy



DR. MANORANJAN KAR

Associate Professor
Magnetic materials, Nanostructured ferrites, Multiferroic Materials, Composites



PROF. NAVEEN KUMAR NISHCHAL

Professor
Applied Optics (Optical Information Processing, Image Encryption, Watermarking, Digital Holography, Fractional Fourier Transform-based Signal Processing, Correlation-based Optical Pattern Recognition)



DR. NEHA KIRITKUMAR SHAH

Assistant Professor
Experimental High Energy Physic, Heavy-ion Collisions: Understanding strong interactions using two-particle correlation functions, Understanding QCD phase diagram with strangeness production, Hypernuclei and antimatter production, Exotics: Dibaryons, pentaquarks and Hadron spectroscopy



DR. PRAKASH PARIDA

Assistant Professor
Condensed Matter Theory, Quantum Transport, Two-Dimensional Layered Materials, Topological Insulators, Charge-Spin-Heat Transport, Strong Correlated Electronic Systems, Light-Matter Interaction



DR. RAGHAVAN K EASWARAN

Assistant Professor
Quantum Optics (Experiment and Theory)



DR. SOUMYA JYOTI RAY

Asst. Professor

Two-dimensional Layered Materials, Nanoelectronics, Spintronics, Superconductivity, Magnetism



DR. UTPAL ROY

Associate Professor

Bose-Einstein condensate, Nonlinear Optics, Quantum Optics, Quantum Physics



DR. VENKATA R. DANTHAM

Associate Professor

Bio-Photonics, Nanophotonics, Ultrasensitive optical biosensors, Photonic atoms

Research Area

1. Utpal Roy, Quantum Information and Quantum Sensing
2. Utpal Roy, Bose-Einstein Condensate
3. Utpal Roy, Quantum Computation
4. Utpal Roy, Optical Lattices and Quantum Simulation
5. Utpal Roy, Quantum Machine Learning
6. Utpal Roy, Nonlinear Optics
7. Alpana Nayak, Nano systems research, thin films, Langmuir-Blodgett films, resistive switching devices, memristors, neuromorphic systems
8. Prakash Parida, Condensed Matter Theory
9. Soumya Jyoti Ray, Condensed Matter Physics, Nanoelectronics, Spintronics, Energy
10. Ayash Kanto Mukherjee, Organic electronics
11. Ayash Kanto Mukherjee, Charge dynamics in conjugated organic molecule/conjugated organic polymer system
12. Ayash Kanto Mukherjee, Metal-organic semiconductor interface electronics
13. Manoranjan Kar, Experimental Condensed Matter Physics, Magnetic Materials, Ferroelectrics, Multiferroics, Magneto-Electric, Strongly correlated Electron system
14. Ajay Thakur, Condensed Matter Physics
15. Jobin Jose, Computational atomic, molecular and optical physics
16. Raghavan K Easwaran, Quantum Technology, Quantum Memory, Quantum Optics and Cold Atom Physics (Experiment and Theory for all)
17. Arghya Choudhury, High Energy Physics
18. Manas Kumar Sarangi, Ultrafast spectroscopy, Biophysics, Nanomaterials, Perovskites
19. Arghya Choudhury, Physics beyond the Standard Model
20. Arghya Choudhury, Higgs Physics
21. Arghya Choudhury, Neutrino Physics
22. Arghya Choudhury, Dark Matter
23. Arghya Choudhury, Dark Matter

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|---|--|
| 24. Arghya Choudhury, Collider physics | 13. Soumya Jyoti Ray, Spring, PH440, 0-0-6-6, 48, |
| 25. Arghya Choudhury, Supersymmetry | 14. Ayash Kanto Mukherjee, Autumn, PH429, 2-1-0-6, 30, |
| 26. Naveen Kumar Nishchal, Applied Optics & Holography | 15. Ayash Kanto Mukherjee, Autumn, PH110, 0-0-3-3, 66, These students belong to 2020 Btech batch |
| 27. Awalendra Kumar Thakur, Experimental Condensed Matter Physics | 16. Ayash Kanto Mukherjee, Spring, PH110, 0-0-3-3, 69, These students belong to 2021 Btech batch |
| 28. Awalendra Kumar Thakur, Design, Fabrication and Assembly of Battery Management System (BMS) Product | 17. Ajay Thakur, Autumn, PH523, 3-1-0-8, 24, |
| 29. Awalendra Kumar Thakur, Renewable Energy Storage Technology (Storage Cell, Supercapacitor, Fuel Cell and SPV) | 18. Ajay Thakur, Autumn, PH701, 3-0-0-6, 17, |
| 30. Venkata Ramanaiah Dantham, Nanophotonics and Biophotonics | 19. Ajay Thakur, Spring, PH424, 3-1-0-8, 23, |
| 31. Raghavan K Easwaran, Optics, Non-Linear Physics and Atomic Physics | 20. Ajay Thakur, Autumn, PH110, 0-0-3-3, 69, Semester started late for 1st year B.Tech. |

Teaching

Sl, Faculty Name, Semester, Subject Code, L-T-P, No of Students, Additional Information

- | | |
|--|--|
| 1. Venkata Ramanaiah Dantham, Autumn, PH604, 3-0-0-6, 7, | 21. Ajay Thakur, Spring, PH110, 0-0-3-3, 63, Semester started late for 1st year B.Tech. |
| 2. Venkata Ramanaiah Dantham, Autumn, PH704, 3-0-0-6, 17, | 22. Arghya Choudhury, Autumn, PH525, 3-1-0-8, 22, |
| 3. Venkata Ramanaiah Dantham, Spring, PH426, 3-1-0-8, 25, | 23. Arghya Choudhury, Autumn, PH702, 3-0-0-6, 14, |
| 4. Venkata Ramanaiah Dantham, Spring, PH527, 2-0-2-6, 20, | 24. Arghya Choudhury, Spring, PH420, 2-1-0-6, 23, |
| 5. Venkata Ramanaiah Dantham, Summer, PH103, 3-1-0-8, 240, | 25. Arghya Choudhury, Spring, PH703, 3-0-0-6, 13, |
| 6. Utpal Roy, Autumn, PH425, 3-1-0-8, 30, Quantum Mechanics-I | 26. Prakash Parida, Autumn, PH427, 2-0-2-6, 22, |
| 7. Utpal Roy, Autumn, PH421, 3-1-0-8, 30, Mathematical Physics | 27. Prakash Parida, Autumn, PH110, 0-0-3-3, 62, |
| 8. Utpal Roy, Spring, PH602, 3-0-0-6, 31, Quantum Optics & Quantum Information | 28. Prakash Parida, Spring, PH428, 2-0-3-7, 22, |
| 9. Utpal Roy, Spring, PH603, 3-0-0-6, 29, Physics of Ultracold Atoms | 29. Prakash Parida, Spring, PH426, 3-1-0-8, 22, Shared with another instructor |
| 10. Soumya Jyoti Ray, Autumn, PH521, 3-0-1-8, 25, | 30. Naveen Kumar Nishchal, Spring, PH301, 3-0-0-6, 142, |
| 11. Soumya Jyoti Ray, Autumn, PH430, 0-0-6-6, 48, | 31. Naveen Kumar Nishchal, Autumn, PH201, 3-0-0-6, 75, |
| 12. Soumya Jyoti Ray, Spring, PH513, 3-0-0-6, 27, | 32. Naveen Kumar Nishchal, Autumn, PH110, 0-0-3-3, 72, |
| | 33. Naveen Kumar Nishchal, Autumn, PH609, 3-0-0-6, 10, |
| | 34. Jobin Jose, Autumn, PH103, 3-1-0-8, 257, |
| | 35. Jobin Jose, Spring, Ph103, 3-1-0-8, 265, |
| | 36. Raghavan K Easwaran, Spring, PH103, 3-1-0-8, 395, Feed back score 4.89/5, This semester for first year B.Tech started from December 2020-April 2021 due to COVID |
| | 37. Raghavan K Easwaran, Autumn, PH103, 3-1-08, 257, Feed back score 4.88/5, This semester for first year B.Tech started from November 2021- |

- March 2022 due to COVID
38. Raghavan K Easwaran, Spring, PH103, 3-1-0-8, 254, This is ongoing semester for first year B.Tech started from March 2022 due to COVID
 39. Awalendra Kumar Thakur, Autumn, PH502, 3-0-0-6, 15, Nanomaterials for Photovoltaics
 40. Awalendra Kumar Thakur, Autumn, PH403, 3-0-0-6, 55, Photovoltaics & Fuel Cell Technology
 41. Awalendra Kumar Thakur, Spring, NT512, 3-0-0-6, 7, Nanoscale Devices
 42. Awalendra Kumar Thakur, Spring, PH110, 0-0-3-3, 69, Physics Lab (B. Tech.)
 43. Manoranjan Kar, Autumn, PH401, 3-0-0-6, 159,
 44. Manoranjan Kar, Autumn, PH702, 3-0-0-6, 11,
 45. Manoranjan Kar, Spring, PH203, 3-0-0-6, 95,
 46. Manas Kumar Sarangi, Autumn, PH423, 3-1-0-8, 24,
 47. Manoranjan Kar, Spring, PH605, 3-0-0-6, 5,
 48. Manas Kumar Sarangi, Spring, PH-422, 3-1-0-8, 10,
 49. Manas Kumar Sarangi, Autumn, PH-110, 0-0-3-3, 68,
 50. Jobin Jose, Others, Ph103, 3-1-0-8, 170, This session of 2020 got delayed due to covid uncertainties
 51. Jobin Jose, Autumn, PH421, 3-1-0-8, 27,
 52. Alpana Nayak, Autumn, PH110, 0-0-3-3, 65,
- nanoplasmonic-photonic hybrid biosensors, Pranabjyoti Patar, Nil,
 4. Venkata Ramanaiah Dantham, PhD, Studying optical properties of complex shaped nanoplasmonic structures , Sibanisankar Sahoo, Nil,
 5. Venkata Ramanaiah Dantham, PhD, Surface plasmon resonance based biosensors , Anamika Sharma, Nil,
 6. Venkata Ramanaiah Dantham, Masters, Optical communication using orbital angular momentum of light, Shivam Singh, Dr. Sumanta Gupta,
 7. Venkata Ramanaiah Dantham, Masters, Fluorescence enhancement in the presence of high quality factor microcavities and plasmonic nanocavities , Prateek Kumar Singh, Nil,
 8. Venkata Ramanaiah Dantham, Masters, Enhancement of single molecule Raman scattering signal using Photonic nanojet mediated SERS technique, Raveena Gambhir, Nil,
 9. Venkata Ramanaiah Dantham, Masters, Experimental and theoretical observation of whispering gallery modes for sensing applications, Arya Kumar Siddharth, Nil,
 10. Soumya Jyoti Ray, PhD, Switching and memory applications using novel materials, Shantanu Majumdar, NA,
 11. Manas Kumar Sarangi, PhD, Photo induced charge transfer on functionalized nanomaterials by microscopy and ultrafast time-resolved Spectroscopy, Ranjan Kumar Behera, ,
 12. Utpal Roy, PhD, Quantum Simulation for Trapped Ultracold Atoms and Quantum Sensing, Mr. Barun Halder, , Synopsis given.
 13. Soumya Jyoti Ray, PhD, 2D nanoelectronics and sensing, Shivani Rani, NA, Thesis submitted.
 14. Utpal Roy, PhD, Models in Quantum Optics for Quantum Information and Quantum Sensing , Mr. Abdul Q. Batin, ,
 15. Utpal Roy, PhD, Quantum Optical Algorithm for

Guidance

Sl, Supervisor, Level, Title of Project, Name of Students, Name of Co-Supervisor, Remarks

1. Venkata Ramanaiah Dantham, PhD, Real time detection and sizing of single protein molecule using a nanoplasmonic-whispering gallery mode hybrid microresonator, Pragya Tiwari, Nil,
2. Venkata Ramanaiah Dantham, PhD, Study of single molecule Raman scattering using photonic nanojet mediated SERS technique, Tania Mahata, Nil,
3. Venkata Ramanaiah Dantham, PhD, Real-time detection of single protein molecules using

- Quantum Machine Learning, Mr. Vivek Mehta, Dr. Arghya Choudhury,
16. Utpal Roy, PhD, Engineered Optical Lattices and Solitary Waves, Mr. Pradosh Basu,,
 17. Utpal Roy, PhD, Quantum Technology with Ultracold Atoms, Mr. Sriganapathy Raghav,,
 18. Soumya Jyoti Ray, PhD, Van der Waals materials, Subhasmita Kar, NA,
 19. Utpal Roy, PhD, Spontaneous Parametric Down Conversion of an Airy Beam, Mr. Vicky Sau,,
 20. Utpal Roy, PhD, Wave Packet Dynamics for Quantum Precision Measurements, Ms. Jayashree Das,,
 21. Soumya Jyoti Ray, PhD, Magnetism in 2D systems, Puja Kumari, NA,
 22. Soumya Jyoti Ray, PhD, 2D hybrid systems, Towhidur Rahaman, NA,
 23. Soumya Jyoti Ray, PhD, Magnetic Oxides, Saurav Kumar, NA,
 24. Soumya Jyoti Ray, PhD, Neuromorphic Circuit, Arpita Roy, NA,
 25. Soumya Jyoti Ray, PhD, Non-volatile memory , Dimpal Kumari, NA,
 26. Soumya Jyoti Ray, PhD, Energy storage, Shubham Sahoo, NA,
 27. Soumya Jyoti Ray, PhD, Energy Harvesting, Neelam Gupta, NA,
 28. Soumya Jyoti Ray, Masters, Thermoelectric behaviour of $kCu_x(x=s, se)$ materials, Shubham Kumar, NA,
 29. Soumya Jyoti Ray, Masters, Prediction of stock's behaviour using statistical and physics-based models, Utsav, Dr. Rajendra Pramanik, HSS, IIT Patna,
 30. Soumya Jyoti Ray, Masters, Transport studies in 2D materials, Mukesh Kumar, NA,
 31. Soumya Jyoti Ray, Masters, Superconducting Spintronics, Tania Patra, NA, Summer Intern/INSPIRE Fellow (IIT Kharagpur)
 32. Soumya Jyoti Ray, Masters, Synthesis of graphene oxide, Akanksha Anand, NA, Worked on a research project as part of the master degree from Patna University.
 33. Soumya Jyoti Ray, Masters, 2D Ising Model, Abhinav Arun, NA, Summer Intern (NIT Warangal)
 34. Soumya Jyoti Ray, Masters, Topological Insulators, Binita Malik, NA, Summer Intern (IEST Shibpur)
 35. Utpal Roy, Masters, Quantum Information in Phase Space, Yaswanth R,,
 36. Utpal Roy, Masters, Disordered Optical Lattices and Ultracold Atoms, Ashok Kumar Saini,,
 37. Utpal Roy, Masters, Nonlinear Schrodinger Equations in a Variety of Physical Situations , Sunil Kumar,,
 38. Utpal Roy, PhD, Dynamics of Matter Rogue Waves under External Trap, Mr. Nilanjan Kundu,, Thesis Submitted
 39. Jobin Jose, PhD, Electronic Structure and Dynamics of Free and Confined Atomic Systems, Dr. Subhasish Saha,, Ph. D. is awarded in July 2021
 40. Jobin Jose, PhD, Atom / Electron Elastic Scattering From Bare And Endohedral Fullerenes, Dr. Akanksha Dubey,, Ph. D. is awarded in July 2021
 41. Jobin Jose, Masters, Shannon Entropy of Resonant Scattered State, Shruti Sarswat,, The student graduated in July 2021
 42. Ayash Kanto Mukherjee, Others, STUDY OF MAGNETOCALORIC EFFECT AND CRITICAL MAGNETIC PHENOMENA ON HEUSLER ALLOYS FOR COOLING APPLICATION, Subhadeep Dutta,, Chairman of Doctoral Committee of Mr. Subhadeep Dutta
 43. Ayash Kanto Mukherjee, Others, Study Of Electrical and Magnetic Properties On Multiferroic Composites (Ferroelectric-Ferro/Ferrimagnetic), Anant Shukla,, Chairman of Doctoral Committee of Mr. Anant Shukla
 44. Ayash Kanto Mukherjee, Others, Dielectric

- Composites for capacitor/supercapacitor applications, Mukesh Yadav, , Member of Doctoral Committee of Mr. Mukesh Yadav
45. Ayash Kanto Mukherjee, Others, Enhancement of (BH)max on hexaferrite for permanent magnet application., Sushree Nibedita Rout, , Member of Doctoral Committee of Ms. Sushree Nibedita Rout
 46. Ayash Kanto Mukherjee, Masters, An investigation on charge transport in organic schottky diode, Arghya Jana, ,
 47. Ayash Kanto Mukherjee, PhD, Title of Ph.D problem was not decided in the sessions 2021-22 as student was doing course work., Samayun Saikh, ,
 48. Ayash Kanto Mukherjee, PhD, Title of Ph.D problem was not decided in the sessions 2021-22 as student is doing course work., Nikitha Rajan, ,
 49. Ayash Kanto Mukherjee, Bachelors, An experimental investigation on series LCR circuit, Arghya Maity, , The student is a summer intern from IISER Kolkata who just finished his first year in B.Sc. (Physics)
 50. Manoranjan Kar, PhD, CRYSTAL STRUCTURE AND MAGNETIC PROPERTIES STUDY ON ZN/GD SUBSTITUTED BARIUM HEXAFERRITE AND MAGNETIC COMPOSITES (BAFE12O19+ COFE2O4/ COFE1.75ZN0.25O4/CUFE2O4), Murli Kumar Manglam, NA,
 51. Manoranjan Kar, PhD, Correlation between crystal structure transition and electrocaloric effect on perovskite materials, Jyotirekha Mallick, NA,
 52. Manoranjan Kar, PhD, Study of Magnetocaloric Effect and Critical Magnetic Phenomena On Heusler Alloys For Cooling Application, Subhadeep Datta, NA,
 53. Manoranjan Kar, PhD, Reversible Magnetocaloric Effect Across First Order Magneto-Structural Transition in Heusler Alloys, Shantanu Kumar Panda, NA,
 54. Manoranjan Kar, PhD, Study of Electrical and Magnetic Properties on Multiferroic Composites (Ferroelectric-Ferro/ferrimagnetic), ANANT SHUKLA, NA,
 55. Ayash Kanto Mukherjee, PhD, Inorganic organic Hybrid System for non Von-Neumann Architecture, Indranil Maity, Ayash Kanto Mukherjee,
 56. Ayash Kanto Mukherjee, Others, Studying Atomic Switch Network for Brain Type Learning, Anwasha Mahapatra, , Chairman of Doctoral Committee for Ms. Anwasha Mahapatra
 57. Ayash Kanto Mukherjee, Others, Investigation on Memristive Materials for Atomic Switch Applications, Itishree Pradhan, , Member of Doctoral Committee for Ms. Itishree Pradhan
 58. Prakash Parida, PhD, Floquet Topological Insulator, Gulshan Kumar, ,
 59. Alpana Nayak, PhD, Films of discotic liquid crystals, Nishant Kumar, Not applicable,
 60. Prakash Parida, PhD, Two-Dimensional Material, Ajay Kumar, ,
 61. Alpana Nayak, PhD, Atomic switch using inorganic 2D oxide materials, Itishree Pradhan, Not applicable,
 62. Prakash Parida, PhD, Quantum Transport, Parbati Senapati, ,
 63. Alpana Nayak, PhD, Neuromorphic properties of atomic switch devices, Anwasha Mahapatra, Not applicable,
 64. Prakash Parida, PhD, Kagome Lattice, Shashikant Kumar, ,
 65. Alpana Nayak, PhD, Thin organic films of photoisomeric molecules and its applications, Priyanka Priyadarshini Shamal, Not applicable,
 66. Prakash Parida, Masters, Weyl Semimetal, Aman Saxena, ,
 67. Jobin Jose, Phd, Theoretical study of photoionization from high-Z atoms, Saumyashree Baral, , Ongoing
 68. Jobin Jose, Phd, Angular time delay in electron

- scattering from the C60, Aiswarya R., Ongoing
69. Jobin Jose, Masters, Feynmans Path Integral approach: A novel method to break the symmetry to study off-center confined and exohedral atoms , Roshan Singh, , Flnished in June, 2022
 70. Jobin Jose, Masters, Entropic properties of ground and excited states of atoms , Sooraj K. S, Sandra Antony, , Ongoing; The students are doing Masters in Devematha college, Kerala
 71. Arghya Choudhury, Phd, Neutrino Physics in BSM models, Arpita Mondal, ,
 72. Arghya Choudhury, Phd, Exploring BSM physics at the LHC, Subhadeep Sarkar, ,
 73. Arghya Choudhury, Masters, Searches for Dark Matter in the Inert Doublet Model, Anmol Subba, ,
 74. Arghya Choudhury, Masters, Study of boosted objects using jet substructure at the large hadron collider (LHC), Pradyumna Gupta, ,
 75. Manas Kumar Sarangi, Masters, Fluorescence Resonance Energy Transfer between Perovskite Nanocrystals and Core / Shell Quantum Dots, Hotu Ram, ,
 76. Manas Kumar Sarangi, Masters, Photo Induced Charge Transfer Reaction of Organic Semiconductor Quantum Dots and Dopamine , Ritesh Yadav, ,
 77. Ayash Kanto Mukherjee, Others, Experimental Condensed Matter Physics, Towhidur Rahman, , Chairman of Doctoral Committee for Mr. Towhidur Rahman
 78. Raghavan K Easwaran, Phd, Quantum Memory using structured light using atomic system for Quantum Technology applications, Dixith M, Nil, Will be submitting Synopsis soon
 79. Ayash Kanto Mukherjee, Others, Experimental Condensed Matter Physics, Arpita Mondal, , Member of Doctoral Committee for Ms. Arpita Mondal
 80. Raghavan K Easwaran, Phd, Electromagnetically Induced Transparency for high precision Microwave and Radiofrequency detection , Rohith K, Nil, Will be submitting Synopsis soon
 81. Manoranjan Kar, PhD, Enhancement of (BH)max on hexaferrite for permanent magnet application., Sushree Nibedita Rout, ,
 82. Manoranjan Kar, PhD, Materials for capacitor application, Mukesh Kumar Yadav, ,
 83. Naveen Kumar Nishchal, Phd, Investigations on Orbital Angular Momentum of Light, Allarakha Shikder, ,
 84. Naveen Kumar Nishchal, Phd, Investigations on Deep Learning based Filter Synthesis for Optical Correlator, Rahul Kumar, ,
 85. Raghavan K Easwaran, Phd, Study of Coherent Phenomena in Confined Rb Atom Inside C-60 Cage for Quantum Memory Application using EIT Protocol, Mobassir Ahmed, Nil,
 86. Manoranjan Kar, PhD, Ferroelectric Materials for nanogenerator applications, Tupan Das, ,
 87. Naveen Kumar Nishchal, Phd, Investigations on Polarization-based Image Encryption Architects, Mansi Baliyan, ,
 88. Manoranjan Kar, PhD, Magnetic materials for magnetic sensor applications, Sambit Biswal, ,
 89. Naveen Kumar Nishchal, Phd, Development of Novel Optical Architects and Algorithms for Information Security Techniques, Ram Kumar, ,
 90. Naveen Kumar Nishchal, Phd, Investigations on Filter Synthesis for Optical Correlator-based Navigation Sensor, Akash Pal, ,
 91. Manoranjan Kar, PhD, Topological Insulator and Magnetic Hysteresis, Rakesh Kumar, ,
 92. Naveen Kumar Nishchal, Phd, Investigations on Optical Correlator-based Navigation Sensor, Jyoti Bikash Mohapatra, ,
 93. Raghavan K Easwaran, Masters, Experimental and Theoretical Study Of Electromagnetically Induced Transparency Using Higher Order Coupling Structured Beam For Quantum Memory Applications, Aishi Barua, Nil,

94. Naveen Kumar Nishchal, Phd, Fusion-based Approaches for Image Dehazing, Avishek Kumar, Dr Rajib Jha,
95. Ajay Thakur, PhD, ML Techniques in Condensed Matter Physics, Mohak Shukla,,
96. Naveen Kumar Nishchal, Masters, Orbital Angular Momentum of Light and its Use in Image Encryption, Sonu Kumar Rao,,
97. Ajay Thakur, PhD, Inorganic-Organic Hybrids, Indranil Maity, A.K. Mukherjee,
98. Raghavan K Easwaran, Masters, Theoretical study of Rydberg Electromagnetically Induced Transparency (EIT) using Structured light for Quantum Memory, Pranit Terse, Nil,
99. Ajay Thakur, PhD, Physics using Magnetic Microbot, Khashti Datt Pandey,,
100. Ajay Thakur, PhD, Condensed Matter Physics (student was doing course work), Ankush Kumar,
101. Ajay Thakur, PhD, Fabricating superhydrophobic coating and exploiting biomass energy potential for sustainable atmospheric water harvesting, Bathina Chaitanya, Co-supervised with Dr. Rishi Raj, Completed recently
102. Ajay Thakur, PhD, Biomass Gasification Based Cold Storage and Preservation, Sunil, Jointly supervised with Dr. Rishi Raj,
103. Ajay Thakur, PhD, Dessicant Dehumidification System for Climate Control Unit, Rahul Sinha, Jointly supervised with Dr. Rishi Raj, In IMPRINT-II project
104. Ajay Thakur, PhD, Atmospheric Water Harvesting, Abhash Shukla, Jointly supervised with Dr. Rishi Raj, In DST-WTI project
105. Ajay Thakur, Masters, Thermo -mechanical behavior of energy pile in summer mode, Pranaw Ambastha, Co-supervised with Dr. R. K. Bag (CEE),
106. Ajay Thakur, Masters, Classification of Binary, Cepheid and Cataclysmic Variable Stars, Neel Vadodaria,,
107. Ajay Thakur, Masters, Study of shock wave propagation and plume evolution during laser ablation, Swati Singh,,
108. Ajay Thakur, Masters, Nanostructured superhydrophobic surfaces on Al-6061, Ritu Raj,
109. Venkata Ramanaiah Dantham, PhD, Detection of bio-molecules using nanoplasmonic biosensors, Sugandh Priya, Nil,

Sponsored Research

1. Design and Development of an Opto-electronic Asymmetric Cryptosystem (SERB, DST, Gol, 33 Lakhs) PI: Prof. Naveen Kumar Nishchal ; CO-PIs: Dr. Akhilendra Singh
2. Optical Correlator-based Visual Navigation Technologies (ISRO, 40 Lakhs) PI: Prof. Naveen Kumar Nishchal ; CO-PIs: Dr. Rakesh Kumar Singh
3. Quantum Computing & Quantum Technology (TCS, 1 Lakhs) PI: Utpal Roy ; CO-PIs: NA
4. Label-free detection and characterization of single protein molecules using bimetallic-photon hybrid devices (SERB, 43.2 Lakhs) PI: Dr. Venkata Ramanaiah Dantham ; CO-PIs: NA
5. Plasma Spraying of rare-earth niobates powder and controlling its stoichiometry and porosity for the advanced thermal barrier coating application (DRDO, DMRL, AR&DB, 72.38 Lakhs) PI: Dr Anup K K ; CO-PIs: Dr. Raghavan K Easwaran
6. Psychrometry Driven Design and Fabrication of An All Season Optima Atmospheric Water Harvester (DST WTI, 32.4026 Lakhs) PI: Dr. Rishi Raj ; CO-PIs: Dr. Ajay D. Thakur
7. Polarised Neutron Reflectivity measurements of thin film heterostructures for Spin-triplet superconducting state generation (DAE, 16 Lakhs) PI: S. J. Ray ; CO-PIs: NO
8. Plasma Sprayed CNT Reinforced Graphene Coated Electrode for the Super Capacitor Applications: Towards Industrialization (DST, 28.2 Lakhs) PI: Dr Anup K K ; CO-PIs: Dr RAGHAVAN K EASWARAN
9. RESPECT Bihar (Government of Bihar, 239 Lakhs) PI: Dr. Manoranjan Kar ; CO-PIs: Prof. H. C. Verma

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| <p>10. Two-dimensional nanomaterial based hybrid structures for switching and memory applications (DST, 50 Lakhs) PI: S. J. Ray ; CO-PIs: No</p> <p>11. Development of an agricultural waste based off-the-grid climate control unit for storage and processing of agricultural produce (SERB, 98.3554 Lakhs) PI: Dr. Rishi Raj ; CO-PIs: Dr. Ajay D. Thakur</p> <p>12. Generation, Imaging and Control of Novel Coherent Electronic States in Artificial Ferromagnetic-Superconducting Hybrid Structures and Devices (DST, 48.1 Lakhs) PI: S. J. Ray ; CO-PIs: No</p> <p>13. Valleytronics in gapped Dirac material (DST-SERB, 3545520 Lakhs) PI: Prakash Parida ; CO-PIs: NA</p> <p>14. Design and Implementation of Orbital Angular Momentum (OAM) Assisted Spectrally Efficient Wavelength Division Multiplexed Communication System Using Conventional Optical Fibers (SERB, 73 Lakhs) PI: Dr. Sumanta Gupta ; CO-PIs: Dr. Venkata R. Dantham</p> <p>15. Superconducting Spintronics using hybrid Superconducting-Ferromagnetic Metamaterials (DST, 35 Lakhs) PI: S. J. Ray ; CO-PIs: NO</p> <p>16. Electromagnetically Induced Transparency and Slow Light in a Two dimensional Magneto Optical Trap (2D MOT) (SERB (Project completed and evaluation report was given in 2021 April with following comments: PI has achieved significant results both on theory and experiments. 4 good publications.), 21.2 Lakhs) PI: Dr. Raghavan K Easwaran; CO-PIs: NA</p> | <p>Indian Physics Association</p> <p>2. Utpal Roy (2021-12-28) Outstanding Teacher Award in Physics, Science and Technology Academic, Innovations and Research Awards 2021</p> <p>3. Soumya Jyoti Ray (2021-11-10) Outstanding Researcher Award in Nanotechnology and Condensed Matter Physics</p> <p>4. Naveen Kumar Nishchal (2021-10-21) Name appeared in the list of top 2% scientists in the world</p> <p>5. Soumya Jyoti Ray (2021-10-10) Research Excellence Award</p> <p>6. Soumya Jyoti Ray (2021-09-25) Listed among the top 2% scientists worldwide by the database created by Stanford University, USA</p> <p>7. Soumya Jyoti Ray (2021-08-18) Member, Institute of Physics</p> <p>8. Soumya Jyoti Ray (2021-07-07) Guest Editor - Special Issue "Novel 2D Energy Materials and Devices" in the journal Energy by MDPI (IF: 3.004)</p> <p>9. Soumya Jyoti Ray (2021-05-30) Editorial Board Member - Current Chinese Science</p> <p>10. Soumya Jyoti Ray (2021-05-30) Editorial Board Member - Current Graphene Science</p> |
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Patents (filed/Granted)

1. Patent Name: System and Method for Heat Recovery in Gasification Process, Status: Granted, Ref. No: 201831011600, Patent Owner: Ajay Thakur

Awards

1. Alpana Nayak (2022-03-24) Life member of

Journals

1. P. Kumar and N. K. Nishchal, Phase response optimization of a liquid crystal spatial light modulator with partially coherent light, Applied Optics 60 (2021) 10795-10801., (2021)
2. A. Kumar, R. K. Jha, and N. K. Nishchal, A multi-exposure fusion framework for contrast enhancement of hazy images employing dynamic stochastic resonance, Journal of Visual Communication and Image Representation 81 (2021) 103376, (2021)
3. A. Kumar, R. K. Jha, and N. K. Nishchal, Dynamic stochastic resonance and image fusion based model for quality enhancement of dark and hazy images, Journal of Electronic Imaging 30 (2021) 063008, (2021)

4. P. Kumar and N. K. Nishchal, Formation of singular light fields using phase calibrated spatial light modulator, *Optics and Lasers in Engineering* 146 (2021) 106720, (2021)
5. A. Kumar, R. K. Jha, and N. K. Nishchal, A joint Gamma correction and multi-resolution fusion scheme for enhancing haze degraded images, *Optical Engineering* 60 (2021) 063103, (2021)
6. A. Kumar, R. K. Jha, and N. K. Nishchal, An improved Gamma correction model for image dehazing in a multi-exposure fusion framework, *Journal of Visual Communication and Image Representation* 78 (2021) 103122, (2021)
7. A. K. Gupta, P. Kumar, N. K. Nishchal, and A. Al Falou, Polarization-encoded fully-phase encryption using transport of intensity equation, *MDPI Electronics* 10 (2021) 00969, (2021)
8. P. Kumar and N. K. Nishchal, Array formation of optical vortices using in-line phase modulation, *Optics Communications* 493 (2021) 127020, (2021)
9. A. K. Gupta and N. K. Nishchal, Low-light phase imaging using in-line digital holography and transport of intensity equation, *Journal of Optics* 23 (2021) 025701, (2021)
10. P. Kumar, A. Fatima, and N. K. Nishchal, Arbitrary vector beam encoding using single modulation for information security for information security applications, *IEEE Photonics Technology Letters* 33 (2021) 243-246, (2021)
11. P. Kumar and N. K. Nishchal, Realizing singular beams through dual-phase modulation, *Asian Journal of Physics* 30 (2021) 1355-1364, (2021)
12. N. K. Nishchal, Use of vector beam in image encryption; A review, *Asian Journal of Physics* 30 (2021) 1007-1012, (2021)
13. A. Kumar, R. K. Jha, and N. K. Nishchal, An image dehazing method based on chromaticity guided regularization, *Asian Journal of Physics* 30 (2021) 759-768, (2021)
14. P. C. Deshmukh, J. Jose, H. R. Varma, and S. T. Manson, *Eur. Phys. Journal D* 75, 166 (2021), 24 (2021)
15. Km Akanksha Dubey and Jobin Jose, *J. Phys. B: At. Mol. Opt. Phys* 54, 115204 (2021), 43 (2021)
16. Subhasish Saha and Jobin Jose, *Phys. Scr.* 96 094012 (2021), 40 (2021)
17. Afsal Thuppilakkadan, Jobin Jose, and Hari R Varma, *Phys. Scr.* 96 104004 (2021), 40 (2021)
18. Km. Akanksha Dubey and Jobin Jose, *Eur. Phys. J. Plus* 136, 713 (2021), 59 (2021)
19. Afsal Thuppilakkadan, Jobin Jose, Hari Varma, *J. Phys. B: At. Mol. Opt. Phys* 54, 145001 (2021), 43 (2021)
20. Shruti Sarswat, Aiswarya R, and Jobin Jose, *J. Phys. B: At. Mol. Opt. Phys* 55, 055003 (2022), 43 (2021)
21. Manchaiah, D., Kumar, R., & Easwaran, R. K. (2022). A theoretical analysis on quantum memory parameters in ultracold ^{87}Rb and ^{133}Cs alkali species using EIT protocol in the presence of structured light. *Quantum Information Processing*, 21(3), 1-19., 53 (2021)
22. Chauhan, V. S., Kumar, R., Manchaiah, D., & Easwaran, R. K. (2021). Enhancement of electromagnetically induced transparency and absorption signals in 85 Rb atomic vapor medium by using a small external magnetic field. *JOSA B*, 38(2), 630-637., 60 (2021)
23. Vikas Singh Chauhan, Dixith Manchaiah, Praveen Kumar, Rohit Kumar, Sumit Bhushan, Raghavan K. Easwaran, Measurement of multi-frequency dispersions of Electromagnetically Induced Transparency windows using Spatial Light Modulator in rubidium vapor, *Optik*, Volume 225, 2021, 165707, ISSN 0030-4026, 85 (2021)
24. Priya, S., Mandal, A., & Dantham, V. R. (2022). Indium nanoparticle-based surface enhanced fluorescence from deep ultraviolet to near-infrared: A theoretical study. *Spectrochimica Acta Part A: Molecular and Biomolecular*

- Spectroscopy, 267, 120603., 59 (2021)
25. Mandal, A., Tiwari, P., Upputuri, P. K., & Dantham, V. R. (2022). Characteristic parameters of photonic nanojets of single dielectric microspheres illuminated by focused broadband radiation. *Scientific reports*, 12(1), 1-16., 206 (2021)
 26. Mahata, T., Mandal, A., & Dantham, V. R. (2021). Role of composition and size-dependent damping due to electron-surface scattering on plasmonic properties of gold-silver alloy nanoparticles: A theoretical study. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 276, 107940., 45 (2021)
 27. Tiwari, P., Mandal, A., & Dantham, V. R. (2021). Sensitivity of whispering gallery modes with different physical parameters of hollow microspheres: a theoretical study. *JOSA B*, 38(8), 2312-2322., 43 (2021)
 28. Das, G. M., William, R. V., Dantham, V. R., & Laha, R. (2021). Study on SERS activity of Au-Ag bimetallic nanostructures synthesized using different reducing agents. *Physica E: Low-dimensional Systems and Nanostructures*, 129, 114656., 54 (2021)
 29. Mahata, T., Das, G. M., & Dantham, V. R. (2021). Study of surface enhanced Raman scattering of IR-780 Iodide molecules using Au-Ag bimetallic nanostructures with blunt and sharp sprouts. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 249, 119262., 59 (2021)
 30. Namboodiri, C. K. R., Bisht, P. B., & Dantham, V. R. (2021). Cascaded Frster Resonance Energy Transfer and Role of the Relay Dye. *Journal of Atomic, Molecular, Condensed Matter & Nano Physics*, 8, 1., 00 (2021)
 31. Kumari, K., Kar, S., Thakur, A. D., & Ray, S. J. (2022). Role of an oxide interface in a resistive switch. *Current Applied Physics*, 35, 16-23., 34 (2021)
 32. Chaitanya, B., Gunjan, M. R., Sarangi, R., Raj, R., & Thakur, A. D. (2022). Per-fluorinated chemical free robust superhydrophobic copper surface using a scalable technique. *Materials Chemistry and Physics*, 278, 125667., 56 (2021)
 33. Agarwal, D., Thakur, A. D., & Thakur, A. (2022). A feedback-based manoeuvre planner for nonprehensile magnetic micromanipulation of large microscopic biological objects. *Robotics and Autonomous Systems*, 148, 103941., 55 (2021)
 34. Kumari, K., Majumder, S., Thakur, A. D., & Ray, S. J. (2021). Temperature-dependent resistive switching behaviour of an oxide memristor. *Materials Letters*, 303, 130451., 65 (2021)
 35. Kumar, A., Sivaprahasam, D., & Thakur, A. D. (2021). Improved thermoelectric properties in (1-x) LaCoO₃/(x) La_{0.7}Sr_{0.3}CoO₃ composite. *Materials Chemistry and Physics*, 269, 124750., 67 (2021)
 36. Sinha, A., Ranjan, P., & Thakur, A. D. (2021). Effect of characterization probes on the properties of graphene oxide and reduced graphene oxide. *Applied Physics A*, 127(8), 1-13., 48 (2021)
 37. Sinha, A., Ranjan, P., Ali, A., Balakrishnan, J., & Thakur, A. D. (2021). Graphene oxide and its derivatives as potential Ovchinnikov ferromagnets. *Journal of Physics: Condensed Matter*, 33(37), 375801., 59 (2021)
 38. Mukherjee, T., Kar, S., & Ray, S. J. (2022). Tunable electronic and magnetic properties of two-dimensional magnetic semiconductor VBr₂. *Computational Materials Science*, 209, 111319., (2021)
 39. Kar, S., Rani, S., & Ray, S. J. (2022). Stimuli assisted electronic, magnetic and optical phase control in CrOBr monolayer. *Physica E: Low-dimensional Systems and Nanostructures*, 115332., (2021)
 40. Kumari, K., Ray, S. J., & Thakur, A. D. (2022). Resistive switching phenomena: a probe for the tracing of secondary phase in manganite. *Applied Physics A*, 128(5), 1-11., (2021)
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 44. Rani, S., & Ray, S. J. (2021). DNA and RNA detection using graphene and hexagonal boron nitride based nanosensor. *Carbon*, 173, 493-500., (2021)
 45. Kumari, K., Thakur, A. D., & Ray, S. J. (2021). The effect of graphene and reduced graphene oxide on the resistive switching behavior of La_{0.7}Ba_{0.3}MnO₃. *Materials Today Communications*, 26, 102040., (2021)
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 47. Kumar, P., Dey, A., Roques, J., Assaud, L., Franger, S., Parida, P., & Biju, V. (2022). Photoexfoliation synthesis of 2D materials. *ACS Materials Letters*, 4(2), 263-270., (2021)
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 50. Manglam, M. K., Kumari, S., Mallick, J., Shukla, A., & Kar, M. (2022). Magnetic interaction between soft and hard ferrimagnetic phases in BaFe₁₂O₁₉+ CuFe₂O₄ composite. *Physica Scripta*, 97(3), 035809., (2021)
 51. Effect of Gd doping on magnetic and MCE properties of M-type barium hexaferrite,, (2021)
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- and dielectric properties of vanadium ions substituted nickel ferrite nanocrystals. *Journal of Materials Science: Materials in Electronics*, 32(8), 10140-10150., (2021)
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 61. Manglam, M. K., Kumari, S., Mallick, J., & Kar, M. (2021). Crystal structure and magnetic properties study on barium hexaferrite of different average crystallite size. *Applied Physics A*, 127(2), 1-12., (2021)
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 63. Pradhan, L. K., Kumari, S., Manglam, M. K., Pandey, R., & Kar, M. (2021). Microstructure-dependent electrical properties of Bi_{0.5}Na_{0.5}Ti_{0.3}BaTi_{0.3}SrTi_{0.3}O₃ ternary solid solution. *Journal of Materials Science: Materials in Electronics*, 32(5), 6607-6622., (2021)
 64. Ghosh, M. P., Datta, S., Sharma, R., Tanbir, K., Kar, M., & Mukherjee, S. (2021). Copper doped nickel ferrite nanoparticles: Jahn-Teller distortion and its effect on microstructural, magnetic and electronic properties. *Materials Science and Engineering: B*, 263, 114864., (2021)
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 66. Mallik, S Erimban, S Kaleeswaran, S Kumar, S Daschakraborty, Alpana Nayak, (2021), Unambiguous Determination of Electrostatically Driven Molecular Packing in a Triphenylene Surfactant Complex Monolayer S , *Advanced Materials Interfaces* 8 (13), 2100187, 65 (2021)
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 69. M Ansari, S Mallik, A Jana, A Nayak, N Das , (2021), Photoresponsive polymers with dangling triptycene units as efficient receptor for fullereneC60, *Journal of Polymer Science* 59 (23), 2959-2971, 152 (2021)
 70. Dibyanshu, I Pradhan, A Nayak, T Raychoudhuy, (2022) Variation in porous media compositions influence the co-transport behavior of ZnO and Fe_xO_y mixed nanoparticles, *Groundwater for Sustainable Development* 16, 100710, 22 (2021)
 71. Halder, B., Ghosh, S., Basu, P., Bera, J., Malomed, B., & Roy, U. (2021). Exact Solutions for Solitary Waves in a Bose-Einstein Condensate under the Action of a Four-Color Optical Lattice. *Symmetry*, 14(1), 49., 70 (2021)
 72. Nilanjan Kundu, Ajay Nath, Jayanta Bera, Suranjana Ghosh, Utpal Roy, Synergy between the negative absolute temperature and the external trap for a Bose-Einstein condensate under optical lattices, *Physics Letters A*, Volume 427, 2022, 127922, ISSN 0375-9601., 48 (2021)
 73. Barman, R. K., Bhattacharjee, B., Chakraborty, I., Choudhury, A., & Khan, N. (2021). Electroweakino searches at the HL-LHC in the baryon number violating MSSM. *Physical Review D*, 103(1), 015003., 147 (2020)

Conference

1. A. K. Gupta and N. K. Nishchal, Transport of intensity equation for low-light quantitative phase imaging and security applications, *Proc. SPIE* 11898 (2021) 118980W [Invited paper],

- Duration-3 Days (2021)
2. N. K. Nishchal, Vector beam for information encoding, Golden Jubilee Year Intl. Confer. on Artificial Intelligence, Photonics, and Revolutionary Smart Materials (AIPRSM-2021), Oct. 25-26, 2021, L. N. Mithila Univ., Darbhanga [Invited], Duration-2 Days (2021)
 3. N. K. Nishchal, Optical cryptography, 2nd Edition Laser, Optics, and Photonics Virtual (V-Optics2021), Oct. 16-17, 2021 [Keynote Talk], Duration-2 Days (2021)
 4. N. K. Nishchal, Image encryption using vector beam, 2nd Intl. Confer. on Digital Singular Optics: Applications and Fundamentals (DSO-2021), Sept. 06-10, 2021, Yalta, RUSSIA [Invited], Duration-5 Days (2021)
 5. P. Kumar and N. K. Nishchal, Vector field encoding approach to secure color image, OSA Imaging and Applied Optics Congress: Digital Holography and Three-Dimensional Imaging (DH-2021), July 19-23, 2021 (Online), Duration-5 Days (2021)
 6. A. K. Gupta and N. K. Nishchal, Composite method of transport of intensity equation for spatial frequency recovery, OSA Imaging and Applied Optics Congress: Digital Holography and Three-Dimensional Imaging (DH-2021), July 19-23, 2021 (Online), Duration-5 Days (2021)
 7. P. Kumar and N. K. Nishchal, Investigations on structured light to probe optical singularity and its use in image encryption, Research & Industrial Conclave An Amalgamation of Academia, Industry, and Start-ups, Jan. 20-23, 2022, IIT Guwahati, Duration-4 Days (2021)
 8. N. K. Nishchal, 3D imaging using digital holography, Annual Meet & Half-Day Webinar on Aero Materials, 3D Imaging, & Applications, Sept. 29, 2021, DMSRDE Kanpur, AR&DB DRDO, & IIT Patna [Invited], Duration-1 Days (2021)
 9. N. K. Nishchal, Transport of intensity equation for quantitative phase imaging, XLIV OSI Symp. on Frontiers in Optics and Photonics (FOP21), Sept. 24-27, 2021, Optics & Photonics Centre, IIT Delhi [Invited], Duration-4 Days (2021)
 10. N. K. Nishchal, Optical cryptography, One Day Online Seminar on Information Optics & Photonics, July 03, 2021, Optics & Photonics Centre, IIT Delhi [Invited], Duration-1 Days (2021)
 11. N. K. Nishchal, Optics and photonics for the benefit of society, Popular lecture during Vigyan Sarvatra Puujate, Shrikrishna Science Centre, Patna, Feb. 28, 2022, Duration-1 Days (2021)
 12. N. K. Nishchal, Light in energy conservation, National Energy Conservation Day, The Institution of Engineers, Bihar State Centre, Patna, Dec. 14, 2021, Duration-1 Days (2021)
 13. N. K. Nishchal, Photonics technology, World Standards Day, Bureau of Indian Standards, Patna, Oct. 29, 2021, Duration-1 Days (2021)
 14. N. K. Nishchal, Photorefractive optics, Faculty Development Programme on Novel Materials under AICTE Training and Learning (ATAL) Academy, A. N. College, Patna, Aug. 27, 2021, Duration-5 Days (2021)
 15. K. A. Dubey, and J. Jose, APS Division of Atomic, Molecular and Optical Physics (DAMOP 2021), May 31-June 4, 2021, Virtual conference., Duration-4 Days (2021)
 16. S. Baral, K. A. Dubey, S. Saha, J. Jose, P. C. Deshmukh, A. K. Razavi, and S. T. Manson, APS Division of Atomic, Molecular and Optical Physics (DAMOP 2021), May 31-June 4, 2021, Virtual conference., Duration-5 Days (2021)
 17. S. Baral, S. Saha, J. Jose, P. C. Deshmukh, A. K. Razavi, and S. T. Manson, APS Division of Atomic, Molecular and Optical Physics (DAMOP 2021), May 31-June 4, 2021, Virtual conference., Duration-5 Days (2021)
 18. S Baral, S Saha, J Jose, P C Deshmukh, A K Razavi and ST Manson, Virtual International conference on photonic, electronic, and atomic collisions (ICPEAC), July 20-24, 2021., Duration-5 Days (2021)

19. Chauhan, V. S.; Easwaran, R. K, Theoretical Proposal for Tuning EIT at Different Spatial Location by Using Structured Coupling Light in Ultracold 87Rb Atomic Medium, International Virtual Conference on Quantum Technologies, Duration-5 Days (2021)
20. Kumar, A., Kumar, N., Ranjan, P., & Thakur, A. D. (2022, February). Electrical and Optical Characterisation of CZTS Thin-Film for Sensing Applications. In 2022 Advances in Science and Engineering Technology International Conferences (ASET) (pp. 1-4). IEEE., 13 (2021)
21. Kumari, P., & Ray, S. J. (2022). Tunable Optical Properties in Magnetic Phosphorene. Bulletin of the American Physical Society., Duration-3 Days (2021)
22. Kar, S., & Ray, S. J. (2022). Twist-assisted tunability and enhanced ferromagnetism in a 2D Van Der Waal's Heterostructure. Bulletin of the American Physical Society., Duration-3 Days (2021)
23. MAJUMDER, S. (2022). Strain-dependent properties of Single-electron transistor based on Bi_2Se_3 island. Bulletin of the American Physical Society., Duration-3 Days (2021)
24. Rani, S. (2022). Twist dependent spin resolved conductance in Graphene| hBN van der Waals heterostructure. Bulletin of the American Physical Society., Duration-3 Days (2021)
25. Manglam, M. K., Rout, S. N., Kumari, S., Kumar, S., & Kar, M. (2022). Structural, magnetic and optical properties of $(0.45)\text{NiO} \cdot 5\text{ZnO} \cdot 5\text{Fe}_2\text{O}_4 + (0.55)\text{BaFe}_{12}\text{O}_{19}$ composite. Materials Today: Proceedings, 57, 418-421., Duration-2 Days (2021)
26. Mallick, J., Manglam, M. K., & Kar, M. (2022). Structural and switching ferroelectric charge density studies in $\text{BaTiO}_3 \cdot 95\text{SnO}_3$ prepared by microwave assisted sintering. Materials Today: Proceedings, 57, 408-411., Duration-2 Days (2021)
27. Datta, S., & Kar, M. (2022). NiMnSn half Heusler alloy: Critical phenomena at the ferromagnetic to paramagnetic phase transition. Materials Today: Proceedings, 57, 431-435., Duration-2 Days (2021)
28. Manglam, M. K., Shukla, A., Mallick, J., Yadav, M. K., Kumari, S., Zope, M., & Kar, M. (2022). Enhancement of coercivity of M-type barium hexaferrite by Ho doping. Materials Today: Proceedings, 59, 149-152., Duration-3 Days (2021)
29. Quantum Dynamics of Ultracold Atoms under Tunable Trap, Utpal Roy, Int. Webinar on Quantum Phys. and Nuclear Tech., Organized by Coalesce Research Group, USA, 27th July, 2021., Duration-2 Days (2021)
30. Bose-Einstein Condensate: Quantum Simulation & Quantum Information, Utpal Roy, Quantum Information & Quantum Technology-2021, IISER Kolkata, June 22, 2021., Duration-7 Days (2021)
31. Quantum Simulation with Matter Waves in Engineered Optical Lattices, Utpal Roy, SuperFluctuations 2021, Camerino-Padova-Italy, June 14-16, 2021., Duration-3 Days (2021)
32. Ultracold Atoms and Coupled, Disordered Optical Lattices, Utpal Roy, Young Investigator Meet on Quantum Condensed Matter Theory, NISER Bhubaneswar, NISER Bhubaneswar, India, Nov. 16-19 (2021)., Duration-3 Days (2021)
33. Quantum Optics & Quantum Information: From Fundamentals to Applications, Utpal Roy, One Day Webiner, Victoria Inst., Univ. of Cal., India, 27th June, 2021., Duration-1 Days (2021)
34. Self Similar Matter Waves in Optical Lattices, Utpal Roy, Lecture Series in Nonlinear Dynamics and Complex Systems, Bharathidasan Univ, Feb 11, 2022 , Duration-1 Days (2021)

Book Chapters Published

1. Raghavan K. Easwaran : Recent Trends in Chemical and Material Sciences: Magnetic Coil Design for Two Dimensional Magneto Optical Trap to Realization of Efficient Quantum Memory Published, (2021)

2. Raghavan K.Easwaran : Newest Updates in Physical Science Research: Theoretical design for generation of slow light in a two-dimensional magneto optical trap using electromagnetically induced transparency Published, (2021)
3. L. K. Pradhan, Manoranjan Kar : Multifunctional Ferroelectric Materials: Relaxor Ferroelectric Oxides: Concept to Applications. Published (2021)
7. Jobin Jose - Chair of Syllabus framing Committee for Btech Engineering Physics (Ongoing).
8. Ayash Kanto Mukherjee - Syllabus revision for M.Sc. Courses. The activity happened on many day. So, I am quoting the date of commencement..
9. Raghavan K Easwaran - Participated in PhD selection interviews and selection.
10. Ayash Kanto Mukherjee - Ph.D shortlisting and interview.

Other Publications

SI, Title, Authors, Publisher, Online Link, Type

1. Theoretical study of 4-level EIT type system in presence of structured coupling light for microwave field detection Authors:, R Kumar, D Manchaiah and R K Easwaran, Laser Physics Letters, IOP Science, Under review ,
2. Observation of Sub-Natural Linewidth EIT Resonances in the Presence of Higher Order LG Modes as a Coupling Light in 87Rb Atomic Vapor Medium, Dixith Manchaiah, Rohit Kumar, Vikas Singh Chauhan, Praveen Kumar, Naveen K Nishchal and Raghavan K Easwaran, Optics and Laser Technology, Elsevier, Under review ,
11. Raghavan K Easwaran - Participated in Physics lab demonstration to high school students from Patna and IIT Campus schools.
12. Raghavan K Easwaran - Arranged many seminars from external researchers who are future applicants/applicants to faculty positions at IIT Patna.
13. Raghavan K Easwaran - Participated in the shortlisting and seminar evaluation for Assistant Professor in Physics.
14. Jobin Jose - Physics department M. Sc. Coordinator (Finished in June 2022).
15. Ayash Kanto Mukherjee - Ph.D shortlisting and interview.

Student Activities by Faculty Members

Departmental Activities

1. Arghya Choudhury - Convener of MSC syllabus modification committee.
2. Prakash Parida - Coordinator for Syllabus Revision.
3. Ajay Thakur - Served in various Department committees including DAPC, DPC, Syllabus, Course revision, etc as per needs of the Department.
4. Jobin Jose - Physics department website in-charge (Ongoing).
5. Jobin Jose - Doctoral committee members of several Ph. D. students of Physics and other Departments (Ongoing).
6. Jobin Jose - In-charge of Departmental Computational Physics lab (ongoing).
16. Soumya Jyoti Ray - Lab in charge: MSc electronics lab and multiple research equipments.
17. Ayash Kanto Mukherjee - Member of Course Review Committee.
18. Ayash Kanto Mukherjee - Professor-in-charge: Thin Film Laboratory.
19. Ayash Kanto Mukherjee - Professor-in-charge: Electrical Characterization Laboratory.
20. Manas Kumar Sarangi - Departmental representative for IAPC.
21. Venkata Ramanaiah Dantham - Head of the Department.
22. Venkata Ramanaiah Dantham - Faculty advisor for B.Tech. Engineering Physics students.
23. Venkata Ramanaiah Dantham - Doctoral Committee Member for several Ph.D. students.

24. Soumya Jyoti Ray - Curriculum Development for Engineering Physics B. Tech program.
25. Prakash Parida - Time Table Coordinator since last 8 semesters.
26. Prakash Parida - Was faculty advisor for Physics Society.
27. Soumya Jyoti Ray - PhD coordinator.

Institute Activities by Faculty Members

1. Ajay Thakur - Delivered a talk titled 'Contribution of Women in Science and Technology'.
2. Jobin Jose - Committee memebrr of Student's medical insurance policy (Ongoing).
3. Naveen Kumar Nishchal - Member, Committee for suggesting interim security arrangements after terminating the services being provided by the M/s Any Time Security.
4. Naveen Kumar Nishchal - Member, Committee for examining the security deployment issues with the M/s Any Time Security (Jan. 07, 2022).
5. Soumya Jyoti Ray - Nodal Officer - National student databse creation.
6. Ajay Thakur - Serving as HoD (Physics) since November 2021.
7. Utpal Roy - Vigilance Awareness Week, Debate Competition (Online) for all the IITP students on the topic " Civil Societies alone can bring an end to Corruption" .
8. Naveen Kumar Nishchal - Member, Intellectual Property Rights (IPR) Committee.
9. Utpal Roy - Vigilance Awareness Week, Painting Competition (Online) among all IITP students on the theme .
10. Utpal Roy - Guest Lectures @VAW by 1) Sh. J.S. Emmanuel, ASP (Trg.), CBI Acad, Ghaziabad, and 2) Sh. K. Bhattacharya, ASP, (CBI/ACD), Patna.
11. Naveen Kumar Nishchal - Member, Committee for verification and assessment of performance of security personnel to be hired by the security agency, M/s Any Time Security (Oct. 26, 2021).
12. Naveen Kumar Nishchal - Member, Committee for House Building Advance (HBA) policy (Oct. 22, 2021).
13. Naveen Kumar Nishchal - Member, Committee for providing inputs on reservation roster of Faculty positions (Oct. 12, 2021).
14. Naveen Kumar Nishchal - Member, Evaluation of answer sheets of Group A Officers who appeared in written examination for 1st advancement as per RR&PP (Oct. 11, 2021).
15. Soumya Jyoti Ray - PIC Registration .
16. Naveen Kumar Nishchal - Member, Committee to examine the proposal related to reimbursement of transport expenses (TTA: Transfer Transport Allowance) (Sept. 01, 2021).
17. Soumya Jyoti Ray - Student Registration - Convocation.
18. Naveen Kumar Nishchal - Member, Institute Awards Committee to frame the proposal for recognizing excellence in teaching, research, and innovation (August 18, 2021).
19. Naveen Kumar Nishchal - Member, Committee for recommending the rotation of non-teaching employees (Group A) (August 10, 2021).
20. Ajay Thakur - Served as PIC School during 2018-21. Contributed towards bringing KV on campus..
21. Ajay Thakur - Served as Hostel warden, Kalam Hostel A and B (Aug-Nov 2021).
22. Arghya Choudhury - Associate warden of Boys Hostel.
23. Naveen Kumar Nishchal - Member, Purchase Committee for preparing common tender document for Housekeeping and Manpower Services (July 22, 2021).
24. Jobin Jose - Convenor of School Management Committee, (Ongoing).
25. Jobin Jose - Member of Institute medical committee (Ongoing).
26. Naveen Kumar Nishchal - Member, Selection Committee (as Chairmans Nominee) for the selection of Senior Accountant under FIST (TBI),

- IIT Patna held on 7th Oct. 2021 (June 19, 2021).
27. Naveen Kumar Nishchal - Member, Selection Committee (as Chairmans Nominee) for the selection of Attendant under FIST (TBI), IIT Patna held on 6th Oct. 2021 (June 19, 2021).
 28. Jobin Jose - Professor in-Charge of Convocation, (Completed).
 29. Naveen Kumar Nishchal - Member, Purchase Committee for inviting tender for Manpower Services (May 12, 2021).
 30. Raghavan K Easwaran - VICE Chairman GATE till 2021.
 31. Raghavan K Easwaran - B.Tech lab Faculty incharge.
 32. Ayash Kanto Mukherjee - Preparatory Course Coordinator.
 33. Ayash Kanto Mukherjee - Member of IAPC.
 34. Manas Kumar Sarangi - Associate Head of SAIF IIT Patna.
 35. Utpal Roy - Chief Vigilance Officer (IIT Patna).
 36. Prakash Parida - Was warden in the boys hostel for more than 2 years till 31/07/2021 .

Professional Activities by Faculty Members

1. Arghya Choudhury - DC committee member and chairperson of several PhD students in the Department of Physics, IITP.
2. Jobin Jose - Reviewer for journals 1. Journal of Physics B: Atomic and molecular optical physics 2. European Physics Journal D 3. International Journal of Quantum Chemistry 4. Physica Scripta 5. Indian Journal of Science and Technology.
3. Raghavan K Easwaran - Reviewed journal in JOSAB.
4. Raghavan K Easwaran - Guided internships for external students from IIT GN and Viswa Bharti University Santiniketan.
5. Raghavan K Easwaran - Involved in manual preparation for 11th and 12th standard students of Bihar Schools.
6. Naveen Kumar Nishchal - PhD Thesis Examiner, K R Manglam University.
7. Soumya Jyoti Ray - Journal Reviewer - Elsevier, Springer, IEEE, IOP, ACS, IET, World Scientific, Wiley (multiple).
8. Utpal Roy - Doctoral Committee Member, IIST, Thiruvananthapuram.
9. Soumya Jyoti Ray - Delivered Lectures in multiple FDPs in the year 2021..
10. Utpal Roy - Examiner for Thesis Evaluation and recommendation for best thesis, IIT Guwahati.
11. Manas Kumar Sarangi - Reviewer to Journal of Physical Chemistry A/B/C/Letters.
12. Manas Kumar Sarangi - Reviewer to Journal of Photochemistry and Photobiology A/B/C.
13. Venkata Ramanaiah Dantham - Reviewer for Applied Physics Letters.
14. Venkata Ramanaiah Dantham - Reviewer for Journal of Applied Physics.
15. Venkata Ramanaiah Dantham - Reviewer for Optics Express.
16. Venkata Ramanaiah Dantham - Reviewer for Optics Letters.
17. Venkata Ramanaiah Dantham - Reviewer for Journal of Nanoparticle Research.
18. Venkata Ramanaiah Dantham - Reviewer for Optics Communication.
19. Venkata Ramanaiah Dantham - Reviewer for Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy.
20. Venkata Ramanaiah Dantham - Reviewer for The Scientific World Journal.
21. Venkata Ramanaiah Dantham - Reviewer for Journal of Raman Spectroscopy.
22. Venkata Ramanaiah Dantham - Reviewer for Journal of Selected Topics in Quantum Electronics.
23. Venkata Ramanaiah Dantham - Reviewer for Physics Letter A.
24. Venkata Ramanaiah Dantham - Reviewer for Physica Status Solidi(b).

25. Venkata Ramanaiah Dantham - Reviewer for Sensors and Actuators B: Chemical.
26. Venkata Ramanaiah Dantham - Reviewer for Indian Journal of Physics.
27. Venkata Ramanaiah Dantham - Reviewer for Applied Physics A.

Seminar, Conference and Workshop Organised

1. Manas Kumar Sarangi - Participant:-nanoGe Spring Meeting 2022, Spain/Online (Participant) Participants: 200.
2. Manas Kumar Sarangi - Participant:-Perovskite, Organic Photovoltaics and Optoelectronics , Online (Participant) Participants: 100.
3. Manas Kumar Sarangi - Poster Judge:- Fluorescence correlation spectroscopy 2021, IISER Thiruvanthapuram (Poster Judge) Participants: 250.
4. Jobin Jose - Organizer:-Workshop on Computer programming for School Students, Foundation Academy School, IIT Patna (Organizer) Participants: 75.
5. Jobin Jose - Organizer:-Visit to Physics lab in IIT Patna for School students, Foundtaion Academy, IIT Patna (Organizer) Participants: 49.
6. Naveen Kumar Nishchal - Organizer:- Annual Meet & Half-Day Webinar on Aero Materials, 3D Imaging, & Applications, Sept. 29, 2021, DMSRDE Kanpur, AR&DB DRDO, & IIT Patna, Online (Organizer) Participants: 150.
7. Naveen Kumar Nishchal - Co-organizer:-One Day Online Seminar on Information Optics & Photonics, July 03, 2021, Optics & Photonics Centre, IIT Delhi, Online (Co-organizer) Participants: 150.
8. Ajay Thakur - Member, Local Organizing Committee and Session Co-chair:-International Vortex Workshop 2021 (May 27-June 4), IIT Kanpur (Member, Local Organizing Committee and Session Co-chair) Participants: 100.

1. Ajay Thakur - Served as Reviewer for a number of Elsevier, Springer, AIP and APS journals.
2. Raghavan K Easwaran - Development of EIT set up with structured light and effects of angular momentum of light was successfully observed in atoms.
3. Ayash Kanto Mukherjee - Preparing the materials for a book focussed towards analysis of circuits based on passive elements.
4. Arghya Choudhury - Proposed and designed the syllabus of "Quantum field theory" - new elective suitable for MSc, PhD, BTech students.
5. Arghya Choudhury - Proposed and designed the syllabus of "Particle physics" - new elective suitable for MSc, PhD, BTech students.
6. Ajay Thakur - Delivered talk titled 'Graphene Oxide: Prospects and Challenges' and University of Massachusetts Lowell (online mode).
7. Raghavan K Easwaran - Fully online as well as hybrid and offline B.Tech first year physics lab protocols where developed where students could practice and learn experiments even remotely.
8. Raghavan K Easwaran - Development of new experimental set ups in Optics lab: Generation of higher order LG beams using SLM for Quantum Memory application.
9. Arghya Choudhury - Chair and coordinator of HEP PHENO School - "Virtual School on Flavor Structure of the Standard Model" (06/09/2021 - 07/09/2021).
10. Raghavan K Easwaran - Fully online mode live sessions was created in a separate website with 24x7 live chat and doubt clearance options with all recorded videos where made available for students. This webpage allow students to interact with me anytime using live contact option. The webpage for PH103 was made in a highly professional manner..
11. Raghavan K Easwaran - Teaching section of this webpage has the complete content

Other Academic Activities

<https://www.raghavanke.com/>.

12. Raghavan K Easwaran - Handled 3 -4 pending batches for B.Tech lab efficiently in fully online mode, hybrid mode and offline mode successfully with full efforts made in such a way that pandemic cannot effect the quality of training physics experiments to students..
13. Raghavan K Easwaran - B.Tech physics lab was expanded in number of experimental set ups and other facilities to handle more number of students.
14. Soumya Jyoti Ray - In charge - development of online labs for MSc students : Electronics Lab, General Physics lab. This was done for the first time. .
4. Ajay Thakur - Our group demonstrated the scalable approach for the preparation of PFC-free superhydrophobic surfaces on copper for technological applications.
5. Ajay Thakur - Contributed in the efforts in ME Department where we developed a magnetic microrobotic setup for micromanipulation of biological objects..
6. Raghavan K Easwaran - We developed a theoretical design and calculations to build a wave-meter having a wavelength range of 450nm (Visible) to 1800nm (Deep Infrared) with a high precision of 1 pm @ 1800nm in very low cost (about 9,00,000 rupees). We are planning to write a patent on this novel idea and this could be boosted for commercialization and product development in future. Commercial wave-meters with high accuracy and resolution are available in market. But the problem with them is that as we move towards infrared range, accuracy drops down considerably. Small-range wave-meters (400-900 nm or 1100-1500 nm) are not much costly (about 3,00,000 to 15,00,000) , but to get a range from visible to deep-infrared one needs to spend a lot of money (about 15,00,000 to 50,00,000) although having same resolution drop-down . This cost increases exponentially if accuracy requirement is high. Having constant resolution in large wavelength range (450 to 1800nm) is very hard, no commercially available wavemeters are able to satisfy this criteria..

Any Other Information

1. Ajay Thakur - Co-developed with Dr. R. Raj (ME Department) the climate control unit having an independent control of both humidity and temperatures..
2. Raghavan K Easwaran - Submitted a research proposal to CSIR titled "Study of Electromagnetically Induced Transparency in Rb atomic vapor for Quantum Memory applications in the presence of Structured Light" Budget for the proposal is 29 Lakh.
3. Raghavan K Easwaran - Submitted a research proposal to SERB titled Theoretical study on encapsulated Rb atom inside a C-60 cage for Quantum Technology application using Electromagnetically Induced Transparency Protocol with a budget of 27 Lakh and has successfully completed initial evaluation and gone for final review currently.
7. Ajay Thakur - Our group demonstrated Graphene Oxide and its derviatives as potential candidate system for studying Ovchinnikov ferromagnetism .

CENTRALIZED SERVICES, PROGRAMMES AND UNITS

1. Computer Centre

Faculty in Charge:

Prof. Preetam Kumar (Head of Department, Computer Center)

Staff:

Mr. Sandip Kishore, Scientific Officer

Mr. Rajender Kumar, Sr. Technical Superintendent

Mr. Ajay Kumar Sharma, Technical Superintendent

Mr. Arpit Ashok, Jr. Technical Superintendent

Mr. Ranjeet Kumar, Jr. Technician

Mr. Rajeev Kumar, JA

Contents

1. Preface
2. Hardware Resources
3. Maintenance and Software Resources
4. Network
5. Application Services
6. Services and Support

1. Preface

IIT Patna has a state-of-the-art Computer Center. There are two computer center labs, CC-1 and CC-2. CC-1 Lab is equipped with 159 desktops having smart audio-

video system and CC-2 Lab is equipped with 40 Desktops. These labs operate from 9:00 AM till midnight on all seven days. Additionally, there are eighteen UNIX/Linux/VMware based servers that caters to the institute IT services like Mail, Institute Webserver, Intranet, Online recruitment, admissions and students' academic requirements and research purpose. Availability of the servers and resources is ensured with power back up provided by UPS grid.

A local area network with IP telephony is catering to the needs of students, faculty and staff in academic as well as residential areas.

Computer Center has the National Knowledge Network (NKN) facility. The NKN is a revolutionary state-of-the-art multi-gigabit PAN-Indian resource-sharing network aimed at digitally connecting all national universities, colleges and research establishments to create 'country-wide virtual classrooms'. There are three fully functional virtual classrooms (VCs) which is being extensively used by campus community for academic purposes like Teaching, Conferences, Workshops and Seminars.

The virtual classroom facility provided at various places are as follows:

Sl No.	Virtual Classroom	Seating Capacity	Equipment
1	NKN 407	65	1. A rack equipped with Hardware for VC, DVI switcher, networking equipment and connectivity and IP VCR with PTZ cameras for recording of video streams and classes.
2	NKN 408	110	2. One projector, 4 LCDs, Audio system, Wireless mic, Document camera and interactive LCD panel.
3	Senate Hall	143	3. Comfortable seating arrangement with air conditioning and stage with podium.

Dedicated NKN (National Knowledge Network) leased line of 1Gbps provides for state of the art virtual classroom service as well as internet. High speed and uninterrupted internet access is provided across the

campus to everyone through multiple ISP (Internet Service Provider) leased lines provided by RailTel and NKN. The NKN leased line is provided over optical fiber links of Railtel and BSNL in High availability mode. The bandwidth details of these leased lines are as follows:

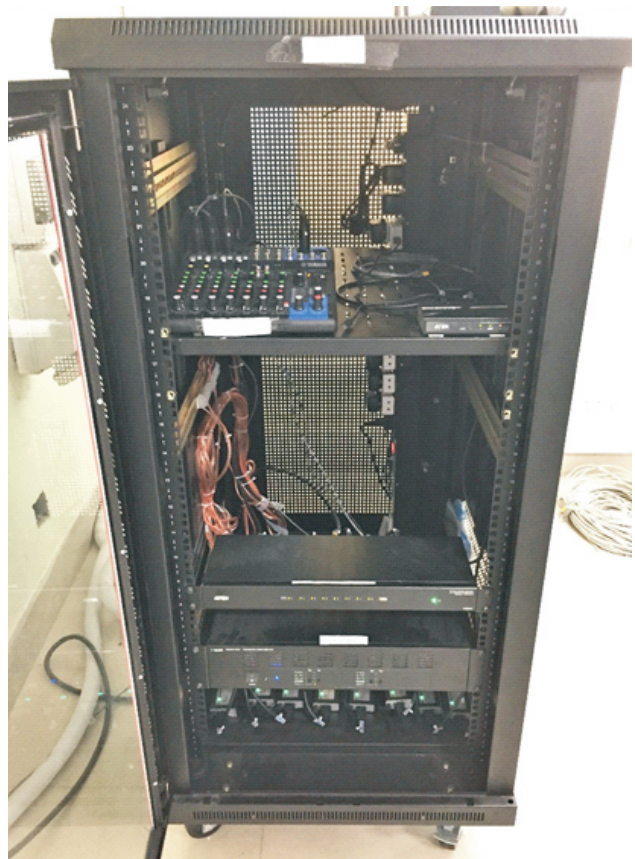
Sl No	ISP	Bandwidth (Mbps)
1	RAILTEL	75
2	NKN	1000*

*Shared for virtual classroom and internet

Computer Center Photo Gallery



CC LAB-1





CC LAB-2



Server Room

Server Room

NKN 407 Virtual Classroom



NKN 408 Virtual Classroom



Senate Hall



2. Hardware Resources

New hardware resources were procured by Computer Center for the institute. These resources align with the requirements of faculty, staff and students.

Following is the list of major hardware resources procured in addition to other:

Sl No.	Item	Unit	Price (INR)
1	Splicing Machine	1	89,999
2	Misc. Network extensions	1	4,73,448
3	Furniture	1	17,600
4	UPS	1	19,396
5	Video Conferencing device	1	1,82,260
Total			7,82,703

Overall, hardware resources of value INR 7,82,703 only were procured under major heads to cater for needs of various departments.

3. Maintenance and Software Resources

Maintenance and renewal of existing Hardware and Software resources was taken up and new Software resources were added to Computer Center inventory. These resources align with the requirements of faculty, staff and students.

Following is the list of Software resources procured:

Sl No.	Item	Unit	Price (INR)
1	1-year maintainence contract of online UPS	4	1,48,680
2	Railtel ISP renewal	1	12,98,000
3	Matlab Campus wide License	1	8,75,543
4	Microsoft Campus Wide License-renewal	1	9,22,374
5	CISCO WebEx License	17	2,45,234
7	BSNL PRI Line	2	3,54,000
	Total		38,43,831

Overall, Maintenance & Software resources of value INR 62,39,626 were procured through Computer Center to cater for needs of Institute.

4. Network

Network Services provide LAN, internet and telephone service access across the campus of 550 acres. The technical solution being maintained by CC and third-party engineers jointly has following salient features:

- The complete solution has 3 layers viz. Core with redundancy, Dual homed Distribution layer with redundancy and dual homed PoE (Power on Ethernet) enabled Access layer.
- Interconnection upto access layer is on OFC (Optical Fibre Cable). The bandwidth available from core to distribution is 10G+10G upgradable to 40G, from distribution to access is 2G+2G upgradable to 10G and from access to LAN ports is 1G.
- Around 130 wireless access points with redundant wireless controller.
- UPS (with 1+1 redundancy for core and distribution) and earthing for all active components with total 159 KVA capacity with 120 min. backup for core, 60 min backup for distribution and 30 min backup for access layer.
- Call Manager with 2000 capacity with redundant voice gateways to support 4 PRI lines and 854 IP telephones.
- 24X7 operation & maintenance with 1 site manager+ 3 Engineers+1 reliever.
- There are around 5000+ end points for LAN/Internet and IP telephones
- The network is extended to new buildings. Network connectivity has been provided in newly constructed buildings of Gymkhana, C V Raman Hostel, C-1 and C-2 residential buildings.

Sl No.	Item	Unit	Price (INR)
1	Active Components for Boy's Hostel, C-type building, Gym Khana	1	73,97,369
2	Misc. Network extensions	1	4,73,448
3	Renewal of campus Data and Telephone network maintenance	1	78,74,982
4	Passive component installation /services in new buildings	1	8,89,314
5	UPS grid	1	6,83,100
	Total		2,52,23,636

5. Application Services

Computer Center is actively involved in development of software applications, web portals and automated solutions to facilitate and support different sections of the institute. During this period, following activities in this area were undertaken:

Sl No.	Application developed	Description
1	File tracking system	For tracking the physical files circulating inside the institute
2	Stock Distribution system	For tracking laptop, desktop and printers in CC
3	Guest House Booking System	For Guest house booking and tracking
4	Online Complaint Portal for different sections like IWD, CC, Academics etc	For raising and tracking user complaints and issues
5	SAIF Web portal	Public Web portal for SAIF
6	GIAN web portal	Public Web portal for GIAN
7	CEP web portal	Public Web portal for CEP
8	Intranet	Intranet services for IITP Community
9	Institute Public Website maintenance and updates	
10	Hospital patient record system	For IITP Hospital
11	Web portal and application hosting	Assistance to IITP community for hosting and publishing their web content, portals etc
12	Mailing Services	In-house mailing solution catering to approx. 4500 users
13	Online Activities	Online teaching and meetings were conducted using WebEx/MS Teams platforms in the pandemic year.

6. Services and Support

- 365 X 24 X 7 support services for Network
- Desktop/Laptop/Server support on all working days during office hours
- Institute Website and e-mail support.
- VPN for remote access.
- Virtual Classroom support services during classes, seminars and conferences.
- Internet access, Wifi (Boy's Hostel).
- Intranet, Leave portal, online academic module.
- Exam related services (GATE, JEE etc).
- Support during Student Placement.
- Conference Site Maintenance.
- Support for training programs organization.
- Support for student Gymkhana website for events like anwasha, celesta, reverberance and other extra cocurricular activities.

- Support for Desktop, Laptop, Printer, network etc related issues.
- Library libsys software support.
- License server support (MATLAB, Mathematica, ANSYS, and Tecplot 360 etc).
- Support for institute meeting resources like web conferencing, internet access etc.
- Support for procurement of departmental and institute assets (Computer and accessories, LAB, furniture and other infrastructure related items).

2. SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY (SAIF)

Sophisticated Analytical Instrument Facility (SAIF) at IIT Patna is a R & D Infrastructure, sponsored by Department of Science and Technology, Govt. of India, for data collection/characterization of research samples/materials by paying nominal charges. This facility is open for internal (IIT Patna users) as well as

external researchers from academia, research laboratories as well as industries.

Research vision:

- To provide data collection facility from sophisticated analytical instruments for characterization of samples received from scientists/researchers from academic institutes, R & D laboratories and industries for research work.
- Train technicians/students in operation and maintenance of the equipments.

Facilities: The details are given below:

1. High Resolution Liquid chromatography–mass spectrometry (HR-LCMS)

Make: Bruker Germany

Model: Impact HD UHR-TOF mass spectrometer

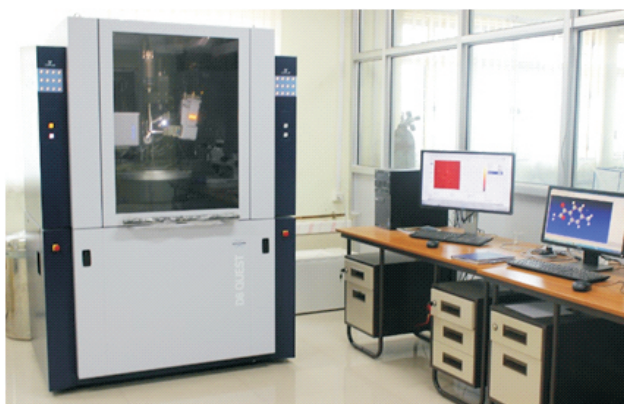


HR-LCMS, SAIF IIT Patna

1. Single Crystal X-Ray Diffractometer(SC-XRD)

Make: Bruker Germany

Model: AXS D8 QUEST



SC-XRD, SAIF IIT Patna

1. 500 MHz Nuclear Magnetic Resonance (NMR) Spectrometer

Make–JEOL

Model-ECZ500R/S1 with liquid probe and solid probe



500 MHz NMR, SAIF IIT Patna

- Technical Progress for FY 2021-22:
- Total numbers of the users (internal as well external) of SAIF IITP are 72.
- Total numbers of the sample processed are 1806.
- Earning from external samples is Rs.1,05,731.00

Significant achievement of this year:

1. Installation and training of 500 MHz NMR: Now,NMR facility is available for data collection of research samples for internal as well as external users
2. Grant sanctioned from DST: New grant sanctioned 5 Crore for FY 2021-2022 (on shared basis 75:25 ratio, DST shared 75% and SAIF-IIT Patna share 25%). This grant is sanctioned for Five New facilities (Physisorption/

Chemisorption Analyzer, Differential Scanning Calorimetry, Thermogravimetric Analyzer, Particle Size and Zeta Potential Analyzer and FEG Scanning electron microscope with EDS)

List of significant publications (2021-2022) acknowledging SAIF-IITP

1. A efficient azetidinium-amine reactions, Carbohydrate Polymers, 2022, 287, 119324
2. Nayak, S., Das, P., & Singh, M. K. (2021). Carbon dot with aggregation induced emission and pH triggered disintegration. Colloid and Interface Science Communications, 45, 100537.
3. "Polyoxovanadates with Ethylidene-Pyridine Functionalized Bisphosphonate Ligands: Synthesis, Structure, Spectroscopic Characterization, Magnetic, and Antibacterial Studies" Thakre, Dewendra; Ali Sk Rajab; Mehta, Sakshi; Alam, Noohul; Ibrahim, Masooma; Sarma, Debajit; Mondal, Abhishake; De, Mrinmoy; Banerjee Abhishek. Cryst. Growth Des. 2021, 21, 4285- 4298."
4. Sharma, P., Nath, H., Frontera, A., Barcelo-Oliver, M., Verma, A.K., Hussain, S. and Bhattacharyya, M.K., 2021. Biologically relevant unusual cooperative assemblies and fascinating infinite crown-like supramolecular nitrate-water hosts involving guest complex cations in bipyridine and phenanthroline-based Cu (ii) coordination compounds: antiproliferative evaluation and theoretical studies. New Journal of Chemistry, 45(18), pp.8269-8282.
5. Das, A., Sharma, P., Frontera, A., Barcelo-Oliver, M., Verma, A.K., Ahmed, R.S., Hussain, S. and Bhattacharyya, M.K., 2021. Supramolecular assemblies involving biologically relevant antiparallel π -stacking and unconventional solvent driven structural topology in maleato and fumarato bridged Zn (ii) coordination polymers: antiproliferative evaluation and theoretical studies. New Journal of Chemistry, 45(29), pp.13040-13055.
6. Rao, M.S. and Hussain, S., 2021. LUDOX HS-40 Catalyzed Pot, Atom and Step Economic (PASE) Synthesis of Pyran Annulated Heterocyclic Scaffolds. Polycyclic Aromatic Compounds, pp.1-12.
7. Sharma, P., Sarma, P., Frontera, A., Hussain, S., Verma, A.K. and Bhattacharyya, M.K., 2021. Energetically significant anti-parallel π -stacking and unconventional anion- π interactions in phenanthroline based Ni (II) and Cu (II) coordination compounds: Antiproliferative evaluation and theoretical studies. Inorganica Chimica Acta, 516, p.120082.
8. Rao, M.S. and Hussain, S., 2021. One-Pot, Borax-mediated synthesis of structurally diverse N, S-heterocycles in water. Tetrahedron Letters, 74, p.153159.
9. Rao, M.S. and Hussain, S., 2021. DABCO-mediated decarboxylative cyclization of isatoic anhydride with aroyl/heteroaroyl/ alkoy lacetonitriles under microwave conditions: Strategy for the synthesis of substituted 4-quinolones. Tetrahedron Letters, 76, p.153187.
10. Rao, M.S. and Hussain, S., 2021. TEMPO-mediated aerobic oxidative synthesis of 2-aryl benzoxazoles via ring-opening of benzoxazoles with benzylamines. Synthetic Communications, 51(17), pp.2684-2694.
11. Ru(II)-Catalyzed Controlled Cross-Dehydrogenative Coupling of Benzamides with Activated Olefins via Weakly Coordinating Primary Amides
12. Synthesis and catalytic evaluation of PVP-CeO₂/rGO as a highly efficient and recyclable heterogeneous catalyst for multicomponent reactions in water†
13. Sc(OTf)₃-Mediated One-Pot Synthesis of Coumarin-Fused Furans: A Thiol-Dependent Reaction for the Easy Access of 2-Phenyl-4H-furo[3,2-c]chromen-4-ones, Asim Jana, Danish Ali, Prabhas Bhaumick, Lokman H. Choudhury, The Journal of Organic Chemistry, 2022,

- <https://doi.org/10.1021/acs.joc.2c00353>
- Iodine-Catalyzed Multicomponent Synthesis of Highly Fluorescent Pyrimidine-Linked Imidazopyridines, Swadhin Swaraj Acharya, Prabhas Bhaumick, Rohit Kumar, Lokman H. Choudhury, ACS Omega, 2022, <https://doi.org/10.1021/acsomega.2c01332>.
 - Synthesis of Pentacyclic Pyran Fused Pyrazolo Benzo[h]quinolines by Multicomponent Reaction and Their Photophysical Studies, Rahul Yadav, Darakshan, Prabhas Bhaumick, Lokman H. Choudhury, T Parvin, Chemistry Select, 2022 7, 202104124. <https://doi.org/10.1002/slct.202104124>
 - A reversible and efficient probe for dual mode recognition of Al³⁺ and Cu²⁺ with logic gate behaviour: Crystal structure, theoretical and in-vivo bio-imaging investigations, Pranjalee Yadav, Rohit Kumar, S Srikrishna, Anoop Kumar Pandey, Lokman H. Choudhury, Chandan Upadhyay, Vinod P Singh, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 2022, 267, 120552.
 - Visible Light-Mediated C(sp²)-H Selenylation of Amino Pyrazole and Amino Uracils in the Presence of Rose Bengal as an Organophotocatalyst, Danish Ali, Tasneem Parvin, Lokman H. Choudhury, The Journal of Organic Chemistry. 2022, 87, 1230–1239.
 - Synthesis of styryl-linked fused dihydropyridines by catalyst-free multicomponent reactions, Rahul Yadav, Tasneem Parvin, Anoop Kumar Panday, Lokman H. Choudhury, Molecular Diversity, 2021, 25, 2161-2169.

3. TRAINING AND PLACEMENT CELL

Placement Report for 2021-22 (for Annual Report)

2021-22 witnessed the best placement season of IIT Patna with a huge spike in the placement and internship offers. The campus recruitment this year stands out due to it recording the highest number of job offers, highest domestic pay package, highest average package, and highest number of pre placement offers.

Around 154 companies belonging to IT/Software, Finance and Banking, Analytics and consulting, core engineering, E-commerce, health care, manufacturing, automobile etc. have extended 412 job offers to the batch of 2022. This is a sharp increase of 72.38% in comparison to the previous year's 239 job offers. The list also includes 10 international offers extended by Accenture Japan, Amazon Berlin, Google Munich, Amazon Luxembourg, Square Point Capital London, and Google London.

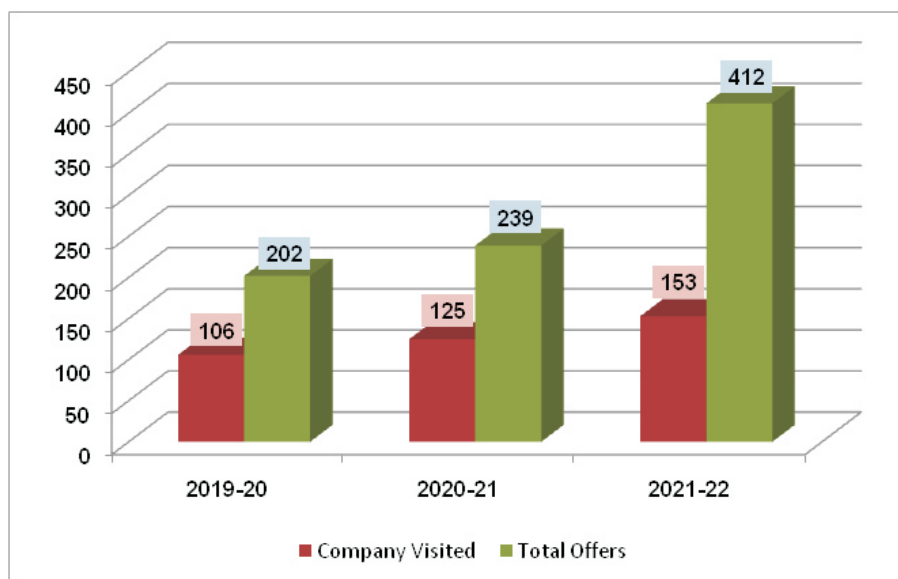


Figure : Trend in the number of companies visited and total number of offers over the past three years.

ANNUAL REPORT 2021-2022

IIT Patna placement has seen a steady increase in the average package compared to the previous academic years. The average CTC of B.Tech. graduates showed a phenomenal jump of 68.47 %, reaching 28.86 lakh in

2022 from 17.13 lakhs in 2021. Similarly, the average CTC of M.Tech. graduates reached 14.99 lakhs in 2022 from 12.22 lakhs in 2021. The highest domestic pay package offered is rupees 61.30 lakhs, followed by rupees 57.40 lakh for the students of the batch of 2022.

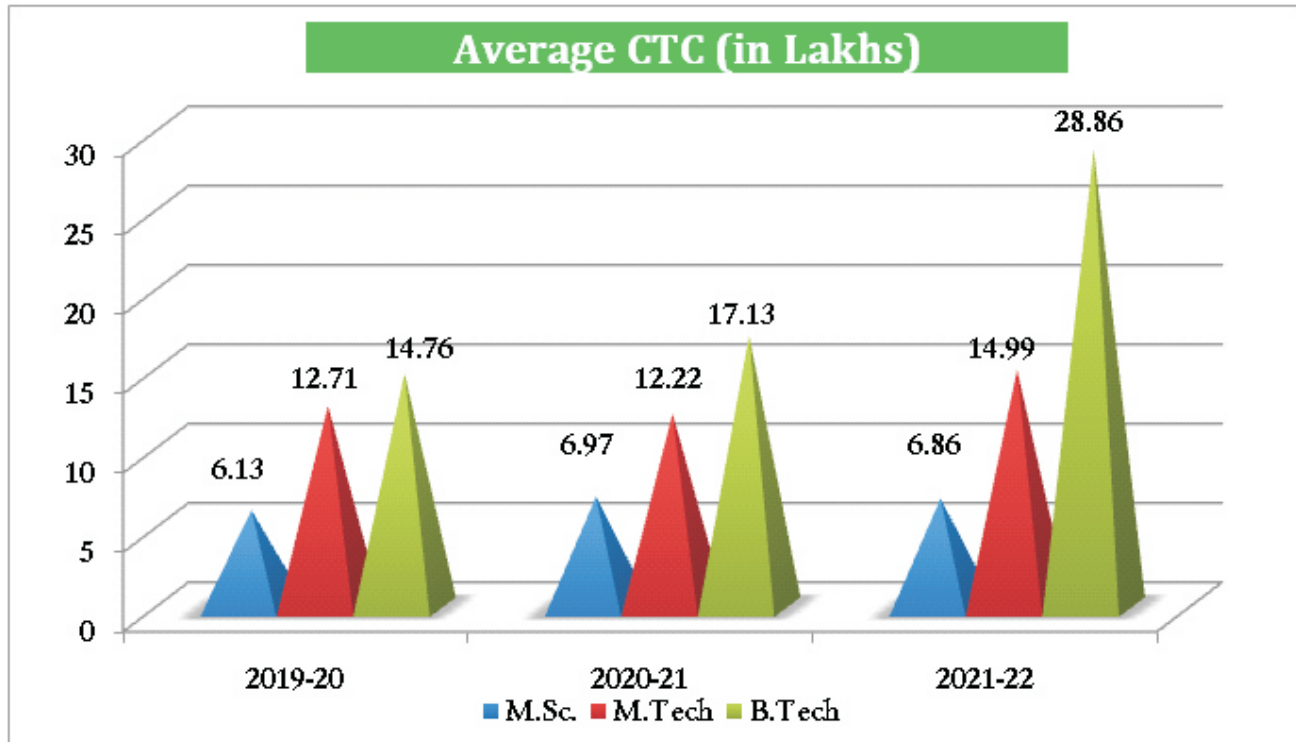


Figure : Average CTC of placement offers for various courses over the past three years.

The institute has seen a significant jump in pre-placement-offers (PPOs) extended to the students over the years. In 2021-22, the students of IIT Patna received

50 PPOs (pre placement offers), while it was 25 in 2020-21, which is 100% higher than the previous session.

	Batch-2021	Batch-2022	% growth
Average Salary (B.Tech)	17.13 Lakhs	28.86 Lakhs	68.47%
Average Salary (M.Tech)	12.22 Lakhs	14.99 Lakhs	22.66%
Total Job offers	239	412	72.38%
Total placed students	193	286	48.18%
No. of companies participated	125	154	23.20%
No of PPOs	25	50	100%
% placements B.Tech	93.33%	96.19%	3.06%
% placement M.Tech	82.35%	86.81%	5.41%

In terms of placement percentage, B.Tech. Computer Science and Engineering, Mechanical Engineering, Electrical and Electronics Engineering recorded 100%

placements each and Chemical engineering 82.35% and civil engineering 77.27%. The overall placement percentage of B.Tech. was 96.19%.

B.Tech. 2022 Batch Placement Data

Sl. No	Branch Name	Batch Strength	No. of Eligible & Interested Registered Students	Total No. of students placed	Total offers	Placement Percentage	Offer Percentage	Average Salary (LPA)
1	Computer Science & Engineering (CS)	69	66	66	107	100.00	162.12	38.79
2	Electrical Engineering (EE)	63	55	55	79	100.00	143.64	33.04
3	Mechanical Engineering (ME)	59	50	50	70	100.00	140.00	18.22
4	Chemical Engineering (CB)	24	17	14	16	82.35	94.12	12.91
5	Civil Engineering (CE)	29	22	17	28	77.27	127.27	17.02
Total		244	210	202	300	96.19	142.86	28.86

Similarly, M.Tech. Computer Science and Engineering, Mathematics and Computing, VLSI / Embedded systems, and Mechanical Engineering recorded 100%

placements. Other streams have also performed well in terms of placement percentage. All together M.Tech. batch of 2022 recorded **86.81 % placement**.

M.Tech. 2022 Batch Placement Data

Sl. No	Branch Name	Batch Strength	No. of Eligible & Interested Registered Students	Total No. of students placed	Total offers	Placement Percentage	Offer Percentage	Average Salary (LPA)
1	Computer Science & Engineering (CS)	16	13	13	16	100.00	123.08	21.94
2	Mathematics & Computing (MC)	15	13	13	20	100.00	153.85	15
3	Mechatronics (MT)	18	15	14	19	93.33	126.67	11.79
4	Communication System Engineering (EE)	15	10	8	13	80.00	130.00	20.15
5	VLSI & Embedded System	9	7	7	10	100.00	142.86	23.17
6	Civil & Infrastructure Engineering (CE)	15	8	5	5	62.50	62.50	7.5
7	Materials Science and Engineering (MS)	16	11	5	5	45.45	45.45	8.75
8	Mechanical Engineering (ME)	16	14	14	17	100.00	121.43	8.71
Total		120	91	79	105	86.81	116.48	14.99

The batch of 2022 achieved another remarkable feat by grabbing 6 international offers by the B.Tech. students through the off-campus recruitment process with a pay package of more than one crore. Google London has extended one of the students of IIT Patna a

pay package of 1.37 Cr, Google Munich has extended to another student a luxury remuneration of 1.31 Cr, Amazon Berlin has offered the pay package of 1.20 Cr to 3 students and Amazon Luxemburg has extended fatty pay package of Rs. 1 Cr to 1 student of IIT Patna.

The recruiting firms from the IT/software domain dominated the list with its 45% parts followed by analytics / consulting 13%, EdTech 9%, FinTech 7%, research and development 4%, E-Commerce 5%, semiconductor 3%, core engineering 3%,

manufacturing 3% and others includes 5%. A formidable number of start-ups (around 46) from the growing to the established stage have been attracted by the institute for the campus placements.

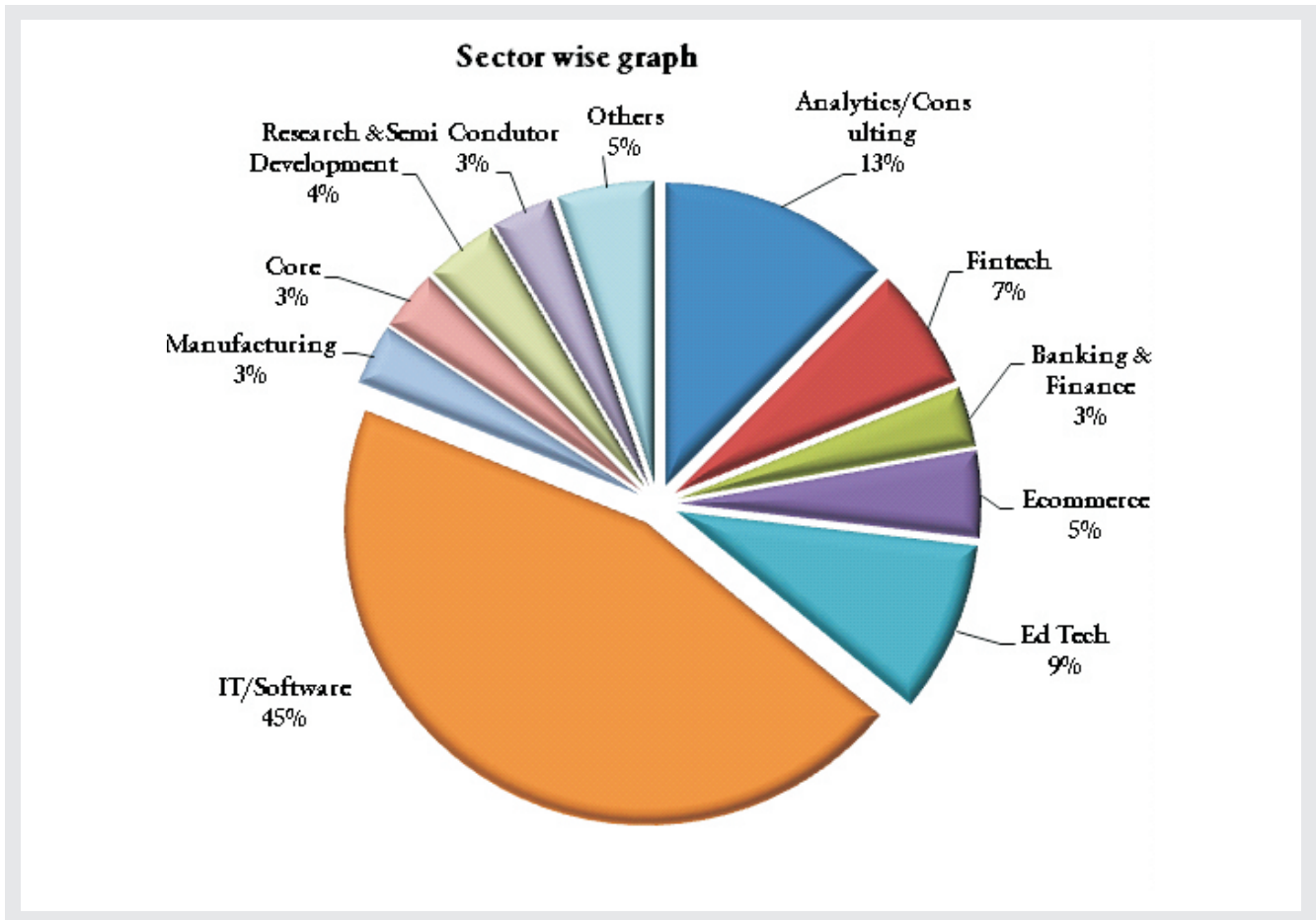


Figure 3 : Sector-wise distribution of the major recruiting firms in the 2021-22 session.

This season more than 40 new companies have participated in the campus recruitment for the first time with Qualcomm, Plutus Research, HDFC, ICICI Bank, RBL Bank, Yugabyte, Servicenow, indeed, Dhani, Husing.com, Flipkart, Zomato, Paytm, Tata Electronics, Sears, and Tata Digital being the few of them.

The job profiles offered range from software engineer, hardware engineer, application engineer, product engineer, data scientist, digital consultant, manager

infrastructure, analyst, machine learning engineer, digital engineer, decision analyst, consulting management trainee, GET, PGET, etc.

The list of top recruiters of the season includes Google, Oracle, MTX, sprinklr, dhani, Atlassian, optum, Bosch, media.net, Gameskraft, Smart Coin, TVS, Aarti Industries, HDFC, RBL, etc. Additionally, some of the top PSUs like BPCL, BEL, and CDAC also recruited the student from the batch of 2022.

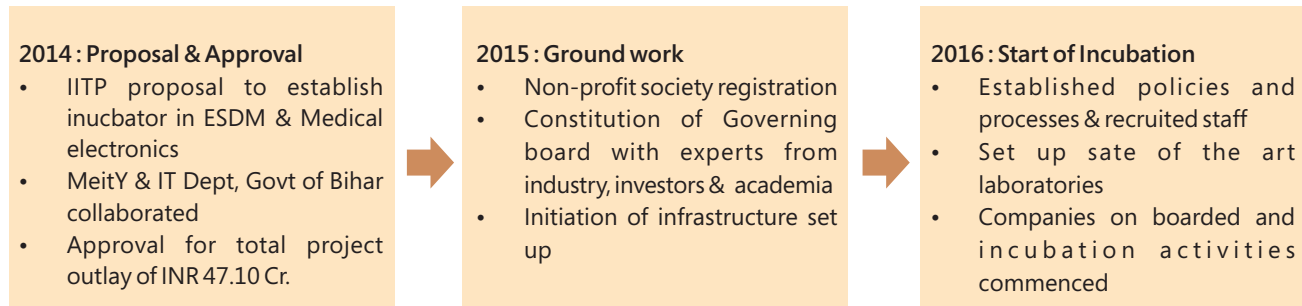
4. INCUBATION CENTER

1. Introduction

Objective: Promote innovation and entrepreneurship among students, faculty and other innovators with the aim to identify, nurture and translate technology ideas and innovation in the broad area of Electronics System Design and Manufacturing (ESDM) with a focus on Medical Electronics.

Aims: Excellence in technology business incubation in the ESDM and Medical Electronics sector and to act as a launching pad for many successful ventures while promoting the culture of innovation and entrepreneurship in the institute, the state of Bihar and Eastern part of the country.

The first steps:



2. Snapshot of Progress on Key Project Milestones

Project Mandate	Status
Creation of society, organizational structure, policies and procedures	✓ Society registered, MC formed, Project Evaluation Team (to select, monitor and recommend funding startups) set up, incubation policies and procedures are in place
Equip Incubatees with world class infrastructure for ESDM product development – Labs	✓ Design, PCB & Product Prototyping Lab fully functional. Capacity has been added in Design, PCB fabrication and product prototyping labs.
	✓ Micro nano fabrication lab: Civil part complete, Contract awarded, Detailed Design approved, Set up expected to complete in FY 22-23
Equip Incubatees with world class infrastructure - 3000 Sq Mtr Dedicated Facility	✓ Completed, Building inaugurated on 19th September 2020 and is under use since FY 21-22. Facility can accommodate 110 incubatee members, in addition to various labs, meeting facilities and other amenities in a landscaped compound
Techno Business Mentorship	✓ Mentor Pool and regular mentoring in place; Expansion ongoing. Technical/Product mentors : 25 ; Business Mentors : 10 Investment Mentors : 4 ; Domain mentors in MedTech: 7
Support 50 Companies	✓ 78 Companies supported under its incubation as well as pre incubation programs out of which 65 were supported under Incubation Program(More than 50% companies are from Bihar).
Support to companies on product development and commercialization	✓ Dedicated team of 11 to support incubatees (1 Mgr,1 Asst Mgr, 4 Tech, 5 Ops) under the guidance of PIC and Management Committee;

	<ul style="list-style-type: none"> ✓ Service provider access for micro machining, market and valuation analysis, components supply, financial/ legal / IP etc
Eco System Creation	<p>Close collaboration with ecosystem partners; Expansion ongoing.</p> <ul style="list-style-type: none"> ✓ Bihar Govt stakeholders: Dpts of IT, Industries, DST ✓ GoI stakeholders : MeitY, DST, MSME, MSME NSSH ✓ Educational stakeholders : AIIMS Patna, Biodesign centre AIIMS Delhi, NEILIT Patna, State Eng Colleges ✓ Incubators : BIA, SINE IITB, Venture Centre Pune, SIIC IITK (IC is a member of ISBA) ✓ Investor Networks : IAN, Venture Catalyst, Hyderabad Angels ✓ Hospitals : AIIMS Patna;
IP Creation	<ul style="list-style-type: none"> ✓ 20 Patents filed by Incubated companies, 5 Granted.
Employment Generation	<ul style="list-style-type: none"> ✓ 150+ People directly employed by Incubatees (excl founders)
Market entry	<ul style="list-style-type: none"> ✓ 22 Companies in the market, 2 companies are doing multi crore business and a few others are around 0.5 Cr of revenues.

2.1 Incubation Program Overview and Progress

- ✓ Program duration is one year (extensible up-to 2 years based on performance and need)
- ✓ Business proposals sourced through national call for proposals/ startup portal of Bihar Udyog Vibhag
- ✓ Project Evaluation Team (with experts from medical, technology, entrepreneurship and investment areas) scrutinize the proposals and selects companies. 6+ evaluation cycles are done annually.
- ✓ Companies are supported with office space, lab access, mentorship, ecosystem connects. Rs 10 Lakhs seed fund is provided to companies
- ✓ selected through national calls. Rs 10 Lakhs of seed softloan is available to companies onboarded under Bihar Startup Policy.
- ✓ Physical and virtual incubation are offered. Virtual incubation do not include office access
- ✓ 22 companies entered the market so far. 4Mirrortech Innovative, one of the early incubatees has seen significant growth and secured large industrial clients and multi crore orders.
- ✓ A few other companies have been able to generate significant revenues. Some of the companies are progressing well in their product development. IC will see more success stories in the year to come.

Progress made by some of the incubated companies at ICIITP

1. Bionic Hope Private Ltd, the first incubatee of IC has won National Startup Awards 2021 in the Medical devices – Health and Wellness category , for developing an active upper limb prosthesis (as shown in Figure 1). Company also secured BIRAC grant of 43.40 lacs under IIPME scheme and additional investments.
2. 4Mirrortech Innovative, with 'Aura'- its smart facility management suite of products (Figure 1), has made a major breakthrough and secured a pan India multi crore order from an industry leading telecom company.



Fig 1 : Active Prosthetic hand

3. Amjad Ali Health Care has entered the market with an innovative telemedicine platform branded as OMED (as shown in Figure 3). This service integrated telemedicine platform along with its "Bike Doc" a portable telemedicine application kit, are in the market and is gaining good traction amid Covid Pandemic
4. BigOHealth, a healthcare access facilitating company has shown significant acceptance among rural and semi urban population in some districts in Bihar and have served more than 8000 Covid patients with teleconsultations, oxygen and hospital availability.
5. Kingshahi innovations has developed a WHO guidelines complied, lower cost, highly effective full body sanitization solution for limiting contamination in sterile areas. Testing at AIIMS Patna showed promising results. Product is ready for launched
6. Sybilline is working on developing an automated floor cleaning robot.
7. Smartway Electronics have developed integrated IoT based pulse oximeter cum infrared thermo meter.
8. MedicFibre has developed patent filed technology for antimicrobial for treatment of hospital textiles
9. Scraptechies company has developed a counter drone system for defence and security applications
10. Saptkrishi developed a solar powered low cost vegetable/fruit storage system that extend the life of vegetables upto 3 weeks, the company have received climate solver award from WWF.



Fig 2 : Smart Facility Product



Fig 3 : Telemedicine Platform

2.2 Pre-Incubation Programs Overview and Progress

IC Pre-incubation program : This 3 month (extensible up-to 6 months) program is aimed at helping start-up teams refine their business plans. In the last couple of years, 13+ teams were supported and a few were selected for regular Incubation based on progress.

DST Nidhi Prayas : IC has been selected as the first 'Prayas Centre' in Bihar by Department of Science and technology, Govt of India, to implement its flagship prototyping support scheme "NIDHI-Prayas". This 12-18 month program is aimed at helping start-up teams refine their business plans. In the last couple of years, 13+ teams were supported and a few were selected for regular Incubation based on progress. 11 teams are being supported under this scheme, with a financial assistance of upto Rs 10 Lakhs, to develop their technology from a PoC stage to Working Prototype level so that the team can pursue commercialization subsequently.

DST Nidhi EIR : IC has been selected as the first 'EIR' Centre in Bihar by Department of Science and technology, Govt of India, to implement its entrepreneur development scheme "NIDHI-EIR". This is a 12 month fellowship program aimed at helping start-up aspirants to explore and refine their business plans. 6 aspiring entrepreneurs are presently being supported with a monthly fellowship of Rs 30,000 to develop their business plans and pursue commercialization subsequently.

2.3 Facilities and Support Provided at IC

IC has set up dedicated 30,000 sq ft facility (Figure) which will accommodate 110+ people (incubatees and staff), labs, clean room, meeting and conference facility, cafeteria, library, recreation facility and a 4-room guest house inaugurated by Dy CM, Govt of Bihar.

ESDM Labs : IC, being focussed on ESDM and Medical Electronics has set up state of the art laboratories that will help the incubated companies to move from Concept to Product Prototype in house. IC has set up the following labs to achieve this:

- Electronic System Design and Prototype Lab with design software, electronic components, micro controller based rapid prototyping kits and electronic work bench set up for design and initial prototyping.
- PCB Design and Manufacturing Lab (Figure 5) helps the incubated companies to implement their hardware at board level with the help of sophisticated machines for milling, drilling, routing, rubout, through hole plating, component pick and place, soldering, masking and lithography. PCBs up to 8 layers can be fabricated.
- Testing and Calibration Lab (Figure 6) enables the characterization of PCB prototypes using advanced oscilloscopes, Function Generator, RSA, Logic Analyser, source meter and the like.
- Mechanical Packaging and Product Prototype Lab (Figure 7) enables the prototyping of form factor, enclosure designs and parts using 3D multi-material 3D printers and software.
- RF DC Sputtering unit was installed as part of micro nano fabrication facility, for those companies who would like to work on sensors and mems level fabrication. Fig 7 : Mechanical Packaging Lab In addition, airconditioned work space (~100) with professional grade furniture, computers and internet connectivity; guidance by angels, successful CEOs, doctors, IIT Professors and IC administration on topics including technology, pricing, marketing, developing effective business process, IPR Strategy etc; training programs on regulatory compliances, product design, marketing, IP etc; and Funding support Upto 10 Lakhs are also provided to companies.



Fig 4.: 30,000 Sq Ft Permanent Facility



-Fig 5.: PCB Fabrication Lab



Fig 6 : Testing & Calibration Lab



Fig 7 : Mechanical Packaging Lab

2.4 Progress in development of key ecosystem partnerships

Partner	Contribution / Involvement
Dept of IT, Govt of Bihar	<ul style="list-style-type: none"> ✓ Funding for permanent facility, clean room, seed fund ✓ Proposal is submitted to them for additional seed funding and hostel facility
Dept of Industries, Govt of Bihar	<ul style="list-style-type: none"> ✓ Sourcing of business proposals ✓ Incubator support (Rs 2 Lakhs per supported company) under the scheme ✓ Seed fund support to the company upto 10 Lakhs as softloan ✓ Entrepreneurship training programs under various schemes ✓ IC and BIADA, an agency of Dept of Industries collaborated to set up Zero Lab at Patna to handhold aspiring entrepreneurs and to conduct awareness programs

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MeitY, Govt of India	<ul style="list-style-type: none"> ✓ Project review and steering ✓ Funding for operations, equipment and infrastructure
DST, Govt of India	<ul style="list-style-type: none"> ✓ Recognising IC as a TBI so as to hold equity and avail CSR funding. ✓ Grant Support for prototyping under NIDHI Prayas scheme, upto Rs 10 Lakh ✓ Fellowship Support of Rs 30K under NIDHI EIR scheme
MSME, Govt of India	<ul style="list-style-type: none"> ✓ Recognised IIT Patna as a HI for supporting MSME through incubators
AIIMS Patna, Bio design centre AIIMS Delhi , ISIC Delhi (in discussion)	<ul style="list-style-type: none"> ✓ Medical domain mentoring support ✓ User requirement validation ✓ Testing and validation of medical devices
MSME NSSH, Govt of India	<ul style="list-style-type: none"> ✓ Funding for entrepreneurship, product development and training programs under National SC ST Hub scheme;
NEILIT Patna	<ul style="list-style-type: none"> ✓ Training collaborations (mutual) ✓ Provides trained manpower/interns for IC companies
Indian Angel Network	<ul style="list-style-type: none"> ✓ Part of board, evaluation panel and regular mentorship
CII, ISBA	<ul style="list-style-type: none"> ✓ CII : Part of Board, supports in IP training programs, industry connect ✓ ISBA : Connect with other incubators, competency building and advisory

2.5 Training, outreach and marketing

Training Programs : IC conducts training programs (for Industries Dept Bihar, MSME NSSH and on its own) of 2 Hrs to 2 weeks duration. Entrepreneurship development programs and product development workshops also receive excellent reception. IC organizes targeted training programs specifically for incubated companies and larger scale awareness programs for IP, Compliances, Funding etc for larger audience. IC has served 1500+ participants through its training programs since inception. ICIITP organized various events for startups (Figure 9) and ESDM enthusiasts.



Fig 8 : Medtech School

Event Participation : IC actively participates in events such as Convergence Expo and Smart City Expo held at Delhi in March 2022 which saw huge participation from research organizations from across the country and startup and student community. IC conducted a national level pitching competition that attracted registration of nearly 100 startups.

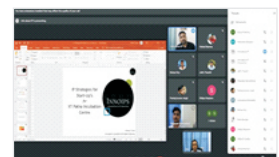


Fig 9 : Training Programs

Zero Lab : IC has partnered with BIADA, and agency for Department of Industries, Govt of Bihar for promoting entrepreneurship in the state. IC is the execution partner whereas BIADA is providing financial assistance and premises to house the facility. The facility is first of its kind in Bihar and is mandated to organize awareness sessions, master classes, workshops, boot camps (Figure 10) and handholding to aspiring entrepreneurs in getting ready for commercialization and is expected to boost state's efforts to emerge as a vibrant startup ecosystem.



Fig 10 : Zero Lab boot camp

Media Coverage : ICIITP has been promoting itself through various medial channels. IC created excellent coverage in national and state level print media (both English and Hindi) such as Hindustan Times, Times of India, Hindustan, Dainik Bhaskar, Dainik Jagaran etc and visual media including DD. All events and programs are reported in the print media on a regular basis. Media houses also report on various incubated companies and their progress.

5. CENTRAL LIBRARY (2021-2022)

The Central Library of IIT Patna has become an advanced library in a very short span of time. It has acquired a large collection of books and e-journals and provides excellent services to its users. Central Library caters for the information needs of its highly demanding faculty members, research scholars, students as well as staff of the Institute by offering a wide range of knowledge-based (and value-added) services and products. The Central Library, IIT Patna has a collection of 22,491 print resources to date. All print resources are RFID tagged and duly processed before use or circulation. Within this period Central Library has also subscribed to various e-resources in

the form of full-text e-journals and e-books to disseminate the requirement of the users. During this COVID pandemic, the Central Library catered for the information needs of its highly demanding faculty members, research scholars, students as well as staff of the Institute by offering a wide of knowledge-based services and products through the Remote Access facility. All e-resources are accessible to all users from outside the campus. Being a core member of the E-Sodh Sindu Consortium Central Library is also getting access to various e-resources from the consortium. Central Library is subscribing to 46 e-journals packages and added more than 3000 titles of e-books to different publishers like Springer-Nature, and Wiley in total, which facilitate various knowledge-based needs of the users. Central Library has also procured a good number of books in Hindi language. The Central Library has been also procuring a few popular magazines and eight daily newspapers in English and Hindi languages. Central Library has been regularly updating its e-resources to the NDLI platform.

All information regarding the resources and services of the Central Library is available on the website <http://library.iitp.ac.in>.

RESEARCH & DEVELOPMENT ACTIVITIES AT IIT PATNA

MOUs with Other Institutions

Sl. No	NAME OF ORIGINATOR/ PRINCIPAL INVESTIGATOR	DEPT	TYPE OF DOCUMENT- MOU/RESEARCH AGREEMENT/NDA	PURPOSE OF AGREEMENT / MOU	NAME OF PARTY
1	Dr. Naveen Nischal	Physics	Cooperation Agreement	Sponsoring fellowship to PhD students of IIT Patna	French University
2	Dr. Sriparna Saha	CSE	Agreement	Research on Natural Language Processing, Machine Learning, Deep Learning	CRISIL
3	Dr. Sriparna Saha	CSE	Agreement	WHEREAS, Sony desires to have Participant perform the research program described in Exhibit 1.	Sony Research India Pvt. Ltd
4	Dr. Asif Ekbal	CSE	Research Collaboration Agreement	To carry out research development and consulting work for a research project Percuro"	Wipro Limited
5	Dr. Dinesh Kumar Kotness	MME	Joint Development Agreement	Cold sintering of eramics in the Presence and Absence of Polymers	Carborandum Universal Limited
6	Dr. Sriparna Saha	CSE	Research Agreement	M/s Sony Research India Pvt. Ltd	Agreement
7	Dr. Anup Kumar Keshri	MME	NDA	Exploratory work on plasma sprayed graphene coatings.	Applied Material Inc.
8	Dr. Anup Kumar Keshri	MME	Consultancy Agreement	To discuss the technical details and step-by-step progress in scaling up the coatings.	Associated Plasmatron Pvt. Ltd
9	Dr. Anup Kumar Keshri	MME	Research Agreement	Establish the Plasma Spray Parameters for CUMI's Graphene Nanoplates (GNPS) Powder	Carborandum Universal Limited
10	Dr. Naveen Nischal	Physics	MoU	Collaboration for Research and Development of Optical Correlator Based Visual Navigation Technologies	ISRO, IISU
11	Dr. K.C Ray	EE	MOU	Research & Development Purpose of MoU under Chips to Startup (C2S) Programme	National Institute of technology Durgapur

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12	Dr. S. K. Parida	EE	MOU	Characterization and Detection of Power System Ambient, Transient and forced Oscillation Based on Synchrophasor Data Analytics in Indian Context	Central Power Research Institute
13	Dr. Anoop Kumar Keshri	MME	MOU	Development of High Temperature Wear, Erosion and Corrosion Resistant Graphene Nanoplatelets Reinforced Plasma Sprayed Cr ₃ C ₂ -NiCr composite Coating for thermal power plant (herein after referred to as the "Project")	Central Power Research Institute
14	Ranjan Kumar Bahera	EE	MOU	Fault-Tolerant Control of Five-Phase Induction Motor Drive for Industrial Application.	Centre for Development of Advance Computing, Thiruvananthapuram

List of Research Projects during 2020-2021

Sl No.	Project Number	Name of Investigator	Name of Investigator	Department	Project Title	Funding Agency
1	547	Dr Pramod Kumar Tiwari	NIL	EE	Design, fabrication and modeling of novel GAA FETs	DST
2	552	Dr Udit Satija	NIL	EE	Development of wearable Intelligent Electro-encephalograms (EEG) Signal Analysis IoT-Enabled System for Unsupervised Mental-Health Monitoring and Behavior Analysis.	Indian Council of Medical Research
3	555	Dr Sriparna Saha	NIL	CSE	Development of a Multimodal Personalized Persuasive Virtual Agent for Sales Domain	Accenture Pvt Limited
4	556	Dr Asif Ekbal	NIL	CSE	Development of Knowledge Grounded Persona-award Empathetic Dialogue Generation	Accenture Pvt Limited

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5	557	Dr Rajib Kumar Jha	Dr Sudhir Ku	EE	Leaf Disease Detection and Severity Estimation using Deep Learning based Image Processing Method.	SERB
6	558	Dr. Subhabrata Paul	NIL	Math	Alogorithmic aspects of vertex-edge domination and its variation.	CSIR
7	560	Dr Sriparna Saha	NIL	CSE	CRISIL - IIT Patna Collaboration	CRISIL Ltd, Powai, Mumbai
8	561	Dr Vaibhav Singhal	NIL	CEE	Development of Guidelines for Seismic Evaluation and Strengthening of Old Masonry Buildings in Bihar Based on a Pilot Study.	Bihar State Disaster Management Authority
9	567	Dr. Dinesh Kumar Kotnees	Dr. Tamoghna Chakrabarti	MME	Cold sintering of ceramics in the presence and absence of polymers	Carborundu m Universal Ltd, Chennai
10	568	Dr Amit Kumar	NIL	Chemistry	Amides and Imidates a Versatile Synthons for Organic Chemists : A Synthetic Exploration for Biologically Relevant Functionalized Organic Molecules, Scope and Mechanism.	CSIR
11	570	Dr Ranjan Kumar Behera	NIL	EE	Axial Flux Motor Design	NEMI-Neo Electric Mobility Innovations
12	571	Dr Anup Kumar Keshri	NIL	MME	Plasma spraying of rare-earth niobates powder and controlling its stoichiometry and porosity for the advanced thermal barrier coating applications	AR&DB, DRDO
13	573	Dr Sriparna Saha	NIL	CSE	Novel multi-modal recommendation system for online video recommendation	Sony Research India Pvt Ltd
14	578	Dr Sriparna Saha	NIL	CSE	Multimodal cyber-bully detection in ASEAN Languages	SERB
15	579	Dushyant Singh Chauhan	Dr Asif Ekbal Mentor	CSE	Research Proposal for PMF : Multimodal Affective Computing	SERB

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16	581	Ms. N. Kumutha	Dr Subrata Hait	CEE	Design and Development of Portable Solar Incinerator for Disposal of Bio-Medical Waste	DST
17	596	Dr Viswanath Chintapenta IIT Hyderabad	Dr Murshid Imam	ME	Direct metal laser sintering of C103 refractory alloy	DRDO
18	598	Priyanshu Priya (2021CS26)	Dr Asif Ekbal (Mentor)	CSE	DST- Inspire Fellowship under INSPIRE Programme	DST
19	600	Dr Udit Satija	NIL	EE	Design and Implementation of Specific Emitter Identification System for Detecting Malicious UAVs/Drones and Transmitters.	SERB
20	601	Dr Jawar Singh	Dr Pramod Kumar Tiwari	EE	Establishing the Centre of Excellence(CoEs) in Bihar, Government Polytechnic Colleges	DST, Govt of Bihar
21	604	Dr Snehasis Daschakraborty	Dr Rajiv Misra	Chemistry	Diffusion of lipid in laterally heterogeneous cell membrane	CSIR
22	605	Dr Asif Ekbal	NIL	CSE	PERCURO : A Holistic Solution for Clinical Text	Wipro Ltd, Bangalore
23	606	Dr Md Lokman H. Choudhury	NIL	Chemistry	Design and Development of Visible Light-Driven Multicomponent Reactions using Organophotocatalysis	SERB
24	611	Dr Saurabh Kumar Pandey	NIL	EE	Design and Development of Memristor for Neuromorphic Application: A combined Theoretical and Experimental study	SERB
25	612	Dr Bachu Anilkumar	NIL	CEE	Analysis and Modelling of Driver Behaviour using Naturalistic Driving Data under Indian Traffic Conditions	SERB
26		Dr Debajit Sarma	NIL	Chemistry	Exploratory Synthesis of Functionalized Luminescent Metal Organic Frameworks (LMOFs) and their Sensing Applications.	CSIR

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27	618	Dr Ajay Kumar Kalyani	NIL	MME	Electric field and temperature dependent structural and microstructural study in ferroelectric HfO ₂ thin films	DST-SERB
28	621	Dr Rishi Raj	NIL	ME	Decoding the Science of Boiling via bubble Acoustics : Towards Preemptive Control of Vapor Explosion in Industrial Applications	SERB
29	624	Dr. Jawar Singh	Dr Pramod Kumar Tiwari	EE	Design and Development of Silicon Artificial Neuron and Synapse for Brain Inspired Computing Architectures.	SERB
30	627	Dr Manabendra Pathak	Dr Mohd Kaleem Khan	ME	Porous membrane based vapour venting technique for performance improvement in microchannel heat sing	SERB
31	628	Dr Sudhir Kumar	NIL	EE	Statistical Modeling of generic α - η - κ - μ fading Model for Smart Device Localization	SERB
32	629	Dr Saurabh Kumar Pandey	NIL	EE	A Novel versatile Memristor Model for neural network/neuromorphic computing application	SERB
33	630	Dr Amit Kumar Verma	NIL	Math	Offset linear canonical Stockwell transform	SERB
34	631	Dr Tamoghna Chakraborty	Dr Devinder Yadav Dr Ajay Kumar Kalyani	MME	Liquid Phase Flash Sintering of Yttria Stabilized Zirconia Ceramics	DST
35	632	Dr Prathibhamoy Das	NIL	Maths	Numerical Analysis for precipitation-Dissolution type Models Porous Medium with Arbitrary Small Diffusion Coefficient Using Time Dependent Mesh Adaptivity	SERB
36	634	Prof. Naveen K Nishchal	Dr Akhilendra Singh	PHYSICS	Design and Development of an Opto-electronic Asymmetric Cryptosystem.	SERB
37	635	Prof. Naveen K Nishchal	Dr Rakesh Kumar Singh, IIT (BHU)	PHYSICS	Design and Development of Optical Correlator	ISRO

List of Consultancies undertaken

Sl No	Consultancy Number	Name of Consultants	Department	Description of work	Funding Agency
1	543	Dr Sudhir Kumar Dr Subrata Hait Dr Arvind Kumar Jha	CEE	Technical vetting of detailed project report of development of street vending zones project of bhagalpur smart city	Bhagalpur Smart City
2	544	Dr Amarnath Hegde Dr Arvind Kumar Jha Dr Pradipta Chakraborty Dr Ramakrishna Bag	CEE	Liquefaction analysis of two locations as part of upcoming Lohia Path Chakra project between Lalit Bhawan and Vidyut Bhawan on Bailey Road in Patna	Soil tech Engineers Private Ltd , Boaring Road, Patna
3	545	Dr Subrata Hait Dr Om Prakash	CEE	Vetting of Raw Rising Main of Bhagalpur Water Supply Project Phase-2	BUIDCO
4	548	Dr Koushik Roy	CEE	Physical test of TMT bars with repair grip coupler for MG Setu over Ganga River	TPF Engineering Pvt Ltd, Patna
5	549	Dr Manabendra Pathak	ME	Pre-delivery inspection of one unit of Road sweeper machine (model:SE-6) to be delivered to nagar Parishad Danapur, Patna	HAR International, house no-253, Samrala, Ludhiana, Punjab-141114
6	550	Dr Vaibhav Singhal	CEE	Proof checking of details design and drawings of three rail over bridges	Bihar State Road Development of Corporation Ltd, Patna
7	551	Dr Amarnath Hedge	CEE	Technical Assessment of Suitability of Vibro compaction for the Construction of Type-I, III & IV Residential Quarters at ITBP, Kathihar, Bihar	Central Public Works Department (CPWD), Bhagalpur, Bihar
8	553	Dr Amarnath Hedge	CEE	Foundation Recommendation for Nephrology Block, IGIMS, Patna	Univarsal Contractors & Engineers Pvt, Ltd
9	554	Dr S. Sivasubramani	EE	Vetting of MEP Drawings of RIO and NEPHRO Block in IGIMS, Patna	Univarsal Contractors & Engineers Pvt, Ltd, Greater Noida

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10	559	Dr S. Sivasubramani	CEE	Vetting of Electrical Drawing for open space project at Bhagalpur Smart City	Singhal Enterprises Ranchi
11	562	Dr Sudhir Varma Dr Vaibhav Singhal Dr Ranjan Kumar Behera	CEE	Technical Vetting of GFC drawing of "Face-Lifting of CBD area along major roads area of Muzaffarfur Smart City"	Shree Ram Sagar Construction, Muzaffarpur
12	563	Dr Preetam Kumar	EE	Impact assessment of smart gram(4G/LTE-A) deployment in villages	Uvaca Digital Systems Pvt Ltd Bangalore
13	565	Dr Arvind Kumar Jha Dr Amarnath Hedge Dr. Ramakrishna Bag Dr. Pradipta Chakrabortty	CEE	Testing and analysis of three bentonite samples, NTPC Barh.	NTPC Barh
14	569	Dr Avik Samanta Dr K K Hussaini Dr Subrata Hait	CEE	Vetting of Drawings and Documents of 6.5 MLD STP and Allied Infrastructures at Maner, Patna, Bihar	Sophisticated Industrial Materials Analytic Labs Pvt Ltd, Patna
15	572	Dr Manabendra Pathak	ME	Preliminary investigation for making assessment of civil and mechanical structure/ components and feasibility report for renovation of existing old STP unit at Beur, Patna	Bhugan Infracon Pvt Ltd, S.P. Ring Road, Ahmedabad -380060
16	574	Dr Subrata Hait	CEE	Vetting of Design and drawing of sewerage network at Hajipur, Bihar	Toshiba water solutions Pvt Ltd, Patna
17	580	Dr Anup Kumar Keshri	MME	Developing Plasma Spray coating on commercial scale	Associated Plasmatron Private Limited
18	583	Dr. Mohd. Kaleem Khan	ME	Peer Review of the Design of various services for the office complex & residential quarters at Wadala	M/s Sikka Associates, New Delhi
19	584	Prof. T. N. Singh	CEE	Design and execution of necessary protective measures in Malshej Ghat Section of Kalyan 92/200 in the state of Maharashtra on EPC mode "	Pioneer Foundation Engineer Pvt Ltd

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20	585	Dr Arvind Kumar Jha	CEE	Testing and Analysis of the concrete samples	Larsen & Toubro Ltd, Transportation Infrastructure IC (TIC)
21	586	Prof. T. N. Singh	CEE	Second opinion a validation of recommendation in the Geo-Technical expert study on abandoned some quarry done by M/s GENSTRU	Hindalco Industries Limited, Sonebhadra
22	587	Prof. T. N. Singh	CEE	Proof checking of design report for the work of Vengurla Akeri Amboli Belgaum Road, providing & Fixing various protective measures in Tel: Sawantwadi, Dist-Sinhdurg on EPC mode	M/s Pioneer Foundation Engineer Pvt Ltd, Powai, Mumbai
23	588	Dr Manabendra Pathak	ME	Vetting technical data sheet of electro-mechanical equipments of STP (6.5 MLD capacity) at Maner, Patna	Sophisticated industrial Materials Analytic Labs Pvt Ltd, Patna
24	589	Dr Anup Kumar Keshri	MME	Establishing the plasma spray parameters for CUMI's graphene nanoplatelates (GNPs), Al ₂ O ₃ -GNPs and YSZ-GNP Powder	Carborundum Universal Ltd, Cochin
25	590	Dr Avik Samanta Dr Pradipta Chakraborty	CEE	Vetting of structural design calculations and structural drawings for the construction of Nalanda College of Engineering extension phase-II at Chandi, Nalanda	Sen & LII Consultants Pvt Ltd, Patna
26	591	Prof T N Singh	CEE	Coefficient of thermal conductivity and creep analysis	Tata Projects, Haryana
27	593	Dr Manbendra Pathak Dr Md Kaleem Khan Dr Anirban Mahto	ME	Pre Delivery inspection of 150 units Multi utility E Card hydraulic garbage with tipping to be delivered to PMC	Shilpi Englinerring Nagpur Maharastra
28	594	Dr Subrata Hait	CEE	Vetting of Design and Drawings of Sewerage Network of Muzaffarpur smart city Bihar	Toshiba water solutions Pvt Ltd, Patna
29	595	Dr Dr Subrata Hait Dr Avik Samanta	CEE	Vetting of Design and Drawings of 15 MLD STP and 3 Nos of IPSs for Muzaffarpur Smart City, Bihar	Toshiba water solutions Pvt Ltd, Patna

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30	597	Dr Avik Samanta Dr Pradipta Chakraborty Dr Ramakrishna Bag	CEE	Proof checking of design & drawing of rail via duct structures and vetting of liquefaction analysis and geotechnical interpretative report for "Rampurdumra-Tal-Rajendrapul Additional bridge and doubling railway project	IRCON International Ltd, Patna
31	602	Dr Jimson Mathew Dr Somnath Tripathy Dr Rajiv Misra Dr Sriparna Saha Dr Arijit Mondal Dr Samrat Mondal Dr Joydeep Chandra Dr Mayank Agarwal	CSE	Vetting solution documents of Master System Integrator for Integrated Command and Control Center Bhagalpur Smart City	Bhagalpur Smart City Ltd, Bhagalpur
32	603	Dr Raju Halder Dr Samrat Mondal Dr Atul Thakur Dr Subrata hait	CSE	Vetting of design documents for integrated command and control center(ICCC) and smart components of Muzaffarpur Smart City	Shapoorji Pallonji And Company Pvt. Ltd.
33	607	Prof. T. N. Singh	CEE	Proof checking/design calculation of Seismic Analysis for the Secant Pile Model	PEMS Engineering Consultants Private Limited
34	608	Prof. T. N. Singh	CEE	Checking of design and drawings of Rockfall Barrier	M/s Maccaferri Environmental Solutions Pvt Ltd
35	609	Prof. T. N. Singh	CEE	Design,Supply and Installation of Dynamic Rockfall	m/s Maccaferri Environmental Solutions Pvt Ltd
36	610	Prof. T. N. Singh	CEE	Creep Test of 3 samples for 120 days	Tata Projects Limited, Palghar, Maharashtra
37	614	Dr Vaibhav Singhal	CEE	Proof checking of adequacy report of Jhansi-Mau Ranipur section of Jhansi-Manikpur double line project of North Central Railway, Jhansi	S2F Consultancy and Construction Pvt Ltd, Patna-13
38	615	Dr Subrata hait Dr Avik Samanta	CEE	Vetting of design and drawings of 25 MLD pumping station, I & D works and rising main at Danapur, Patna	Bhugan Infracon Pvt Ltd, Patna

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39	619	Dr Avik Samanta	CEE	Vetting of Structural Design Drawings for Beautification of Barari Ghat	Pyramid Designers & consultant, Bihar
40	620	Dr Subrata Hait	CEE	Vetting of Design and Drawings of Seweage Network of Biharsharif Smart City, Bihar	Bhugan Infracon Pvt Ltd, Patna
41	623	Dr Vaibhav Singhal	CEE	Vetting of Design and Drawing of structures for Rejuvenation of Bhairva Talab Project under the Bhagalpur Smart City Limited	Pyramid Designers & Consultant, Ahmedabad
42	625	Dr Maheshkumar H Kolekar	EE	Vetting of Electric Cable, Instrument Design and Drawing	JMC-JWL Munger
43	633	Dr Avik Samanta	Civil	Vetting of etting of drawing for drainage and POQ road	M/s Velji ratna Sorthia Infra Pvt Ltd, Vadodra

List of MoUs under Resources

Sl No	Name of the Organization	Signed With	Signed On	Valid upto	Scope of the MOU
1	National Informatics Center (NIC)	Mr. Sanjay Singh Gahlout, Dy. Director General	2-Mar-2017	1-Mar-2022	The purpose of this MOU are exchange of Academic and Research material and Publications/lps including use of relevant infrastructure in both institutions. Visit of Students from IIT Patna for Summer/Winter Internship.
2	TUSUR University	Prof. Alexander Shelupanov, Rector	2-Dec-2017	1-Dec-2022	The purpose of this Agreement is 1. Exchange of undergraduate and graduate students (internship or academic program); 2. Exchange of faculty and staff members; 3. Joint research and consultancy activities; 4. Participation in seminars and academic meetings; 5. Exchange of academic materials and other information; 6. Special short-term academic programs and projects.

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3	Innopolis University	Kirill Semenikhin, Director	6-Feb-2018	5-Feb-2023	The purpose of this collaboration is to support the future engagement of researchers associated with both institutions in order to promote cutting edge research in the areas of Machine Translation (MT), Natural Language Processing (NLP), Data Analytics and Computational Science. School of Computing, DCU recognizes the benefits to be derived from increased collaboration, cooperation and interaction for the further promotion and understanding of MT, NLP, Data Analytics and Computational Science.
4	Kyoto University	Yoehimasa Nakamura	25-Nov-2018	24-Nov-2023	The purpose of this Memorandum is to promote student exchange between the two institutions based upon the General memorandum for Academic Cooperation and exchange between the parties. Both parties will promote in particular the following activities: <ol style="list-style-type: none"> 1. Exchange of scientific materials, publications and information. 2. Exchange of faculty members and researchers. 3. Exchange of students. 4. Joint research and meetings for research.
5	BSE Institute Limited	Yoehimasa Nakamura	5-Sep-2019	4-Sep-2022	BENEFITS TO BIL FROM THIS COLLABORATION: <ol style="list-style-type: none"> 1. Outreach opportunities for BIL to share its expertise and experience; 2. Platform for BIL to present cutting edge programs to its target audience. BENEFITS TO IITP FROM THIS COLLABORATION: <ol style="list-style-type: none"> 3. Access to and use of BIL's educational and learning resources;

				<p>4. Opportunity to expand the nature of courses offered based on additional resources available through this agreement; and</p> <p>5. Inclusion of IITP in media specific campaign and other publicity material of BIL.</p>
6	Wiley	29-Jan-2021	28-Jan-2024	IIT Patna and Wiley share a common goal of preparing and educating students by providing effective skill development in field of analytics and other emerging skill areas.
7	Newcastle University	14-May-2021	13-May-2024	Both institutions will encourage direct contact and co-operation between their faculty and administrative staff, departments and research institutions. The main opportunities are (i) Student exchange (ii) Joint research activities (iii) Visits by and interchange of staff and graduate students for research, teaching and discussions (iv) Joint conferences or symposia on subjects of mutual interest.
8	ISEN Yncréa Ouest	27-Oct-2021	26-Oct-2026	<p>The scope of the research cooperation will involve:</p> <ul style="list-style-type: none"> - welcoming trainees and researchers, training doctoral students - realizing studies or tests - facilitating the use of laboratories capacities - facilitating the access of partner teams to scientific facilities, networks, research groups and clusters.

Sports Events



Sports Gymkhana IIT Patna

Annual Event Report 2021-2022(1st April 2021 to 31st March 2022)

In continuation to the previous session 2020-21, the new session of 2021-2022 was also full of unseen challenges emerging for humankind in the form of COVID-19 - 2nd wave starting from April 2021 once again leaving the entire world with a mindset of dilemma and uncertainty.

The sports unit IIT Patna was left out with no other option than to follow government-imposed restrictions on the use of sports facilities from 05//04/2022 to 07/07/2022 and 29/12/2022 to 06/02/2022

Despite all the challenges sports unit, IIT Patna organized the following events in 2021-22 trying to spread a message of positivity and spreading awareness towards the importance of sport and physical fitness in facing and emerging as champions from all odds of life

All these events were organized with the approval of competent authorities and abiding by all the safety measures and social distancing protocol being enforced by the Ministry, Institute's task force, and the medical team

#Cheer4India

To express our support as well as to Cheer the Indian contingent at Tokyo Olympics in month of July

Sports Unit IIT Patna had arranged customized "Selfie points" as per the instruction of the ministry at some key locations such as Administrative Block, Residential areas, sports complexes, etc. with wide visibility with the key message being #Cheer4India to Express their support as well as to Cheer the Indian contingent at Tokyo Olympic.



"Winter" Badminton Tournament.

Sports Unit Indian Institute of Technology Patna organized a League cum Knockout Badminton tournament in the last week of December at IIT Patna premises with all the safety measures and social distancing with more than 100 participants.





RSD Sports fest

Research scholar's Day sports meet was organized by Sports Unit Indian Institute of Technology Patna in which 8 sports discipline namely Cricket, volleyball, football, badminton, tennis, Table Tennis, Athletics, and chess were organized in 3rd week of march at IIT Patna



premises with more than 200 Staff and Students participating in various sporting events throughout the week.

Infinito- Sports Meet 2022

The annual student sports meet Infinite- 2022 was organized by the Sports Unit Indian Institute of Technology Patna in the last week of March 2021 which showcased more than 250 students participating over a week of time in different sports disciplines such as Athletics, Badminton, Basketball, Cricket, Football, Volleyball, Badminton, Tennis, Table Tennis.

All the events organized were given proper publicity and were a huge success, Sports Unit would like to express gratitude to the IIT Patna fraternity in general and especially to Hon'ble Director, A. Dean SA, Chairman Sports, DR SA for their support and guidance in making all these events a grand success.



CELESTA

Indian Institute of Technology, Patna's Techno-Management Fest

Day-1

The theme of this year's grandeur is dedicated to the post apocalypse. This being the 13th edition, Celesta is expected to be a grand affair, with highly distinguished speakers from various disciplines attending to deliver guest lectures. In addition, we aim to organize various workshops and events like ByteRace, Hack-it-out, Virtual Stock Exchange, Shark Tank, Capture the Flag, Astro Particle Voyage etc, grabbing global and nationwide audience attention.

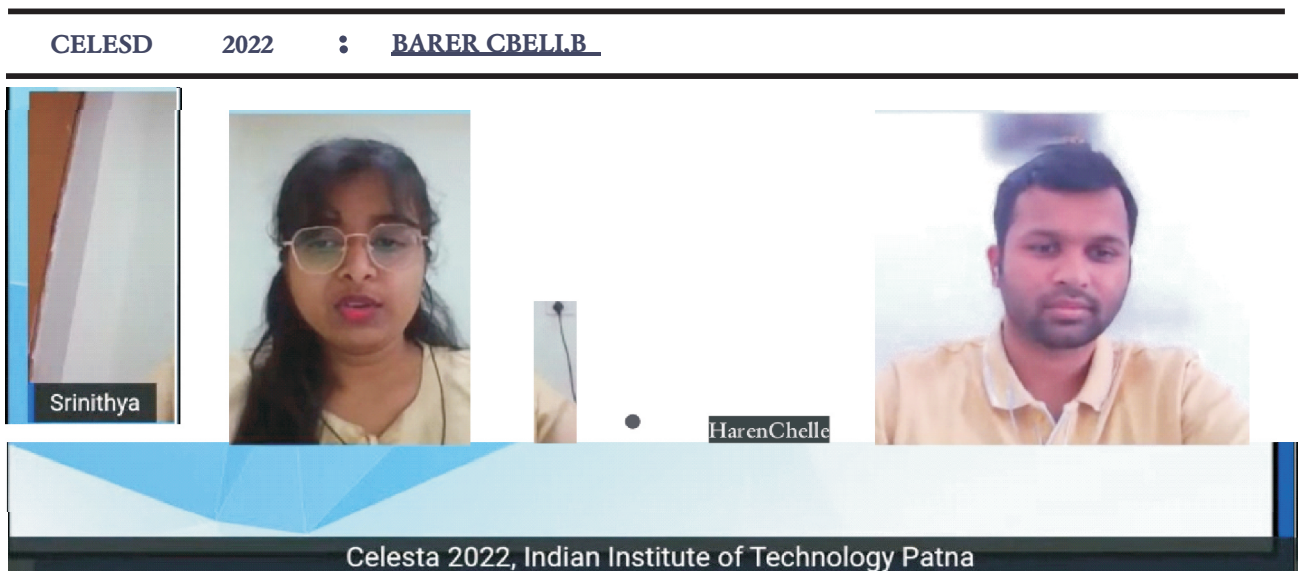


Day-2

Celesta 2022 began with a "Virtual CID" event consisting of mystery hunting and adventure and the another attraction was the "Static Rush" offline treasure hunt.

Also, students got an opportunity to interact with the experiences of Mr. Haren Chelle, Vice President, Business Strategy and Revenue, yellow.ai. He has been a distinguished alumnus of Indian Institute of Technology, Patna and Indian Institute of Management Bangalore. Mr. Chelle delivered his lecture on Startup Growth Journey - Pre and Post Pandemic. Addressing the students, he threw light on Robotic Automation Process, Conversational AI and other AI based solutions. He taught students in simple terms how to solve problems and analyze issues. He made the students believe that Focus grows the right knowledge, Practice grows accuracy, Con?dence grows capability and Passion grows responsibility. If one is sure that all the above 4 are steadily growing day by day, be rest assured the "success curve" would continue to go up-hill is what he believes in.

Here are a few glimpses of the second day's programs.

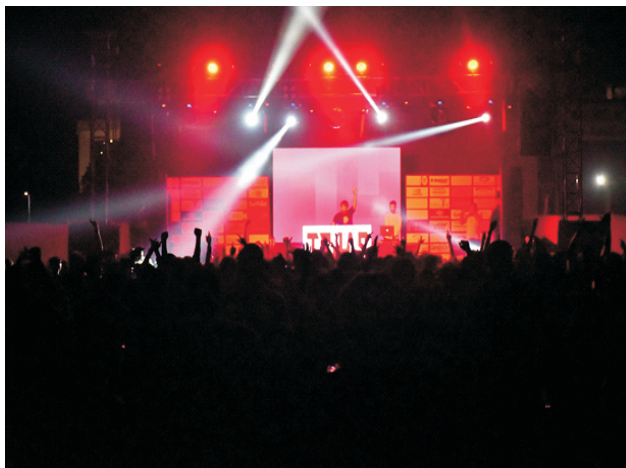


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DAY - 3

Celesta'22, Indian Institute of Technology, Patna's techno- management fest witnessed about 3000 participants in 16 different events filled with excitement, enthusiasm and adventure. The winners of various events were awarded on the last day of the fest.

Celesta'22 concluded with a spectacular live performance by stand up sensation Nishant Suri and DJ Tejas.

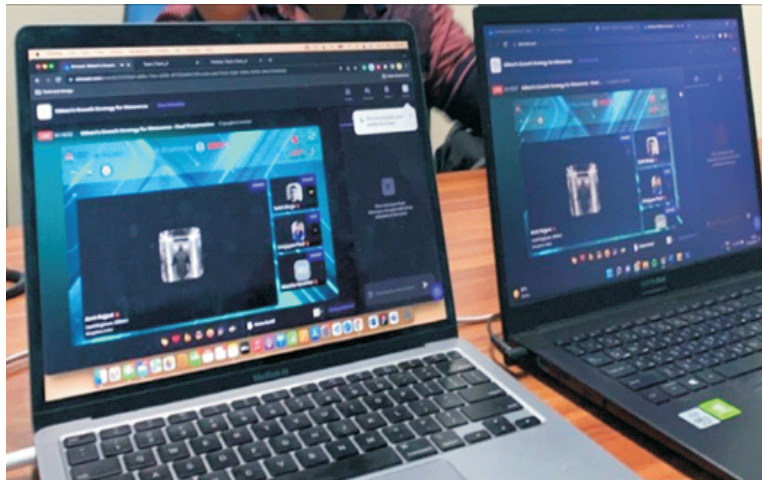


Inter IIT TechMeet 10

Indian Institute of Technology, Patna has continued its legacy of success at the Inter IIT Tech Meet. Indian Institute of Technology, Patna won 1 Gold, 1 Silver, and 1 bronze medal in the 10th Inter IIT Tech Meet. Overall, IIT Patna is ranked 9th among all participating IITs in the GC (Grand Championship) of the Tech Meet.

The event wise details of medals are as follows:

- GMetriXR's Growth Strategy for Metaverse - GOLD
- Silicon Labs' Social Entrepreneurship Challenge - SILVER
- Bosch's Age and Gender Detection - BRONZE





Students' Technical Council



INTER IIT
TECHMEET 10.0



9th In Grand Championship

(Among all IITs)

 **Gmetri's Growth Strategy For Metaverse**

 **Silicon Labs' Social Entrepreneurship Challenge**

 **Bosch's Age and Gender Detection**

9th In Grand Championship

Among all IITs

Contingent Manager: Rishikesh Devanathan

Contingent Leader: Anuj Yadav

Contingent Leader: Akash Balaji

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INTER IIT

TECH MEET 10.0

9TH GRAND IN CHAMPIONSHIP



SILICON LABS' SOCIAL ENTREPRENEURSHIP CHALLENGE

IIIETRI'S GROWTH STRATEGY FOR METAVERSE
BOSCH'S AGE AND GENDER DETECTION



IITP CONTINGENT ORGANISING TEAM

SATYAM SHUKLA (GENERAL)
RISHIKESH DEVANAT
AKASH BALAJI
ANUJ YADAV

= RALSECIEARY, TECHNICAL AFFAIRS
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Syahi – Literary Club

Event Report

Name of event :- Mehfil-e-Mushaira

Date of event :- June 03, 2022

Venue of event :- Tutorial Block 307

Number of people attended :- around 150

Event summary

On June 3rd, Syahi organised its first offline event after the pandemic called Mehfil-e-Mushaira. It was an open mic

session where anyone could present musings, shayaris or any other piece of poetry. Participants were required to fill out a Google form to present their work. We received 40 responses from various Btech, Mtech and PhD students of IIT Patna.

The event started at 7:10 pm and was hosted by Nikita Srivastava, who also participated in the event. Nearly 150 participants came to spectate the event, including gymkhana members and Btech, Mtech and PhD students as well. Participants who filled the form earlier were called on stage first. As one could tell from the loud cheering and clapping noises, all the audience and spectators present also enjoyed the event a lot. The event was very

successful. After looking at the success of the event many students were willing to be part of more events like this, hence Syahi is planning to conduct more such offline events every month.



HOOT
MAY-JUNE 2022 REPORT



JAM Session



Parliamentary Debate Speakers while their confident Speeches)

Two events, namely the JAM and PD were held in the last semester. Both of them were conducted by the organizing committee from the freshmen year.

1.JAM (Just A Minute)

An interesting game like competition with impossibly simple rules, until you try to play the game and find out that it is simply impossible ;).

It was the first offline event conducted for the academic year 2021-2022, held on Saturday, 28th May,2022. It was well received by the students, with a total of 62 responses and 52 panellists in total. The JAM GODS(Jahanvi, Rishikant and Shreshy) who posed the challenges and conducted a fun-filled event, full of quirks, witty humour and laughter. Everyone had their own share of fun and learnings.

Winner- Aditya Kumar

Runner up- Dhritisundar Sahoo

2. PD-Parliamentary Debate

The next event, PD, was held on yet another Saturday, 11th of June.It was conducted in the spirit of encouraging the PD culture at IIT Patna since it a very important format for any oratory society. It turned out to be a huge success and was very well received. A total of 8 teams participated in the first round of offline PDs, which sums upto a total of 24 debaters. Participants shared that is was a very enriching experience after a year of online interactions. This was made possible by the enthusiastic and talented Junta of IIT Patna and the adjudicators(Abhilasha, Harsh, Sarthak and Shreya) who carried out their responsibilities with much discretion. This was a practice session , we expect many more such sessions in the days ahead.

Winning teams:-

1. To Ask or Not To Ask
2. Pursuing The Dispute
3. Dynamic Trio
4. Team F22 Rap-tor

Quiz Club:

Event Report

WOMENS DAY

Quiz Club hosted a quiz as a part of the celebrations on the occasion of Women's Day. The first offline event conducted in a while, it saw enthusiastic participation from professors and students alike. Divided into 2 rounds with 15 questions, the audience made sure that no question went unanswered.



WEEKLY SESSION:

Quiz Club conducted its much awaited offline quizzing session after almost 2 years on 14th April, 2022. Aply titled 'Gharwaapsi', the session saw participation from B. Tech Sophomore year, Junior year and M.tech. It was a general quiz, consisting of 41 questions. The quiz had 2 rounds of Pounce and Bounce and saw 6 teams competing for the apex position.



EXOUSIA-The Dance Club of IIT Patna

Event Report 2022

Name of event:- Beat-It Off

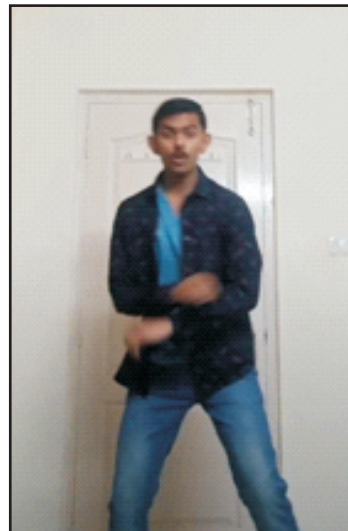
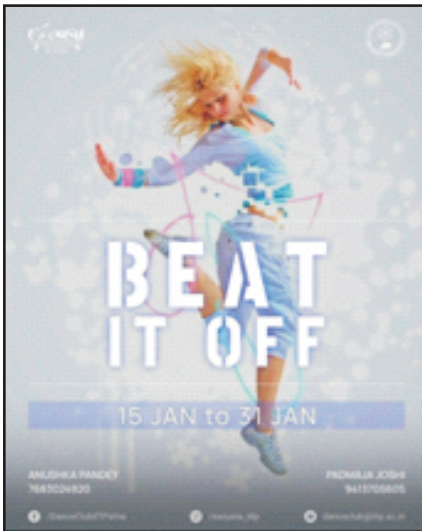
Date of event:- 15 Jan to 31 Jan

Venue of event:- Online

- The dance entries were uploaded on the social media handles of the club.

- The winners of the competitions were announced under two categories: Jury' Decision and Audience' Choice. Under Jury' Decision, the winners were decided by the judgement panel assigned for the competition. For the Audience' Choice, the participants with the highest count of likes, comments and shares on our social media handles were awarded.

PHOTOS



Name of event:- Fliptoe

Date of event:- 24 March,2022

Venue of the event :- Helipad

It included intra-batch as well as inter-batch challenges for college students only.

The allowed formats for dances were:

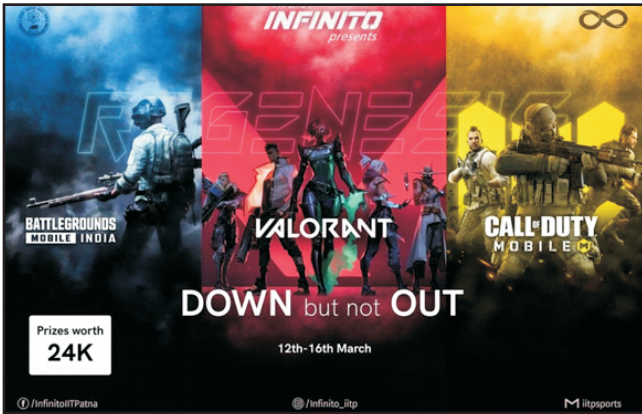
- Solo with Time limit: Minimum 2min.
- Duet with Time limit: Minimum 3min



Infinito: Regenesi

Successfully concluded the 5th edition of Infinito, IIT Patna's annual sports fest, on March 21st, 2022. It featured intense inter-year sports competitions, gaming sessions, quizzes, and

panel discussions and many more. Managed to revive the true spirit of sports by organizing a blend of online activities as well as the offline intra-college inter-year sports championship which witnessed remarkable participation from the entire student fraternity of IIT Patna.



AARAMBH'22

AARAMBH – fresher sports fest of IIT Patna successfully concluded its 2nd edition in between 17-19th June,2022.

This fest gives an opportunity to newcomers to

showcase their talents, this time fest was conducted in almost all sports of IIT Patna. There was remarkable participation from freshers ,In some sports there was tough battle among players to wins medals. This fest boost up our sports community of IIT Patna by getting new talents.



Centre for Endangered Language Studies

CONTENT

- A. Centre for Endangered Language Studies
 - I. Background
 - II. Relevance
 - III. Objectives
 - IV. Vision and Mission
 - V. Centre Initiatives/ Programs and Initiatives
 - VI. Laboratory Facilities
 - VII. Academic Activities

I. BACKGROUND

A language becomes vulnerable when its speakers no longer pass it onto the next generation. Such situations lead to language endangerment. It is not just a local or national phenomenon instead it is a worldwide phenomenon and the best yard stick to measure the degree of language endangerment is to note the behavior of a language in various generations of a speech community, especially that of children. Language preservation is important because:

- We need diversity.
- Languages express identity.
- Languages are repositories of history.
- Languages contribute to the sum of human knowledge.
- Languages represent culture.

Language endangerment leads to cultural erosion. Both ecological and cultural diversity is still not a concern shared by those who enjoy the fruits of democracy. Linguistic diversity or plurality matches India's bio- diversity. Like plant and animal species, endangered languages are confined to small areas. More than 80% of countries with great biological diversity are also places with the greatest number of endangered languages. This is because when people adapt to their environment, they create a special stock of knowledge about it, which is mirrored in their language and is available only in such languages. Endangerment to such languages puts the entire knowledge stock at risk. It eventually leads to the loss of cultural practices, such as oral histories, traditional

songs and poetry, other art forms tied to the language, simply put, an entire way of life.

According to a recent UNESCO report- Atlas of the World's Languages in Danger (2009)- out of approximately 7,000 existing languages in the world more than 2,500 are under threat of imminent extinction.

II. RELEVANCE

Just like the other states of India, Bihar too boasts of being the melting pot of culture with many languages being spoken across the state. According to UNESCO (2009) findings there are about 42 endangered languages spoken in Odisha, Jharkhand, Bihar and West Bengal (The Hindu, New Delhi, Oct. 23, 2009). The languages spoken in Bihar are listed as under:

- Angika (North Eastern districts of Bihar)
- Bajjika (North-Central Bihar)
- Bhojpuri (Western Bihar)
- Kudmali (South Eastern Bihar)
- Magahi (Southern Bihar)
- Maithili (Northern Bihar)
- Majhi (Eastern Bihar)
- Musasa (Eastern Bihar)
- Sadri (scattered)
- Surjapuri (North Eastern Bihar)

Of these languages, Kudmali, Majhi and Musasa have less than 50,000 speakers and the rate at which languages are getting extinct, these three languages would also perish in the coming few decades. Other languages like Sadri and Surjapuri have approximately 2,00,000 speakers which is not a very encouraging figure (UNESCO 2009).

III. OBJECTIVES

- To undertake inter departmental and inter disciplinary research related to endangered languages.
- To undertake fieldwork, research, analysis, archiving and documentation of smaller indigenous /endangered languages using state-of-art speech and language technologies, in

formants that are universally acceptable viz., digitized textual, audio and video formats.

- Centre will focus on creating basic NLP tools such as Morphological Analyser, Part-of-Speech (PoS) tagger, Named Entity Recognizer (NER) etc. in endangered languages.
- To produce and publish monographs, grammars, grammatical sketches, dictionaries and lexicon, ethno-linguistics and theoretical descriptions, collection of oral and folk literature and scholarly books on endangered languages.
- To produce language and dialects atlases with special reference to minority and endangered languages.
- To organize workshops and seminars aimed towards promoting advanced research related to endangered languages.
- To train teachers and students from other departments / centres in Field Linguistics, Lexicography and in techniques of data management and documentation. Field linguistics would constitute an indispensable part of the Centre.
- The Centre will serve the indigenous and endangered language communities by making accessible the products of the research of the Centre, like, digital and analogue archives of linguistic data, language teaching material and language artifacts.
- To promote and foster various domains of endangered languages so as to ensure minority/ endangered language communities in maintaining and preserving language vitality, including the development of orthographical resources like scripts, book of letters and primers.
- To digitize data collected in the course of the research in the Centre and make it available to public by internet.

IV. VISION AND MISSION

With the idea of preserving the endangered languages and the knowledge stock in these languages, the

Centre for Endangered Language Studies (CELS) at IIT Patna was set up with the MPLADS fund of Shri Harivansh, Hon'ble Chairperson, Rajya Sabha. The Centre is set to work for the minor/tribal/ endangered languages of the state of Bihar and adjoining areas. In addition, the Centre aims to collaborate with the institutes and universities of the neighboring states to work for minor/ tribal/endangered languages along the state borders.

Vision

To help the endangered language communities to revive and maintain their languages and to instill a sense of pride and loyalty towards their own native language

Mission

- a. To make the Centre one of the leading centres working on the preservation of endangered languages in the country and worldwide.
- b. To explore and devise new techniques for language documentation that can be shared with larger community.
- c. To create database of all such languages comprising grammatical descriptions, dictionaries and documentation.
- d. To create annotated resources and tools for Natural Language Processing (NLP) in endangered languages.

V. CENTRE INITIATIVES/PROGRAMS AND ACTIVITIES

Social Responsibility of CELS

- To develop reading materials like story books and orthographic resources like script, book of letters, primers etc.
- To work towards the revitalization of minority/ endangered languages through school education.
- To develop easy apps and digital portals in these languages so that their reach and exposure can be increased.

Prospective Collaborations

Since this centre is the first of its kind in the state of Bihar, it will be open to collaborations with local universities and institutes to facilitate easy data collection and documentation. Collaborating with local institutes and universities will also add to the man power. The Centre will prove excellent space for carrying out researches in language documentation, field survey, computational linguistics, language typology and related areas of Linguistics and Applied Linguistics. For higher research and work output, the centre will explore options of collaborating with other universities and institutes running similar centres with common goals and shared objectives across India.

At present, CELS has collaborated with CIIL, Mysore, Nav Nalanda Mahavihara and IIT Madras in organising symposium and conferences.

VI. LABORATORY FACILITIES

a) Acoustic/Anechoic Chamber

Currently, CELS functions from the Department of HSS and in view of the mission of the Centre to digitally document languages, the Department of Humanities and Social Sciences, IITP gave the initial impetus by setting up an acoustic room/ anechoic chamber to facilitate noise free recording and subsequent digitalization. The initiative towards setting up an anechoic room started before the idea of CELS was conceived. The preliminary plan involved setting up of an acoustic/ anechoic room so that noise free pure voice recording could be obtained which can be analyzed further. Handy and necessary equipment like voice recorders, desktops, laptops and microphones have been purchased which are being used for the purposes of field data collection and digitalization.



Fig. 7: Recently developed Anechoic Room in the department of HSS



Fig. 8: Linguistics Lab in the Department of HSS

a) Upcoming Teaching and Training Facilities

Infrastructure for teaching, training and research will include the following:

1. Classrooms (Big and small size)
2. Conference-cum-meeting room
3. Small Auditorium (250 seats)
4. Working and seating space for students and staffs
5. Library
6. Computer Lab

The teaching/training infrastructure will be shared with the Centre for Earthquake Engineering Research (CEER).

VII. ACADEMIC ACTIVITIES

In close association with Central Institute of Indian Languages (CIIL), Mysore, the Centre is endeavoring to create knowledge in the indigenous languages of the country. The first step towards this has been taken in the form of translating texts originally written in English into Hindi.

The main motto behind this is to equip non- English speakers to access information and knowledge in the text books written in English. Creation of knowledge in native languages is a powerful means to promote and preserve the native languages.

The scholars in the Department of HSS, who are working in the discipline of Linguistics, are also focusing on documenting and investigating the lesser known languages of India as well as Bihar. Based on the prominent theories of Linguistics, the scholars are simultaneously highlighting the linguistic ecology of the state of Bihar. This research-oriented approach is intended to highlight the rich linguistic heritage of India, especially Bihar and to create interest in the languages of Bihar among other scholars in the academia. Some of the research activities undertaken are outlined here.

a) Identification of a Minority Community

The research scholars, along with the Centre coordinator, have identified a community of migrants called 'Lathori', speaking a language which they refer to as 'Lathori'. Two field trips have been conducted in Bihta region which has been inhabited by the lathori community for past few decades and the primary language data collected indicate the possibility of a new language variety. More intensive field trip is being planned to regions in and around Buxar where larger populations of this community have been inhabiting since ages.



Fig. 9: Field Work and Preliminary Data Collection



Fig. 11: Media coverage of the research on Lathori Community and Language

b) Digital Repository

The Centre has begun the task of compiling and digitalizing Magahi idioms. So far a digital repository of more than 200 Magahi idioms has been created. This will follow with their POS tagging. The creation of a trilingual dictionary is also underway.

c) Publications

- Mahela, Ratul & Sweta Sinha (2021), "A Phonological Investigation of Sanzari Boro" in Studies in Language, John Benjamins Online. <https://www.jbe-platform.com/content/journals/10.1075/sl.20010.mah>

- Nusrat, Begum & Sweta Sinha (2021), "The Language of the Divine Space" in Dialectologia, No. 28, Pp: 33- 48.
- Mahela, Ratul & Sweta Sinha, (2021), "Morphological Processes in Sanzari Boro", in Journal of Language and Linguistic Studies. Vol. 17, No. 2
- Bhattacharjee, Monalis a& Sweta Sinha, (2021), "Ecosophy through Jataka Tales", in Language & Ecology, International Ecolinguistics Association. <http://ecolinguistics-association.org/journal/4563035324>



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Linguistic Ecology: Bihar

Shailendra Kumar Singh & Sweta Sinha
 North Eastern Hill University, Shillong, Meghalaya; Indian Institute of Technology Patna,
 Bihar

The proposed volume presents an overview of the ethno-linguistic aspects of major languages spoken in the Indian state of Bihar. With a population size close to 100 million, the state has rich linguistic diversity. The book initiates special discussion on linguistic habitat of one of the profoundest multilingual states of India in synchronic and diachronic contexts. This volume is not a textbook in a strict sense, but has been designed to serve as main source of reading for linguists looking forward towards a comprehensive material on linguistic ecosphere of Bihar.

Languages like Maithili, Magahi, Bhojpuri, Bajjika, Kurmali and Eastern Hindi varieties have been discussed in details in different chapters. Some of the chapters provide an excellent read on folklore, traditional ecological knowledge and linguistic landscape of the region including the languages spoken by migrant communities. The volume would immensely benefit students and researchers studying languages including lesser known languages and language varieties spoken in Bihar and adjoining areas. This book would also be resourceful to linguists working in the areas of language contact, sociolinguistics, language documentation, language typology, language planning and policy making. In addition to linguists, political scientists and anthropologists, this volume will also prove to be useful for ecological studies, regional studies and gender studies. Some chapters will also be useful to non-specialists including educators, politicians, social activists and government officials concerned with linguistic habitat.

ISBN 9783862889839.

LINCOM Language Research 12.

180pp. USD 96.00 / EUR 80.00 / GBP 72.00. 2019.

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Shailendra Kumar Singh

Commonness of Verb Root in MBM Languages

Abhinav Kumar Mishra & Amit Kr. Chandrana

Language Contact and Syntactic Convergence: A Case Study of Aspects in Maithili

Manish Kumar Singh

Mixed Transitivity in Bhojpuri Complex Predicates

Bornini Lahiri

Kurmali: A Language of Undivided Bihar

Ritesh Kumar, Bornini Lahiri & Deepak Alok

Descriptive Study of Eastern Hindi: A Mixed Language

S. S. Bhattacharya

Indo-Aryan Tribal Languages: A Critical Sociolinguistic Study of Greater Eastern Region

Ravina Toppo, Ratul Mahela, Nusrat Begum, Sandeep Kumar Sharma & Sweta Sinha

Vanishing Identity of Migrants in Bihar: An Ethno-linguistic Sketch of Lathor Community

Architectural Drawings and 3D views of CELS




Teaching & Training Centre of Endangered Language Studies & Earthquake Engineering Research Lab, IIT PATNA



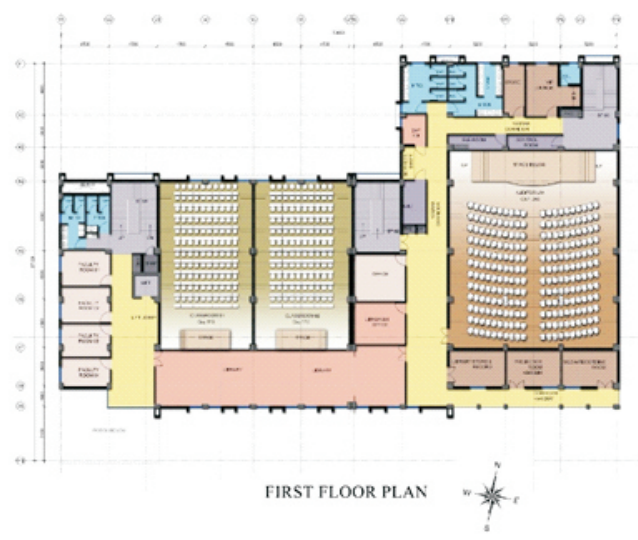
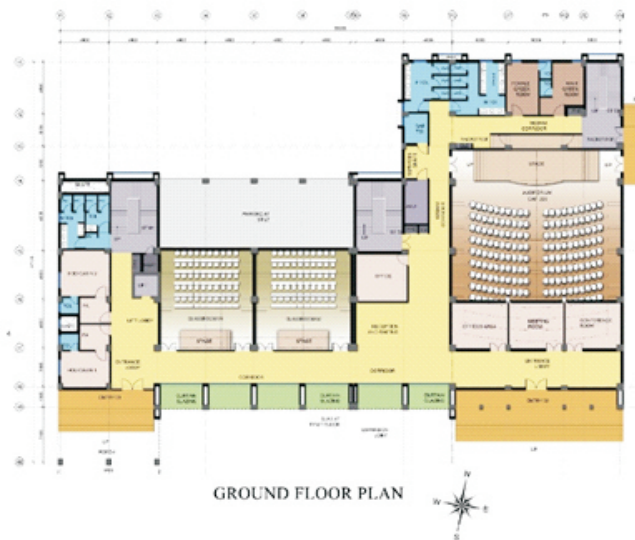
CENTRE FOR EARTHQUAKE ENGINEERING RESEARCH LAB, PATNA (REAR SIDE)



CENTRE FOR ENDANGERED LANGUAGE STUDIES, PATNA (FRONT SIDE)

 <p>CLIENT: INDIAN INSTITUTE OF TECHNOLOGY, PATNA</p>	 <p>PMC: LOCAL AREA ENGINEERING ORGANISATION, DANAPUR, PATNA</p>	 <p>Suresh Goel & Associates Architect Planners Engineers</p>	<p>CONTRACTOR: CM PRAKASH SHARMA & CO</p>
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Teaching & Training Centre of Endangered Language Studies & Earthquake Engineering Research Lab, IIT PATNA



 <p>CLIENT: INDIAN INSTITUTE OF TECHNOLOGY, PATNA</p>	 <p>PMC: LOCAL AREA ENGINEERING ORGANISATION, DANAPUR, PATNA</p>	 <p>Suresh Goel & Associates Architect Planners Engineers</p>	<p>CONTRACTOR: CM PRAKASH SHARMA & CO</p>
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Teaching & Training Centre of Endangered Language Studies & Earthquake Engineering Research Lab, IIT Patna



 CLIENT: INDIAN INSTITUTE OF TECHNOLOGY PATNA
  PMO: LOCAL AREA ENGINEERING ORGANISATION, DANAPUR, PATNA
  Suresh Goel & Associates Architect Planners Engineers
 CONTRACTOR: OM PRAKASH S. SARMA & CO.

Teaching & Training Centre of Endangered Language Studies & Earthquake Engineering Research Lab, IIT PATNA



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 CONTRACTOR: OM PRAKASH S. SARMA & CO.

Centre for Earthquake Engineering Research Activity:

Visit of Honorable Deputy Chairman of Rajya Sabha on 26/5/2022



Poster presentation for the research related to CEER



Workshop organized:

Title: High-End Workshop (HEW): "Experimental and Analytical Techniques for Evaluating the Seismic Strengthening Measures for Masonry Structures"

Convener: Dr. Vaibhav Singhal

Sponsored by SERB under Karyashala Scheme, during 22nd-28th October 2021 at IIT Patna.

Ongoing Sponsored Project in the area of Earthquake Engineering :

- Development of Guidelines for Seismic Evaluation and Strengthening of Old Masonry Buildings in Bihar Based on a Pilot Study (2021-2022). [BSDMA, Bihar, 12.14 lakh], PI: Dr. Vaibhav Singhal
- Seismic Design and Performance Verification of

Confined Masonry Walls for Medium-Rise Buildings (2019-2022). [DST-SERB, 26.40 lakh], PI: Dr. Vaibhav Singhal

- Seismic Strengthening of Unreinforced Masonry Buildings using Ferrocement Bands (2019-2022), PI: Dr. Vaibhav Singhal with Dr. Hemant B Kaushik, IIT Guwahati [CSIR-EMR, 28.9 lakh]

Invited Lectures in area of Earthquake Engineering :

- Lecture on: "Application of ANN in Prediction of Cyclic Behaviour of Cohesionless Soil", SRM Institute of Science and Technology, Tiruchirappalli campus, India, April 2022. Delivered by Dr. Pradipta Chakraborty
- Faculty Development Programme on "Application of Dynamics in Civil Engineering Problems"

Lecture on: Introduction to Earthquake Engineering, Department of Civil Engineering, DR. B.C. Roy Engineering College, Durgapur, June 2022. Delivered by Dr. Pradipta Chakraborty

- Faculty Development Programme on “Application of Dynamics in Civil Engineering Problems”
Lecture on: Artificial Intelligence in Prediction of Cyclic Behaviour of Soil, Department of Civil Engineering, DR. B.C. Roy Engineering College, Durgapur, June 2022. Delivered by Dr. Pradipta Chakraborty
- “Learning from the Performance of Structures in Past Earthquakes” during Short Term Training Programme Organised by UGC – Human Resource Development Centre Jawaharlal Nehru Technological University Hyderabad, October 2021. Delivered by Dr. Vaibhav Singhal

- “Response Spectrum and Time-History Analysis” during ATAL Online FDP on Design and Construction of Tall Building Structures Organised by Department of Civil Engineering Vasavi College of Engineering, August 2021. Delivered by Dr. Vaibhav Singhal

- “Evaluation and Rehabilitation of Masonry Structures” during One Week Online Short Term Training Programme Organised by Department of Civil Engineering Srinivasa Ramanujan Institute of Technology (SRIT), May 2021. Delivered by Dr. Vaibhav Singhal

“Evaluation and Retrofitting of Reinforced Concrete as per IS 15988” during One Week Online Short Term Training Programme Organised by Department of Civil Engineering Srinivasa Ramanujan Institute of Technology (SRIT), April 2021. Delivered by Dr. Vaibhav Singhal

FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY

A NIDHI-TBI funded by DST, Govt. of India

From Director's Desk

Annual reports of an incubation centre depict the stages of progress the centre has made over the years step by step. These are valuable documents recording the history of an incubation centre. Foundation for Innovators in Science and Technology (FIST) at IIT Patna is developed under the NIDHI-TBI initiative of Ministry of Science & Technology, Department of Science & Technology, Government of India.

The highlight of 2020-21 has been the momentum with joining of first batch of Incubatees. There is continuous progress with infrastructure creation, recruitment, Incubatees mentoring, contingency support, and new lab development etc. FIST, IIT Patna has always been responsive to and responsible for Incubatees needs. The interaction with the Incubatees continues to be mutually fulfilling. Many new training programs have been organised for incubates and also our aim to conduct all training programs which is related to support for a start-up companies. Our parent DST continued support in this growth and expansion endeavour is gratefully acknowledged.

The varied roles of FIST, IIT Patna can be seen in enabling innovations, industry partnerships, R&D programs, licensing, industry visits etc. It focuses on the incubation of ideas in the areas, including, but not limited to, Agriculture, Manufacturing, Energy, Water harvesting and other innovative products/services. Currently, total number of incubatees, 12 are being incubated at FIST, IIT Patna.

As we end the period Apr 20- Mar 21, we face a situation hitherto unseen. The COVID 19 pandemic has struck the world, impeding normal day to day functioning. Most operations are going online. FIST IIT Patna too has geared up for tackling the challenges of the neo-normal. We have decided to go for online mentor and technical support to Incubatees. Unlike any other calamity in history, this one is likely to haunt us for a long time. The times are surely unparalleled and unprecedented but being resilient and empathetic is the key to overcome this seemingly formidable tragedy.

Wishing everybody good health!!

About The FIST, IIT Patna

Foundation for Innovators in Science and Technology (FIST) at IIT Patna is developed under the NIDHI-TBI initiative of Ministry of Science & Technology, Department of Science & Technology, Government of India. It is registered as a section 8 company under Ministry of Corporate Affairs.

It administers a technology business incubator (TBI) which provides 'Start to scale' support for technology based entrepreneurship and facilitates the conversion of research ideas into entrepreneurial ventures. It focuses on the incubation of ideas in the areas, including, but not limited to, Agriculture, Manufacturing, Energy, Water harvesting and other innovative products/services.

Mission

- To promote science and technology by establishing infrastructure facilities for research and development activities in the areas including but not limited to Agriculture, Manufacturing, Energy, Water Management.
- To provide knowledge base and laboratory support to the budding entrepreneurs in this region.

Vision

- To enable the budding entrepreneurs to nurture and translate innovative ideas to create economically viable and commercially competitive technologies.

Objective of FIST, IIT Patna

- To create jobs, wealth and business aligning with national priorities.
- To promote new technology/ knowledge/ innovation based start-ups.
- To provide a platform for speedy commercialization of technologies developed by the host institution or by any academic/ technical/R&D institution or by an individual.
- To build a vibrant start-up ecosystem, by establishing a network between academia, financial institutions, industries and other institutions.
- To provide cost effective, value added services to start-ups like mentoring, legal, financial, technical, intellectual property related services.

Governing Body



Prof. T. N Singh
Chairman, FIST & Director
Indian Institute of Technology Patna



Associate Dean, R&D,
IIT Patna



Director
Board of Directors, FIST



Dr Mrs Anita Gupta
Head, NEB Division, NSTEDB,
Department of Science & Technology,
Ministry of Science & Technology, India

Execution Team



Dr. Karali Patra
(PIC, TBI)



Dr. Praveen Kumar
CEO



Raj Narayan Sharma
(Engineer, FIST)



Pappu Kumar
(Senior Accountant)



Kumar Govinda
(Junior Assistant, FIST)



Ravindra Kumar
(Junior Mechanic, FIST)



Sunil Kumar
(Attendant)

Project Evaluation Team

S.No.	Name of Member	Name of the Institute/ Organization
1	Mr. Sailendra Kumar	Sr. General Manger, Cummins India, Pune
2	Dr. Santosh Kumar Sinha	Executive Director, Bihar Industrial Area Development Authority (BIADA), Patna
3	Dr. Harpreet Singh	Professor, Department of Mechanical Engineering & Dean (Industrial Consultancy, Sponsored Research & Industry Interaction), IIT Ropar, Rupnagar, Punjab.
4	Prof. Thillai Rajan A.	Professor, Dept. Management Studies, IIT Madras
5	Dr. Dushyant Singh	Sr. Scientist, ICAR-Central Institute of Agricultural Engineering, Bhopal
6	Mr. Sandro Stephen	Regional Head North India Operation at Indian Angel Network
7	Dr. Ranjan Behera	Associate Professor, Electrical Engineering, IIT Patna
8	Dr. Pramod Tiwari	PIC, IC and Associate Professor, Electrical Engineering, IIT Patna
9	Dr. Jimson Mathew	Associate Professor, Computer Science Engineering, IIT Patna
10	Dr. Asif Ekbal	Associate Professor, Computer Science Engineering, IIT Patna
11	Dr. Rishi Raj	Associate Professor, Mechanical Engineering, IIT Patna
12	Dr. Mayank Tiwari	Associate Professor, Mechanical Engineering, IIT Patna
13	Dr. Ramkrishna Bag	Assistant Professor, Civil and Environmental Engineering, IIT Patna
14	Dr. Subrata Hait	Associate Professor, Civil and Environmental Engineering, IIT Patna
15	Dr. Karali Patra	PIC, TBI and Associate Professor, Mechanical Engineering, IIT Patna
16	Dr. Praveen Kumar	CEO, FIST, IIT Patna

Infrastructure & LAB Facility of FIST, IIT Patna

FIST is set up in IIT Patna campus to facilitate the business ideas in the field of Agriculture, Energy, Manufacturing, Water Harvesting and other Innovative Engineering Product/Service. It provides state of the art facilities to the incubated start-ups to give them a head start in business. All possible needs of a start-up are taken care of from well-furnished office space and laboratory support for a successful commercial launch of product.

1. State of the art co-working space and business support

Companies selected for incubation will receive infrastructure support and business support, including, but not limited to,

- Fully furnished office and communication facility, PCs, high speed internets.
- Mentoring.
- There is a standard process of reporting of the development, assessment mentoring after

periodic interval.

- Seed funding.
- Training program.
- Access to ecosystem.
- Business support connect.

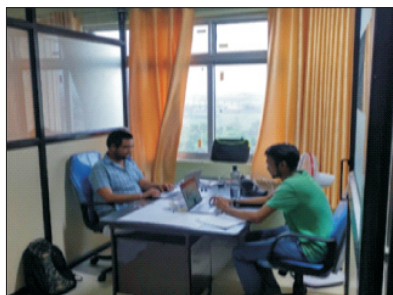
2. State of the art facilities for product development

- Design, Dies and Development (3D) lab (high speed computing, design software).
- Machining and joining lab (CNC VMC machines, 3D printing, micro fabrication, laser machining, robotic welding setup).
- Department is equipped with Automatic CNC VMC machine with dedicated person for manufacturing purpose.
- Measurement lab (3D measurement system, data acquisition systems).
- Testing and Calibration lab.
- Wide range of testing and calibration instrument.

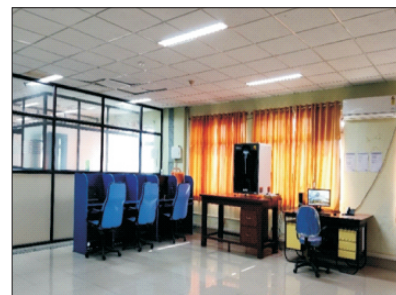
Some Glimpse of Infrastructure & LAB Facility



FIST Office at Block 9,
5th floor IIT Patna Office



Conference HALL



Design, Dies and
Development (3D) lab



Fabrication and Assembly Lab



Measurement and Testing Lab

Major Highlights of 2021-22

Major Assets / Facilities created / Equipment purchased by DST's funding

S.No.	Name or details of asset / equipment	Qty	Procurement date	Cost of procurement (INR)
1	Abrasive Waterjet Cutting Machine	1	Under Procurement	86,73,000
2	CNC Vertical Milling Centre	1	28-07-2021	51,58,400
3	3D Scanner	1	Under Procurement	25,19,890
4	HVAC systems	1	05-08-2021	16,9,4008
5	TIG/ MIG Welding Machine	1	01-11-2021	12,44,771
6	CAM software with CAD CAM bundle	1	Under Procurement	10,30,000 (Approx)
7	3D printer	1	27-07-02021	9,81,760
8	Furniture(Conf. table, chair, executive table etc)	1	17-06-2022	5,80,973
9	Wave form Generator & Digital Oscilloscope	1	17-11-2020 & 24-12-2020	(199605+115500) =3,15,105
10	IC Tester & LCR meter	1	24-12-2020	1,88,055

Incubatee Strength of TBI

- No. of physical incubatees inducted till 31st March 2022: 10
- No. of virtual incubatees till 31st March 2022: 2

Profile of Top 5 Incubatees inducted in last two years:

S.No.	Name of Incubatee Company	Name of Main Founder	Month and year of induction in the TBI	Website	Company Product	Stage –(Idea / Proof-of-Concept, Prototype etc.)
1	M/S PORTABLE POWER TECHNOLOGY PRIVATE LIMITED	Mr. Abhijeet	March 2021	https://portablepower.com/	Indigenous Design and Scaling up of for performance control of energy storage modules Electronic Circuits	Prototype
2	COOLING AND VENTILATION ENTERPRISE PRIVATE LIMITED	SATYAJEET KUMAR, URMILA	March 2021	NA	Binocular system	Prototype
3	M/S ABHYADHIKADHI K INDIA PVT LTD.	Mr. Dhiraj Rahul	March 2021	NA	Gaon Ghar App	Preparing for launching.
4	M/S Krishak Farms	Mr. Nikhil	Sep 2021	NA	Hydroponics and aquaponics	Prototype developed.
5	M/S MAAS Research Solutions LLP	Dr. Kumutha	March 2022	NA	Smart Grid system	Prototype

Target Milestones achieved

S.No.	No. of Startups to be graduated from TBI	1st Year		2nd Year		3rd Year		4th Year		5th Year		Total	
		Target	Actual achieved	Target	Actual achieved	Target	Actual achieved	Target	Actual achieved	Target	Actual achieved	Target	Actual achieved
1	No. of new entrepreneurs to be admitted for incubation	05	05	10	07	15	-	20	-	30	-	15	12
2	No. of entrepreneurs to be graduated from the incubator	0	0	5	0	10	-	15	-	20	-	5	0
3	No. of new products/technologies to be developed/innovations to be commercialized	0	0	5	5	10	-	15	-	20	-	5	5
4	No. of training programme, conferences /seminars/ workshops to be conducted	1	0	2	2	3	-	3	-	4	-	3	2

*Due to covid 19 pandemic, in fact, FIST-TBI has been working actively since March 2021.

Number of Patents filed: 1

Indigenous Design and Scaling up of Electronic Circuits for performance control of energy storage modules.

Collaborations/Network established with industry/academia:

S. No.	Institute	Focus Area
1	IIT Mandi	Mentoring, Business expansion
2	IIT Delhi	Industry connect
3	IKP Hyderabad	IPR services, trainings
4	IIT Madras	Tentative
5	IIT Hyderabad	Industry connect
6	SINE, IIT Bombay	Organizational support, Mentoring, Helping in business extension
7	STPI	Start-up Support, Ecosystem connect

Details of major activities programs conducted for promotion of I&E:

a) Industry-Academia Summit (18.06.2022)

The number of participants- Approx. 200.

Resource mobilization plan is worked out to ensure not only the development of incubation infrastructure and facilities but also supporting pre-incubation activities. To minimize institutional constraints, a sustainable financial strategy is being planned for the implementation of entrepreneurial agenda. Keeping in view of this the Industry-Academia Summit was organized on 18.06.2022.

b) Internship opportunity at FIST:

Intern programme launched for B.Tech. students with an assistantship. Currently 5 interns across the country are getting internship opportunity at FIST.

c) G2G: PRIEST organized on 13-15 March 2022. The number of participants- Approx. 300.

Programmes / Efforts for Funding raised for incubatee (Seed/Angel/others):DST, Gol, Industries, Deptt. of Industry, GoB

Financial Sustainability:

a) Sources of revenue:

(i) Raising of funds from diverse sources to reduce dependency on grants: External funds through government (Central and State) Ministries, organisations/agencies such as DST, DBT, MHRD, Startup India, Invest India, MeitY, MSME, TDB, TIFAC, DSIR, CSIR, NSTEBD, NITI Aayog, AIM, ACIC, Department of Public Enterprises, Gol, etc.

(ii) Incubatees support: Approaching PSUs, industries, private/MNCs, and corporate sectors to support funds under CSR as per Section 135 of the Company Act 2013, engage alumni networks for providing financial support, joint Meeting with CSRs heads of PSUs to promote PPP, etc.

Revenue income (year wise): Revenue generated from various services (Machinery Facilities).

Year	1st Year	2nd Year	3rd Year	4th Year	5th Year
Revenue of TBI (in Lakh)		0.22 Lakh			

a) **Total actual operational expenditure (Recurring) of TBI for FY 2021-22: INR 35,03,231.00**

b) **Actions plan for financial sustainability**

- Promote entrepreneurial culture and the creation of new businesses.
- Provide integrated support services to entrepreneurs up to the consolidation of

business initiatives, etc.

- Offering of various services: Machining, other lab facilities on a chargeable basis to generate internal revenue.
- Launching of different types of short-term training programs: FDPs, tailor-made courses, etc. for industries fraternity

Programs Sponsored

Made sponsorship for the following programs

- Research Scholarship Day: 20 March 2021
- E-Summit: 13-15th March 2021\



New Developments: Installation of Machines

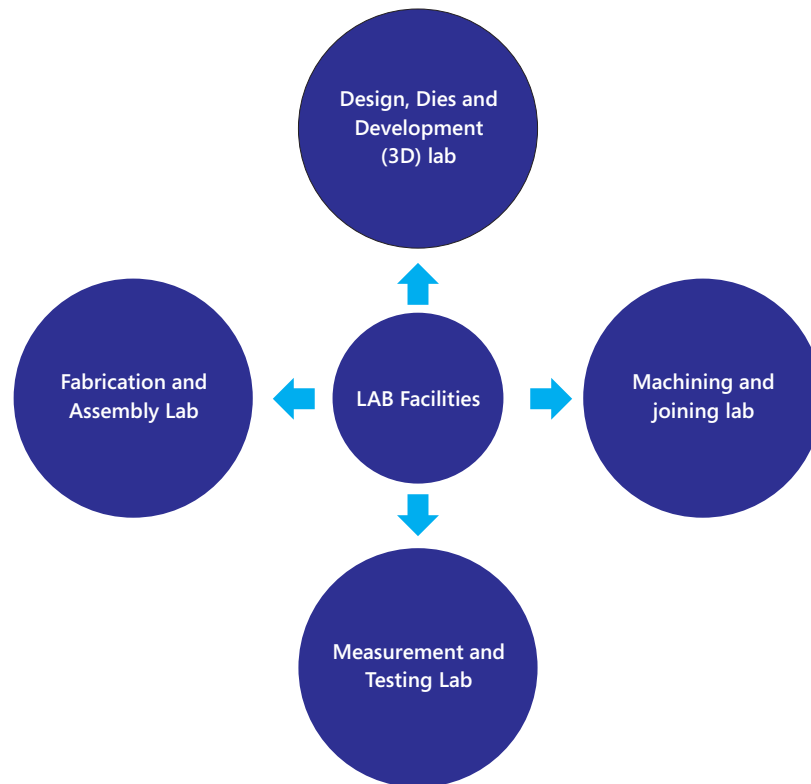
This year FIST has successfully completed following major Projects which will enhance FIST Capabilities: -

1. Installation and commissioning of 3D Printer.
2. Installation and commissioning of VMC machine.
3. Installation of HVAC System.
4. New Conference Room Development.
5. TIG MIG Welding setup installation
6. Measuring Instrument Procurement
7. FIST Website Development

Lab Facilities

New Lab Development

As we aware about product development stages, in the view of each stage FIST, IIT Patna has planned to develop four Major Lab facilities. Labs with name Design, Dies and Development (3D) lab, Measurement and testing Lab, Fabrication and Assembly Lab, Machining and Joining Lab.



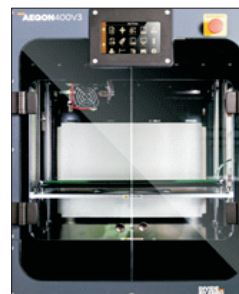
Design, Dies and Development (3D) lab

Design, Dies and Development (3D) lab is important because it's about creating the process for the product as much as the product itself. The design impacts every single part of production, from costs to timing to eventual customer satisfaction. This lab includes 5 no's of workstation with High speed computing design software's which can be used by Incubatees for their product development. At the same time after designing through Software they can print model of product using 3D Printer machine.

3D Printer



- Model: - Aeqon 400 V3
- Build Size: -400mm X 300mm X 300mm
- NOZZLE Diameter:-0.4, 0.6, 0.8 mm
- Extruder: -Single
- Accuracy: -80-250 Micron
- Build Material: -ABS+, PLA, Metal fill, Carbon fibre, Polycarbonate, Polyurethane, ABS - PC.



Measurement and Testing Lab

Technology and development are prominently dependent upon measuring and testing. The measurement and testing lab is being equipped with the required instruments. It enables to provide the measurement and testing facility as per incubates requirement. Incubatees can use instruments for their product development.

Instrument List available in measurement and testing LAB for Incubatees

S. N.	ITEM DESCRIPTION	QTY.
1	Measuring TAPE (5M)	1
2	LEVELING BLOCK	1
3	ANGLE PLATE	1
4	V-BLOCK	1
5	TRY SQUARE (SMALL)	4
6	TRY SQUARE (BIG)	2
7	SCALE (12")	6
8	SCALE (6")	6
9	MARKING BLOCK	4
10	PARALLEL BLOCK	1 SET
11	HEIGHT GAUGE	1
12	DIAL INDICATOR WITH STAND (PLUNGER TYPE)	2
13	VERNIER CALLIPER	4
14	OUTSIDE MICROMETER (20-25 MM.)	1
15	OUTSIDE MICROMETER (0-25 MM.)	1
16	COMBINATION SET	1
17	PITCH GAUGE	1
18	DIGITAL OSCILLOSCOPE	1
19	UNIVERSAL IC TESTER	1
20	DIAL CALIPER	2
21	BORE GAUGE (18-160 mm.)	4
22	MICRO METER (0-150 mm.)	1
23	MICRO METER (150-300 mm.)	1
24	INSIDE CALIPER	4
25	OUTSIDE CALIPER	4
26	ONE EDGE CALIPER	4



Fabrication and Assembly Lab

The Fabrication and assembly lab is mainly used by incubates, this lab aims to provide facility for product development which requires welding drilling cutting and other fabrication related operations.

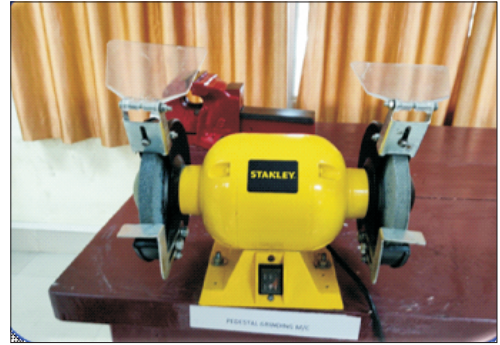
Machine available in Fabrication and assembly LAB for Incubatees



Drill Machine



Spot Welding Machine



Pedestal Grinding Machine

Machining and joining lab

The machining and joining lab is equipped with VMC & TIG and MIG welding setup with welding Robot, that enables the Incubatees to develop their product.

VMC Machine



- Model: -VF-2
- Bed Travel: -508 mmX762mmX406 mm (Z, X&Y)
- Spindle Max Speed: -8100 RPM
- Max Thrust (Z, X & Y)-18683N, 11343N,11343N
- Max Cutting Speed: -16.5 m/min
- Max Tool Diameter: -89mm
- Max Tool Weight-5.4 kg

TIG/MIG Welding Setup



- Model: -Speedtec 50 5 SP
- TIG and MIG welding setup with welding Robot, Trolley, Cylinder with pressure gauge (capacity 25 ltr)

Incubatees Selection Procedure

Who can apply

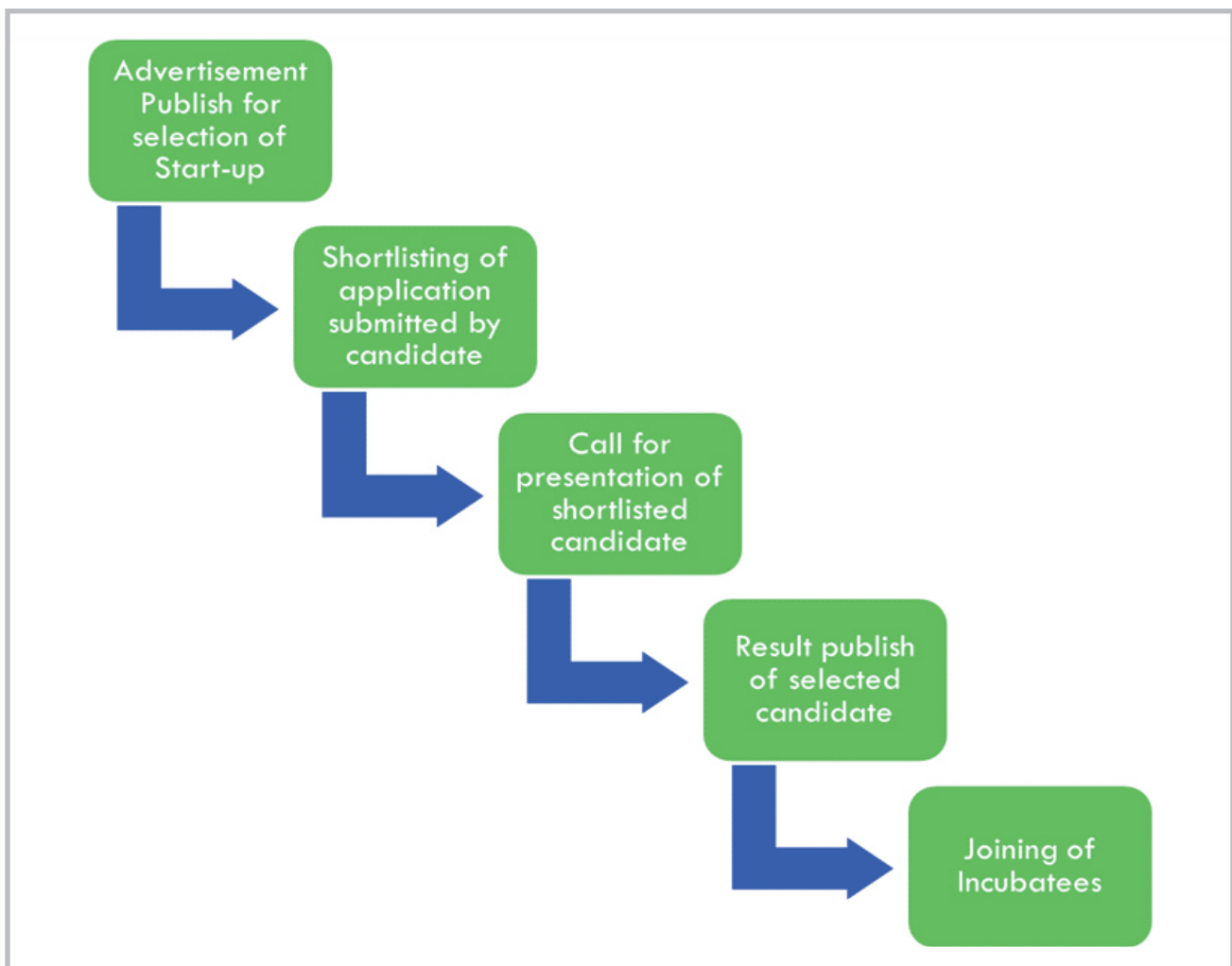
- Any Indian citizen who have innovative idea and can make a working product ready.
- Students, faculty, other innovators and start-ups can apply for incubation in FIST TBI IIT Patna.

How to apply

- The applicants should submit a business plan in order to be considered for incubation.
- The business plan submitted should be of about 10 pages covering the required aspects in as much details as possible.

Please send the business plans to pic_tbi@iitp.ac.in with following details:

- Value proposition (highlighting the innovation)
- Profile of management team; and advisory board (if any)
- Planned products and services portfolio
- Product development milestones and timelines
- Approach and infrastructure requirements for technical implementation
- Market potential analysis and Competition analysis
- Funding requirements
- Capital structure
- Go-to-market plan
- Risk analysis and projected financials



Admission Process


A Project Evaluation Team, comprising of eminent personalities from Industry, academia, government and investment community, will evaluate the business plans. Shortlisted applicants will be called for a

presentation before an expert panel. Based on the recommendation from the panel, the applicant will be offered admission to the incubation programme based on the schedules made for evaluation and admissions from time to time.

Incubated start-ups:


Incubation Batch 1 portfolio

S.No. Selected Incubates of 1ST Batch	
1	M/S Q ME
2	M/S ROYAL N DYNAMIC AUTOMOBILE
3	M/S ABHYADHIKADHIK INDIA PVT LTD.
4	M/S PORTABLE POWER TECHNOLOGY PRIVATE LIMITED
5	M/S HUM N



Royal N Dynamic Pvt. Ltd


FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY
A NIDHI-TBI funded by DST, Govt. of India
Regd. Office: 5TH FLOOR (LEFT), BLOCK-9,
INDIAN INSTITUTE OF TECHNOLOGY PATNA, BIHTA, BIHAR, INDIA, 801106





About us
Project
Team Member


Royalndynamic automobile pvt. ltd. established on 23rd April, 2021 deals in boosting innovation in agricultural machinery and manufacture general purpose machinery. the company aims to work diligently under FIST, IIT PATNA to achieve the noble cause of start up india mission of the indian govt.


DYNAMIC CULTIVATOR
A machine that integrates different operations of farming like soil loosening, seed-sowing, NPK testing of soil and levelling in a simultaneous manner.





Md Saif ali


Amit Kumar



Vivek Kumar


Shahbooz Ali Khan


Danish Khan

Mission

1. Bringing multi-operational agricultural machines.
2. Help towards strengthening of agricultural sector.
3. Designing of other general purpose tools and machineries



Contact Us

Call :- 9973623843
Mail@:royalndynamic@gmail.com
Address:- shop no-01, ward no-06, Lalbagh, Darbhanga.

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ABHYADHIKADHIK INDIA PVT LTD.

connecting farmers

FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY
 A NIDHI-TBI funded by DST Govt of India
 Regd. Office: 5th Floor (Left), Block - 9
 INDIAN INSTITUTE OF TECHNOLOGY PATNA, BIHTA, BIHAR, INDIA - 801106



Mission:

- Develop digital platform for farmers to help buy/sell their produce easily and efficiently.

Vision:

- A digital marketplace where anyone can buy or sell whatever their produce is directly to or from the individuals without going through complex chain of intermediaries.

PRODUCT DOMAIN

- A digital marketplace
- Door step delivery & transportation
- Grain warehouses
- Chain of cold storage
- Related financial services

Team Members

- Dhiraj Rahul
- Kartikesh Kumar Jha
- Karabi Maity





This is to certify that Abhyadhikadhik India Pvt Ltd has been incorporated as Private Limited Company.





202, Krishna, Rajnagar crossroad, Paldi, Ahmedabad, INDIA 380007

WITH



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PRESENTS

BINOCULAR

A vision for Cooler Planet



BINOCULAR, is a Room-Cooler installed on the walls; it produces **COOLED** air through water-evaporation. A **USER-CENTRIC DESIGN** with automatic water-filling and remote interface.

PRODUCT DOMAIN

Evaporative Cooling at Maximum Efficiency
 Technology development to fine control the 'Evaporation' as a process.
 Temperature Control at affordable Cost.
 Power Saving.
 System Development to achieve more from an old known technology.
 Cooling for all.

MISSION

Keep the Carbon foot print low, for indoor temperature control, across different types of spaces.
 Providing a cost effective option for cooling.
 Using sustainable material and processes for long term solutions.
 Developing and Manufacturing a world-class product in India.



TEAM

SATYAJEET KUMAR
 (Industrial Design graduate from National Institute of Design, Ahmedabad)



Portable Power Technology Private Limited
(Xtra Energy @ No Additional Cost)
FOUNDATION FOR INNOVATORS IN SCIENCE & TECHNOLOGY,
A NIDHI-TBI funded by DST, Govt. of India
 Regd. Office: 5th Floor, Block-9, Indian Institute of Technology Patna, Bihta, Patna, Bihar, India, 800106
 Website: <https://portablepowertechology.com>
 e mail: scepica@hotmail.com CIN U73100BR2019PTC042896



<p>Mission</p> <p>"IC" - Ideate, Conceive, Innovate, Incubate & Create</p> <p>With stated "Mission Theme" we are working diligently with adequate skill and competence to achieve the national goal of Startup India, Make in India aimed at realizing the ultimate target of Standup India.</p> <p>Vision</p> <p>"CREATE" - Novel & Needed</p> <p>The central focus of our vision lies in novelty based on contemporary need for creating "cutting edge technology" to serve society and humanity at affordable cost with energy and environment at prime importance.</p> <p>C: Clean R: Renewable & Recyclable E: Energy A: Alternatives to Achieve T: Total E: Energy Security for Earth & Environment Safety</p>	<p style="text-align: center;">Product Domain</p> <ol style="list-style-type: none"> Battery Management System (BMS) Circuits (1S-20S) for Operational Safety Power Transformers (Toroidal/Rectangular) (250 VA – 1 KVA) for Inverter/Online UPS LIB based Compact and Light Weight Inverter/Online UPS Pack E-Rickshaw Battery Pack with Operational Safety Features Novel Technology for Lithium Ion Battery (LIB) Electrodes <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">   </div> <div style="width: 45%;"> <p>Founding Team Details</p> <p>Mentor: Dr A K Thakur Founder 1: Abhijeet Kumar Founder 2: Puli Sunny Babu Founder 3: Abhinav Shandilya</p>    </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">   </div> <div style="width: 45%;">    </div> </div>  
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This is to certify that **PORTABLE POWER TECHNOLOGY PRIVATE LIMITED**, incorporated/registered as a **Private Limited Company**, on **05-08-2019**, is recognized as a **start-up** by the Department for Promotion of Industry and Internal Trade.

Incubation Batch 2 portfolio

S.No. Selected Incubates of 2nd Batch

- M/S KRISHAK FARM
- M/S ANAGHA INNOVATION PRIVATE LIMITED
- M/S KR GROUPS PVT. LTD.
- MEDICAL OXYGEN Production by Water Electrolysis (Pre-incubation for 3 months)



KRISHAK FARMS*
 Sustaining the Future
FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY
A NIDHI-TBI funded by DST, Govt. of India
 Regd. Office: 5th FLOOR(LEFT), BLOCK-9,
 INDIAN INSTITUTE OF TECHNOLOGY PATNA, BIHTA, PATNA, BIHAR, INDIA, 801106



<p>AQUAPONICS-</p> <p>#Aquaponics is the integration of recirculating aquaculture and hydroponics in one production system. #Soil less Agriculture (Hence, It reduces pests and soil-borne diseases). #Increased demand for out-of-season, high-value crops. #Higher yields compared with traditional agriculture. #95% water reuse, Hence leading to only 5% wastage of water also Land use is reduced by 50%.</p> <p>VISION-</p> <p>#To create and be the enabler of a cooperative/ FPO based Aquaponics ecosystem in the region #kindle a transformation of the existing agricultural landscape to a more resilient and agile replicable framework #Utilize technology space for efficient use such as IOT and Sensor for minimum human interaction and majority towards automation.</p>	<p style="text-align: center;">TEAM MEMBERS-</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>SHIVANI SINGH</p> </div> <div style="text-align: center;">  <p>NIKHIL</p> </div> </div> <div style="display: flex; justify-content: space-around;">    </div>
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Made with PosterMyWall.com *The Registration Of The Company Is In Progress

ANAGHA INNOVATION PRIVATE LIMITED

FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY
 A NIDHI-TBI Funded by DST, Govt. of India
 Regd. Office: 5th FLOOR (LEFT), BLOCK-9,
 INDIAN INSTITUTE OF TECHNOLOGY PATNA, BIHTA, PATNA, BIHAR, INDIA, 801106

Mission

- Sustainable Green Energy Solution with Solar, Wind and Battery Storage.
- Design of Electric Vehicles and Fast Charger Infrastructure

Vision

- Energy system design according to specified area based on power requirement.
- Development of EV motors and different components of hardware and flexible structure.
- Testing and validation
- Deployment at the site and connecting to industries.

Product Domain

- Solar Tree Design, Solar-Wind Hybrid Power System Design, Battery Storage and Solar Wind Integration.
- Design of Electric Vehicles and Fast Charger Infrastructure.
- Energy Efficient Motor Design for Electrical Propulsion System
- Mid Drive Motor and Controller with Battery Management System Design

Founding Team Details
Mentor: Dr. R K Behera
Founder 1: Piyali Pal
Founder 2: Swapan Kr Bakshi
Founder 3: Surya Prakash

This is to certify that **ANAGHA INNOVATION PRIVATE LIMITED** incorporated / registered as a **Private Limited Company**. Email: rkb@iitp.ac.in

K.R. Groups Pvt. Ltd.

FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY
 A NIDHI-TBI funded by DST.Govt. of India
 Regd. Office: 5th Floor (Left), Block-9,
 INDIAN INSTITUTE OF TECHNOLOGY PATNA, BIHTA, BIHAR, INDIA, 801106

About us

Project

Team Member

K.R.Groups Pvt. Ltd. deals in boosting technical innovation in Health machinery & manufacture general-purpose machinery. The Company aims to work diligently under FIST, IIT Patna, to achieve the novel cause of Start-up India Mission of the Indian Government.

Development of low cost oxygen concentrator to help poor patients, especially those affected by the COVID-19 pandemic.

RANJAN KR. DHAR

GOURAB ROY ACHARYA

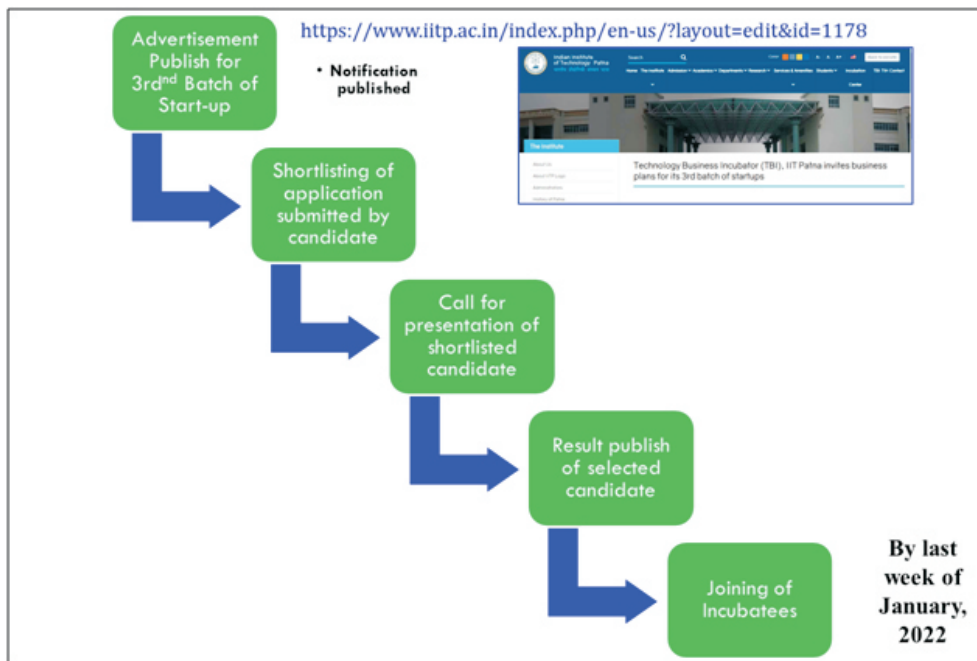
Mission :

* Low Cost Oxygen Concentrator Device

Contact Us:

Calling No.: 70058 02709 / 97741 42641
 E-Mail: dharranjan2021@gmail.com
 Address: North Jogendranagar
 Near Electric Office, Agartala
 West Tripura, Pin: 799004

Incubatees Selection of 3rd Batch



Notification Link: -

<https://www.iitp.ac.in/index.php/en-us/?layout=edit&id=1178>
https://fistiitp.com/pdf/Call-for-business-plan_FIST_TBI-IITP.pdf

Fund Status

Sanction fund: 11.60 crores (4.65 crore received so far)

BUDGET (Rs. in Lakh)							
Sl.	Item of Expenditure	I Year	IIrd	IIIrd	IV Yr	V Yr	Total
A	Non - Recurring						
a	Renovation / furnishing of space for NIDHI-TBI including electrical and LAN data cable wiring	65.00	55.00	0.00	0.00	0.00	120.00
b	Thrust Area Equipments	214.00	73.00	0.00	0.00	0.00	287.00
c	D&D Rooms	43.00	42.00	0.00	0.00	0.00	85.00
d	Office Equipments and infrastructure including State - of - the - art communication network	25.00	15.00	0.00	0.00	0.00	40.00
e	Contingencies for non recurring expenditure and other items	10.00	15.00	0.00	0.00	0.00	25.00
	Total A (Non Recurring)	357.00	200.00	0.00	0.00	0.00	557.00
B	Recurring						
	Total B (Recurring)	108.00	111.90	118.40	127.00	138.00	603.30
C	DST's Contribution (% of B)	100%	100%	80%	60%	40%	
	Total C	108.00	111.90	94.70	76.20	55.20	446.00
	Total DST Contribution (A+C)	465.00	311.90	94.70	76.20	55.20	1,003.00
	Total Project Cost (A+B)	465.00	311.90	118.40	127.00	138.00	1,160.30

Means of Financing:		Amount (Rs. in Lakh)
	Contributing Agency	
1	Contribution of DST (Non-Recurring Grant)	557.00
2	Contribution of DST (Recurring Grant)	446.00
3	Contribution of HI (Recurring Grant)/Revenue generation from TBI activities	157.30
TOTAL		1160.30

FUND Utilisation Status

Financial Status: FY 2021 -22 (NON RECURRING)					
HEAD	Grant Received (Rs.)	Expenditure Incurred as on 08-08-2022 (Rs.)	Committed Expenditure (Up to Aug./Sep.)	Balance Amount (Rs.)	Expenditure Plan against Balance Amount (Sep/Oct. 2022)
Renovation & Furnishing	6500000	4707849 + 246689 (P.O)	725549	819913	Cubical for Incubatees (4 Lakhs) Electrical wiring work (2 Lakhs) Split AC (2 Lakhs)
Thrust area Eqp.	21400000	8549032 + (2519890 + 8673000 P.O)	255000	1403078	DAQ system (25 Lakhs)
D & D Room	4300000	249981	3130000	920019	Optical Microscope (11Lakhs)
Office Eqp.	2500000	1956044 +299000 (P.O)	0	244956	B/W Printer (50 Thousand)
Contingency	1000000	107769	0	892231	NIL
Total A (Non Recurring)	35700000	27309254	4110549	4280197	(4280197-4450000) = -169803

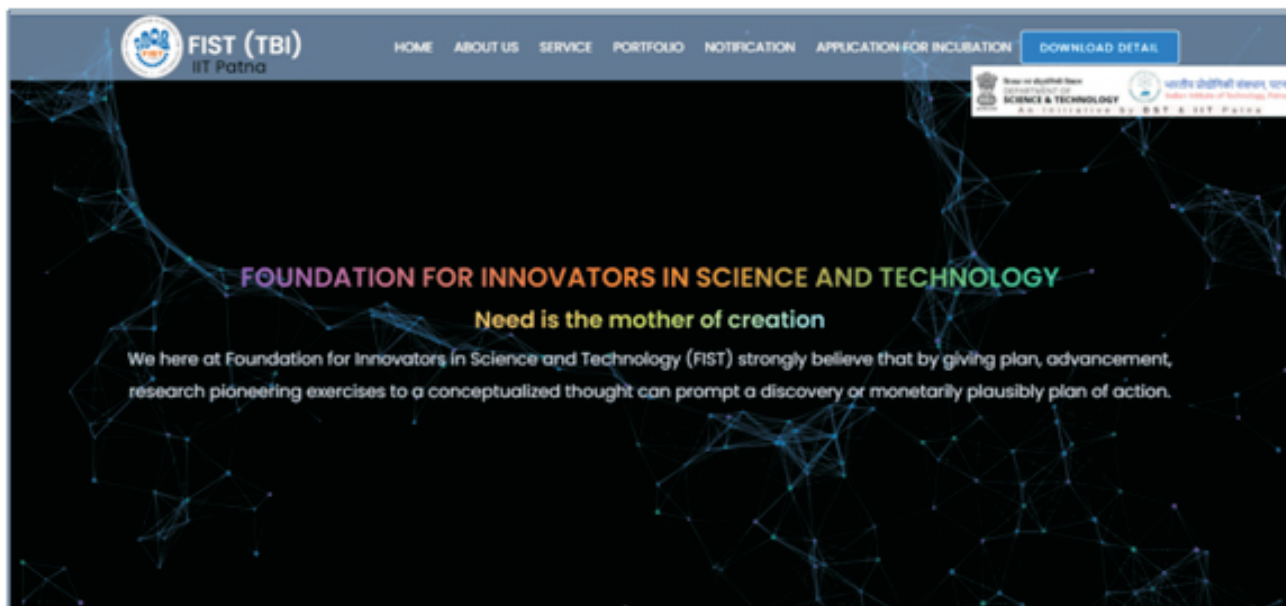
ANNUAL REPORT 2021-2022

Financial Status : FY 2021-22 (RECURRING)

HEAD	Grant Received (Rs.)	Expenditure Incurred as on 13-07-2022 (Rs.)	Committed Expenditure (Up to Aug./Sep.)	Balance Amount (Rs.)	Expenditure Plan against Balance Amount (Sep/Oct. 2022)
Manpower(Core Management Team/Mentors and Tech Support persons/ Business development annual increase @10%)	3900000	3590406	0	309594	Salary upto September 2022(2.80 Lakhs)
Travel	500000	67238	0	432762	Industry connect, Field visit, Liasioning with Govt., etc. (5 Lakhs)
Utility and Maintenance	1500000	259487	0	1240513	Electricity Bill Payment, AMC, etc. (10 Lakhs)
Marketing, Networking and Publicity	1500000	638940	0	861060	
Training Programs, Events, and Startup Resonators	2000000	276685	0	1723315	Start Up Contingency (30 Lakhs)
Other Administrative Expenses including consumables, printing, publication, books	1000000	1010085	0	~10085	No Fund Available (-10000)
Miscellaneous & Contingencies	400000	342398	0	57602	To be utilized by September 2022 (57602)
Total B (Recurring)	10800000	6185239	0	4614761	(4614761-5827602)=-1212841
Total (A+B)	46500000	33494493	4110549	8894958	(-169803-1212841)=-1382644

FIST Website Details

Web Address:-<https://fistiitp.com/>



Technology Innovation Hub (TIH)

About TIH

Technology Innovation Hub (TIH) named as "IIT Patna Vishlesan i-Hub Foundation" a Section-8 company aims to create a strong and seamless ecosystem with central theme of "Speech, Video and Text Analytics (SVTA)" for the exponential growth of Interdisciplinary Cyber Physical Systems (ICPSs). The proposed HUB will mark an impact, both at the national and international level, by carrying out fundamental and translation research in the broad areas of SVTA. This will facilitate the creation of national core competence in essential technologies of the future and catalyze the translation of that technology into useable applications for the greater welfare of the society.

Achievements under different verticals:

Human Resource Training: 150

Startups:

1. EVXplorer Pvt LTD
2. Big O Health Pvt LTD
3. Scraptechies Pvt LTD
4. Redinent Innovations Pvt LTD
5. Atya Technologies Pvt Ltd
6. Travvir
7. Portable Power Technologies pvt LTD.

8. Palanam Technologies Pvt LTD.

Job Creation: 46

Collaborations:

1. NIT Rourkela
2. Redinent, Bangalore
3. Anvita Electronics, Hyderabad
4. Cogniphy USA
5. KareKeBa, Bihar

Fellowships:

UG: 27

PG: 25

PhD: 6

Faculty Fellow: 01

Under processing:

1. Skill Shore Technologies PVT LTD.

On going Skill Development and Job Creation:

1. Industry Oriented Certified AI ML and Data science Course

On Going MoU

1. UB RENEW Institute of the University at Buffalo, NY USA.
2. IBITF-IIT Bhilai

Patents under processing:

One Patent in Text Summarization.

Two Patents in Wireless Power and Data Transmission

STATISTICAL INFORMATION

8.1 (A) Admission to Undergraduate Students

Admission to B.Tech.at IIT Patna were made through Joint Entrance Examination held in 2021. A department wise and category wise breakup of the students admitted to IIT Patna for the academic session 2021-22 is given below:

Students admitted through JEE 2020 in IIT Patna:

COURSE/SPECIALIZATION	EWS	GEN	OB	SC	ST	GRAND TOTAL
Artificial Intelligence and Data Science	4	14	9	5	2	34
Chemical Engineering	7	24	18	9	5	63
Civil Engineering	8	22	16	9	5	60
Computer Science and Engineering	10	32	25	13	6	86
Electrical and Electronics Engineering	10	32	20	12	8	82
Engineering Physics	3	11	9	5		28
Mathematics and Computing (4 Years, Bachelor of Science)	5	16	13	6	3	43
Mechanical Engineering	8	31	22	11	6	78
Metallurgical and Materials Engineering	4	15	9	6	3	37
Grand Total	59	197	141	76	38	511

Branch-wise list of students who enrolled for B.Tech at IIT Patna for the academic session 2021-22 is given below:

(I) Artificial Intelligence and Data Science:

Sl No	Roll No	Name	Dept	Gender	Category
1	2101AI02	AADIT SHARMA	Artificial Intelligence and Data Science	Male	GEN
2	2101AI03	AKASH SINHA	Artificial Intelligence and Data Science	Male	GEN
3	2101AI04	ANURAG DEO	Artificial Intelligence and Data Science	Male	OB
4	2101AI05	ARCHIT SHARMA	Artificial Intelligence and Data Science	Male	GEN
5	2101AI06	ARYAN SAHOO	Artificial Intelligence and Data Science	Male	GEN
6	2101AI07	ASHUTOSH KUMAR	Artificial Intelligence and Data Science	Male	OB
7	2101AI08	ATUL KUMAR	Artificial Intelligence and Data Science	Male	OB
8	2101AI09	ATUL PANDE	Artificial Intelligence and Data Science	Male	GEN
9	2101AI10	BHAVIKA CHOUDHARY	Artificial Intelligence and Data Science	Female	SC

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Sl No	Roll No	Name	Dept	Gender	Category
10	2101AI11	BISWAJIT SARKAR	Artificial Intelligence and Data Science	Male	SC
11	2101AI12	CHINDALURU NAGA ANKITH KUMAR	Artificial Intelligence and Data Science	Male	EWS
12	2101AI13	DEVENDRA PRATAP SINGH	Artificial Intelligence and Data Science	Male	SC
13	2101AI14	DIKSHA BARNWAL	Artificial Intelligence and Data Science	Female	OB
14	2101AI15	GUNDA SREYA	Artificial Intelligence and Data Science	Female	GEN
15	2101AI16	ISHANI SHARMA	Artificial Intelligence and Data Science	Female	GEN
16	2101AI17	LALIT CHANDRA ROUTHU	Artificial Intelligence and Data Science	Male	GEN
17	2101AI18	MEDIKONDA DHEERAJ	Artificial Intelligence and Data Science	Male	SC
18	2101AI19	MUKUND SHARMA	Artificial Intelligence and Data Science	Male	EWS
19	2101AI20	NARLA HARITHA REDDY	Artificial Intelligence and Data Science	Female	EWS
20	2101AI21	PICHIKALA KARTHIK SATYANARAYANA	Artificial Intelligence and Data Science	Male	GEN
21	2101AI22	POLIMETLA NIKHIL CHARAN TEJA	Artificial Intelligence and Data Science	Male	SC
22	2101AI23	PRAGYA HARSH	Artificial Intelligence and Data Science	Female	GEN
23	2101AI24	PRAKASH KUMAR	Artificial Intelligence and Data Science	Male	OB
24	2101AI25	RACHAKONDA ESHWAR	Artificial Intelligence and Data Science	Male	OB
25	2101AI26	RAKESH KUMAR	Artificial Intelligence and Data Science	Male	OB
26	2101AI27	RAMAVATH VINOD	Artificial Intelligence and Data Science	Male	ST
27	2101AI28	RANGAPURAM SAI VARSHITH	Artificial Intelligence and Data Science	Male	OB
28	2101AI29	SAI SRAVANTH DATTI	Artificial Intelligence and Data Science	Male	OB
29	2101AI30	SHIVAM GUPTA	Artificial Intelligence and Data Science	Male	EWS

Sl No	Roll No	Name	Dept	Gender	Category
30	2101AI31	SHREY SINHA	Artificial Intelligence and Data Science	Male	GEN
31	2101AI32	SINGAM SETTY S A DESHIK	Artificial Intelligence and Data Science	Male	GEN
32	2101AI33	SUNNY KUMAR SINGH	Artificial Intelligence and Data Science	Male	ST
33	2101AI34	SWAPNIL SRIVASTAVA	Artificial Intelligence and Data Science	Male	GEN
34	2101AI35	YASHVEER	Artificial Intelligence and Data Science	Male	GEN

(II) Chemical Engineering

Sl No	Roll No	Name	Dept	Gender	Category
1	2101CB01	ABHAY KUMAR	Chemical Engineering	Male	EWS
2	2101CB02	ABHILASHA	Chemical Engineering	Female	GEN
3	2101CB03	ABHISHEK KUMAR	Chemical Engineering	Male	OB
4	2101CB04	ABHISHEK WAZAL	Chemical Engineering	Male	GEN
5	2101CB05	ADITI KUMARI	Chemical Engineering	Female	OB
6	2101CB06	ADITYA GUPTA	Chemical Engineering	Male	GEN
7	2101CB07	ADITYA SUDHEER DIXIT	Chemical Engineering	Male	GEN
8	2101CB08	AJAY SAINI	Chemical Engineering	Male	OB
9	2101CB09	ALISHA SINGH	Chemical Engineering	Female	OB
10	2101CB10	ANKIT KUMAR	Chemical Engineering	Male	SC
11	2101CB11	ANUSHREE TIWARI	Chemical Engineering	Female	GEN
12	2101CB12	ARKADEEP ACHARYA	Chemical Engineering	Male	GEN
13	2101CB13	ARUN SINGH CHAUHAN	Chemical Engineering	Male	GEN
14	2101CB15	ATUL KUMAR	Chemical Engineering	Male	OB
15	2101CB16	AVINASH TYAGI	Chemical Engineering	Male	GEN
16	2101CB17	AVIRAL SRIVASTAVA	Chemical Engineering	Male	GEN
17	2101CB18	AYUSH KUMAR	Chemical Engineering	Male	EWS
18	2101CB19	AYUSH PAL	Chemical Engineering	Male	OB
19	2101CB21	BISWAJIT SUBUDHI	Chemical Engineering	Male	OB
20	2101CB22	D.HANSARAJ	Chemical Engineering	Male	OB
21	2101CB23	DEEPAK GAUTAM	Chemical Engineering	Male	SC
22	2101CB24	DEEPAK KUMAR	Chemical Engineering	Male	SC
23	2101CB25	DIPTADIP MALLIK	Chemical Engineering	Male	SC
24	2101CB26	DIVYANSHEE VERMA	Chemical Engineering	Female	OB
25	2101CB27	DIYA GHOSH	Chemical Engineering	Female	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
26	2101CB28	HARSH KUMAR SINGH	Chemical Engineering	Male	EWS
27	2101CB29	KARAN RAJ	Chemical Engineering	Male	GEN
28	2101CB30	KONA NAGA SURYA SIVA SAI	Chemical Engineering	Male	GEN
29	2101CB31	KONDEPUDI VIKRAMADITYA	Chemical Engineering	Male	SC
30	2101CB32	KRITIK CHAUDHARY	Chemical Engineering	Male	GEN
31	2101CB33	KUMARI ANKITA	Chemical Engineering	Female	SC
32	2101CB34	LAKSH TALUJA	Chemical Engineering	Male	GEN
33	2101CB35	LATU BHARALI	Chemical Engineering	Male	SC
34	2101CB36	MAYANK YOGI	Chemical Engineering	Male	OB
35	2101CB37	MD. DAUD	Chemical Engineering	Male	EWS
36	2101CB38	MRINAL TIWARI	Chemical Engineering	Male	GEN
37	2101CB39	NANDAN KUMAR SINGH	Chemical Engineering	Male	EWS
38	2101CB40	PANKAJ RAWAT	Chemical Engineering	Male	SC
39	2101CB41	PARSHANT VERMA	Chemical Engineering	Male	OB
40	2101CB42	PRADEEP KUMAR	Chemical Engineering	Male	SC
41	2101CB43	PRANAV RAJ	Chemical Engineering	Male	EWS
42	2101CB44	PRASENJIT CHANDA	Chemical Engineering	Male	GEN
43	2101CB45	PRASHANT KUMAR	Chemical Engineering	Male	OB
44	2101CB46	PULKIT BANSAL	Chemical Engineering	Male	GEN
45	2101CB47	RAUNAK KUMAR GUPTA	Chemical Engineering	Male	OB
46	2101CB48	ROHIT KHARCHE	Chemical Engineering	Male	OB
47	2101CB49	SAHINI VENKATA SITARAM SRUTI	Chemical Engineering	Female	EWS
48	2101CB50	SAI SUNDARA SANDEEP GANTI	Chemical Engineering	Male	GEN
49	2101CB51	SAIF RAHMAN	Chemical Engineering	Male	OB
50	2101CB53	SHAAZ HUSSAIN	Chemical Engineering	Male	GEN
51	2101CB54	SHARIQUE AHMAD AZIZY	Chemical Engineering	Male	GEN
52	2101CB55	SHIVAM YADAV	Chemical Engineering	Male	OB
53	2101CB56	SHRESHY SRIVASTAVA	Chemical Engineering	Female	GEN
54	2101CB57	SUNNY KUMAR	Chemical Engineering	Male	OB
55	2101CB58	SURYANSH BANSAL	Chemical Engineering	Male	GEN
56	2101CB59	TOSHIT TEJASVAT	Chemical Engineering	Male	GEN
57	2101CB60	UTKARSH KUMAR GIRI	Chemical Engineering	Male	GEN
58	2101CB61	YOGESH KUMAR	Chemical Engineering	Male	OB
59	2101CB62	ABHIJEET KOTWAL	Chemical Engineering	Male	ST
60	2101CB63	BALKRISHAN MEENA	Chemical Engineering	Male	ST
61	2101CB64	GUGULOTHU NAVEEN	Chemical Engineering	Male	ST
62	2101CB65	MANISHA	Chemical Engineering	Female	ST
63	2101CB66	RAHUL KUMAR MEENA	Chemical Engineering	Male	ST

(III) Civil Engineering:

Sl No	Roll No	Name	Dept	Gender	Category
1	2101CE01	ABHRANEEL SAHA	Civil Engineering	Male	GEN
2	2101CE02	ADITYA PANDEY	Civil Engineering	Male	GEN
3	2101CE03	ADITYA PRAKASH	Civil Engineering	Male	OB
4	2101CE04	ALEKH SRIVASTAVA	Civil Engineering	Male	GEN
5	2101CE05	AMAN RAJ	Civil Engineering	Male	OB
6	2101CE06	ANAND KUMAR	Civil Engineering	Male	SC
7	2101CE07	ANJANA P.	Civil Engineering	Female	GEN
8	2101CE09	ANURAG DAS GROUP	Civil Engineering	Male	SC
9	2101CE10	ANUSTHA RAJ	Civil Engineering	Female	OB
10	2101CE11	AREEBA MIRZA	Civil Engineering	Female	EWS
11	2101CE12	ASHISH KUMAR	Civil Engineering	Male	SC
12	2101CE13	ASHUTOSH RAJ	Civil Engineering	Male	OB
13	2101CE14	AYUSH RAJ	Civil Engineering	Male	EWS
14	2101CE15	CHANDAN KUMAR	Civil Engineering	Male	EWS
15	2101CE16	DEBASHISH KALITA	Civil Engineering	Male	GEN
16	2101CE17	DEVANSH RAI	Civil Engineering	Male	GEN
17	2101CE18	DEVENDRA PRATAP SINGH RATHORE	Civil Engineering	Male	GEN
18	2101CE19	DIVYANSH GUPTA	Civil Engineering	Male	GEN
19	2101CE20	GARIMA GUPTA	Civil Engineering	Female	OB
20	2101CE21	GAURAV GUPTA	Civil Engineering	Male	GEN
21	2101CE22	GOPAL SINGH	Civil Engineering	Male	GEN
22	2101CE24	HARSH CHANDRA	Civil Engineering	Male	OB
23	2101CE25	HARSH RAJ	Civil Engineering	Male	OB
24	2101CE26	HIMANSHI	Civil Engineering	Female	GEN
25	2101CE27	JAGDISH RANDHAVE	Civil Engineering	Male	ST
26	2101CE28	JALLIPALLI PRASANTH	Civil Engineering	Male	EWS
27	2101CE29	JANGAM TEJAS ROY	Civil Engineering	Male	SC
28	2101CE31	KADAVATH THARUN	Civil Engineering	Male	ST
29	2101CE32	KARTIKAY	Civil Engineering	Male	GEN
30	2101CE33	KULDEEP MEENA	Civil Engineering	Male	ST
31	2101CE34	KUMAR ADITYA	Civil Engineering	Male	OB
32	2101CE35	KUMAR LAKSHYA	Civil Engineering	Male	OB
33	2101CE36	MANISH KUMAR	Civil Engineering	Male	SC
34	2101CE37	MANISH KUMAR MEENA	Civil Engineering	Male	ST
35	2101CE38	NIKITA SRIVASTAVA	Civil Engineering	Female	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
36	2101CE39	PRAKASH KUMAR	Civil Engineering	Male	OB
37	2101CE40	PRANAV SHAJAN CHANDHIRATHIL	Civil Engineering	Male	OB
38	2101CE41	PRASHANT PATHAK	Civil Engineering	Male	GEN
39	2101CE42	PRAVIN KUMAR PRAJAPATI	Civil Engineering	Male	GEN
40	2101CE43	PRINCE KUMAR SINGH	Civil Engineering	Male	OB
41	2101CE44	PRIYANSHU DARSHAN	Civil Engineering	Male	EWS
42	2101CE45	RAJ KAMAL	Civil Engineering	Male	EWS
43	2101CE46	RAJKAMAL	Civil Engineering	Male	SC
44	2101CE47	RAKESH MEENA	Civil Engineering	Male	ST
45	2101CE48	RAMPRASAD BAIRWA	Civil Engineering	Male	SC
46	2101CE49	RISHIT BAL	Civil Engineering	Male	GEN
47	2101CE50	SHASHIKANT KUMAR	Civil Engineering	Male	OB
48	2101CE51	SHLOK GARG	Civil Engineering	Male	EWS
49	2101CE52	SHRIYANSH SINHA	Civil Engineering	Male	GEN
50	2101CE53	SHRUTI DEY	Civil Engineering	Female	EWS
51	2101CE54	SHUBHAM SATYAM	Civil Engineering	Male	OB
52	2101CE55	SUBHAM KUMAR RAI	Civil Engineering	Male	GEN
53	2101CE56	SUDHANSHU RANJAN	Civil Engineering	Male	OB
54	2101CE57	SWARNENDU MAITY	Civil Engineering	Male	GEN
55	2101CE58	TANISHQ BAAN	Civil Engineering	Male	SC
56	2101CE59	VAIBHAV GUPTA	Civil Engineering	Male	GEN
57	2101CE60	VANSH GOEL	Civil Engineering	Male	GEN
58	2101CE61	VARIKUTI SUSMITHA VADHANA	Civil Engineering	Female	OB
59	2101CE62	YASH SRIVASTAV	Civil Engineering	Male	GEN
60	2101CE63	YUVRAJ JADAV	Civil Engineering	Male	SC

(IV) Computer Science and Engineering:

Sl No	Roll No	Name	Dept	Gender	Category
1	2101CS01	A S POORNASH	Computer Science and Engineering	Male	GEN
2	2101CS02	ABHIJEET KUMAR	Computer Science and Engineering	Male	EWS
3	2101CS03	ACHHADA HIREN RAJKUMAR	Computer Science and Engineering	Male	EWS
4	2101CS04	ADITHYA RAVI RATHOD	Computer Science and Engineering	Male	OB
5	2101CS05	ADITYA PODDAR	Computer Science and Engineering	Male	GEN
6	2101CS06	AISHEZ SINGH	Computer Science and Engineering	Male	SC
7	2101CS07	ALI HAIDER	Computer Science and Engineering	Male	GEN
8	2101CS08	AMISHA RAJE	Computer Science and Engineering	Female	OB
9	2101CS09	AMIT KUMAR YADAV	Computer Science and Engineering	Male	OB
10	2101CS10	ANSHU NAUWALA	Computer Science and Engineering	Male	EWS

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Sl No	Roll No	Name	Dept	Gender	Category
11	2101CS11	ANUJ SHARMA	Computer Science and Engineering	Male	GEN
12	2101CS12	ASHUTOSH KUMAR SINGH	Computer Science and Engineering	Male	GEN
13	2101CS13	ASIF HUSSAIN	Computer Science and Engineering	Male	ST
14	2101CS14	ATHARVA SANDIP DESHMUKH	Computer Science and Engineering	Male	GEN
15	2101CS15	AYUSH SHARMA	Computer Science and Engineering	Male	GEN
16	2101CS16	BADDI SATYA SAHITHI	Computer Science and Engineering	Female	OB
17	2101CS17	BELLAMKONDA SURYA TEJA	Computer Science and Engineering	Male	EWS
18	2101CS18	BHAGAT RAJNISH OMPRAKASH	Computer Science and Engineering	Male	OB
19	2101CS19	BOLLAMPALLI AREEN REDDY	Computer Science and Engineering	Male	EWS
20	2101CS20	CHINTADA RIZVI KUMARI	Computer Science and Engineering	Female	OB
21	2101CS21	CHIRANJIBI PRADHAN	Computer Science and Engineering	Male	GEN
22	2101CS22	DASARI PARDHA SARADHI	Computer Science and Engineering	Male	ST
23	2101CS23	DEEPANKER JAUHARI	Computer Science and Engineering	Male	GEN
24	2101CS24	DEVARASETTY SRI VAIBHAV	Computer Science and Engineering	Male	GEN
25	2101CS25	DHRUV CHOUDHARI	Computer Science and Engineering	Male	GEN
26	2101CS26	DHRUV KUMAR AGRAWAL	Computer Science and Engineering	Male	GEN
27	2101CS27	DIVIT AJMERA	Computer Science and Engineering	Male	GEN
28	2101CS28	DIVYAM RAJ	Computer Science and Engineering	Male	OB
29	2101CS29	GANJI SREE HARSHA PRANEETH	Computer Science and Engineering	Male	OB
30	2101CS30	GURUBELLI RAGHAVENDRA	Computer Science and Engineering	Male	OB
31	2101CS31	HARIOMKANT SHARMA	Computer Science and Engineering	Male	EWS
32	2101CS32	HARSH LOOMBA	Computer Science and Engineering	Male	GEN
33	2101CS33	JASMINE SHRIVASTAVA	Computer Science and Engineering	Female	GEN
34	2101CS34	KALPIT AGRAWAL	Computer Science and Engineering	Male	EWS
35	2101CS35	KASULA SRAVANTHI	Computer Science and Engineering	Female	OB
36	2101CS36	KETHAVATH DICA PRIYO GANDHI NAIK	Computer Science and Engineering	Male	ST
37	2101CS37	KHUSHI SINGH	Computer Science and Engineering	Female	GEN
38	2101CS38	KIRTAN JAIN	Computer Science and Engineering	Male	GEN
39	2101CS39	KOMMALAPATI LAHARI	Computer Science and Engineering	Female	EWS
40	2101CS40	M SHANMUKHA PRIYA	Computer Science and Engineering	Female	GEN
41	2101CS41	MAILARAM SAI CHAITANYA	Computer Science and Engineering	Male	SC
42	2101CS42	MAMTA KANWAR	Computer Science and Engineering	Female	GEN
43	2101CS43	MARTIN PATEL	Computer Science and Engineering	Male	GEN
44	2101CS44	MARUPAKA JAYANTH KUMAR	Computer Science and Engineering	Male	OB
45	2101CS45	MEHUL SIRVI	Computer Science and Engineering	Male	OB
46	2101CS46	MOHIT MEENA	Computer Science and Engineering	Male	ST
47	2101CS47	MUNESH MEENA	Computer Science and Engineering	Male	ST
48	2101CS48	NAGIREDDY SAI TARUN TEJA	Computer Science and Engineering	Male	GEN
49	2101CS49	NAITIK RAJ	Computer Science and Engineering	Male	OB
50	2101CS50	NIKHIL PATHAK	Computer Science and Engineering	Male	GEN
51	2101CS51	NIRAJ	Computer Science and Engineering	Male	SC

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Sl No	Roll No	Name	Dept	Gender	Category
52	2101CS52	NISHANT KUMAR	Computer Science and Engineering	Male	OB
53	2101CS53	NISHITA KAMAL LATH	Computer Science and Engineering	Female	GEN
54	2101CS54	NITYANAND KUMAR	Computer Science and Engineering	Male	OB
55	2101CS55	NUNAVATH VARSHINI	Computer Science and Engineering	Female	ST
56	2101CS56	PADMAKSH MISHRA	Computer Science and Engineering	Male	GEN
57	2101CS57	PONNADA SAI TULASI KANISHKA	Computer Science and Engineering	Male	OB
58	2101CS58	PRABHAT KUMAR MALVIYA	Computer Science and Engineering	Male	SC
59	2101CS59	PRADEEP	Computer Science and Engineering	Male	OB
60	2101CS60	PRASHIK RAJESH WANKHEDE	Computer Science and Engineering	Male	SC
61	2101CS61	PRAVEEN KUMAR	Computer Science and Engineering	Male	SC
62	2101CS62	PRINCE KUMAR	Computer Science and Engineering	Male	OB
63	2101CS63	RAJ RAUSHAN	Computer Science and Engineering	Male	OB
64	2101CS64	RAMAN BANSAL	Computer Science and Engineering	Male	GEN
65	2101CS65	RAYUDU VIVEK	Computer Science and Engineering	Male	SC
66	2101CS66	RISHIKANT CHIGRUPAATII	Computer Science and Engineering	Male	GEN
67	2101CS67	RONAK JAIN	Computer Science and Engineering	Male	EWS
68	2101CS68	SAGAR DAS	Computer Science and Engineering	Male	SC
69	2101CS69	SAHIL AGRAWAL	Computer Science and Engineering	Male	GEN
70	2101CS70	SAIRAM PAILA	Computer Science and Engineering	Male	OB
71	2101CS71	SAMPREETY PILLAI	Computer Science and Engineering	Female	GEN
72	2101CS72	SATYAM KUMAR	Computer Science and Engineering	Male	EWS
73	2101CS73	SHUBHAM KUMAR YADAV	Computer Science and Engineering	Male	OB
74	2101CS74	SRAVYASRI MORTHA	Computer Science and Engineering	Female	SC
75	2101CS75	SURAJ S WARRIER	Computer Science and Engineering	Male	GEN
76	2101CS76	SWAPNIL SARASWAT	Computer Science and Engineering	Male	GEN
77	2101CS77	TATIPARTHI SAINADH	Computer Science and Engineering	Male	OB
78	2101CS78	TEJAS TUPKE	Computer Science and Engineering	Male	OB
79	2101CS79	VANSH SINGH	Computer Science and Engineering	Male	GEN
80	2101CS80	VARDHAN RAJU GACCHE	Computer Science and Engineering	Male	SC
81	2101CS81	VARSHA KOTAKONDA	Computer Science and Engineering	Female	SC
82	2101CS82	VIKASH KUMAR VERMA	Computer Science and Engineering	Male	OB
83	2101CS83	VINEET KUMAR	Computer Science and Engineering	Male	SC
84	2101CS84	ANURAG MORE	Computer Science and Engineering	Male	SC
85	2101CS85	GONNABATTULA SOWJANYA KUMAR	Computer Science and Engineering	Male	OB
86	2101CS86	MOHAMMED FAIZAL HASHAM	Computer Science and Engineering	Male	GEN

(V) Electrical Engineering:

Sl No	Roll No	Name	Dept	Gender	Category
1	2101EE01	AAKASH SHARMA	Electrical Engineering	Male	GEN
2	2101EE02	AASTIK KUMAR VERMA	Electrical Engineering	Male	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
3	2101EE03	AGNIPROVO MANDAL	Electrical Engineering	Male	SC
4	2101EE04	AJEETESH AWADH	Electrical Engineering	Male	OB
5	2101EE05	AJMEERA JAGADISHWAR	Electrical Engineering	Male	ST
6	2101EE06	AKASH KUMAR	Electrical Engineering	Male	ST
7	2101EE07	AMISHA KUMARI	Electrical Engineering	Female	EWS
8	2101EE09	ANJALI KUMARI	Electrical Engineering	Female	SC
9	2101EE10	ANKUR KUMAR	Electrical Engineering	Male	GEN
10	2101EE11	ANUSHKA PRAKASH	Electrical Engineering	Female	GEN
11	2101EE12	ARCHITA	Electrical Engineering	Female	GEN
12	2101EE13	ARITRA BHADURI	Electrical Engineering	Male	GEN
13	2101EE14	ARJUN SINGH	Electrical Engineering	Male	SC
14	2101EE15	ARUJ GAUTAM	Electrical Engineering	Male	GEN
15	2101EE16	ARVIND MEENA	Electrical Engineering	Male	ST
16	2101EE17	ARYAN CHUGH	Electrical Engineering	Male	GEN
17	2101EE18	ARYAN KUMAR	Electrical Engineering	Male	SC
18	2101EE19	BATA SAI PAVAN	Electrical Engineering	Male	OB
19	2101EE20	BOLLIKONDA PRANAY	Electrical Engineering	Male	SC
20	2101EE21	BURRI SAI PRATHAP REDDY	Electrical Engineering	Male	GEN
21	2101EE22	CHANDAN KUMAR MAHATO	Electrical Engineering	Male	ST
22	2101EE23	CHANDANA DEEPAK SAI	Electrical Engineering	Male	EWS
23	2101EE24	CHILARI SHIVA CHARAN	Electrical Engineering	Male	OB
24	2101EE25	CHITRAKSH DHINGRA	Electrical Engineering	Male	GEN
25	2101EE26	DHRUTISUNDAR SAHOO	Electrical Engineering	Male	GEN
26	2101EE27	DOWLESWARAPU SRI SAI SRUJAN KAMAL VEER	Electrical Engineering	Male	OB
27	2101EE28	GADDE JEEVAN KUMAR	Electrical Engineering	Male	OB
28	2101EE29	GAURANG BANSAL	Electrical Engineering	Male	EWS
29	2101EE30	GAURAV KUMAR	Electrical Engineering	Male	OB
30	2101EE31	GAURAV KUMAR GUPTA	Electrical Engineering	Male	OB
31	2101EE32	GAURAV SINGH	Electrical Engineering	Male	OB
32	2101EE33	GUJJULA MANOHAR REDDY	Electrical Engineering	Male	EWS
33	2101EE34	HARMAN SALUJA	Electrical Engineering	Male	GEN
34	2101EE35	HARSH KUMAR	Electrical Engineering	Male	OB
35	2101EE36	HEET SURESHBHAIR DHORAJIYA	Electrical Engineering	Male	EWS
36	2101EE37	HONEY KHATRI	Electrical Engineering	Male	SC
37	2101EE38	HRIDYANSHU SINGH GHURA	Electrical Engineering	Male	GEN
38	2101EE39	ISHAN GARG	Electrical Engineering	Male	GEN
39	2101EE40	KATTA RAM SHASHANK REDDY	Electrical Engineering	Male	EWS

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Sl No	Roll No	Name	Dept	Gender	Category
40	2101EE41	KAUR UDIT PRATAP	Electrical Engineering	Male	SC
41	2101EE42	KENZ ABDULLA	Electrical Engineering	Male	GEN
42	2101EE43	KETHAVATH JATHIN RAJ NAYAK	Electrical Engineering	Male	ST
43	2101EE44	MEET SUNIL PATEL	Electrical Engineering	Male	GEN
44	2101EE45	MUSKAN GOJRA	Electrical Engineering	Female	SC
45	2101EE46	NIKHIL KUMAR JAISWAL	Electrical Engineering	Male	OB
46	2101EE47	NISHTHA RAMBHAU TAKTEWALE	Electrical Engineering	Female	GEN
47	2101EE48	PANAV ARPIT RAAJ	Electrical Engineering	Male	OB
48	2101EE49	PARTH AGARWAL	Electrical Engineering	Male	GEN
49	2101EE50	PARTHA SARATHI DUTTA	Electrical Engineering	Male	GEN
50	2101EE51	PIYUSH OJHA	Electrical Engineering	Male	GEN
51	2101EE52	POKALA JAGAN MOHAN REDDY	Electrical Engineering	Male	EWS
52	2101EE53	PRATHIPATI YADU VAMSI VENKATA SAI	Electrical Engineering	Male	EWS
53	2101EE54	PRAVEEN BABU GARJI	Electrical Engineering	Male	SC
54	2101EE55	PRAVEEN KUMAR	Electrical Engineering	Male	SC
55	2101EE56	PRITAM RAJ	Electrical Engineering	Male	EWS
56	2101EE57	PRIYA ROUSHNI	Electrical Engineering	Female	EWS
57	2101EE58	RAHUL KUMAR	Electrical Engineering	Male	OB
58	2101EE59	RAJAN KUMAR SHARMA	Electrical Engineering	Male	ST
59	2101EE60	RAJAT KUMAR BEHERA	Electrical Engineering	Male	GEN
60	2101EE61	RESHIKA VEDICHERLA	Electrical Engineering	Female	GEN
61	2101EE62	SANDHYA RANI	Electrical Engineering	Female	OB
62	2101EE63	SATYAM VYAS	Electrical Engineering	Male	GEN
63	2101EE64	SHAAN JIJOE	Electrical Engineering	Male	GEN
64	2101EE65	SHAILENDRA MISHRA	Electrical Engineering	Male	GEN
65	2101EE66	SHASHI RANJAN	Electrical Engineering	Male	OB
66	2101EE67	SHIVANSH ARYA	Electrical Engineering	Male	SC
67	2101EE68	SHRIHARI DESHPANDE	Electrical Engineering	Male	GEN
68	2101EE69	SHUBH KUMAR	Electrical Engineering	Male	OB
69	2101EE70	SURYA PRATAP SINGH	Electrical Engineering	Male	GEN
70	2101EE71	SUSHMA KORRA	Electrical Engineering	Female	ST
71	2101EE72	SYED MOHAMMED DANISH	Electrical Engineering	Male	GEN
72	2101EE73	TEJAS BUDHWAL	Electrical Engineering	Male	GEN
73	2101EE74	THANNEERU VARUNTEJA	Electrical Engineering	Male	OB
74	2101EE75	TRIPTI	Electrical Engineering	Female	OB
75	2101EE76	TULSI KUMARI	Electrical Engineering	Female	OB
76	2101EE77	UDITA DAS	Electrical Engineering	Female	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
77	2101EE78	USAKOYALA RAM PRASAD	Electrical Engineering	Male	OB
78	2101EE79	UTKARSH KUMAR	Electrical Engineering	Male	SC
79	2101EE80	VAIBHAV ANMOL	Electrical Engineering	Male	OB
80	2101EE81	VAIBHAV KHANNA	Electrical Engineering	Male	GEN
81	2101EE83	ZAINAB MALIK	Electrical Engineering	Female	GEN
82	2101EE84	MS. SEEMA MEENA	Electrical Engineering	Female	ST

(VI) Mathematics and Computing :

Sl No	Roll No	Name	Dept	Gender	Category
1	2101MC01	ABHASH KUMAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
2	2101MC02	ADITYA KUMAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
3	2101MC03	AMAN VERMA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
4	2101MC04	ANIKET JAISWAL	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
5	2101MC05	ANJALI SINGH	Mathematics and Computing (4 Years, Bachelor of Science)	Female	EWS
6	2101MC06	ANSHIKA CHOURASIA	Mathematics and Computing (4 Years, Bachelor of Science)	Female	OB
7	2101MC07	ARCHIT RANJAN	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
8	2101MC08	ARKA DUTTA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	EWS
9	2101MC09	ARYAN DABAD	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
10	2101MC10	ARYAN KOTHIYAL	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
11	2101MC12	ARYANDEEP DAS	Mathematics and Computing (4 Years, Bachelor of Science)	Male	SC
12	2101MC13	ASMIT GANGULY	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
13	2101MC14	BADDALA SHREE VAISHNAVI	Mathematics and Computing (4 Years, Bachelor of Science)	Female	OB
14	2101MC15	CHAUDHARI MOHITKUMAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	ST

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Sl No	Roll No	Name	Dept	Gender	Category
15	2101MC16	DEVESH KUMAR PANDEY	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
16	2101MC17	DHRUV GUPTA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
17	2101MC18	DIPANSHU CHAUHAN	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
18	2101MC19	HARDIK SINGH	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
19	2101MC20	HARSHIT DHANKHAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
20	2101MC21	HARSHIT GARBYAL	Mathematics and Computing (4 Years, Bachelor of Science)	Male	ST
21	2101MC22	HIMANSHU KUMAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
22	2101MC23	JALENDRA GOUDA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
23	2101MC24	KADIRI VENKATA SAI RITVIK	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
24	2101MC25	KAMBLE PRAJWAL SURYAKANT	Mathematics and Computing (4 Years, Bachelor of Science)	Male	SC
25	2101MC26	KASHISH GARG	Mathematics and Computing (4 Years, Bachelor of Science)	Female	GEN
26	2101MC27	KOTLA SAI CHARAN	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
27	2101MC28	KUNAL JHA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	EWS
28	2101MC29	MOHD DARISH KHAN	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
29	2101MC30	PANUGANTI AISHWARYA	Mathematics and Computing (4 Years, Bachelor of Science)	Female	SC
30	2101MC31	PRAKASH KUMAR JHA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	EWS
31	2101MC32	PRAKHAR GUPTA	Mathematics and Computing (4 Years, Bachelor of Science)	Male	EWS
32	2101MC33	PRIYA MATHUR	Mathematics and Computing (4 Years, Bachelor of Science)	Female	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
33	2101MC34	RIDDHI RATHI	Mathematics and Computing (4 Years, Bachelor of Science)	Female	GEN
34	2101MC35	RUDRADIP DAS	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
35	2101MC36	RUDRAKSH JAISWAL	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
36	2101MC37	SAKET KUMAR SINGH	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
37	2101MC40	SHIVAM	Mathematics and Computing (4 Years, Bachelor of Science)	Male	SC
38	2101MC41	SURYANSH JAISWAL	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
39	2101MC42	T ANUDEEP	Mathematics and Computing (4 Years, Bachelor of Science)	Male	OB
40	2101MC43	TUSHAR GOYAL	Mathematics and Computing (4 Years, Bachelor of Science)	Male	GEN
41	2101MC44	UTKARSH KHEMRAJ ANAVKAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	SC
42	2101MC46	VANKUDOTHU SURYA PRAKASH	Mathematics and Computing (4 Years, Bachelor of Science)	Male	ST
43	2101MC47	VIJAY KUMAR	Mathematics and Computing (4 Years, Bachelor of Science)	Male	SC

(VII) Mechanical Engineering:

Sl No	Roll No	Name	Dept	Gender	Category
1	2101ME01	ABHAY CHAUHAN	Mechanical Engineering	Male	GEN
2	2101ME02	ABHINAV ANAND	Mechanical Engineering	Male	GEN
3	2101ME03	ABISH PUJARI GIRITEJA	Mechanical Engineering	Male	ST
4	2101ME04	ADE NAVNEETH SINGH	Mechanical Engineering	Male	ST
5	2101ME05	ADITYA KUMAR	Mechanical Engineering	Male	EWS
6	2101ME06	AJAY	Mechanical Engineering	Male	GEN
7	2101ME08	AMRITANSH ARYA	Mechanical Engineering	Male	GEN
8	2101ME09	ANIL GAUTAM	Mechanical Engineering	Male	SC
9	2101ME10	ANUBHAV ROY	Mechanical Engineering	Male	OB
10	2101ME11	ANUPUNJ ALOK	Mechanical Engineering	Male	OB
11	2101ME12	ARPIT SHUKLA	Mechanical Engineering	Male	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
12	2101ME13	ARUN KUMAR MEENA	Mechanical Engineering	Male	ST
13	2101ME15	ASHISH KUMAR	Mechanical Engineering	Male	OB
14	2101ME16	ASHRAF ALI	Mechanical Engineering	Male	GEN
15	2101ME17	AWANTIKA SINGH	Mechanical Engineering	Female	GEN
16	2101ME18	AYUSH BHASKAR SINGH	Mechanical Engineering	Male	OB
17	2101ME19	AYUSH TRIPATHI	Mechanical Engineering	Male	GEN
18	2101ME20	BIRAPPAN KUMAR	Mechanical Engineering	Male	SC
19	2101ME21	DESETTI YUVA KIRAN	Mechanical Engineering	Male	OB
20	2101ME22	GAGANJOT SINGH	Mechanical Engineering	Male	GEN
21	2101ME23	GAURAV SINGH	Mechanical Engineering	Male	OB
22	2101ME24	GORLA MEGHA SYAM	Mechanical Engineering	Male	OB
23	2101ME25	GYAN PRAKASH	Mechanical Engineering	Male	SC
24	2101ME26	HARSH JHA	Mechanical Engineering	Male	EWS
25	2101ME27	HARSHITA UPPAL	Mechanical Engineering	Female	GEN
26	2101ME28	HIMANSHI SRESTHA	Mechanical Engineering	Female	SC
27	2101ME29	HITIN BAJAJ	Mechanical Engineering	Male	GEN
28	2101ME30	JAHNAVI SINHA	Mechanical Engineering	Female	GEN
29	2101ME31	JYOTI VAIBHAW	Mechanical Engineering	Male	OB
30	2101ME32	KARAN RAVI DAS	Mechanical Engineering	Male	SC
31	2101ME33	KESHAV SAXENA	Mechanical Engineering	Male	GEN
32	2101ME34	KHUSHI PATHAK	Mechanical Engineering	Female	GEN
33	2101ME35	KISALAYA TRIPATHI	Mechanical Engineering	Male	GEN
34	2101ME36	KRISHNA KUMAR	Mechanical Engineering	Male	GEN
35	2101ME37	KSHITIJ CHAUDHARY	Mechanical Engineering	Male	SC
36	2101ME38	MAHIBA AFTAB	Mechanical Engineering	Female	OB
37	2101ME39	MANISH SINGH CHAUHAN	Mechanical Engineering	Male	EWS
38	2101ME40	MELVIN YESUDAS GEORGE	Mechanical Engineering	Male	GEN
39	2101ME41	MIHIR	Mechanical Engineering	Male	OB
40	2101ME42	MISHRA AYUSH RAKESH	Mechanical Engineering	Male	GEN
41	2101ME43	MURUDKAR SHREYA KEDAR	Mechanical Engineering	Female	GEN
42	2101ME44	NAVEEN KUMAR	Mechanical Engineering	Male	OB
43	2101ME45	NISHANT RAO	Mechanical Engineering	Male	GEN
44	2101ME46	NITISH KUMAR	Mechanical Engineering	Male	SC
45	2101ME47	PIYUSH TEWARI	Mechanical Engineering	Male	GEN
46	2101ME48	PIYUSHA JHA	Mechanical Engineering	Female	GEN
47	2101ME49	PRAGATI BAJPAI	Mechanical Engineering	Female	EWS
48	2101ME50	PRAJWAL ASHOK SATANNAVAR	Mechanical Engineering	Male	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
49	2101ME51	PRIYANSHU KUMAR	Mechanical Engineering	Male	OB
50	2101ME52	PUSHKAR RAJ	Mechanical Engineering	Male	EWS
51	2101ME53	RAHUL SAHU	Mechanical Engineering	Male	OB
52	2101ME54	RISHABH RAUNAK	Mechanical Engineering	Male	GEN
53	2101ME55	RITIK CHAND	Mechanical Engineering	Male	GEN
54	2101ME56	ROHIT KUMAR	Mechanical Engineering	Male	SC
55	2101ME57	SAFAL RAJ	Mechanical Engineering	Male	GEN
56	2101ME58	SAHIL	Mechanical Engineering	Male	EWS
57	2101ME59	SALAPUREDDY SRI SATYA NAGA SESHA REDDY	Mechanical Engineering	Male	ST
58	2101ME60	SASANK GUPTA	Mechanical Engineering	Male	GEN
59	2101ME61	SAURABH KUMAR	Mechanical Engineering	Male	SC
60	2101ME62	SHIVAM KUMAR	Mechanical Engineering	Male	OB
61	2101ME63	SHIVAM KUMAR DUBEY	Mechanical Engineering	Male	GEN
62	2101ME64	SHIVANI	Mechanical Engineering	Female	OB
63	2101ME65	SHUBHASHANI SHEKHAR	Mechanical Engineering	Female	OB
64	2101ME66	SHUDHANSHU	Mechanical Engineering	Male	GEN
65	2101ME67	SIBI T	Mechanical Engineering	Male	OB
66	2101ME68	SIGILIPALLI KARTHEEK	Mechanical Engineering	Male	OB
67	2101ME69	SONALI KUMARI	Mechanical Engineering	Female	OB
68	2101ME70	SUBHAM KUMAR	Mechanical Engineering	Male	EWS
69	2101ME71	SUPRATIM DAS	Mechanical Engineering	Male	SC
70	2101ME72	SURYANSH SRIVASTAVA	Mechanical Engineering	Male	EWS
71	2101ME73	SUSHANT VERMA	Mechanical Engineering	Male	OB
72	2101ME74	SWABNAM GUNJAN BORAH	Mechanical Engineering	Male	OB
73	2101ME76	UMESH PRAFUL CHAVDA	Mechanical Engineering	Male	SC
74	2101ME77	VAIBHAV KUMAR	Mechanical Engineering	Male	GEN
75	2101ME79	VINAY M SOBARAD	Mechanical Engineering	Male	OB
76	2101ME80	VISHNU SIVASANKAR	Mechanical Engineering	Male	GEN
77	2101ME81	VOOYAKA MANMADHARAO	Mechanical Engineering	Male	ST
78	2101ME82	JAYA MURMU	Mechanical Engineering	Female	ST

(VIII) Metallurgical and Materials Engineering:

Sl No	Roll No	Name	Dept	Gender	Category
1	2101MM01	ADITI VERMA	Metallurgical and Materials Engineering	Female	GEN
2	2101MM02	ADITYA TOMAR	Metallurgical and Materials Engineering	Male	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
3	2101MM03	ANANMAY DWIVEDI	Metallurgical and Materials Engineering	Male	GEN
4	2101MM04	ARYAN DEV VERMA	Metallurgical and Materials Engineering	Male	SC
5	2101MM05	AVNISH ARYAN	Metallurgical and Materials Engineering	Male	OB
6	2101MM06	BHASKAR MISHRA	Metallurgical and Materials Engineering	Male	EWS
7	2101MM07	BHUMIKA TIWARI	Metallurgical and Materials Engineering	Female	EWS
8	2101MM08	BOYANAPALLI GOWRI SATHWIK	Metallurgical and Materials Engineering	Male	GEN
9	2101MM09	HIMANSHU DATT	Metallurgical and Materials Engineering	Male	SC
10	2101MM10	KADAVA GOWTHAM	Metallurgical and Materials Engineering	Male	OB
11	2101MM11	MOHIT KUMAR	Metallurgical and Materials Engineering	Male	SC
12	2101MM12	NANDITA GUPTA	Metallurgical and Materials Engineering	Female	GEN
13	2101MM13	NISHANT MANJUNATH	Metallurgical and Materials Engineering	Male	SC
14	2101MM14	PADALA RAJESH	Metallurgical and Materials Engineering	Male	OB
15	2101MM15	PALVE SHIVAM RAJENDRA	Metallurgical and Materials Engineering	Male	OB
16	2101MM16	PARTH SARTHY YADAV	Metallurgical and Materials Engineering	Male	GEN
17	2101MM17	PRATYUSH MANAS	Metallurgical and Materials Engineering	Male	EWS
18	2101MM20	RACHIT RANJAN	Metallurgical and Materials Engineering	Male	OB
19	2101MM22	SAIPREETHAM EAMANI	Metallurgical and Materials Engineering	Male	GEN
20	2101MM23	SANYAM GANDOTRA	Metallurgical and Materials Engineering	Male	GEN

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Sl No	Roll No	Name	Dept	Gender	Category
21	2101MM24	SARANYA TIWARI	Metallurgical and Materials Engineering	Female	GEN
22	2101MM25	SARTHAK MANDAL	Metallurgical and Materials Engineering	Male	GEN
23	2101MM27	SATYAM GOYAL	Metallurgical and Materials Engineering	Male	EWS
24	2101MM28	SHANTANU VISHAL PUNDE	Metallurgical and Materials Engineering	Male	GEN
25	2101MM30	SHIVAM TRIPATHI	Metallurgical and Materials Engineering	Male	GEN
26	2101MM31	SHIVENDRA PRATAP SINGH	Metallurgical and Materials Engineering	Male	OB
27	2101MM33	SIDDHANT SENAPATI	Metallurgical and Materials Engineering	Male	GEN
28	2101MM34	SRISHTI AMBASTHA	Metallurgical and Materials Engineering	Female	GEN
29	2101MM35	T V S S SOUREESH	Metallurgical and Materials Engineering	Male	GEN
30	2101MM37	VARESH MUKHEKAR	Metallurgical and Materials Engineering	Male	OB
31	2101MM38	VIKAS SWAMI	Metallurgical and Materials Engineering	Male	OB
32	2101MM39	WAGHCHOURE YASH DINESH	Metallurgical and Materials Engineering	Male	OB
33	2101MM40	YASH VERMA	Metallurgical and Materials Engineering	Male	SC
34	2101MM42	BANOTHU KRISHNA TEJA	Metallurgical and Materials Engineering	Male	ST
35	2101MM43	DEBASMITA DAS	Metallurgical and Materials Engineering	Female	SC
36	2101MM44	FALENDRA KUMAR	Metallurgical and Materials Engineering	Male	ST
37	2101MM45	VANKUDAVATH ABHINAY CHANDAR	Metallurgical and Materials Engineering	Male	ST

(IX) Engineering Physics :

Sl No	Roll No	Name	Dept	Gender	Category
1	2101PH03	ABHINAV T V	Engineering Physics	Male	OB
2	2101PH04	ABHISHEK SHAW	Engineering Physics	Male	SC
3	2101PH05	AMAN KUMAR	Engineering Physics	Male	OB
4	2101PH06	AMAR KUMAR	Engineering Physics	Male	OB
5	2101PH07	AMOY ASHESH	Engineering Physics	Male	GEN
6	2101PH08	ANIKET RAJ	Engineering Physics	Male	OB
7	2101PH09	ANIKET SAWATE	Engineering Physics	Male	SC
8	2101PH10	ANKIT YADAV	Engineering Physics	Male	OB
9	2101PH11	ARYAN SINGH SISODIYA	Engineering Physics	Male	EWS
10	2101PH12	AYESHA KHAN	Engineering Physics	Female	GEN
11	2101PH13	AYUSH SINGH	Engineering Physics	Male	EWS
12	2101PH14	BISURKAR PAVAN DATTATRAYA	Engineering Physics	Male	EWS
13	2101PH15	CHANDAN KUMAR	Engineering Physics	Male	SC
14	2101PH16	KADAM TANISHK JEEVAN	Engineering Physics	Male	GEN
15	2101PH17	KANISHKA SINGH SOLANKI	Engineering Physics	Male	GEN
16	2101PH18	KOMMUNURI ELISHA JOEL	Engineering Physics	Male	SC
17	2101PH19	MEESALA MAHESH	Engineering Physics	Male	SC
18	2101PH20	MOKSH JUNEJA	Engineering Physics	Male	GEN
19	2101PH21	N AJAY	Engineering Physics	Male	GEN
20	2101PH22	NITISH KUMAR	Engineering Physics	Male	OB
21	2101PH24	RAJAT CHANDNA	Engineering Physics	Male	GEN
22	2101PH27	S RAMAKRISHNA	Engineering Physics	Male	GEN
23	2101PH28	SALOCHANA	Engineering Physics	Female	GEN
24	2101PH29	SANJANA KUMARI	Engineering Physics	Female	OB
25	2101PH30	SHILPA KANJILAL	Engineering Physics	Female	GEN
26	2101PH31	SONALI	Engineering Physics	Female	OB
27	2101PH32	VISHESH SAHU	Engineering Physics	Male	OB
28	2101PH33	YASHRAJ	Engineering Physics	Male	GEN
29	2101MC11	ARYAN MRIGWANI	Engineering Physics	Male	GEN

8.2 Students Enrolled in Undergraduate Courses

The Table below gives the total number of students in B.Tech. course (Upto 31.3.2022):

Batch	Gen	OBC	ST	SC	PD	EWS	Total
2016	1	0	0	0	0	0	1
2017	1	1	0	2	0	0	4
2018	134	63	13	32	2	0	244
2019	165	89	24	51	1	6	336
2020	151	112	23	62	4	43	395
2021	195	138	38	75	6	59	511

8.3 Statement of Results (Undergraduate)

Following table shows the summary of the results of the undergraduate students at IIT Patna in the year April 2020 to March 2021 (upto end semester examination Dec, 2020):

Fail means one or more subject failure or CPI less than 05.

8.1 (B) Admissions to Postgraduate Students (M.Tech)

Admission to M.Tech Courses at IIT Patna were made through GATE performance in July/Aug, 2021. A department / specialization wise and category wise breakup of the students admitted to IIT Patna for the academic session 2021-22 is given below:

Students admitted in M.Tech in 2021-22 in IIT Patna:

Row Labels	EWS	GEN	Gen-PD	OBC	SC	ST	Grand Total
Civil Engineering	2	8		4	2	1	17
Communication System Engineering	1	7		6	3		17
Computer Science & Engineering	1	10		7	3	2	23
Materials Science & Engineering	3	4		5	1	1	14
Mathematics & Computing	2	5	1	5	2		15
Mechanical Engineering	2	7		5	3	2	19
Mechatronics	2	7		4		2	15
VLSI & Embedded Systems	2	3		5			10
Grand Total	15	51	1	41	14	8	130

		CSE	EE	ME	CBE	CEE	MME	AI	BSMC	EPH	All Department
YEAR	Indicators										
	Pass	69	63	59	24	28					243
	Fail	0	0	0	0	1					1
Total											
4th Year	students	69	63	59	24	29					244
	Pass	78	75	61	45	48	28				335
	Fail	0	0	0	0	0	0				0
Total											

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		CSE	EE	ME	CBE	CEE	MME	AI	BSMC	EPH	All Department
3rd Year	students	78	75	61	45	48	28				335
	Pass	87	86	77	54	54	29				387
	Fail	1	0	2	2	0	0				5
	Total										
2nd Year	students	88	86	79	56	54	29				392
	Pass	86	80	75	58	62	35	34	43	26	499
	Fail	0	0	3	2	1	2	0	1	1	10
	Total										
1st Year	students	86	80	78	60	63	37	34	44	27	509

Branch-wise list of students who enrolled for M.Tech at IIT Patna for the academic session 2021-22 is given below:

Sl. No	Roll No	Name	Gender	Category	Specialization
1	2111CE01	Abhishek Raaz	Male	OBC	Civil Engineering
2	2111CE02	Aditya anand	Male	GEN	Civil Engineering
3	2111CE03	Akash Tiwari	Male	GEN	Civil Engineering
4	2111CE04	GOURAV KUMAR	Male	SC	Civil Engineering
5	2111CE05	Kalyani BORKAR	Female	OBC	Civil Engineering
6	2111CE06	MD BELAL ANSARI	Male	OBC	Civil Engineering
7	2111CE07	Rishav Jaiswal	Male	GEN	Civil Engineering
8	2111CE08	SHIVAM BASANT	Male	SC	Civil Engineering
9	2111CE09	SHUBHAM RAJ	Male	ST	Civil Engineering
10	2111CE10	SURAJ SINGH	Male	EWS	Civil Engineering
11	2111CE11	ABHINAV RAJ	Male	GEN	Civil Engineering
12	2111CE12	VISHWAJEET KUMAR	Male	EWS	Civil Engineering
13	2111CE13	Anuj kumar	Male	OBC	Civil Engineering
14	2111CE14	KUMAR PALLAW	Male	GEN	Civil Engineering
15	2111CE15	UDAY SHANKAR YADAV	M	GEN	Civil Engineering
16	2111CE16	ABDUL SAMAD	M	GEN	Civil Engineering
17	2111CE17	JONAS KOSSI SAMA	M	GEN	Civil Engineering
18	2111CS01	ABHISHEK JANGID	Male	OBC	Computer Science & Engineering
19	2111CS02	Dibyanayan Bandyopadhyay	Male	GEN	Computer Science & Engineering
20	2111CS03	Harshit Shukla	Male	GEN	Computer Science & Engineering
21	2111CS04	Hasrat Ali Arzoo	Male	GEN	Computer Science & Engineering
22	2111CS05	JEFFERSON WARIE	Male	ST	Computer Science & Engineering
23	2111CS06	kodanda brahma naidu siripurapu	Male	OBC	Computer Science & Engineering
24	2111CS07	Mayank Singh	Male	SC	Computer Science & Engineering
25	2111CS08	Pallavi Pal	Female	OBC	Computer Science & Engineering

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Sl. No	Roll No	Name	Gender	Category	Specialization
26	2111CS09	PREM SAGAR	Male	OBC	Computer Science & Engineering
27	2111CS10	Priyadrasta Raut	Male	GEN	Computer Science & Engineering
28	2111CS11	rigzin angchuk	Male	ST	Computer Science & Engineering
29	2111CS12	SAMRAT MUKHERJEE	Male	GEN	Computer Science & Engineering
30	2111CS13	SHARIQUE HAYAT	Male	OBC	Computer Science & Engineering
31	2111CS14	Shashadhar DAS	Male	SC	Computer Science & Engineering
32	2111CS15	SOFIA JAMIL	Female	GEN	Computer Science & Engineering
33	2111CS16	SOURABH PATIDAR	Male	OBC	Computer Science & Engineering
34	2111CS17	SUJAY VARMA	Female	EWS	Computer Science & Engineering
35	2111CS18	VINAY KUMAR	Male	SC	Computer Science & Engineering
36	2111CS19	Shaubhik Bhattacharya	Male	GEN	Computer Science & Engineering
37	2111CS20	Gajendra Saraswat	Male	GEN	Computer Science & Engineering
38	2111CS21	Baban Gain	Male	OBC	Computer Science & Engineering
39	2111CS22	SHAMSHER	M	GEN	Computer Science & Engineering
40	2111CS23	ASHUTOSH ABHISHEK	M	GEN	Computer Science & Engineering
41	2111EE01	ABHISHEK RAW	Male	OBC	Communication System Engineering
42	2111EE02	AMAN BILEY	Male	SC	Communication System Engineering
43	2111EE03	avinash kumar	Male	GEN	Communication System Engineering
44	2111EE04	JAGDISH SAHU	Male	OBC	Communication System Engineering
45	2111EE05	Kapil Garg	Male	EWS	Communication System Engineering
46	2111EE06	Kumar Utkarsh	Male	GEN	Communication System Engineering
47	2111EE07	Kunja Kishore Mohalik	Male	SC	Communication System Engineering
48	2111EE08	Nitin Bhartiya	Male	SC	Communication System Engineering
49	2111EE09	Pratyush Shankar	Male	GEN	Communication System Engineering
50	2111EE10	Rabindra Kharga	Male	OBC	Communication System Engineering
51	2111EE11	Rachit Kashyap	Male	GEN	Communication System Engineering
52	2111EE12	RAJNISH KUMAR	Male	OBC	Communication System Engineering
53	2111EE13	Rishi Kishore	Male	OBC	Communication System Engineering
54	2111EE14	Rohit Bhavesh	Male	GEN	Communication System Engineering
55	2111EE15	sweta suman	Female	OBC	Communication System Engineering
56	2111EE16	Vidyesh Bondre	Male	GEN	Communication System Engineering
57	2111EE17	Yukti Baghel	Female	GEN	Communication System Engineering
Sl. No	Roll No	Name	Gender	Category	Specialization
58	2111EE18	Ambul Prakash	Female	OBC	VLSI & Embedded Systems
59	2111EE19	MANISH JAISWAL	Male	OBC	VLSI & Embedded Systems
60	2111EE20	MANISH KUMAR	Male	EWS	VLSI & Embedded Systems
61	2111EE21	Nishant Srivastava	Male	EWS	VLSI & Embedded Systems

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62	2111EE22	SHUBHAM KUMAR	Male	OBC	VLSI & Embedded Systems
63	2111EE23	TINKU KUMAR	Male	OBC	VLSI & Embedded Systems
64	2111EE24	vikash kumar	Male	GEN	VLSI & Embedded Systems
65	2111EE25	Prakash Pratik	Male	GEN	VLSI & Embedded Systems
66	2111EE26	Vikash Kumar	Male	OBC	VLSI & Embedded Systems
67	2111EE27	LALIT SINGH BISHT	M	GEN	VLSI & Embedded Systems
68	2111MC01	Amit Kumar Singh	Male	SC	Mathematics & Computing
69	2111MC02	Ankit Kumar	Male	OBC	Mathematics & Computing
70	2111MC03	ANNASHA GHOSH	Female	GEN	Mathematics & Computing
71	2111MC04	ANUBHAV SINHA	Male	OBC	Mathematics & Computing
72	2111MC05	Atul Prakash	Male	OBC	Mathematics & Computing
73	2111MC06	Jagdish Mohekar	Male	SC	Mathematics & Computing
74	2111MC07	Kaustubh Kartikey	Male	GEN	Mathematics & Computing
75	2111MC08	Omkar Santosh Gavhane	Male	EWS	Mathematics & Computing
76	2111MC09	Ritika Sinha	Female	GEN	Mathematics & Computing
77	2111MC10	Rutuj Waghare	Male	OBC	Mathematics & Computing
78	2111MC11	Satadal Banerjee	Male	GEN	Mathematics & Computing
79	2111MC12	Subrat Mohanty	Male	Gen-PD	Mathematics & Computing
80	2111MC13	Suman Saurabh	Male	EWS	Mathematics & Computing
81	2111MC14	Vivek Gangwar	Male	OBC	Mathematics & Computing
82	2111MC15	Kumar Anubhav	Male	GEN	Mathematics & Computing
83	2111ME01	Atul Kumar	Male	OBC	Mechanical Engineering
84	2111ME02	Mithun Kumar	Male	SC	Mechanical Engineering
85	2111ME03	sanjay kumar	Male	OBC	Mechanical Engineering
86	2111ME04	Vipin Bhardwaj	Male	GEN	Mechanical Engineering
87	2111ME05	Anubhav Dwivedi	Male	GEN	Mechanical Engineering
88	2111ME06	ASHISH SONKER	Male	SC	Mechanical Engineering
89	2111ME07	KAJU SHARMA	Male	OBC	Mechanical Engineering
90	2111ME08	Devesh Mishra	Male	EWS	Mechanical Engineering
91	2111ME09	RAMAVATH SHIVANI	Female	ST	Mechanical Engineering
92	2111ME10	SYED FAHAD AHMAD	Male	GEN	Mechanical Engineering
93	2111ME11	SANJAY MURMU	Male	ST	Mechanical Engineering
94	2111ME12	ANKIT KUMAR	Male	SC	Mechanical Engineering
Sl. No	Roll No	Name	Gender	Category	Specialization
95	2111ME13	Anugrah A K	Male	GEN	Mechanical Engineering
96	2111ME14	Raju Tiwary	Male	GEN	Mechanical Engineering
97	2111ME15	Nisha Rani	Female	GEN	Mechanical Engineering
98	2111ME16	Brijesh Kumar	Male	OBC	Mechanical Engineering

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99	2111ME17	ROHIT KUMAR YADAV	Male	OBC	Mechanical Engineering
100	2111ME18	BIBEK KARN	Male	EWS	Mechanical Engineering
101	2111ME19	Chandan Kumar	Male	GEN	Mechanical Engineering
102	2111MM01	ANIL KUMAR JAYSWAL	Male	OBC	Materials Science & Engineering
103	2111MM02	Dhorajiya Bhautik Nitinbhai	Male	EWS	Materials Science & Engineering
104	2111MM03	Chaitanya Deo	Male	OBC	Materials Science & Engineering
105	2111MM04	HIMIRKANTI SARKAR	Male	GEN	Materials Science & Engineering
106	2111MM05	NITISH KUMAR DUBEY	Male	GEN	Materials Science & Engineering
107	2111MM06	Praful Pandey	Male	GEN	Materials Science & Engineering
108	2111MM07	Priya	Female	SC	Materials Science & Engineering
109	2111MM08	Saurabh Suman	Male	OBC	Materials Science & Engineering
110	2111MM09	Suraj Prasad	Male	ST	Materials Science & Engineering
111	2111MM10	Susheel Kumar	Male	OBC	Materials Science & Engineering
112	2111MM11	Sweetly .	Female	GEN	Materials Science & Engineering
113	2111MM12	Yash Nandan Sharma	Male	EWS	Materials Science & Engineering
114	2111MM13	Pranav Ameta	Male	EWS	Materials Science & Engineering
115	2111MM14	chintham satish	Male	OBC	Materials Science & Engineering
116	2111MT01	Dipak Gupta	Male	GEN	Mechatronics
117	2111MT02	MUKUL KUMAR OJHA	Male	GEN	Mechatronics
118	2111MT03	NITIN KUMAR MOHARIYA	Male	GEN	Mechatronics
119	2111MT04	NITISH KUMAR	Male	OBC	Mechatronics
120	2111MT05	Pulkit Kapoor	Male	GEN	Mechatronics
121	2111MT06	Rahul Dubey	Male	EWS	Mechatronics
122	2111MT07	RUSHIKESH GADE	Male	OBC	Mechatronics
123	2111MT08	SAURABH YADAV	Male	OBC	Mechatronics
124	2111MT09	SHANKAR KUMAR	Male	ST	Mechatronics
125	2111MT10	Sujit Justine Barwa	Male	ST	Mechatronics
126	2111MT11	SUMIT RANJAN	Male	OBC	Mechatronics
127	2111MT12	VARAD PARASWAR	Male	GEN	Mechatronics
128	2111MT13	VIKRANT KUMAR	Male	GEN	Mechatronics
129	2111MT14	David Chaudhary	Male	GEN	Mechatronics
130	2111MT15	Durgesh Chavhan	Male	EWS	Mechatronics

Statement of Results (Post Graduate)

(A) Following table shows the summary of the results of the Post Graduate students (M.Tech.) at IIT Patna in the FY 2021-22(up to end semester examination Dec. 2021):

Years		Civil Engineering	Computer Science & Engineering	Communication System Engineering	Mathematics & Computing	Mechanical Engineering	Materials Science & Engineering	Mechatronics	VLSI & Embedded Systems	Total
	Total	17	23	17	15	19	14	15	10	130
1st Year	Pass	15	19	12	12	11	13	10	8	100
	Fail/Incomplete	2	4	5	3	8	1	5	2	30
	Total	19	25	18	19	23	18	22	15	159
2nd Year	Pass	15	13	14	14	14	16	17	9	112
	Fail/Incomplete	4	12	4	5	9	2	5	6	47
	Total	36	48	35	34	42	32	37	25	289
All Years	Pass	30	32	26	26	25	29	27	17	212
	Fail/Incomplete	6	16	9	8	17	3	10	8	77
On leave/Not Registered		0	0	0	0	0	0	0	0	0

Fail means one or more subject failure or CPI less than 6.0

(B) Following table shows the summary of the results of the Post graduate students (M.Sc.) at IIT Patna in the FY2021-22(up to end semester examination Dec, 2021):

Year		Mathematics	Physics	Chemistry	All Dept.
1st Year	Total	27	28	26	81
	Pass	26	24	24	74
	Fail/Incomplete	1	4	2	7
2ndYear	Total	22	23	22	67
	Pass	21	22	22	65
	Fail/Incomplete	1	1	0	2
On leave /Not registered					
Grand Total		49	51	48	148

8.1 (C) Admission to Postgraduate Students (M.Sc.)

Admission to M.Sc. Courses at IIT Patna were made through JAM score in June/July, 2021. A department wise and category wise breakup of the students admitted to IIT Patna for the academic session 2021-22 is given below:

Students admitted in M.Sc. in 2021-22 in IIT Patna:

Course/Specialization	Category						Grand Total
	Gen	EWS	OBC	SC	ST	PD	
Math	12	2	8	4	1	0	27
Physics	12	3	8	3	2	0	28
Chemistry	11	3	7	4	1	0	26
Grand Total	35	8	23	11	4	0	81

Branch-wise list of students who enrolled for M.Sc. at IIT Patna for the academic session 2021-22 is given below:

(I) MATHEMATICS:

Sl No	Roll No	Dept	Name	Category	Gender
1	2112MA01	MATHEMATICS	AKSHAY SANJAY KALANTRE	GEN	Male
2	2112MA02	MATHEMATICS	ANITA	OBC	Female
3	2112MA03	MATHEMATICS	ARCHANA	OBC	Female
4	2112MA05	MATHEMATICS	BIPLAB DAWN	GEN	Male
5	2112MA06	MATHEMATICS	DEEPA PANDEY	GEN	Female
6	2112MA07	MATHEMATICS	DILIP SARKAR	SC	Male
7	2112MA08	MATHEMATICS	GUDDU KUMAR	GEN	Male
8	2112MA09	MATHEMATICS	HARSH MALHAN	OBC	Male
9	2112MA10	MATHEMATICS	HEMANTA KUMAR MANDAL	SC	Male
10	2112MA11	MATHEMATICS	KANIMOZHI KARUNANIDHI	OBC	Female
11	2112MA12	MATHEMATICS	LOVEPREET SINGH	GEN	Male
12	2112MA13	MATHEMATICS	MUSKAN GUPTA	GEN	Female
13	2112MA14	MATHEMATICS	PAWAN KUMAR MISHRA	EWS	Male
14	2112MA15	MATHEMATICS	PRAVIN SHATRUGHNA GAUPALE	OBC	Male
15	2112MA16	MATHEMATICS	PRIYANSHU SRIVASTAVA	GEN	Male
16	2112MA17	MATHEMATICS	RAJESH KUMAR ROSHAN	OBC	Male
17	2112MA19	MATHEMATICS	SACHIN KUMAR MEENA	ST	Male
18	2112MA20	MATHEMATICS	SANCHITA MAL	GEN	Female
19	2112MA21	MATHEMATICS	SARIKA KUMARI	OBC	Female
20	2112MA22	MATHEMATICS	SAYAN ACHARYA	GEN	Male
21	2112MA23	MATHEMATICS	SHREYA	GEN	Female
22	2112MA24	MATHEMATICS	SHRUTI MUKHOPADHYAY	GEN	F
23	2112MA25	MATHEMATICS	SHUBHAM KUMAR SINGH	GEN	Male
24	2112MA26	MATHEMATICS	SOHAM RAVIKANT JOSHI	EWS	Male
25	2112MA27	MATHEMATICS	SONU GUPTA	OBC	Male
26	2112MA28	MATHEMATICS	SUJAY MALLICK	SC	Male
27	2112MA29	MATHEMATICS	SUMITA GUNRI	SC	Female

(II) PHYSICS:

Sl No	Roll No	Dept	Name	Category	Gender
1	2112PH01	PHYSICS	AAKASH MONDAL	SC	Male
2	2112PH02	PHYSICS	AJAY KUMAR MEENA	ST	Male
3	2112PH03	PHYSICS	ANUJ GUPTA	GEN	Male
4	2112PH04	PHYSICS	ATUL KULKARNI	EWS	Male
5	2112PH05	PHYSICS	CHANDAN KUMAR DASH	GEN	Male
6	2112PH06	PHYSICS	DHEKE SHUBHAM SHATRUGHNA	OBC	Male
7	2112PH07	PHYSICS	DHIRAJ KUMAR SINGH	OBC	Male
8	2112PH08	PHYSICS	GYADEN LEPCHA	ST	Male
9	2112PH09	PHYSICS	KRISHANU SENGUPTA	GEN	Male
10	2112PH10	PHYSICS	KUNAL SINGH	GEN	M
11	2112PH11	PHYSICS	KUSHAGRA SAXENA	GEN	Male
12	2112PH13	PHYSICS	MUKESH KUMAR ROUT	EWS	Male
13	2112PH14	PHYSICS	NAIK AADESH MOHAN	GEN	Male
14	2112PH15	PHYSICS	NAYAN BISWAS	OBC	Male
15	2112PH16	PHYSICS	NILESH TIWARI	EWS	Male
16	2112PH17	PHYSICS	PEEYUSH SHARMA	GEN	Male
17	2112PH18	PHYSICS	PRATYUSH DASH	GEN	Male
18	2112PH19	PHYSICS	PRERNA JOSHI	GEN	Female
19	2112PH20	PHYSICS	RAJAN PAL	OBC	Male
20	2112PH21	PHYSICS	SHAHIN PARWEEN	OBC	Female
21	2112PH22	PHYSICS	SIPAN MAJUMDER	SC	Male
22	2112PH23	PHYSICS	SOUNAK DUTTA	GEN	Male
23	2112PH24	PHYSICS	SOUVIK PAL	OBC	Male
24	2112PH25	PHYSICS	SUBHASISH SAHU	OBC	Male
25	2112PH26	PHYSICS	SUMEDH VIJAY BHIVGADE	SC	Male
26	2112PH27	PHYSICS	SWAGATA GHOSH	GEN	Male
27	2112PH29	PHYSICS	venu GOSWAMI	GEN	Male
28	2112PH30	PHYSICS	VIMAL KUMAR	OBC	Male

(III) CHEMISTRY:

Sl No	Roll No	Dept	Name	Category	Gender
1	2112CH01	CHEMISTRY	ABHINAV SRIVASTAVA	GEN	Male
2	2112CH02	CHEMISTRY	ANUPAM CHAURASIA	OBC	Male
3	2112CH03	CHEMISTRY	ANURAG YADAV	OBC	M
4	2112CH04	CHEMISTRY	ANUSKA DEB	GEN	Female
5	2112CH05	CHEMISTRY	DEBAJYOTI DEB	GEN	Male
6	2112CH06	CHEMISTRY	DEEPANSHU	EWS	Male
7	2112CH07	CHEMISTRY	DEEPANSHU	OBC	Female
8	2112CH09	CHEMISTRY	GAURAV VASHIST	EWS	Male
9	2112CH10	CHEMISTRY	GOURAB DAS	GEN	Male

Sl No	Roll No	Dept	Name	Category	Gender
10	2112CH11	CHEMISTRY	HARNATH RAY SARKAR	SC	Male
11	2112CH12	CHEMISTRY	MOHIT CHOUDHARY	OBC	Male
12	2112CH13	CHEMISTRY	MOUMITA SARKAR	OBC	Female
13	2112CH14	CHEMISTRY	NAYANIKA MISRA	GEN	Female
14	2112CH15	CHEMISTRY	PATATRI SARKAR	SC	Female
15	2112CH17	CHEMISTRY	PROMIT CHAKRABORTY	GEN	Male
16	2112CH18	CHEMISTRY	R.SATHISHKUMAR	SC	Male
17	2112CH19	CHEMISTRY	RIDDHIMAN BANERJEE	GEN	Male
18	2112CH21	CHEMISTRY	SAYAN KUMAR BISWAS	GEN	Male
19	2112CH22	CHEMISTRY	SMRUTI RANJAN BEHERA	SC	Male
20	2112CH23	CHEMISTRY	SNEHA DHRUW	ST	Female
21	2112CH25	CHEMISTRY	SUBHARAM SAMANTA	GEN	Male
22	2112CH26	CHEMISTRY	SUCHETA DAS	GEN	Female
23	2112CH27	CHEMISTRY	SUJAL TRIPATHI	EWS	Male
24	2112CH28	CHEMISTRY	SUMAN KUMAR CHOUDHURY	GEN	Male
25	2112CH29	CHEMISTRY	SUPRABHAT PARAMANICK	OBC	Male
26	2112CH30	CHEMISTRY	TAMANNA SHIVHARE	OBC	Female

8.2 Students Enrolled in Undergraduate Courses

The Table below gives the total number of students in B.Tech. course (Upto 31.3.2022):

Batch	Gen	OBC	ST	SC	PD	EWS	Total
2016	1	0	0	0	0	0	1
2017	1	1	0	2	0	0	4
2018	134	63	13	32	2	0	244
2019	165	89	24	51	1	6	336
2020	151	112	23	62	4	43	395
2021	195	138	38	75	6	59	511

8.3 Statement of Results (Undergraduate)

Following table shows the summary of the results of the undergraduate students at IIT Patna in the year April 2020 to March 2021 (upto end semester examination Dec, 2020):

YEAR	Indicators	CSE	EE	ME	CBE	CEE	MME	AI	BSMC	EPH	All Department
4th Year	Pass	69	63	59	24	28					243
	Fail	0	0	0	0	1					1
	Total students	69	63	59	24	29					244
3rd Year	Pass	78	75	61	45	48	28				335
	Fail	0	0	0	0	0	0				0
	Total students	78	75	61	45	48	28				335
2nd Year	Pass	87	86	77	54	54	29				387
	Fail	1	0	2	2	0	0				5
	Total students	88	86	79	56	54	29				392

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YEAR	Indicators	CSE	EE	ME	CBE	CEE	MME	AI	BSMC	EPH	All Department
1st Year	Pass	86	80	75	58	62	35	34	43	26	499
	Fail	0	0	3	2	1	2	0	1	1	10
	Total students	86	80	78	60	63	37	34	44	27	509

Fail means one or more subject failure or CPI less than 05.

8.4 List of Research Scholars Enrolled for the PhD Degree

The table below represents the number of research scholars in various departments as on 21.07.2022

SCHOOLS											
Year of admission	SCHOOL OF ENGINEERING						SCHOOL OF BASIC SCIENCES			SCHOOL OF HUMANITIES AND SOCIAL SCIENCES	TOTAL
	CBE	CEE	CSE	EE	ME	MME	CHE	MA	PHY	HSS	
2013-14	0	0	3	0	0	0	0	0	0	1	4
2014-15	0	1	0	2	3	0	0	1	0	0	7
2015-16	1	1	5	1	3	0	1	2	2	2	18
2016-17	1	3	5	10	13	0	4	1	4	6	47
2017-18	2	4	7	9	9	3	6	7	7	8	62
2018-19	3	8	23	15	17	4	11	5	15	15	116
2019-20	2	8	24	15	8	4	12	8	9	8	98
2020-21	9	22	34	24	26	8	9	17	16	12	177
2021-22	5	9	19	28	16	7	8	11	16	15	134
TOTAL	23	56	120	104	95	26	51	52	69	67	663

List of Research Scholars Enrolled in Academic Year 2021-22

SL NO	NAME OF STUDENT	ROLL NO.
1	PINTU KUMAR ROY	2121CB13
2	AMIT KUMAR PANDEY	2121CB14
3	RASHI SRIVASTAVA	2121CB15
4	SHASHI RANJAN	2121CE17
5	PRAMADHANATHA REDDY POCHA	2121CE18
6	BANAVATH PRASAD NAYAK	2121CE19
7	PRABHAT KUMAR SINGH	2121CE20
8	ABHISHEK GAURAV	2121CE21
9	RAZIB HUSSAIN	2121CE22
10	HAIDER ALI	2121CH11
11	MAANSI AGGARWAL	2121CH12
12	MOHIT KUMAR	2121CH13

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SL NO	NAME OF STUDENT	ROLL NO.
13	SAPANA SINHA	2121CH14
14	SUBHRAJEET BANERJEE	2121CH15
15	AJAY KUMAR	2121CS24
16	JAYARAMU H K	2121CS25
17	MONIKA VARSHNEY	2121CS26
18	SOMENATH NAG CHOUDHURY	2121CS27
19	CHANDRA MOHAN KUMAR	2121CS28
20	SANDEEP KUMAR	2121CS29
21	RANJIT KUMAR MISHRA	2121CS30
22	MANISH KUMAR	2121CS31
23	PRANALI RAJENDRA NAVGHARE	2121CS32
24	ARPAN PHUKAN	2121CS33
25	SUSMITA PALMAL	2121CS34
26	OMPRAKASH SONIE	2121CS35
27	RAHUL RAJ	2121EE22
28	JAYA SHUKLA	2121EE23
29	GAURAV KUMAR	2121EE24
30	RITESH KUMAR	2121EE26
31	PUNYESH KUMAR JHA	2121EE27
32	DEEPAK KUMAR	2121EE28
33	FARAZ HAIDER	2121EE29
34	JAJNA PRASAD SAHOO	2121EE30
35	PIYALI MONDAL	2121EE31
36	JOYDEB SAHA	2121EE32
37	SANTOSH KUMAR	2121EE33
38	ARKA ROY	2121EE34
39	RAHUL BHARDWAJ	2121EE35
40	LAVANYA NIDHI	2121EE36
41	VIKASH RAJAK	2121EE37
42	RANJIB KUMAR BEHERA	2121EE38
43	Shivam Sharma	2121EE39
44	MOHIT RAJ	2121HS14
45	ANWAR AHMAD ANSARI	2121HS15
46	SHUBHAM KUMAR	2121HS16
47	JHUMKI KUNDU	2121HS17
48	ANWESHA SARKAR	2121HS18
49	PARVATHY N	2121HS19

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SL NO	NAME OF STUDENT	ROLL NO.
50	MANU MOHAN	2121HS20
51	NADAMALA BHAGYA SHREE	2121HS21
52	AYAN GHOSH	2121HS22
53	ARGHA BASU	2121HS23
54	TRIBARNA ROY PAKHADHARA	2121HS24
55	BIJOY BHATTACHARJEE	2121HS25
56	SHRIDHAR KUMAR	2121MA11
57	SIDDHARTH PANIGRAHI	2121MA12
58	PRIYANKA SHARMA	2121MA13
59	PIYUSH PRIYANSHU	2121MA14
60	ADITYA PRAKASH	2121MA15
61	PRIYANK VASU	2121MA16
62	PANKAJ VADHVANI	2121MA17
63	AASTHA SHUKLA	2121MA18
64	AJMIT KUMAR	2121ME22
65	ANKUR SHARMA	2121ME23
66	AVINASH UPADHYAY	2121ME24
67	MAZHAR HUSSAIN	2121ME25
68	RAHUL KUMAR	2121ME26
69	TONMOY SHARMA	2121ME27
70	VISHNU KUMAR SINGH	2121ME28
71	VIVEK BANJEET	2121ME29
72	DANISHTAH QUAMAR	2121ME30
73	MAHESH BHARATI	2121ME31
74	ATUL SONI	2121ME32
75	JABASEELAN	2121MM06
76	SMRUTIRANJAN NAYAK	2121MM07
77	SATISH SAW	2121PH16
78	JAYASHREE DAS	2121PH17
79	ANKUSH KUMAR	2121PH18
80	SHUBHAM SAHOO	2121PH19
81	PRANABJYOTI PATAR	2121PH20
82	VICKY SAU	2121PH21
83	MANSI BALIYAN	2121PH22
84	SIBANISANKAR SAHOO	2121PH23
85	SUBHADIP PAL	2121PH24
86	RAHUL KUMAR	2121PH25

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SL NO	NAME OF STUDENT	ROLL NO.
87	PRIYANKA PRIYADARSHANI SAMAL	2121PH26
88	Manish Meena	2221CB03
89	Vikash Kumar	2221CB08
90	Gaurav Kumar	2221CE01
91	Shivam Pandey	2221CE04
92	Shyam Kumar	2221CE05
93	Abhay Kumar	2221CH01
94	Sagar Srivastava	2221CH03
95	Shyam Sharan Tripathi	2221CH04
96	Kavitha Hassan Yogaraj	2221CS05
97	Manpreet Kaur	2221CS08
98	Mayank Sah	2221CS09
99	Pradeep Kumar	2221CS10
100	Praveen Kumar	2221CS11
101	Shivani Tripathi	2221CS12
102	Subrata Das	2221CS13
103	Sudhir Kumar	2221CS14
104	Vaneet Kour	2221CS15
105	Aditya Singh	2221EE01
106	Akanksha Dwivedi	2221EE02
107	Akanksha Thakur	2221EE03
108	Amit Kumar	2221EE04
109	Ayushi Pal	2221EE06
110	Deepak Kumar	2221EE07
111	Krishna Mohan Roy	2221EE09
112	Lucky Kumar	2221EE10
113	Priyesh Saini	2221EE11
114	Pushp Raj	2221EE12
115	Samprit Bose	2221EE13
116	Sesadri Bhusan Sahoo	2221EE14
117	Shadab Azam Siddique	2221EE15
118	Shaik Karimulla	2221EE16
119	Sohini Naiya	2221HS02
120	Shramona Roy	2221HS03
121	Arun Jose	2221HS04
122	Spandan Banerjee	2221HS05
123	Bipasha Mandal	2221HS06

SL NO	NAME OF STUDENT	ROLL NO.
124	Anushka Sinha	2221HS08
125	Chandan Kumar Gupta	2221MA02
126	Prabhat Kumar	2221MA04
127	Vamika Rathi	2221MA08
128	Arvind Kumar	2221ME02
129	Kadali Mani Sankar	2221ME03
130	Md Quamar Alam	2221ME04
131	Rohit	2221ME06
132	Souvik Pabi	2221ME10
133	Rukaiya Azma	2221ME11
134	Rajnish Azad	2221ME13
135	Indupuri Satish	2221MM02
136	Niranjan	2221MM03
137	Rahul Kumar	2221MM04
138	Vikaskumar Akhilesh Mishra	2221MM05
139	Abhishek Kumar Grain	2221MM07
140	Anamika Sharma	2221PH01
141	Jyoti Bikash Mohapatra	2221PH05
142	Neelam Gupta	2221PH06
143	Nikhitha Rajan	2221PH07
144	Priyanka Dubey	2221PH10
145	Ram Kumar	2221PH11
146	Akash Pal	2221PH19

New Program (Academic)

In UG, following new programs were launched during April, 2021 - March, 2022:

1. B.Tech in Artificial Intelligence and Data Sciences
2. B Tech in Engineering Physics
3. BS in Mathematics & Computing

In PG, Advertisement for following programs was published in March 2022. But the programs were implemented from 2022-23.

1. M.Tech. in Geotechnical Engineering
2. M.Tech. in Structural Engineering
3. M.Tech. in Power and Control
4. M.Tech. in Artificial Intelligence (by TIH)

8.5 Merit-Cum-Means (MCM) Scholarship

The Institute provided MCM scholarships as per the following details:

No. of students provided MCM scholarship in 2021-22			
Year	Gen+OBC	SC	ST
2017-18	159	17	6
2018-19	115	14	6
2019-20	110	12	4
2020-21	128	13	5
2021-22	161	16	6

The following students were selected for the award of the Merit-Cum-Means (MCM) scholarship in the academic year 2021-22 by the Institute:

SL.NO.	NAME OF STUDENT	ROLL NO.
1	Shubham Kumar	1801CB23
2	Bhavanam Jaya Trivikram Reddy	1801CE05
3	Ketan Kumar Sinha	1801CE14
4	Kristam Sravani	1801CE16
5	Rajveer Tholiya	1801CE26
6	Roopesh Pal	1801CE28
7	Shashank Kumar	1801CE29
8	Aryan Kothari	1801CS10
9	Ayush Pandey	1801CS11
10	Balbeer Yadav	1801CS13
11	Basa Sai Rohan	1801CS14
12	Dacharla Venkata Rao	1801CS18
13	Kalluri Ameeth	1801CS26
14	Musukula Nitesh Reddy	1801CS32
15	Sawan Kumar	1801CS45
16	Yarramala Dishith Chandra	1801CS61
17	Saksham Jha	1801CS64
18	Abhay Singh	1801CS66
19	Aviral Agrwal	1801EE16
20	Jay Kabra	1801EE20
21	Pappu Siva Kumar	1801EE30
22	Rishabh Agarwal	1801EE40
23	Rohit Kumar	1801EE43
24	Satyam Kumar	1801EE48
25	Shivani Dixit	1801EE50

SL.NO.	NAME OF STUDENT	ROLL NO.
26	Abdul Wahid	1801ME01
27	Abhishek Kumar Singh	1801ME03
28	Akshat Jain	1801ME05
29	Aman Kumar	1801ME06
30	Ashutosh Maurya	1801ME16
31	Durgesh Singh	1801ME22
32	Kuntla Thanmai Reddy	1801ME30
33	M.Jagan Mohan Chowdary	1801ME34
34	Neeraj Kumar Gond	1801ME38
35	Nemalikanti V M Dheeraj	1801ME39
36	Arohan Panda	1801ME41
37	Rishi Kumar	1801ME50
38	Akanksha Ben	1901CB04
39	Janjirala Abhiram	1901CB20
40	Satyam Kumar Thakur	1901CB45
41	Suraj Shashi Chettiar	1901CB53
42	Vishwaranjan Kumar Jha	1901CB55
43	Yash Agarwal	1901CB56
44	Hardik Arora	1901CE15
45	Lokesh Kumar Singh	1901CE21
46	Mandavyapuram Harika	1901CE24
47	Rakesh Kumar	1901CE39
48	Ravi Shankar Singh	1901CE40
49	Shyam Sunder	1901CE48
50	Suresh Sahu	1901CE52
51	Utkarsh Dubey	1901CE54
52	Venkatreddolla Abhilash Reddy	1901CE56
53	Ranjeet Khichar	1901CS45
54	Shivam Sahu	1901CS55
55	AKSHAT Porwal	1901EE09
56	Gangireddy Gangadhara Reddy	1901EE23
57	Gaurav Rai	1901EE24
58	M.D. Midhun Reddy	1901EE34
59	Madhur Jain	1901EE35
60	Rohan Kumar	1901EE48
61	Sourav Kumar	1901EE54
62	Shivam Singh Kushwah	1901EE55

SL.NO.	NAME OF STUDENT	ROLL NO.
63	Vishal	1901EE68
64	Sakshi Singh	1901EE76
65	Abhishek Kumar Jha	1901ME03
66	Akash Agrawal	1901ME06
67	Avinash Kumar	1901ME12
68	Ganesh Kumar	1901ME23
69	R. Suganth	1901ME61
70	Abhay Tiwari	1901MM01
71	Ganthi Sreekanth	1901MM13
72	Keshav Kumar Jha	1901MM18
73	Anand Kumar	2001CB07
74	Anuradha Das Group	2001CB10
75	Gaurav	2001CB22
76	Gude Susmitha	2001CB24
77	Jatin Kumawat	2001CB26
78	Kalakoti Hemaswi	2001CB30
79	Kawade Rohit Chandrashekhar	2001CB31
80	Sumit Kumar	2001CB55
81	Sweta Kumari	2001CB57
82	Ashok Bisnoi	2001CE15
83	Md. Faizan Alam	2001CE34
84	Sandeep Chahar	2001CE53
85	Atul Kumar	2001CS13
86	Kaushak Raj	2001CS36
87	Samir Kumar	2001CS59
88	Ashish Kumar Pandey	2001CS82
89	Aditya Ramdas Patil	2001EE03
90	Dashrath Paswan	2001EE14
91	Aditya Kau	2001EE26
92	Priya Raj	2001EE46
93	Rohit Kumar	2001EE56
94	Sanju Kumar	2001EE62
95	Shivam Krishna	2001EE66
96	Suyog Vinod Chaudhari	2001EE77
97	Tanya Kumari	2001EE79
98	Adarsh Pandey	2001EE84
99	Kaushlendra Singh Rathore	2001EE90

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SL.NO.	NAME OF STUDENT	ROLL NO.
100	Udit Sethi	2001EE93
101	Anil Rundla	2001ME08
102	Wasif Ansari	2001ME09
103	Chandra Prakash Sah	2001ME15
104	Ayush Kumar	2001MM05
105	Rohit Nayak	2001MM25
106	Shantanu Singh	2001MM32
107	Ajay Saini	2101CB08
108	Biswajit Subudhi	2101CB21
109	Karan Raj	2101CB29
110	Areeba Mirza	2101CE11
111	Ayush Raj	2101CE14
112	Devendra Pratap Singh Rathore	2101CE18
113	Raj Kamal	2101CE45
114	Achhada Hiren Rajkumar	2101CS03
115	Ali Haider	2101CS07
116	Mamta Kanwar	2101CS42
117	Nityanand Kumar	2101CS54
118	pradeeep	2101CS59
119	Akash Kumar	2101EE06
120	Gaurav Kumar	2101EE30
121	Gaurav Singh	2101EE32
122	Pritam Raj	2101EE56
123	Rahul Kumar	2101EE58
124	Sandhya Rani	2101EE62
125	Shailendra Mishra	2101EE65
126	Tripti	2101EE75
127	Udita Das	2101EE77
128	Aniket Jaiswal	2101MC04
129	Anjali Singh	2101MC05
130	Arka Dutta	2101MC08
131	Devesh Kumar Pandey	2101MC16
132	Kotla Sai Charan	2101MC27
133	Prakash Kumar Jha	2101MC31
134	Prakhar Gupta	2101MC32
135	Anupunj Alok	2101ME11
136	Gaurav Singh	2101ME23

SL.NO.	NAME OF STUDENT	ROLL NO.
137	Naveen Kumar	2101ME44
138	Shivani	2101ME64
139	Sibi T	2101ME67
140	Aditya Tomar	2101MM02
141	Amar Kumar	2101PH06
142	Nitish Kumar	2101PH22
143	Sanjana Kumari	2101PH29
144	Abhishek Kumar	2012CH01
145	Dali Barman	2012CH04
146	Jyoti Lalbahadur Vishwakarma	2012CH05
147	Sibnath Roy Pramanik	2012CH12
148	S K Sakir Hossain	2012CH13
149	Subimal Patra	2012CH15
150	Suresh Tiwari	2012CH19
151	Narayan Biswas	2012MA12
152	Sajal Debnath	2012MA14
153	Sandesh Kumar	2012MA15
154	Suman Biswas	2012MA20
155	Vivek Singh	2012MA22
156	Zabir Hussain	2012MA23
157	Ashok Kumar Saini	2012PH06
158	Nitin Nayak	2012PH11
159	Roshan Singh	2012PH16
160	Sonu Kumar Pandey	2012PH18
161	Utsav	2012PH22
162	Gulveer Dosodiya	2012PH24
163	Anupam Chaurasia	2112CH02
164	Deepanshu	2112CH06
165	Harnath Ray Sarkar	2112CH11
166	R. Sathishkumar	2112CH18
167	Sujal Tripathi	2112CH27
168	Akshay Sanjay Kalantre	2112MA01
169	Biplab Dawn	2112MA05
170	Dilip Sarkar	2112MA07
171	Harsh Malhan	2112MA09
172	Hemanta Kumar Mandal	2112MA10
173	Lovepreet Singh	2112MA12

SL.NO.	NAME OF STUDENT	ROLL NO.
174	Pawan Kumar Mishra	2112MA14
175	Sachin Kumar Meena	2112MA19
176	Sanchita Mal	2112MA20
177	Shubham Kumar Singh	2112MA25
178	Ajay Kumar Meena	2112PH02
179	Atul Kulkarani	2112PH04
180	Chandan Kumar Dash	2112PH05
181	Mukesh Kumar Raut	2112PH13
182	Aadesh Mohan Naik	2112PH14
183	Nilesh Tiwari	2112PH16

Infrastructure Development at IIT Patna

A) Infrastructure under construction:-

The following works in phase 2 are under construction:

1. Academic Buildings, G+5, 2 numbers
2. Workshops 3 numbers.
3. Central Lecture hall 1 number.
4. Central Library
5. Guest House, G +2 (Double bed room 48, single bed room 8 and suite 9)
6. Girls Hostel for 232 students capacity.
7. Boys Hostel for 950 students capacity.
8. Auditorium,.
9. A type Quarters, G+8, 27 units.
10. B type Quarters, G +8, 36 units.
11. C Type Quarters, G +6, 56 units.
12. D type Quarters, G+3, 48units.
13. Married Accommodations, G+ 5, 36 Numbers.
14. Students activity center balance part

15. Services like substation, street lighting, WTP, STP, Fire fighting system, water supply distribution network etc.

Out of the above, three numbers of workshops, three blocks of D type quarters (48 quarters), Girls Hostel (for 232 students), Married accommodation (for 36 students), two blocks of C type quarters (56 quarters) have been completed.

Work of guest house is almost complete and one part of Guest House is functional.

Academic buildings, Lecture Hall, B type quarters, A type quarters, Boys Hostel, Student activity centre are at advance stage of finishing. RCC work of Library and Auditorium are completed and finishing and truss erection are in progress.

The overall progress up to March 2022 is 83%.The above work is being done by CPWD under EPC mode engaging NCC as contractor. Photographs of Buildings attached.



Workshop building completed



D type building completed



Girl's Hostel completed



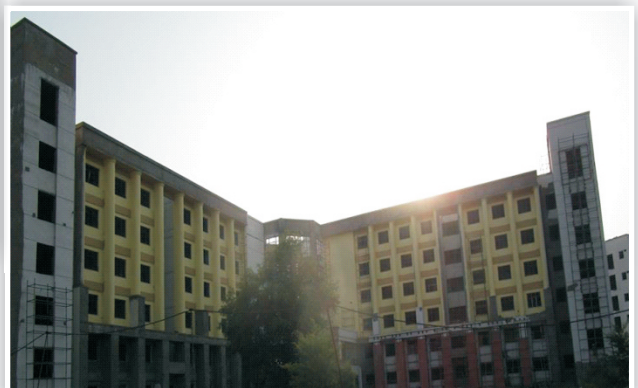
Married Accommodation completed



C type quarters completed



Guest house almost completed



Academic block work is in progress



Lecture hall work is in progress



B type quarters work is in progress



A type quarters work is in progress



Boy's Hostel work is in progress



Library building work is in progress



Auditorium building work is in progress

B. Works under planning (Phase-3):- The following infrastructures are under planning stage**I. Under priority I:**

- 1) One Boy's Hostel of 1000 students capacity.
- 2) Girl's Hostel of 240 students capacity.
- 3) Two blocks of B type quarters for 72 quarters.
- 4) One blocks of C type quarters for 28 quarters.
- 5) 50 Studio units or 28 C type quarters.
- 6) 16 units of D type quarters (For International students/exchange faculty).
- 7) One Academic building.
- 8) One Central research facility.
- 9) One CET building
- 10) Related services.

II. The following infrastructures are under planning stage under priority two

- 1) Boy's Hostel for 1000 students capacity
- 2) Girl's Hostel for 240 students capacity
- 3) International Hostels of 200 rooms
- 4) Studio Apartment of 30 units
- 5) A type quarters (27 nos.)
- 6) B type quarters (72 nos.)
- 7) D type quarters (56 nos.)
- 8) Three academic buildings
- 9) One tutorial building
- 10) One CET building.

Preliminary DPR with detailed planning of expansion of student capacity and expansion of research facility has been submitted for approval.

