

# INDIAN INSTITUTE OF TECHNOLOGY PATNA

## 1st Convocation

December 23, 2012

# Chief Guest

Bharat Ratna Dr. A. P. J. Abdul Kalam

**Honourable Ex-President of India** 

## 1st CONVOCATION

#### **PROGRAM**

#### **DECEMBER 23, 2012**

10:00 AM: Chief Guest, Chairman, Director, Members of Board of Governors and Senate assemble for

dressing of academic robes and stole

10:10 AM : Academic procession proceeds to the Convocation Hall

10:15 AM : Singing of the National Song

10:18 AM : Chairman, Board of Governors declares the 1st Convocation Open

10:19 AM : Report by the Director

10:31 AM : Award of degrees by the Director

10:45 AM : Registrar announces the name of the Institute Medal Winners

The Chief Guest presents the President of India Gold Medal, Director's Gold Medal, Institute

Silver Medals and Best Project Proficiency Awards

10:50 AM : Pledge by the Degree Recipients

10:55 AM : Address by the Chairman, Board of Governors

11:05 AM : Chairman, Board of Governors requests the Chief Guest to deliver his Convocation Address

11:35 AM : Presentation of Memento to the Chief Guest by the Chairman, Board of Governors

11:37 AM : Announcement of the names of Distinguished Academician Award and their brief introduction by

the Director and presentation of awards to them by the Chief Guest

11:42 AM : Felicitation speech by Distinguished Academician Awardees

11:47AM : Presentation of Memento to the Chairman and Members, Board of Governors (Present & Former)

by the Director

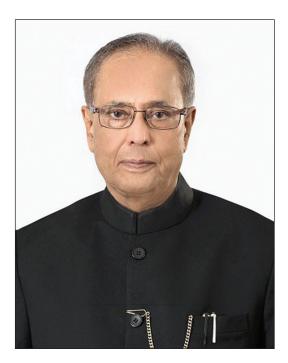
11:53 AM : Director proposes a vote of thanks

11:56 AM : Chairman, Board of Governors declares the 1st Convocation Closed

National Anthem

Academic Procession Returns

12:00 Noon: Lunch



**Shri Pranab Mukherjee** Honourable President of India and Visitor, IIT Patna



Dr. M.M. Pallam Raju

Honourable Minister

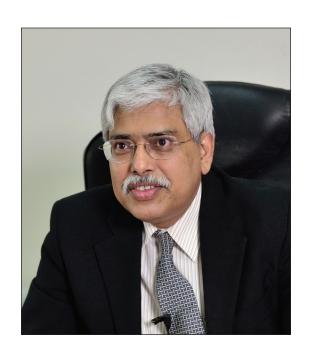
Human Resource Development and
Chairman, IIT Council



**Mr. Shashi Tharoor**Honourable Minister of State
Human Resource Development



**Mr. Ajai Chowdhry**Chairman, Board of Governors
IIT Patna

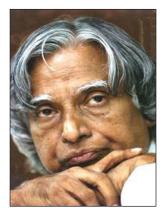


Prof. Anil K. Bhowmick
Director, IIT Patna

## THE CHIEF GUEST

#### Bharat Ratna Dr. A. P. J. Abdul Kalam

Honourable Ex-President of India



Born on 15th October 1931 at Rameswaram, Tamil Nadu, Dr. Avul Pakir Jainulabdeen Abdul Kalam, specialized in Aeronautical Engineering from Madras Institute of Technology. Dr. Kalam made significant contribution as Project Director to develop India's first indigenous Satellite Launch Vehicle (SLV-III) which successfully injected the Rohini satellite in the near earth orbit in July 1980 and made India an exclusive member of Space Club. He was responsible for the evolution of ISRO's launch vehicle programme, particularly the PSLV configuration. After working for two decades in ISRO and mastering launch vehicle technologies, Dr. Kalam took up the responsibility of developing Indigenous Guided Missiles at Defence Research and Development Organization as the Chief Executive of Integrated Guided Missile Development Programme (IGMDP). He was responsible for the development and operationalisation of AGNI and PRITHVI Missiles and for building indigenous capability in critical technologies through

networking of multiple institutions. He was the Scientific Adviser to Defence Minister and Secretary, Department of Defence Research & Development from July 1992 to December 1999. During this period he led to the weaponisation of strategic missile systems and the Pokhran-II nuclear tests in collaboration with Department of Atomic Energy, which made India a nuclear weapon state. He also gave thrust to self-reliance in defence systems by progressing multiple development tasks and mission projects such as Light Combat Aircraft.

As Chairman of Technology Information, Forecasting and Assessment Council (TIFAC) and as an eminent scientist, he led the country with the help of 500 experts to arrive at Technology Vision 2020 giving a road map for transforming India from the present developing status to a developed nation. Dr. Kalam has served as the Principal Scientific Advisor to the Government of India, in the rank of Cabinet Minister, from November 1999 to November 2001 and was responsible for evolving policies, strategies and missions for many development applications. Dr. Kalam was also the Chairman, Formerofficio, of the Scientific Advisory Committee to the Cabinet (SAC-C) and piloted India Millennium Mission 2020.

Dr. Kalam took up academic pursuit as Professor, Technology & Societal Transformation at Anna University, Chennai from November 2001 and was involved in teaching and research tasks. Above all he took up a mission to ignite the young minds for national development by meeting high school students across the country.

In his literary pursuit four of Dr. Kalam's books - "Wings of Fire", "India 2020 - A Vision for the New Millennium", "My journey" and "Ignited Minds - Unleashing the power within India" have become household names in India and among the Indian nationals abroad. These books have been translated in many Indian languages.

Dr. Kalam is one of the most distinguished scientists of India with the unique honour of receiving honorary doctorates from 40 universities and institutions. He has been awarded the coveted civilian awards - Padma Bhushan (1981) and Padma Vibhushan (1990) and the highest civilian award Bharat Ratna (1997). He is a recipient of several other awards and Fellow of many professional institutions.

Dr. Kalam became the 11th President of India on 25th July 2002. His focus is on transforming India into a developed nation by 2020.

## WELCOME ADDRESS

## Padma Bhushan Shri Ajai Chowdhry

Founder - HCL Chairman Board of Governors, IIT Patna

His Excellency Ex-President of India Dr. A.P.J. Abdul Kalam, distinguished members of the Board of Governors of the IIT Patna, distinguished members of the Former Board of Governors of IIT Patna, members of the Academic Senate of the IIT Patna, members of the Faculty and Staff of the IIT Patna, Parents, our beloved Students, Ladies and Gentlemen!

Warm greetings to all of you!

We have gathered here to witness a significant moment in the history of IIT Patna and the turning point in the life of the bright youngsters. The first batch of the students of the IIT Patna is graduating from its transit campus. It is hard to summarize the struggle the faculty and students faced during the last four years. Today we are assembled here to celebrate the First Convocation of this great Institute at Patna. I am extremely happy that the pioneering technologist of the country Dr. Abdul Kalam is here with us. He believes that technology can lead to development of our country. He had proven this through his action in all activities he had undertaken, demonstrating how hard work and process of continuous learning can lead to success. I am sure you will all see a role model for yourself in Dr. Abdul Kalam. I have great pleasure in welcoming you, Sir, for this First Convocation of IIT Patna. I also extend a warm welcome to all those who have accepted our invitation and especially to the parents and the young students graduating today. Let me take this opportunity to extend my heartiest congratulations to the graduates of the first batch of IITians from Patna in 2012. We are also grateful to Dr. Anil Kakodkar and Prof. K.L. Chopra for their kind presence to accept the Distinguished Academician Award.

The historic journey of IIT Patna began on the 6<sup>th</sup> day of August 2008 culminating with these students who are all set to graduate today. It has been four years of a wonderful experience. It is tough to start a new household starting from scratch, more so to shape it to a centre of excellence. Thanks to the State Government that the site for the new campus is available. Also, to give shape to the new self-contained Institute with all modern facilities is yet another challenge for us. We are working on achieving these ambitious goals and marching ahead with full vigour. I would like to thank all those whose efforts have made the difference. The Former Chairman of the Board of Governors of IIT Patna and all the members of the former board deserve heartfelt thanks. We are confident that we will achieve the goals you had envisioned. In the midst of all these, it is immensely satisfying and eternally healing to find you in front of us. I am extremely happy to see that this Institute has shaped itself as an excellent centre for learning and research. It had a great beginning during the mentorship of the IIT Guwahati. It is on its way to receiving greater visibility with the first director Professor Anil K. Bhowmick since 2009.

It is to be remembered that we are in the land of *Mahavir* and *Gautam Buddha*; it is the land of a great teacher of all times – *Chanakya*; it is the land of the great emperor *Ashoka*; this land has housed *Nalanda Vidyapeeth*. With the heritage of all the above, in all honesty, I can assure you that this Institute will reach much greater heights in the days to come. IITs have their own tradition of excellence in teaching and research. I am sure that IIT Patna will bring back the land of Bihar on the list of pioneering centres of engineering and technology.

Convocation or *Deekshaant Samaroh* marks the culmination of an academic program. However, this brings new challenges. Attending college allows a student to develop independent thinking. While enrolled in college, students are given the opportunity to think autonomously and develop their personalities. Establishing an identity is a necessity that should be captured from the experience. You are entering the new world of challenges and opportunities. It is for

you to grab the opportunity with your knowledge and entrepreneurial skills. This great nation has a lot of expectations from you. I am sure you will fulfil those taking into account the social responsibilities that the society is expecting of you. This is a proud moment for all of us. And, I am sure you will make the country proud in many walks of lives in the days to come.

However, I would like to talk about something else before I close. You will go out into the world after IIT and take up a job or be an entrepreneur.

However, just don't take a job to work. Work fundamentally means that you are being forced to do something. Not exactly great....is it? So don't just look at working. Do something that really interests you.

Don't just work to get a salary or a 'logo' – as they say. Some people work for MNC's or large companies for a logo.

So, therefore, go about finding out what you like to do. Find your own niche. Sometimes you may not find it immediately as you come out of IIT.

So many youngsters I meet talk about 'what they are earning' – 10 lakhs / 20 lakhs / 30 lakhs as they come out of outstanding institutions like the IIT. I believe it is essential to look at 'what I am doing in my job' – am I creating a new product, am I designing a new process, am I discovering something, am I going to participate in India's quest for mars, am I involved in drug discovery, am I going to change the lives of rural folks, am I going to change the way Delhi's transportation system works and so on.

Coming out of IIT, you have obviously got educated in a prestigious institution – and you have learnt core engineering. But today, I find due to the attractiveness of the software industry, students join it for earning more, getting a car, getting a home and travelling abroad! I am definitely not against you joining a software company (I am a founder of one) but you should look more seriously at your job content rather than reasons I hear. Being from IIT, you should pitch yourself to create, innovate in your jobs rather than do dull work like just coding.

Many have contributed to the development of this Institute. This Institute will remain grateful to all of them. The faculty, students and other supporting team members under the leadership of Prof. Bhowmick deserve special credit. I would like to mention specifically that your contribution will be recorded with great humility. You are the first set of individuals who have sacrificed a lot for this Institute. I would like to place on record the immense support we had from the Union HRD Ministry and Chief Minister of Bihar, Shri Nitish Kumar. I would also like to thank all the individuals for organizing the successful Convocation. And, once again.

Congratulations to all the graduates of the First Convocation of the IIT Patna. Wish you a bright future!

# **D**IRECTOR'S REPORT

His Excellency Ex-President of India, Dr. A.P.J. Abdul Kalam, Chairman, Board of Governors (BoGs) IIT Patna Mr. Ajai Chowdhry, Distinguished Members of the Present and Former BoGs, Dr. G. Madhavan Nair, Former Chairman BoGs IIT Patna, Members of the Academic Senate, Members of the Faculty and Staff, our beloved students, ladies and gentlemen!

At the outset, I would like to extend a hearty and warm welcome to all of you for the first convocation of Indian Institute of Technology Patna. We are going to create history today, as the first batch of 89 students gets degree within an hour. Indian Institute of Technology Patna (better known as "IIT Patna") was established by an Act of Indian Parliament in order to meet the long standing demand of the country for quality education and research in the field of engineering and science. On May 9, 2008, following an act of Parliament, the Ministry of Human Resource Development decided to set up eight new IITs during the 11th Five Year Plan. IIT Patna was one of the eight new IITs that were formed through the said Act and had become operational since 6th August, 2008. In order to closely monitor as well as to facilitate the work of establishment of these eight new IITs, it was decided to have the older IITs as mentors initially. Under this scheme, IIT Guwahati was designated as the mentor IIT for IIT Patna in the initial stage. Thanks to Prof. G. Barua, Director, IIT Guwahati and his team for starting this Institute in Patliputra Colony from the scratch. On this historic occasion, we pay our deep sense of appreciation to all the teachers, staff members, State Government, Central Government, Board of Governors , IIT Patna, our friends and well-wishers and local people for raising this Institute to this height by constantly taking up challenges and solving them.

A dream shared by many of us today is to make our society self-reliant in the field of science and technology. Such self-reliance can open the flood gates for an inclusive development which will serve as a medium for addressing the major challenges which the present Indian society is facing. These challenges exist over a very wide spectrum. The very basic needs of providing food, shelter and clothing to the 1.2 billion Indians is just one of them. We need to be self-reliant in strategic technologies important for maintaining the sovereignty of our nation. We also must be capable of coming up with indigenous products which can reduce the trade deficit of our country. This in turn will bring about a sea change where India will become an exporter of technology. Ideas do not however materialize from wishful thinking. Rather they require careful planning, perseverance and a watchful assessment of activities based on these ideas. IIT Patna has a focused vision, which in due course of time needs to be materialized.

Bihar has been a seat of learning since the ancient period. She boasted of universities like the one at Nalanda which had attracted scholars from many parts of the then civilized world such as China, Indonesia, Japan, Korea and Sri Lanka. Many of its students and acharyas, like Xuanzang, had transcended the boundary of time through their contribution to knowledge and human development. This has been a land of visionaries like Lord Gautam Buddha, Lord Mahavir, Guru Gobind Singh, the famous astronomer and mathematician Aryabhatta who was the first to realize that the earth moved around the stationary sun in a closed orbit as well as the first President of India, Dr. Rajendra Prasad.

Before I present the highlights of the activities of the Institute, it is my proud privilege and honour to welcome our Chief Guest, His Excellency Ex-President of India, Dr. A. P. J. Abdul Kalam. Dr. Avul Pakir Jainulabdeen Abdul Kalam was born on 15th October 1931 at Rameswaram in Tamil Nadu. He specialized in Aeronautical Engineering from Madras Institute of Technology. Dr. Kalam made significant contribution as Project Director to develop India's first indigenous Satellite Launch Vehicle (SLV-III) which successfully injected the Rohini satellite in the near earth orbit in July 1980 and made India an exclusive member of Space Club. He was the key person for the evolution of ISRO's launch vehicle programme, particularly the PSLV configuration. After working for two decades in ISRO and mastering launch vehicle technologies, Dr. Kalam took up the responsibility of developing Indigenous Guided Missiles at Defence Research and Development Organization as the Chief Executive of Integrated Guided Missile Development Programme (IGMDP). Dr. Kalam was responsible for the development and operationalisation of AGNI

and PRITHVI Missiles and for building indigenous capability in critical technologies through networking of multiple institutions. He was the Scientific Adviser to Defence Minister and Secretary, Department of Defence Research & Development from July 1992 to December 1999. Dr. Kalam is one of the most distinguished scientists of India with the unique honour of receiving honorary doctorates from 40 universities and institutions. He has been awarded the coveted civilian awards - Padma Bhushan (1981) and Padma Vibhushan (1990) and the highest civilian award Bharat Ratna (1997). He is a recipient of several other awards and Fellow of many professional institutions. Dr. Kalam became the 11th President of India on 25th July 2002. His focus is on transforming India into a developed nation by 2020.

We are fortunate to have the support and blessings of Shri Nitish Kumar, Honourable Chief Minister, Government of Bihar. I have also a great pleasure in welcoming a galaxy of distinguished personalities including Mr. Ajai Chowdhry, Chairman, BoGs, Dr. Madhavan Nair, Former Chairman BoGs and and winners of this year's distinguished academician award: Prof. K.L. Chopra, Former Director IIT Kharagpur & Professor, IIT Delhi and Dr. Anil Kakodkar, Chairman, BoGs, IIT Bombay.

#### ACADEMIC JOURNEY OF THE INSTITUTE

Initially the Institute started functioning from Navin Government Polytechnic with the assistance of Department of Science and Technology, Government of Bihar. Subsequently, the Government of Bihar constructed the main building on which the Institute is currently functioning. To accommodate the students, the Government of Bihar had made the necessary arrangements in a short time despite various shortcomings. For creating all these facilities in a short span of time, IIT Patna gratefully acknowledges Government of Bihar for constant support and help from time to time.

In the first year, the students were admitted mainly in three basic disciplines, namely Computer Science and Engineering, Electrical Engineering and Mechanical Engineering with strength of 40 seats in each branch. We had a momentous task of making IIT Patna self reliant in every aspect of its functioning. Right from beginning to date, IIT Patna has grown up significantly both in terms of academics and infrastructure facilities like other established IITs.

#### **ACADEMIC PROGRAMS**

The Institute has three schools hosting ten academic Departments, e.g., School of Engineering and Technology (Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Civil and Environmental Engineering, Chemical and Biochemical Engineering, and Materials Science and Engineering), School of Basic Sciences (Chemistry, Physics, and Mathematics) and School of Humanities and Social Sciences (Humanities and Social Sciences). There are four hundred and thirty nine B. Tech students enrolled in all these Departments. We planned to start two new B. Tech. programs for the next academic session, July 2013 namely, Civil & Infrastructure Engineering and Chemical Science & Technology.

It has PhD programs in eight Departments, namely Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Chemistry, Physics, Mathematics, Materials Science and Engineering, Humanities and Social Sciences. There are currently ninety five students enrolled in the PhD program. Keeping in mind the prudent requirements and latest needs of industry, IIT Patna has started new academic programs leading to M. Tech in three different disciplines in July 2012. These are (i) Nanoscience and Technology, (ii) Mechatronics and (iii) Mathematics and Computing. There are twenty nine M. Tech students.

#### RESEARCH AND DEVELOPMENT

An important output of high quality research is the generation of knowledge and its dissemination through publications in reputed national and international journals and books. Reputed academic institutions around the world possess a strong focus on research in addition to excellent academic programs. The creation of a congenial research ambience

goes a long way in attracting outstanding faculty talent and a pool of bright students. The recognition of the major benefits and thereby the comparative advantage that will accumulate from active research environment, the Institute has put in extra efforts during the last three years to research activities. We have invested a lot of time, effort and money in setting up state-of-the-art infrastructure facilities at our Institute. New X-ray diffraction machine, Field Emission Scanning Electron Microscope, Atomic Force Microscope, Raman Spectroscopy, FTIR Spectroscopy, Ellipsometer, Network Analyzer, GCMS, Thermal Analyzer, time resolved Fluorimeter, Inverted pendulum, Magnetic levitation system, fuel cell, Multilevel converters, High Power electrical drives, High Performance Computer Clusters, micromachining facility, CNC machine, to name a few are among the best available facilities of their kind not only in India but also in the world.

Our faculty members have published over 250 research articles in reputed journals during the last four years (some of these are in international journals of high impact factor even up to 23). In addition, they have presented their works in over 200 national and international conferences and workshops during the same period and published about a three books. Apart from these, our faculty members also serve on the Editorial Boards of a number of reputed journals in Science and Technology and have given a number of invited lectures around the world.

In order to promote research, IIT Patna organizes research scholars' day, where the PhD students present their works, which are judged by leading experts in the respective fields. Last year, Dr. T. Ramasamy, Secretary, DST, New Delhi inaugurated the program. Prof. Joseph W. Tedesco, Dean, College of Engineering, University of Houston and Prof. Suresh Khator, Associate Dean of the same University graced the event this year.

#### COLLABORATION WITH INDUSTRIES FOR R&D

IIT Patna is successful in collaborating with the leading industries in India and abroad. These companies are helping us in sponsoring projects, joined R&D works and hiring our students.

#### INFRASTRUCTURE DEVELOPMENT

#### Library

The Central Library of IIT Patna is one of the advanced libraries in terms of its collection and services. The Central Library is in fast growing stage. It was started in December 2008 with approximately 1000 books and one online resource. Currently the total collection of books is about 9000, which includes large numbers of textbooks as well as reference books. The Central Library has subscribed 30 different e-resources which include more than 4000 full text e-journals and online bibliographic databases of 23 different renowned publishers and also 07 full text e-book packages of different publishers namely Springer, CRC, World Scientific, Ebrary, LNCS, CUP, McGraw Hill. There are more than 50,000 full text e-books accessible from these online e-books packages. The Central Library has also been subscribing popular magazines and daily national and local newspapers for satisfying the information need of the users. There is also a RFID system for issue and return of books.

#### **New Campus Information**

IIT Patna has taken a big stride towards building its New Campus at Bihta which is around 35 km from where we are currently located. The Government of Bihar has allotted 500 acres of land for this purpose. On April 19, 2011, the foundation stone of the permanent campus was laid down by Mr. Kapil Sibal, Hon'ble Ex-HRD Minister and current Telecom Minister, Government of India. Mr. Nitish Kumar, Chief Minister of Bihar also graced the occasion. On behalf of the faculty members, staffs and the students of this Institute, I thank Mr. Nitish Kumar, Chief Minister of Bihar for his kind help and encouragement. The land has also been registered in the name of IIT Patna on 2nd January, 2012. The boundary wall of the campus has been constructed.

IIT Patna has already selected an Architect Firm through open competition to prepare the Master Plan of the campus. The process included the publication of an advertisement in a widely circulated national newspaper, "The Times of

India". The applications were reviewed by an "Architect Committee" formed with the approval of the Chairman of the BoGs. The shortlisted firms were invited to present their cases in front of the said Committee. Successful firms were asked to submit their designs of the Master Plan for the review of the Jury that was formed with the approval of the Chairman of the BoGs. The said Committee and the Jury had finally selected the right Architect Firm – "M/s Development Architect Pvt. Ltd., Kolkata".

I am happy to announce that the Master Plan for IIT Patna new campus is now ready. It has the following zones.

- 1. Academic Zone comprising of Departments, centers, laboratories, class room complex, central library, workshops and the administrative block.
- 2. Student Zone consisting of student hostels, gym, swimming pool and other facilities.
- 3. Residential Zone housing residential quarters for the members of the faculty and the staff of the Institute, Guest house etc
- 4. Utility Zone taking care of the services required to make the campus functional

We have also identified the Government Agencies which will oversee and execute the implementation of the Master Plan. These organizations are CPWD and NBCC. NBCC is appointed as Project Monitoring Consultant for the construction of the Academic Zone while CPWD would be responsible for building a part of the campus that includes both Student and Residential Zones. The work order for the construction has been issued and the construction has started in the permanent campus. MHRD, New Delhi is kind to sanction the required grant for starting the project.

#### INTERNATIONAL COLLABORATION

IIT Patna is coming up to the world map of educational excellence. Many international Institutes have shown their interest in collaborating with IIT Patna in various areas of research and teaching. The Institute has MoUs with University of Houston, University of North Texas and Louisiana State University of USA, University of Saskatchewan in Canada, University of New South Wales, Australia and National University of Singapore. Students regularly visit those Universities for summer internships. Apart from these Universities, students of IIT Patna for the last few years have been selected for internships in University of Southern California, Georgia State University, Washington State University and Texas A&M University of USA, University of Auckland in New Zealand and University of South Australia. IIT Patna has recently become a member of the Indo-Canadian Shastri Institute with an aim to strengthen collaborative research programs with Canadian Universities. It has also started joint Ph D programme with the University of Houston.

#### SPONSORED RESEARCH & INDUSTRIAL RELATIONS UNIT

IIT Patna considers the need to facilitate the research and development activities systematically to lay strong foundation and register growth in research by generation of resources, research collaborations and establishing links with industry. Sponsored Research and Industrial Relations Unit, SRIRU is a special unit set up to act as an interface between funding agencies and the Institute to handle sponsored research projects and industrial activities.

We are involved in a large number (35 being executed and 10 completed) of high-end scientific and technical research assignments sponsored by organizations like DIT, DST, NIC, DRDO, CSIR, DAE, NBHM, NPCIL, SERB, etc. Highest value project (more than a crore) on vehicular sensor & mesh networking based future intelligent transportation system was awarded by DIT to Dr. Rajiv Misra of CSE. Several leading companies in India and abroad are also working with us for mutually beneficial collaborations. We may mention companies like Tata Consultancy Services, NetApp and Bridgestone Corporation, Japan in this connection. Many others are engaged in consultation with us for potential modes and areas of collaboration. IIT Patna is also engaged with several leading universities in the world along with a potential participation in a prestigious EU program.

#### LAURELS AND DISTINCTION

A team of three students (Anandghan Waghmare, Kshitij Maurya and Vidit Singh) from IIT Patna bagged the first prize in Robotics competition at the annual Technical Fest, Technishe, of IIT Guwahati. Ms Sangita Roy, Department of Computer Science and Engineering have won the prestigious TCS research fellowship on her proposal. One student viz. Pallav Surabathuni of Mechanical Engineering Department, IIT Patna-2012 Batch was awarded the Innovative Student's Project Award by Indian National Academy of Engineering (INAE) for his B.Tech project on Einstein Szilard Refrigerator. Three students of IIT Patna, Chaitanya Kansal (3rd Year CSE), Gourav Parihar (4th Year CSE), Gurveer Singh Pahuja (3rd Year CSE), are currently participating in Google GetSocial, a marketing challenge by Google India in which all IITs and IIMs are participating. The efforts of the students in this regard were recognised by Google in the form of a 'Pick of the Week' title for one of their initiatives, wherein they were awarded Google Android phones.

Dr. Ranjan Kumar Behera, Department of Electrical Engineering, won the best research paper award in the National Power Electronics Conference (NPEC-2011) held at Bengal Engineering and Science University, Shibpur, Howrah, India during December 19-22, 2011. Dr. S. K. Gupta bagged the best theoretical paper award at 44th Annual Convention of Operational Research Society of India held at Kolkata, January 6-8, 2012. Dr. Naveen Kumar Nishchal's biography has been selected for inclusion in the Marquis Who's Who in the World 2011 (28th Edition). Dr. Manoranjan Kar received the Young Scientist Research Award in 2011. Prof. Anil K. Bhowmick received Dr. J. C. Bose National Teachers Excellence Award, 2011 on 2nd June, 2011. Prof. Suresh Prasad was awarded the Dr. K. N. Nag Gold medal 2011 from the Indian Society of Agricultural Engineers, New Delhi. Dr. Asif Ekbal of Computer Science and Engineering received best paper award in 1st International Conference on Computing, Communications and Informatics held at Chennai, 3-5 August 2012. A few faculty members have been selected by DAAD, Humboldt and India–EU agencies to join the research groups in Europe during summer vacation.

#### LECTURES, CONFERENCES AND SEMINARS

A number of distinguished visitors from within the country as well as abroad presented their work in the Institute seminar series. The following personnel were invited to IIT Patna for giving lectures:

Prof. Ashok Srivastava, Department of Electrical and Computer Engineering, LSU, USA; Dr. M. Bhowmick, Department of Physics, Virginia Tech, USA; Mr. Amit Singh, University of Minnesota; Dr. Priti Singh, Department of Chemistry, Pennsylvania State University, USA; Dr. Ajeet Kumar, Intel Corporation, Oregon, USA; Dr. Saurabh Mani Tripathi, University of Quebec, Qutaouais, QC, Canada; Mr. Satyajit Sahu, National Institute for Materials Science, Tsukuba, Japan; Dr. Atul Thakur, University of Maryland, USA; Dr. A. K. Verma, General Manager, HAL, Lucknow; Mr. Sumeet Kumar, MIT, Cambridge, USA; Dr. Nicole Zacharia, Texas A&M University, USA: Dr. Vinod Kumar, University of Texas at ElPaso; Mr. Pranchal Srivastava, National Instruments, Bangalore; Dr. Khashti Ballabh Joshi, Goethe-University, Frankfurt; Dr. Ranjan Jana, Department of Chemistry, University of Utah; Dr. Dheeraj Singh, Penn-State University, USA; Dr. Anadarup Goswami, Department of Chemistry and Chemical Biology, Rutgers University; Dr. Indu Bhusan Deb, NTU, Singapore; Prof. Anand M. Sharan, Memorial University of Newfoundland, Canada; Mr. Shreyas Kumar, Oracle HQat Redwood Shores, California, USA; Dr. Kaushal Ajitabh, Director, Royal Bank of Canada; Dr. Debjoyti Banerjee, Texas A&M University, USA; Prof. Sudip Sen, Lancaster University, UK; Prof. Braj Sinha, University of Saskatchewan, Canada; Dr. Daniel Van der Lelie, Research Triangle Institute (RTI) International, USA; Prof. Vijay A. Singh, TIFR, Mumbai; Prof. David Knight, Cardiff University, UK.

We also have a number of lectures and seminars arranged via the National Knowledge Network where our students, staff and faculty members can see the live telecast from a partner institution. An international conference and a national symposium were also organized at IIT Patna in the financial year 2011-12. Besides these our faculty members conduct a number of workshops round the year. In addition, the Research Scholars' Day is a regular annual event where the work of research scholars working in various Departments at IIT Patna is highlighted. This year it was celebrated on March 17, 2012.

Electrical Engineering Department, IIT Patna has successfully organized First International Conference on signal, image and video processing (ICSIVP-2012) during January 13-15, 2012. The Institute Director and General Chair of the conference Prof. Anil K. Bhowmick inaugurated the International Conference. Dr. Maheshkumar H. Kolekar, Assistant Professor of the Electrical Engineering Department at IIT Patna was the organizing chair of ICSIVP-2012. Prof. Ioannis A. Kakadiaris (University of Houston, USA) delivered keynote address on "Research opportunities at University of Houston". Air Marshal B. N. Gokhale, PVSM AVSM VM (Scientific Consultant, Government of India), Prof. Somnath Sengupta (Dean, CEP, IIT Kharagpur), Prof. Sumantra Dutta Roy (IIT Delhi) delivered plenary speeches related to conference theme. Prof. Vikram Gadre (IIT Bombay) conducted preconference tutorial on wavelet transform.

A total of 80 research papers in the areas Biometrics, Medical Image Processing, Information Coding, Pattern Recognition and Video Surveillance were published during the conference. Special issue of American Scientific Publisher's International Journal on Medical Imaging and Health Informatics (JMIHI) has been published in June 2012 based on revised versions of the papers published in this conference. The conference was technically cosponsored by IEEE Calcutta chapter and financially sponsored by DST New Delhi, DIT New Delhi, DRDO, DST Bihar, Edgate Technologies Bangalore, NI Bangalore and Agilent New Delhi.

Department of Chemistry, IIT Patna organized a National Symposium on "Recent Trends in Chemical Science and Technology (RTCST) – 2012" during March 3-4, 2012. The two days symposium hosted a number of invited lectures by renowned and eminent scientists from academia and industries from all over India. Shri Uday Chand Vice-President; Reliance Industries Limited graced the inauguration program as the Chief Guest. The list of speakers includes Prof. Kankan Bhattacharya (IACS Kolkata), Prof. Tulsi Mukherjee (BARC, Mumbai), Dr. A. S. Radhakrishna (GE Global Research), Prof. Ajay K. Dalai (University of Saskatchewan), Prof. Bhisma Kumar Patel (IIT Guwahati), Prof. Anil K. Bhowmick, (Director, IIT Patna), Prof. Sanjay Kumar (IIT Madras), Prof. Maya Shankar Singh (Banaras Hindu University) who gave talks on latest research in the field. Young and budding researchers (mostly graduate students or research scholars) presented their research results in two poster sessions. The symposium highlighted recent research developments in Chemical Science and related fields and create awareness amongst people of the region. Besides, RTCST-2012 gave an excellent opportunity for participants to interact with one another, exchange ideas and initiate steps for scientific collaborations. The symposium received generous support from various Government Agencies (CSIR, DST) as well as business/corporate houses (SABIC, Reliance etc.) in the form of sponsorship.

Prof. Joseph W. Tedesco, Dean of the Cullen College of Engineering, University of Houston (as the chief guest) and Prof. Suresh Khator, Associate Dean of the Cullen College of Engineering, University of Houston (as the guest of honour) graced the event. Several academic luminaries from IIT Patna, NIT Patna, Patna University and other prestigious academic institutions in the fields of Engineering, Science and Humanities and Social Sciences judged and evaluated the poster presented by the research scholars of IIT Patna. They were appreciative of the organization of the event, which was a great success. Pooja (School of HSS), Titash Mondal (School of Basic Sciences) and Bishanka Bhaumik (School of Engineering and Technology) won the best poster awards.

#### **HEALTH CARE**

Health care is a vital part of any Institute and IIT Patna is committed to provide quality services and medical care facilities to its students, staff, and faculty members. IIT Patna is tied with Mahavir Vatsalya Hospital for providing comprehensive high quality medical care services to IIT fraternity. Now another hospital - Sahyog Hospital is also empanelled for providing its medical services. We have a dispensary in our temporary campus with a full time medical officer.

#### TRAINING AND PLACEMENT

Training and Placement Cell (TPC) of IIT Patna is actively engaged in developing relationship between various industrial organizations and the Institute. The cell is organizing summer internships for the pre-final year and the placement activities of the graduating B. Tech students. The Training and Placement office is well equipped and is

designed to smoothly handle and support the placement procedure at every stage. Arrangements for interviews, preplacement talks, group discussions and interviews are handled by the staff, student coordinators and volunteers at the placement office. We are equipped with the facilities to aid the process that includes Conference Halls to conduct pre-placement talks and tests, video conferencing facilities, well-furnished air-conditioned rooms for interviews and group discussions and a fully computerized office.

The Institute intends to achieve cent per cent placement for graduating students and for that the TPC emphasizes on the developing the soft skills of the students like verbal communications, personality development and general awareness for better performance in the interview boards. Some of these factors add to technical skills and CPI during the final placements. The TPC has organized several lectures, workshops on pre-placement training and demonstration by experts to the students for the development of these skills. A Training and Placement Brochure was published by the TPC for circulation to the prospective employers including several private companies, public sector undertakings and Government agencies.

As a part of B. Tech curriculum, a summer internship for period of 8 weeks is compulsory for pre-final year students of all the branches. The cell has arranged the summer internship for 89 pre-final year students with various private companies, public sector undertakings and R&D organizations. Some of these include Microsoft-IDC, Mentor Graphics, TCS, Wipro, EdGate, Dassault systems India Pvt. Ltd, Altair India, LG, GE, Tata Projects, Belzabar Software Design, Sicon Tech, Sonus Networks, L&T, Hero Moto Corp, Bangalore Metro, Tata Motors, Bajaj Auto, DRDO, TIFR, CMERI and NPCIL. During 2012, a total of 33 companies and organizations have offered summer training to our students and out of that 27 of them provided financial assistance. Among the pre-final year students, 19 have been offered summer research internship with financial assistance in abroad such as in USA, Canada, Australia, New Zealand, Singapore and Malaysia.

The cell has been actively involved in placement of the final year graduating students of first batch admitted in year 2008. Out of the 86 students registered for placement, 84 got offers from 25 companies that visited our Institute for campus recruitment. Three students got the offer with highest package of 16.03 LPA from Microsoft IDC. The highest number of offers were made by Bank of India (11) followed by Infosys Development Center (10), DRDO (09) and Bharat Petroleum Corp. Ltd. (6), Tata Motors (4), Flipkart (4) and Masamb Electronics (4). The other 16 technological, consultancy and financial companies who recruited our graduates ranged from 1 to 3. About 97 % of the graduating students have been placed through the campus placement process. The average salary package is 7.25 lakhs per annum.

#### STUDENT'S ACTIVITIES

#### Gymkhana

It is now a well-known fact that a healthy body leads to a healthy mind. To enhance the growth of sound mind and body IIT Patna has been continuously encouraging students to actively participate in sports.

IIT Patna is equipped with a full-fledged Volleyball & Basketball Courts. A gymnasium is set up each in the Boys' Hostel and the Girls' Hostel. An indoor Badminton hall has been constructed and facilities for playing Table Tennis have been provided. A Football ground has been prepared in the STPI building by IIT Patna.

#### **Sports Participation**

IIT Patna students participated in 47th Inter IIT Sports Meet-2011 held at IIT Kharagpur 2011. This contingent was the largest ever in number representing IIT Patna and was more than thrice in number of the one that took part in 2009. The students did not fail to impress their counterparts and made a mark in every game that they played. Not far behind the students were IIT Patna staff members and they participated for the first time in the 19th Inter IIT Staff Sports Meet-2011 held at IIT Kharagpur.

#### **ALUMNI AFFAIRS**

We are pleased to announce the formation of the IIT Patna Alumni Association. The inaugural function of the IIT Patna Alumni Association was held on March 18th 2012 in the campus of IIT Patna. As we are a new IIT, we therefore reached out to IIT alumni to grace the function.

Through our interactions with IIT alumnus, we gained valuable knowledge on ways to enhance the effectiveness and connect of our alumni association and instil a sense of belonging with IIT Patna and the state of Bihar. We also look forward to exploring new avenues and opportunities to help us in our pursuit of becoming a world-class institution for higher education, one that truly helps drive the nation's growth engine in an effective manner.

Further, IIT Patna Foundation was recently registered as a not-for-profit organization in the State of California, USA. With the help of IIT Alumni, the Foundation will create a platform for interaction between IIT Patna and global Universities and Companies. Alumni from other IITs have already made proposals to create awards and endowment. The contributions of Shri Chanchal Kumar, Secretary to CM, Government of Bihar and IIT Kanpur alumnus, Mr. Rajesh Singh, Head, Saud Bahwan Automotive LLC, Oman and IIT Kanpur alumnus and Dr. Prabhakant Sinha, Founder and Chairman of ZS Associates, USA and IIT Kharagpur alumnus are notable. IIT Patna participated in the PANIIT held at Kolkata from December 7-9<sup>th</sup> 2012.

#### **GRADUATES OF THE YEAR**

In this convocation, IIT Patna is going to confer degrees on outgoing students. I am very delighted to announce that the following students are recipients of President of India Gold Medal, Director's Gold Medal, Institute Silver Medals and Project Proficiency Prizes:

Shri Gagandeep Singh of Computer Science and Engineering Department is the recipient of the President of India Gold Medal for the best academic performance among the outgoing B. Tech (Hons) students.

Miss Anushmita Kaushik of Electrical Engineering Department has won the Director's Gold Medal for the best all round performance among the outgoing B. Tech (Hons) students.

Shri Gagandeep Singh of Computer Science and Engineering Department, Shri Ankit Lat of Electrical Engineering Department and Shri Ankit Bhardwaj of Mechanical Engineering Department are the class toppers and the recipients of the Institute Silver Medal.

Shri Mohit Ahuja of Computer Science and Engineering Department, Shaik Abdul Rawoof of Electrical Engineering Department, Shri Ankit Bhardwaj and Shri Surabathuni Pallav of Mechanical Engineering Department are the winners of B. Tech Project Proficiency prizes.

I congratulate all the award winners as well as other outgoing students of the first batch. I am sure that the education imparted in this Institute will help you to have a good and useful professional career. The country looks forward to your contribution in future, which will make a difference in standards of life of the common people.

#### DISTINGUISHED ACADEMICIAN AWARD

Prof. K. L. Chopra, Ex-Director, IIT Kharagpur & Professor of IIT Delhi, eminent physicist, and Dr. Anil Kakodkar, Chairman, IIT Bombay, Ex-Director of BARC, Ex-Chairman, AEC, and DAE Homi Bhabha Chair at BARC are the recipients of First Distinguished Academician Award.

1st CONVOCATION
-----------------

#### **SUMMARY**

Bihar has a glorious history with Nalanda University being one of the best in the world during medieval age and also possessing the best governance under Maurya dynasty contributing to the Golden Age of Indian civilization. I hope in these modern times, IIT Patna will go leaps and bounds to not only resurrect the glorious past of the land but also contribute immensely to the growth of our nation.

I stand before you with tremendous pride and enormous humility to share this momentous event in the history of IIT Patna where it offers to the nation its first batch of bright, inspired, sharp, and energetic technology leaders who have imparted knowledge and skills, nurtured, trained and tested within parameters of academic excellence second to none.

I hope you will make good use of the training received at IIT Patna. In particular, I will urge you to:

- (i) Dream big and set high personal and professional standards for yourselves,
- (ii) Nurture your ideas. They can act as seeds for future innovations,
- (iii) Measure your success not with your wealth but with your problem solving ability, and
- (iv) Give back to the society by performing your tasks with highest degree of integrity.

I congratulate all the graduating students. I convey my heartfelt wishes to your families and to your teachers who supported you in all possible ways during your journey to achieve this coveted academic distinction of becoming an IIT graduate. I wish you a successful career. As you could not enjoy the main campus life, you are invited to visit us anytime when the campus is ready.

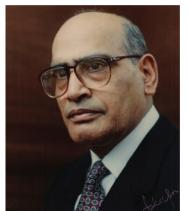
By quoting Swami Vivekananda, I want to conclude

Stand up, be bold, be strong. Take the whole responsibility on your own shoulders and know that you are the creator of your own destiny. All the strength and succour you want is within yourselves. Therefore make your own future.

JAI HIND

## DISTINGUISHED ACADEMICIAN AWARD

## PROF. K. L. CHOPRA



Born in W. Punjab, now Pakistan, Professor Chopra pursued studies in Physics at Delhi University to obtain B. Sc. (Hons.) and M.Sc., and thereafter at University of British Columbia, Canada under World University Fellowship to earn a PhD degree. He served in several senior R&D positions for about 14 years at Royal Military College, Canada, as Max Planck Fellow at Fritz Haber Institute, W Germany, as Staff Scientist at Philco-Ford Scientific Lab and Ledgemont Lab, Kenecott Corp, USA. Invited to the position of Senior Professor of Physics at IIT Delhi in 1970, Prof. Chopra also served as the Head, Physics Department and Centre for Energy Studies. He was the Dean, PG studies for two terms and Founder Dean of Industrial R&D. He has also been a Visiting Prof. at Cornell and Northeastern Universities, USA.

In 1987, he was offered a challenging position of Director, IIT Kharagpur which, as a unique case, he served for two terms of ten years and turned it around to a premier position globally. His numerous innovations at IIT such as a Management School named after its donor, Vinod Gupta, S&T Park with faculty-held enterprises, Technology Foundation, Sanyal School of Telecommunications donated by an alumnus, Optical cable wired campus, Multi-crore Corpus Fund, e-Library, IIT Extension Centres at Kolkata and Bhubaneswar have now been emulated by other IITs.

After retirement from Kharagpur, Prof. Chopra occupied the newly created IREDA Chair at IIT Delhi. Presently, he is an Honorary Prof. at several institutions and an Advisor to several academic, government and industrial organisations, besides being the President, Society for Scientific Values and Associate Editor of International Jnl. of Solar Energy Materials and Solar Cells.

Thin Film Laboratory at IIT Delhi and Microscience Lab at IIT Kharagpur founded by Prof. Chopra and his colleagues are unique research centres and are known worldwide for their pioneering R&D contributions in the field, now popularly known as Nanoscience and Nanotechnology. Prof. Chopra has supervised 60 PhD theses; published about 430 research papers; authored/edited 10 books, including the treatise "Thin Film Phenomena" considered as the Bible of the field by the world community, He holds 5 US patents and has transferred 8 know-hows to the industry. Prof. Chopra has lectured extensively in various international institutions and has also consulted various international and national industries in the areas of Thin Film S&T, Vacuum Science, Nanomaterials, Solar Energy and Surface Engineering.

Prof. Chopra is a Fellow of all the four Science and Engineering Academies of India and Honorary Fellow, Punjab Science Academy. He has received many national awards which include S S Bhatnagar Prize, CSIR; Krishnan Medal, INSA; Bhabha Award, UGC; Mahalanobis Medal INSA; Aryabhatta Gold Medal, INSA; FICCI Award, Bhasin Award, Bhasin Foundation; Biren Roy Memorial Award, MRSI Distinguished Materials Scientist Award; Indian Vacuum Society Life Time Achievement Award; Solar Energy Society Photovoltaic Award, Distinguished Educator Award of Indian Society of Mechanical Engineers, IITD- Freedom of the Institute Award; Distinguished Academician Award of IITP; etc.

Recognised as one of the seven "most highly cited" scientists of India, the Institute of Scientific Information (ISI), USA has conferred "Citation Laureate" award on him. UP Technical University and IIT Kharagpur have conferred an Honorary DSc, and the Government of India has conferred Padma Shri on Prof. Chopra for his distinguished contributions to science and engineering.

## DISTINGUISHED ACADEMICIAN AWARD

#### DR. ANIL KAKODKAR



**Dr. Anil Kakodkar** became the Director of BARC in the year 1996 and was the Chairman, AEC, during the years 2000-2009. Currently he holds DAE Homi Bhabha Chair at BARC.

Kakodkar, undeterred by the restrictions imposed by the international community, succeeded in developing various systems for the pressurized heavy water reactors, in building the Dhruva reactor starting from the conceptual stage, in rehabilitation of Madras Atomic Power Station Units 1&2 both of which at one stage appeared to be on the verge of being written off, in conceptualization and development of Advanced Heavy Water Reactor that realizes the next generation objectives besides use of thorium.

Kakodkar played a key role in nuclear tests in 1974 &1998 at Pokhran. India also demonstrated nuclear submarine powerpack technology under Kakodkar's

leadership. Kakodkar's sterling leadership led to a significant boost to India's nuclear power programme notwithstanding the uranium supply constraints. As a result India's nuclear generation capacity is set to reach 10,000 MWe with the completion of projects already underway. India under Kakodkar's leadership has earned a distinctive status as a country with advanced nuclear technology.

Notable also are his innovative contributions to Human Resource Development. Establishment of National Institute of Science Education and Research, DAE-Mumbai University Centre for Basic Sciences and Homi Bhabha National Institute are expected to result in a fresh wave of new talent for the acceleration of India's multifaceted atomic energy programme. Kakodkar is leading efforts to take IITs and NITs to world class level, develop solar energy, enhance excellence in Higher and Technical education and catalyse S&T based development in Maharashtra. He also led review of safety on Indian Railway.

## **MEDALS AND PRIZES**

# INSTITUTE GOLD MEDAL PRESIDENT OF INDIA GOLD MEDAL



**Gagandeep Singh**Department of Computer Science and Engineering

## **DIRECTOR'S GOLD MEDAL**



**Anushmita Kaushik**Department of Electrical Engineering

## **INSTITUTE SILVER MEDAL**



**Gagandeep Singh**Department of Computer Science and Engineering



**Ankit Lat**Department of Electrical Engineering



**Ankit Bhardwaj**Department of Mechanical Engineering

## **INSTITUTE PROFICIENCY PRIZES**



**Mohit Ahuja**Department of Computer Science and Engineering



**Shaik Abdul Rawoof**Department of Electrical Engineering



**Ankit Bhardwaj**Department of Mechanical Engineering



**Surabathuni Pallav**Department of Mechanical Engineering

# **Graduating B. Tech. Students 2012**

## **Department of Computer Science and Engineering**

	11 1 01 1	1 1 2: 1	
Abhishek Agarwal	Akash Chaturvedi	Amandeep Singh	Anil Kumar
0801CS01	0801CS02	0801CS03	0801CS04
Anil Kumar Nawal	Anurag Kumar	Anurag Singh	Bhumi Reddy Swathi
0801CS05	0801CS06	0801CS07	0801CS08
C.V.N.K. Chaitanya	Deb Jyoti Saharoy	Devan HariKumar	Devulapalli Vasu
0801CS09	0801CS10	0801CS11	0801CS12
Dhirendra Singh	Gagandeep Singh	Gaurav Choudhary	Karan Jain
0801CS13	0801CS14	0801CS15	0801CS16
Kasha Ravi	Kiran Kumar Bachute	Madhu Sankeerth Dammati	Mohit Ahuja
0801CS17	0801CS18	0801CS19	0801CS20
Naresh	Naresh Babu Kotha	Nishant Kumar	Palak Agarwal
0801CS21	0801CS22	0801CS23	0801CS24
Pawan Kumar Akulakrishna	Piyush Jain	Ravi Kumar	Satendra Singh
0801CS25	0801CS26	0801CS27	0801CS29
Shaik Zakir Hussain	Sidharth Sharma	T.Rohith Kumar Raja	Tejendra Pratap Singh
0801CS30	0801CS31	0801CS32	0801CS33
Turupati Vijayaraju	Vishwanath Pratap Singh	Vivek Chandel	Yerra Sandeep
801CS34	0801CS35	0801CS36	0801CS37
Sachin Girdhar	Amulya Yadav	Aditya Kumar Gupta	
0801CS38	0801CS39	0801CS40	

## **Department of Electrical Engineering**

A. Kashyap	A. Uday Krishna	Abhinav Gupta	Amit Kumar
0801EE01	0801EE02	0801EE04	0801EE06
Ankit lat	Anushmita Kaushik	B S Mahaboob Shareef	Braja Bandhu Patikar
0801EE08	0801EE10	0801EE11	0801EE12
Cheruku Sandeep	Dharohar Rathore	Gatla Sandeep	Gorantla Sunil Kumar
0801EE13	0801EE14	0801EE15	0801EE16
Gautam Chalasani	Hitesh	K Ragha Vendrachary	Karmveer Singh
0801EE17	0801EE18	0801EE19	0801EE20
Krish Mangal	Kulesh Kumar	Kumar Shiladitya	Laxman
0801EE21	0801EE22	0801EE23	0801EE24
Lovy Gupta	Manish Kr. Khokhar	Ravuri Harshavardhan	Ravuru Ramesh
0801EE25	0801EE26	0801EE29	0801EE30
Shaik Abdul Rawoof	Spandana Lekkala		
0801EE34	0801EE35		

## **Department of Mechanical Engineering**

Anjani Kumar	Ankit Bhardwaj	Ankit Rathore	Ashish Kumar Singh
0801ME04	0801ME05	0801ME06	0801ME08
B. Krishna Chaitanya Reddy	Bharath Reddy T	Chennamalla Mahender	Devapujula Siddhartha
0801ME09	0801ME10	0801ME12	0801ME13
E. Venkata Suman	Harshit Sharma	Joji Augustine	K R R Rajendran
0801ME14	0801ME16	0801ME17	0801ME18
Kabra Vishal Jaya Prakash	Kankanti Sai Veer Reddy	Kiran Kannan P	Kriti Choudhary
0801ME19	0801ME20	0801ME21	0801ME22
M Raghavendra	Nitin Jain	Parmanand Premi	Prajjwal Prem Jamdagni
0801ME23	0801ME27	0801ME28	0801ME29
Pratik Jaishwal	Sahil Madaan	Surabathuni Pallav	Udai Veer Singh
0801ME30	0801ME32	0801ME33	0801ME34

## IIT Patna – An Overview



Indian Institute of Technology Patna is one of the new IITs established by an act of Parliament. The journey of IIT Patna has started on August 6, 2008 from its transit campus in Patliputra Colony, Patna.

It has three schools that host ten academic Departments namely, School of Engineering (Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Chemical and Biochemical Engineering, Civil and Environmental Engineering and Materials Science and Engineering), School of Basic Sciences (Chemistry, Physics and Mathematics) and School of Humanities and Social Science (Humanities and Social Science). The Institute has developed modern facilities that are fully equipped with state of the art machines and technologies to run its programs. IIT Patna has

four hundred thirty nine students in its B. Tech programs, twenty nine in M.Tech programs, and eighty seven students enrolled for the PhD programs.

IIT Patna has sixty eight faculty members and sixty support staff. The members of the faculty come with a wide range of academic and research experience in India and abroad. The Central Library is fully air conditioned. It has a good collection of text and reference books as well as a large number of online journals, databases and e-books. The research and development program of IIT Patna is being supported by many funding establishments within the country. The Institute has received forty four projects.

IIT Patna is coming up to the world map of educational excellence. Many international Institutes have shown their interest in collaborating with IIT Patna in various areas of research and teaching. Several scholars from all over the world have visited IIT Patna in the recent past. We are committed for the Institute's visibility and connectivity with the global knowledge network. IIT Patna has an excellent placements record for its outgoing students. Students have participated in several inter IIT sports and research activities and have brought laurels to the Institute. The students have also successfully organized several annual functions and cultural programs.



IIT Patna is soon going to have a sprawling campus of 500 acres in Bihta which is about 35 kms from the transit campus. The foundation stone was laid on April 19, 2011. The Chief Guest on this occasion was former Union Human Resource Development Minister, Kapil Sibal, and the Guest of Honour was the Chief Minister of Bihar, Mr. Nitish Kumar. Mr. Kumar formally handed over the land acquisition papers to the IIT Patna Director, Prof. Anil K. Bhowmick. The Panchayat representatives and the donors of the land were also present to cheer and encourage IIT Patna on this occasion. The map of the upcoming campus is given below.



In the permanent campus, IIT Patna plans to have a state of art central library. A side view of the future library is attached.



The growth of IIT Patna is remarkable. We are committed to achieving the goals to put India in general on to the center stage of education with the following aim in the words of Gurudev Ravindranath Tagore –

"Where the mind is without fear and the head is held high; Where knowledge is free; Into that heaven of freedom, my Father, let my country awake."

## **Board of Governors**

#### Chairman



Shri Ajai Chowdhry, Chairman

#### **Members**



















FROM LEFT TO RIGHT: Prof. Anil K. Bhowmick (Director, IIT Patna, Ex-Officio Member), Mr. Arun Kumar Singh, IAS (Principal Secretary, DST Bihar, Member), Prof. Amitabha Ghosh (Former Director, IIT Kharagpur, Member), Prof. Sriman Kumar Bhattacharya (Director, Central Building Research Institute, Roorkee, Member), Prof. Ajay Chakrabarty (Vice-Chancellor, BIT Mesra, Member), Dr. T. Mukherjee (Former Deputy Managing Director, Tata Steel, Jamshedpur, Member), Prof. A.T. Khan (Dean of Faculty Affairs, IIT Patna, Member), Prof. Swapan Majumdar (Department of Civil and Environmental Engineering, IIT Patna, Member), Mr. Subhash Pandey (Registrar, IIT Patna, Secretary)

## **Former Board of Governors**

## Chairman



Dr. G. Madhavan Nair, Chairman

#### **Members**





















FROM LEFT TO RIGHT: Prof. Anil K. Bhowmick( Director, IIT Patna), Mr. Arun Kumar Singh (Principal Secretary, Department of Science & Technology, Govt. of Bihar), Mr. Ashok Jaipuria (Chairman & CEO, COSMO Films Ltd., New Delhi), Mr. R. Prasad (Member, Competition Commission of India & Former Chairman, CBDT, New Delhi), Mr. N. K. Sinha (Joint Secretary, Distant Learning, Dept. of Higher Education, Ministry of Human Resource Development, Govt. of India), Prof. K. K. Aggarwal (President, Computer Society of India, Founder Vice – Chancellor, Indraprastha University), Prof. S. Majumdar (Department of Civil and Environmental Engineering, IIT Patna), Prof. Gautam Barua (Director, IIT Guwahati, Special Invitee), Prof. A.T. Khan (Dean of Faculty Affairs, IIT Patna), Mr. Subhash Pandey (Registrar IIT Patna, Secretary)

## SCHOOL OF ENGINEERING AND TECHNOLOGY

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



The Department of Computer Science and Engineering came into existence in 2008. It began offering B. Tech. Degree in Computer Science & Engineering. The doctoral program began in 2009. It is jointly involved in offering M. Tech. in Mathematics and Computing with the Department of Mathematics. As of December 2012, faculty strength at present is 11 and more members are being recruited. Faculty strength is supplemented with visiting professors from the US Universities. A sizable number of B. Tech. students from this Department visit universities abroad for summer internships and further training. The Department is fully equipped with teaching and research laboratories. Sponsored research and developmental activities add more strength to the academic activities in the Department.

#### **Faculty members:**

Dr. Arijit Mondal, Dr. Ashok Singh Sairam, Dr. Asif Ekbal, Dr. Rajiv Misra, Dr. Raju Haldar, Dr. Samrat Mondal, Dr. Debasri Saha, Dr. Sathya Peri, Dr. Somanath Tripathy, Dr. Soumyajit Dey, Dr. Sriparna Saha

#### Research areas:

CAD for VLSI, Analog EDA, Network Bandwidth Management, Bio-NLP, Bio-informatics, Mobile Computing, Systems Security, VLSI Physical Design, Grid Computing, Networking algorithms, Lightweight Cryptography, Embedded System Design, Evolutionary Computation, Pattern Recognition, Data Mining, Database

#### Staff:

Mr. Abhishek Dixit, Mr. Ashutosh Kumar Sinha, Mr. Rajender Kumar, Mr. Shailendra Verma

#### DEPARTMENT OF ELECTRICAL ENGINEERING



The Department of Electrical Engineering is evolving since the inception of IIT Patna in the year 2008. The major objective of the Department is to impart high quality education and research. The Department offers B. Tech in Electrical Engineering and PhD in various specialized areas of Electrical Engineering. The Department offers joint M. Tech programme with Mechanical Engineering Department in Mechatronics. The major research areas of the Department include Communications, Optical Communication, Signal Processing, VLSI & Microelectronics, Electric Drives, Power Systems and Power Electronics. The Department has online access to IEL, Science Direct, Springer and other online journals. Instructional laboratories

for Basic Electronics, Analog Electronics, Digital Electronics, Communication, Digital Signal Processing, Embedded Systems, VLSI, Electrical Machines, Power Electronics and Control Systems are well equipped and fully operational.

#### **Faculty members:**

Dr. Ahmad Ali, Dr. Aneek Adhya, Dr. K. C. Ray, Dr. M.H. Kolekar, Dr. Partha Ray, Dr. Preetam Kumar, Dr. R. K. Behera, Dr. S. K. Parida, Dr. Shovan Bhaumik, Dr. Sumanta Gupta, Dr. Yatendra K. Singh

#### Research areas:

Control Systems, Optical Communication, VLSI architectural design, Image and Video Processing, Video Surveillance, DSP Applications, Physical Layer in Wireless Communications, Power System Operation and Control, Renewable and Alternative Energy, Aerospace Target Tracking, Silicon Photonics, EMI/EMC, RF MEMS

#### **Staff:**

Mr. Ambika Prasad Anand, Mr. D. K. Nayak, Mr. Iftekhar Ahmad, Mr. Kumar Swapnil, Mr. Lucky Kumar

#### DEPARTMENT OF MECHANICAL ENGINEERING



Commenced from August 2008, the Department of Mechanical Engineering is advancing towards the frontiers in the field of Mechanical Engineering. The Department offers B. Tech and PhD degrees in Mechanical Engineering. The Department offers joint M. Tech programme with Electrical Engineering Department in Mechatronics. Emphasis is being laid on taking up innovative research and quality education. Department encompasses expertise in Applied Mechanics and Engineering Design, Fluid and Thermal Sciences, and Manufacturing Processes and Systems. The areas of research include Vibration, Soft tissue mechanics, Manufacturing, Condition monitoring, Biomedical robotics, Computational mechanics, Fracture, FEM,

Composite, Heat transfer, Boiling and Condensation, Two-phase flows, Refrigeration & Air-conditioning, Computational Fluid Dynamics, Turbulent Flows, Interfacial flows in yield stress fluid, Laser material processing, Flow of granular materials, Non-traditional manufacturing, Biomedical Bone Drilling, Soft computing, Laser Forming etc.

#### **Faculty members:**

Dr. Akhilendra Singh, Dr. Anamika Prasad, Dr. Anindya Sundar Das, Prof. Birendra Sahay, Dr. Karali Patra, Dr. Manabendra Pathak, Dr. Md. Kaleem Khan, Dr. Probir Saha, Dr. Somnath Roy, Dr. Somnath Sarangi, Dr. Srikanth Bontha, Dr. Subrata Kumar, Dr. Sudhanshu S. Panda

#### Research areas:

FEM, Medical devices, Biomechanics of cardiovascular systems, Active Vibration Control, Turbulent flows, Welding, Mixing and Heat Transfer, Soft-tissue Mechanics, Laser Material Processing, Tool condition monitoring, Metal Cutting and Machining, Two-phase fluid flow, Refrigeration and Air Conditioning, CAD

#### **Staff:**

Mr. Prayag Kumar, Mr. Yaspal Singh, Mr. Sanjiv Kumar

#### DEPARTMENT OF CHEMICAL AND BIOCHEMICAL ENGINEERING

The vision of Chemical and Biochemical Engineering Department at IIT Patna is to achieve national and international recognition through the educational and research achievements and the professional service of our faculty, staff and students. Our **mission** is to provide students with an overall educational experience that prepares our students to become successful professional chemical engineers capable of undertaking both life-long learning and further advanced studies.

The Chemical and Biochemical Engineering Department plans to provide opportunities for both course-based and research-based Masters Degrees and Doctorates in addition to undergraduate B. Tech program. These undergraduate and graduate programs aim to develop highly-qualified graduates who are self-motivated, independent and clear-thinking individuals capable of undertaking an independent work in industry and research and development programs and government and public sectors undertakings.

#### **Faculty members:**

Prof. Suresh Prasad, Dr. Prolay Das

#### Research areas:

Food process Engineering and Technology and Bio-Chemical Engineering, DNA self assembly for production of 3-dimensional functional Nanostructures

#### DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

The Department of Civil and Environmental Engineering DCEE at Indian Institute of Technology Patna (IITP) is a dynamic and growing Department. The DCEE is an innovative and vibrant place of learning, where students pursue their educational and research interests in order to lead the next generation in transforming the disciplines of civil and environmental engineering.

Civil engineering constitutes of five independent disciplines, i) Structures, ii) Water resources, iii) Soil Mechanics, iv) Transportation and v) Environmental engineering. Instead of compartmentalizing, IIT Patna is adopting an integrate approach to forge all these areas into a multi-disciplinary and application oriented course of Civil and Infrastructural Engineering at B. Tech. level. The DCEE is going to offer a four years B. Tech. degree program from the academic year 2013-14. In future the postgraduate course will also be developed in the same line. The DCEE also offers PhD program in several specialization (especially in Structural, Geotechnical and Environmental engineering). Department is actively involved in basic and applied research and consultancy and provides high quality technical advisory support through various R & D projects and consultancy to various organizations.

#### **Faculty members:**

Dr. Pradipta Chakravorthy, Dr. Subrata Hait, Prof. Swapan Majumdar

#### Research areas:

Soil Dynamics and Geotechnical Earthquake Engineering, Solid and Hazardous Waste Management, STRUCTURES, fem & Bio-Mechanics, Conventional and Ecological Sanitation, Probabilistic Methods in Engineering, Soil Heterogeneity

#### DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING



Materials have played a key role in the development of mankind. Materials Science and Engineering (MSE) is an interdisciplinary field of science and engineering which investigates how changes in the structure of a material influence its properties. This field encompasses mechanical, chemical, biomedical, civil, electrical, and aerospace engineering, physics and chemistry. It is a discipline that enables both the creation and application of materials in society. Materials scientists and engineers develop materials for new applications, improve existing materials to enhance performance and evaluate ways in which different materials can be used together.

#### **Faculty member:**

Dr. Srikanth Bontha

#### Research areas:

Mechanics and Materials issues in beam based solid free-form fabrication, block polymer, blends and composites

## SCHOOL OF BASIC SCIENCES

#### DEPARTMENT OF CHEMISTRY



The Department of Chemistry was established in 2008 with the inception of the Institute. The Department started PhD program in Chemistry from July 2009. The Department of Chemistry has a vibrant multidisciplinary research program and energetic faculty members with the state-of-the-art research facilities. With a strong foundation in the conventional areas and quest for emerging areas in Chemistry, faculty and students are engaged in a range of dynamic research programs. In field of education, the Department of Chemistry is dedicated in providing comprehensive, relevant curriculum at all undergraduate and postgraduate levels thereby producing knowledgeable graduates to pursue successful careers in academia and industry. The Department is committed to help each student attain his/her intellectual

aspiration. The overall aim is to provide the best possible stage to produce students who could compete globally. In this context, the Department offers M. Tech program in the field of Nano Science and Technology jointly with the Department of Physics.

#### **Faculty members:**

Professor Anil K. Bhowmick, Professor A. T. Khan, Dr. Debabrata Seth, Dr. Md. Lokman H. Choudhury, Dr. Neeladri Das, Dr. Prolay Das, Dr. Ranganathan Subramanian, Dr. Sahid Hussain

#### Research areas:

Polymer modifications & nanocomposites, Thermoplastic elastomer, Newer Methodologies, Chemical Dynamics, Diversity Oriented Synthesis, Organic Synthesis, Metal organic framework (MOF), Clustered DNA damage and repair mechanism in Nucleosome core particles, Spectroscopy, Ionic liquids

#### Staff:

Mr. Aziz Ahmed, Mr. Imtiaz Ahmad





The Department of Mathematics started functioning with the inception of the Institute in August, 2008. The Department of Mathematics is committed to impart high quality education in Mathematics at Undergraduate and Postgraduate levels. The young and dynamic faculty members of the Department have versatile experience both in teaching and research in various areas of Mathematics and Statistics. Currently the faculty members of the Department are actively engaged in research areas such as Bayesian Statistics, Data Mining, Duality Theory, Fuzzy Optimization, Geometric Topology and Topological Graph Theory, Mathematical Control theory, Multi-objective Programming, Non-linear Optimization, Number Theory, Optimal control, Statistical Decision Theory, Statistical Inference, Fuzzy Sets and System,

Biomathematics, Applications of differential equations, Rings and Modules, Near-Rings and Operator Algebras.

The Department started its PhD programme in July 2009 and has recently developed a computational research lab to encourage research areas which require high computing facilities. The Department offers a joint M. Tech. program along with Computer Science and Engineering Department in Mathematics and Computing from July 2012.

#### **Faculty members:**

Dr. Ashish Kr. Upadhyay, Dr. Debashree G. Adhya, Dr. Nutan Kumar Tomar, Dr. Om Prakash, Dr. Prashant Kumar Srivastava, Dr. Ram Krishna Pandey, Dr. Yogesh Mani Tripathi

#### Research areas:

Topology, Fuzzy logic and its application, Mathematical Control Theory, Stability and Bifurcation, Number Theory, Statistical Decision Theory, Nonlinear Functional Analysis, Optimal Control, Nonlinear Optimization, Statistical Inference

#### **DEPARTMENT OF PHYSICS**



The research activity of Department of Physics at IIT Patna is focussed towards interdisciplinary science as well as pure physics. Research investigation is carried out by active and motivated faculty members both in experimental and theoretical fronts. The various topics of research, ranges from physics in nonlinear media to Bose Einstein condensation, optical image processing to organic electronic device modelling. On the other hand, various research topics in experimental research extend from synthesis and characterization of nanocrystalline magnetic materials and organic devices to renewable energy and digital holography. Needless to say, the Department is equipped with most sophisticated and technologically advanced instruments to carry out the scientific investigation.

The Department has dedicated computational facility to satisfy all the computational needs in theoretical research. The Department offers PhD program for the research scholars. These courses cover Mathematical Methods, Quantum Mechanics, Statistical Mechanics, Device Physics etc. The dynamic set of faculty members is extensively involved in quality teaching. Also, The Department offers courses for undergraduate students (B. Tech.). The Department offers M. Tech program in the field of Nano Science and Technology jointly with the Department of Chemistry.

#### **Faculty members:**

Dr. Ajay D. Thakur, Dr. A. K. Thakur, Dr. A. K. Mukherjee, Dr. Manoranjan Kar, Dr. Naveen K. Nishchal, Dr. Utpal Roy

#### Research areas:

Advanced Electronic Materials, Renewable Energy, EMI Shielding, Dielectrics, Nanotechnology, Transport in Conjugated Polymer, Organic Semiconductor interface, Organic electronic Devices, Optical Information Processing, Bose-Einstein condensate, Nonlinear Optics, Quantum optics, Molecular Electronics

#### **Staff:**

Mr. Santosh Kumar, Ms. Shabana Tabassum

## SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

#### DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

The Department of Humanities and Social Sciences at Indian Institute of Technology Patna is an interdisciplinary in nature and offers courses in Economics, English, Psychology and Sociology. As an integral part of a technological institution, the main objective of the Department is to orient engineering graduates with questions concerning society at large and acquaint them with the implications of such question for our immediate social setup. The Department also offers doctoral program and research. Currently it has ten PhD students. The Department, since the inception of the Institute, has made valuable contributions within the Institute as well as in the society at large.

#### **Faculty members:**

Prof. M.B. Sharan, Dr. Aditya Raj, Dr. Nalin Bharti, Dr. Smriti Singh

#### Research areas:

Macroeconomic Reforms, WTO and India, Organizational and Social Psychology, Personality, Contemporary Literary Theory, Linguistics and Language, Sociology of Education, Migration and Diaspora Studies, and Contemporary Development Discourse.

## TRAINING AND PLACEMENT CELL



Training and Placement Cell (TPC) of the Institute actively engaged in developing relationship between various industrial organizations and employers of technical and scientific manpower. The Cell is organizing summer internships for the pre-final year and the placement activities of the final year B. Tech students. The Training and Placement office is well equipped and is designed to smoothly handle and support the placement procedure at every stage.

The cell has arranged the summer internship for 89 pre-final year students to various private companies, public sector undertakings and R&D organizations. During 2012, a

total of 33 companies and organizations have offered summer training to our students and out of that 27 of them provided financial assistance. Among the pre-final year students, 19 have been offered paid summer research internship abroad in USA, Canada, Australia and New Zealand, Singapore, Malaysia.

The cell has been actively involved in placement of the final year graduating students of first batch admitted in year 2008. Out of the 86 students registered for placement, 84 have got offers from 25 companies. The highest package was offered by Microsoft IDC of INR 16.03 lakhs per annum. About 97% of the graduating students have been placed through the campus placement process. The average salary package is INR 7.02 lakhs per annum.

## The Cultural Journey of IIT Patna

Quality research and teaching are on the top of the priorities of the IIT Patna. Nonetheless, cultural activities are placed nicely alongside academic enterprise in a proper balance. The cultural committee of the students and faculty take care of such activities that reenergise the members of the Institute time to time. The cultural club of the IIT Patna has always





**Foundation Day** 

Anwesha

played a huge role in defining the culture of IIT Patna. Since the inception of the Institute in the year 2008 and over the period of last four years, the members of the club have slowly and steadily setup the events in the college which have now become the part of a yearly cultural calendar. The events have increased in number and in frequency.

Some of the regular celebrations that are part of the cultural joy of the IIT Patna include the famous techno-cultural festival Anwesha, the Foundation Day celebration and the Reverberance. Anwesha is an annual festival. It is a combination of Technical and Cultural celebrations and competitions. It is a joint enterprise of the Student Gymkhana. The culture committee of IIT Patna takes great pride in celebrating the foundation day. Reverberance is for welcoming new comers to the IIT Patna. Some regular features of IIT Patna are celebrations of Janamashtami, Diwali, Republic Day and Independence Day.

## **GYMKHANA**



It is now a well-known fact that a healthy body leads to a healthy mind. To enhance the growth of sound mind and body IIT Patna has been continuously encouraging students to actively participate in sports.

IIT Patna made its humble beginning on August 6th, 2008. Running from a transit campus in Pataliputra Colony, Patna it did not have a lot to boast off in terms of sports facilities. But, just as they say little drops make up a mighty ocean, IIT Patna has been growing ever since and growing tremendously fast to attain heights previously unthought-of.

Today, IIT Patna students have access to

Badminton, Tennis, Table Tennis, Basketball, Volleyball, and Cricket. A typical scene at night would be a bunch of students playing Basketball, a couple on the Badminton Court and some others sweating it out in gym. Sports indeed make a campus lively and healthy.

From the year 2009 onwards, the students of IIT Patna have been regularly participating in Inter-IIT sports meet. In 2011, IIT Patna students participated in 47th Inter IIT Sports Meet-2011 held at IIT Kharagpur. This contingent was the largest ever in number representing IIT Patna and was more than thrice the



number that took part in 2009. The students did not fail to impress their counterparts and made a mark in every game that they played. Not far behind the students were IIT Patna staff members and they participated for the first time in the 19th Inter IIT Staff Sports Meet-2011 held at IIT Kharagpur.

## **Convocation Core Committee Members for 2012**

• Dr. Preetam Kumar - Convenor

• Prof. Suresh Prasad

• B. Tech. Coordinator

• Prof. A.T. Khan

PhD Coordinator

• Prof. S. Majumdar • Mr. Subhash Pandey

• All the Coordinators • Assistant Registrar (Academic)

#### LIST OF SUB COMMITTEES FOR CONVOCATION PROGRAMME 2012

<b>Academic Committee</b>	Transport Committee	Arrangement/Reception of VIPs
Dr. Subrata Kumar (Conv.)	Dr. K. C. Roy (Convener)	Dr. Ranjan Kr. Behera (Conv.)
Dr. Neeladri Das	Dr. Akhilendra Singh	Dr. R. Subramanian
Dr. A. K. Mukherjee	Dr. Atul Thakur	Mr. Sanjay Kumar
Dr. Sumanta Gupta	Dr. D. Seth	Mr. Swantantra Kumar
Dr. N. K. Tomar	Dr. Subrata Hait	Mr. Neeraj Kumar
Mr. Tripurari S. Sinha, AR (Acad.)	Mr. Sanjay Kr., AR(Admin)	Mr. Narnendra Babu Sanka
Ms. Archana Kumari, JA	Mr. Sunil Kumar, JA	Mr. Mritunjay Anand
Mr. Lokesh Srivastava, JA	Mr. Sanjeev Kumar, JA	Ms. Radharani Rit
	Student Volunteers	
Reception Committee	Academic Procession Committee	Hospitality of VIP Guest, Lunch &
Dr. Smriti Singh (Convener)	Dr. Somnath Sarangi (Conv.)	Dinner for them
Dr. Utpal Roy	Dr. Karali Patra	Registrar (Convener)
Dr. Sriparna Saha	Dr. Arijit Mondal	Dr. S. Tripathy
Dr. D. Guha Adhya	Mr. Arvind Prakash, JA	Dr. S. K. Parida
Ms. Radharani Rit, SLIA	Ms. Shabana Tabassum, JTS	Dr. Rajiv Mishra
Ms. Archana Kumari, JA	Mr. Ram Kumar, NKN Staff	Dr. Y. M. Tripathi
Mr. Arvind Prakash, JA	Student Volunteers	Mr. Sanjay Kumar, AR
Student Volunteers		Mr. Neeraj Kumar, JA

<b>Security Committee</b>	Press / Media / Publicity & Telecast	
Registrar (Convener)	Registrar (Convener)	Committee
Mr. Sanjay Kr., AR (Admin)	Dr. Aditya Raj	Dr. Prolay Das (Convener)
Mr. Ajay Shankar, ASO	Mr. Swatantra Kumar	Dr. Ashok Singh Sairam
Mr. Shyam Kr., Asst. Coach	Mr. Neeraj Kumar, JA	Dr. Probir Saha
Student Volunteers		Mr. Ashutosh Kr. Sinha, S.O.
<b>Medical Committee</b>	Finance	Rehearsal of Degree, recipients
Dr. Aditya Raj (Convener)	Registrar (Convener)	Dr. Aneek Adhya(Conv.)
Mr. Sanjay Kr., AR(Admin)	Dr. Nalin Bharti	Dr. Subrata Kumar
Mr. Rakesh Kumar, JA	AR (F&A)	Dr. P. K. Srivastava
Two doctors from MVA	A.O.	Dr. Soumyajit Dey
Student Volunteers	Mr. Rajesh Kumar, J Acct	
Gown & Scarf Committee	Fire/Police/ Disaster Management	Accommodation Committee
Dr. A. K. Thakur (Convener)	Committee	Prof. A. T. Khan (Convener)
Dr. Naveen Kumar Nishchal	Prof. A T Khan (Convener)	Dr. Om Prakash
Dr. Neeladri Das	Registrar	Dr. Nalin Bharti
Dr. S. Mandal	Dr. Sahid Hussain	Dr. Md. L. H. Choudhary
Mr. Sanjay Kumar, AR	Mr. Sanjay Kr., AR(Admin)	Dr. Shovan Bhowmik
Mr. Ankit Gaurav, J Acct	Mr. Rakesh Kumar, JA	Mr. Damodar Murthy, JA
Mr. Pranay Piyush, J Acct	Student Volunteers	Mr. Praveen Kr. Sinha, JA
Horticulture Committee	Invitations Committee	PA System/ videography/ still
Dr. R. K. Behera (Convener)	Prof. A. T. Khan (Convener)	photography committee
Mr. Sanjay Kumar, AR	Registrar	Dr. Proloy Das (Convener)
Mr. Yashpal Singh, JTS	Dr. M. Pathak	Dr. Yatendra Kumar
Mr. Lucky Kumar, JTS	Dr. Manoranjan Kar	Dr. Utpal Roy
Mr. Rakesh Kumar, JA	Mr. Santosh Kumar, JTS	Mr. Ambika Pd. Anand, JTS
Student Volunteers	Mr. Jayanta Das, JA	Mr. Santosh Kumar, JTS
	Mr. Lokesh Srivastava, JA	Student Volunteers
Arrangement for the Chief Guest	Electrical/ Civil works committee	Medals / Prizes committee
Prof. A. T. Khan (Convener)	Prof. S. Majumdar (Conv.)	Prof. S. Prasad (Convener)
Registrar	Dr. Ranjan Kumar Behera	Dr. Subrata Kumar
Mr. Neeraj Kumar, JA	Mr. S. K. Jha, EE (Civil)	Dr. Neeladri Das
	Mr. Mahesh Kr., EE (Elect)	Dr. Utpal Roy
	All J.E.s	

Registration	Hall / Pandal management	<b>Seating Arrangement Committee</b>
Dr. Kaleem Khan (Convener)	committee / Poster /Banner /Gate Committee	Dr. A. K. Upadhyay (Conv.)
Dr. Akhilendra Singh	Dr. N. K. Nishchal (Conv.)	Dr. S. Bontha
Mr. Sanjay Kumar, AR	Dr. A. K. Thakur	Dr. A. Ali
Mr. Ashutosh Kumar Sinha	Dr. Kaleem Khan	Dr. A. D. Thakur
Mr. Ankit Gaurav, J Acct	Dr. R. K. Pandey	Dr. Prodipta Chakrabortty
Mr. Lokesh Srivastava, JA	Dr. Somnath Roy	Mr. Iftekhar Ahmad, JTS
Mr. Ram Kr. Mahto, J Actt	Mr. Sanjay Kumar, AR	Mr. Motiur Rahman, JA
	Mr. Neeraj Kumar, JA	Mr. Sunil Kumar, JA
	Mr. Jitendra Kumar, JA	Student Volunteers
	Student Volunteers	
Personal Relation Committee	Food/ Refreshments/Pre-	Committee for making Director's
Registrar (Convener)	convocation Dinner Committee	Address, Institute report,
11081011111 (0011,01101)		Convocation Brochure, and Chief
Prof. A. T. Khan	Prof. S. Prasad (Convener)	Convocation Brochure, and Chief Guest address (if required)
	Dr. Navin Kr. Nishchal	*
Prof. A. T. Khan	Dr. Navin Kr. Nishchal Dr. Sahid Hussain	Guest address (if required)
Prof. A. T. Khan Dr. S. S. Panda	Dr. Navin Kr. Nishchal Dr. Sahid Hussain Dr. Nalin Bharti	Guest address (if required) Prof. A. T. Khan (Convener)
Prof. A. T. Khan Dr. S. S. Panda Dr. Aditya Raj	Dr. Navin Kr. Nishchal Dr. Sahid Hussain Dr. Nalin Bharti Dr. M. H. Kolekar	Guest address (if required) Prof. A. T. Khan (Convener) Dr. A. K. Thakur
Prof. A. T. Khan Dr. S. S. Panda Dr. Aditya Raj Dr. Soumyajit Dey	Dr. Navin Kr. Nishchal Dr. Sahid Hussain Dr. Nalin Bharti Dr. M. H. Kolekar Mr. Praveen Kumar, JA	Guest address (if required) Prof. A. T. Khan (Convener) Dr. A. K. Thakur Dr. S. K. Gupta
Prof. A. T. Khan Dr. S. S. Panda Dr. Aditya Raj Dr. Soumyajit Dey Mr. Swantantra Kumar	Dr. Navin Kr. Nishchal Dr. Sahid Hussain Dr. Nalin Bharti Dr. M. H. Kolekar Mr. Praveen Kumar, JA Mr. Shyam Kr., Asst. Coach	Guest address (if required) Prof. A. T. Khan (Convener) Dr. A. K. Thakur Dr. S. K. Gupta Dr. Rajesh Kumar
Prof. A. T. Khan Dr. S. S. Panda Dr. Aditya Raj Dr. Soumyajit Dey Mr. Swantantra Kumar Mr. Narendra B. Shanka	Dr. Navin Kr. Nishchal Dr. Sahid Hussain Dr. Nalin Bharti Dr. M. H. Kolekar Mr. Praveen Kumar, JA Mr. Shyam Kr., Asst. Coach Mr. Imtiaz Ahmad, JTS	Guest address (if required) Prof. A. T. Khan (Convener) Dr. A. K. Thakur Dr. S. K. Gupta Dr. Rajesh Kumar Dr. Aditya Raj
Prof. A. T. Khan Dr. S. S. Panda Dr. Aditya Raj Dr. Soumyajit Dey Mr. Swantantra Kumar Mr. Narendra B. Shanka Mr. Neeraj Kumar, JA	Dr. Navin Kr. Nishchal Dr. Sahid Hussain Dr. Nalin Bharti Dr. M. H. Kolekar Mr. Praveen Kumar, JA Mr. Shyam Kr., Asst. Coach	Guest address (if required) Prof. A. T. Khan (Convener) Dr. A. K. Thakur Dr. S. K. Gupta Dr. Rajesh Kumar Dr. Aditya Raj Dr. Sathya Peri

## **Editorial Committee**

- Prof. A T Khan
- Dr. Rajesh Kumar
- Mr. Santosh Kumar
- Dr. Aditya Raj
- Dr. S. K. Gupta
- Dr. Asif Ekbal
- Dr. Sathya Peri

# Acknowledgments

The editorial committee acknowledges the help and support of all.