

INDIAN INSTITUTE OF TECHNOLOGY PATNA



TRAINING AND PLACEMENT CELL

FROM THE DIRECTOR'S DESK



Indian Institute of Technology Patna is one of the new IITs established by an Act of Parliament in 2008. The city of Patna, the capital city of the Indian state of Bihar, has historical significance. It was a knowledge centre in the past which has attracted visitors and scholars from many places all around the world. Some of the historical legends from this region include Lord Gautam Buddha, Lord Mahavir, Guru Govind Singh, the famous astronomer Aryabhata and the first President of India, Dr. Rajendra Prasad.

Currently IIT Patna has three schools with ten departments, namely, Computer Science & Engineering, Electrical Engineering, Mechanical Engineering, Civil & Environmental Engineering, Chemical & Biochemical Engineering and Materials Science & Engineering in the School of Engineering and Technology; Chemistry, Physics and Mathematics in the School of Basic Sciences and Humanities and Social Sciences in the School of Humanities and Social Sciences, IIT Patna offers B. Tech. programme in Computer Science and Engineering, Electrical Engineering and Mechanical Engineering. In 2013, two new B. Tech. programmes namely Civil & Infrastructure Engineering and Chemical Science & Technology has been started. The institute offers M. Tech. programmes in Mathematics & Computing, Nanoscience & Technology, Mechatronics, Computer Science & Engneering, Mechanical Engineering, Civil and Infrastructural Engineering, Materials Science and Engineering and Communication Systems Engineering. It also offers full-fledged Ph. D. programme in all ten disciplines mentioned above. IIT Patna is developing at a healthy pace and aspiring to come up as an institute of excellence promoting intelligent, hardworking and technically curious minds. We have already developed state-of-the-art infrastructure including classrooms and laboratories in imparting world class education. We have a wide range of research programmes, and many curricular and extra-curricular events to ignite the minds of the students. In order to raise the quality of our education and research, we have already signed MoUs with various leading international universities and some more MoUs are in the process of finalization. We are promoting exchange programmes with the best schools in the world, and also a large number of scientists and technologists have visited IIT Patna campus during the last five years. We envision developing this institute as one of the top institutes of overall education.

We plan to train our students in various industries so that academic knowledge gained in the institute is fruitfully utilized. In this regard, I would welcome the academia, industries and organizations in India and abroad to come forward and train our students so that they can be the future of India and the world at large and IIT Patna can produce competent engineers and scientists with good human values. I would also like to invite all prospective trainers and employers to visit IIT Patna and interact with our students and professors and assess the training and development programmes in IIT Patna. If interested in making an early placement/training talks, please let us know the preferred dates. Students have also prepared a booklet to help you understand our academic programmes. I look forward to your whole hearted support and cooperation.

Prof. Partha Pratim Chakrabarti

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We at the Indian Institute of Technology Patna epitomize and revere the limitless power of creativity and excellence. IIT Patna strives to provide world class education and an intellectually stimulating environment to its students.

Nestled in a region that had once been the knowledge capital of the world, IIT Patna is leading Patna and the state of Bihar on the path of rapid development and economic growth in the modern era.

Students at IIT Patna

- IIT Patna has a diverse group of students selected through one of the world's most rigorous examinations.
- This is reflected by the fact that only top 1.5% of the students who take the entrance exam make it through to IIT Patna.
- Students at IIT Patna bring themselves a culture of excellence and a winning mentality, which is further polished by a highly productive and competitive environment of IIT Patna.
- Student from all the corner of the country find adobe at the Institute.



ACADEMICS

Bachelor of Technology (B.Tech.)

Duration: 4 years

Final year project: 1 year Internship: 2 months

Supplements: Open Electives, Inter-disciplinary courses

The following B.Tech. programmes are offered:

- Computer Science and Engineering
- Mechanical Engineering
- Chemical and Biochemical Engineering

Master of Technology (M.Tech.)

Duration: 2 years
Dissertation: 1 year

The following M.Tech. programmes are offered:

- Computer Science and Engineering
- Mathematics and Computing
- Materials Science and Engineering
- Mechanical Engineering

- Electrical Engineering
- Civil and Environmental Engineering

- Mechatronics
- Civil & Infrastructure Engineering
- Nano Science & Technology
- Communication System Engineering

Ph. D. Programmes

Ph.D. is offered in all the major disciplines in Engineering, Science and Humanities.

FROM THE DEPARTMENT CO-ORDINATORS' DESK

Department of Mechanical Engineering at IIT Patna aims to provide quality education and training to nurture world class Mechanical Engineers. Students at IIT Patna are exposed to latest technological advancements and develop a knack for building state of the art products. Our vision is to bring about innovation and technological advancements for a better society."

-Dr. Mayank Tiwari Department of Mechanical Engineering

The department of Electrical Engineering of IIT Patna has been evolving since its inception. The research work being carried out in the institute bears testimony to the quality of technical education being imparted here."

-Prof. Jaideo Narain Sinha Department of Electrical Engineering

Computer Science and Engineering Department, IIT Patna is equipped with state of the art facilities and has created one of the finest platforms for the best brains of India. Likewise students have repeatedly established their worth and mettle in every industry and institution they have stepped in."

-Dr. Asif Ekbal Department of Computer Science and Engineering

Computer Science and Engineering

Database Laboratory
Hardware Design Laboratory
Networking Laboratory
OS Laboratory
Software Engineering Laboratory

Electrical Engineering

Advanced Electrical Laboratory
Basic/Analog/Digital Laboratory
Communication Laboratory
Digital Signal Processing Laboratory
Electrical Machines Laboratory
Embedded System Laboratory
Instrumentation and Control Laboratory
Optical Communication and Networking Lab
RF & Microwave Laboratory
Statistical Signal Processing Laboratory
VLSI Design Laboratory

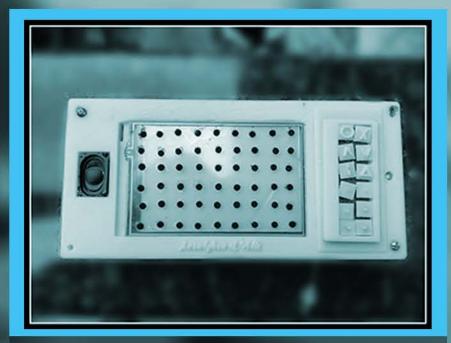
Mechanical Engineering

Advanced Manufacturing Laboratory
CAD/CAM Laboratory
Computational Mechanics Laboratory
Dynamics and Vibrations Laboratory
Fluid Machinery Laboratory
Heat and Mass Transfer Laboratory
I.C. Engine Laboratory
Instrumentation and Control Laboratory
Materials Testing Laboratory
Mechanical Workshop
Metrology Laboratory

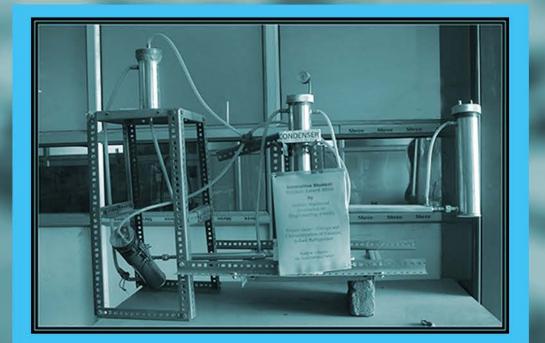
STATE-OF-THE-ART LABORATORIES AND FACILITIES

Centralised Facilities

Atomic Force Microscope
Compression Molding Unit
Cluster Computing
Differential Scanning calorimeter
Dynamic Mechanical Analyser
Field Emission SEM with EDAX
Fluorescence Microscope
FTIR with spotlight 200 Microscope
High End Servers and Softwares
Microwave Reactor
Pulse Laser Deposition
Raman Spectroscopy
Scanning Probe Microscope
Simultaneous DTA-TGA
Solar Stimulator



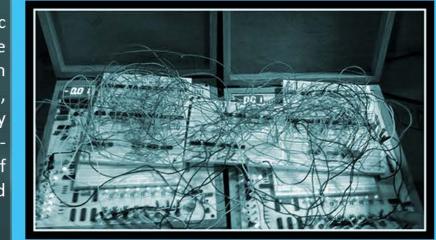
The phone is completely Braille based and offers features like email client, Twitter client, phonebook, text messenger and also a reader app which allows the user to read any book in text format by displaying it in Braille script.

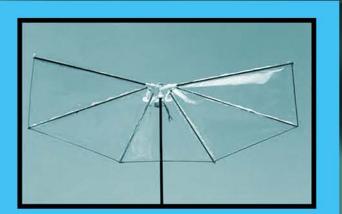


A prototype to test the feasibility of thermodynamic cycle proposed by Einstein and Szilard. Flexible design concepts are implemented to accommodate future modification. The experiments on the designed setup confirmed the feasibility of Einstein-Szilard Refrigerator.

INNOVATIVE PROJECTS

A complete 4 bit CPU executes arithmetic and jump instructions of an architecture similar to MIPS. The CPU is constructed in a five stage process - Instruction Fetch, Instruction Decode, Execution, Memory read-write and Write Back. The Instruction size is 8 bits and is composed of Op-code and data. The CPU was tested with various valid instructions.





Innovative Student Project Award 2013 by Indian National Academy of Engineering (INAE). Flapping Wing Air Vehicles at the conceptual and application level, an attempt on miniaturized ornithopter mechanisms focusing on expanding their usage as surveillance and spyingbots.



Hardware Implementation for QRS detection. In this work the QRS wave of the ECG signal was detected and implemented on the FPGA based embedded platform. The input was taken from the MIT-BIH database and was generated in real time using Arbitrary Function Generator. The output of the detected QRS wave was stored and displayed by the Digital Storage Oscilloscope.

FEW OTHER INNOVATIVE PROJECTS ARE

- Transceiver for Satelite based communication during Emergency using TV White Spaces.
- Supra FSAE Competition finalist in formula styled car designing.
- Shape Stabilized Phase Change Material.
- Women's Safety App.
- · GET'EM MOLES! A Vocabulary Building Game.
- Spectrum Efficient Satellite Communication.
- Manual Wheat Harvester Vehicle for Rural Areas in Bihar and India.
- Embedded device for visually challenged readers.
- Solar lamp.

PUBLICATIONS FROM IIT PATNA

ear	Journals*	Conferences**
009-10	65	28
010-11	92	67
011-12	96	122
012-13	124	188
013-14	190	195
otal	567	600

- * International Peer Reviewed Journals.
- ** International Conferences.

Each department at IIT Patna has its own student-run technical clubs. These clubs organise a multitude of competitions and special lectures all round the year and work to encourage and mentor innovative student-led projects:

Sparkonics - Society of Electrical Engineers

SCME - Students' Council of Mechanical Engineers

NJACK - Not Just Another Computer science Klub.

House of Socio-Cultural Affairs, prevalently known as HoSCA promotes a vibrant and eclectic campus experience through organizing multifarious activities pertaining to the cultural events, bringing students from all walks, interests, and ethnicity together in ways that stimulate lifelong learning, and community interaction.

The house comprises Music Cult, Dance Cult, Dramatics Cult, Movie Cult and The Organizing Team.

TECHNICAL

HoSCA

STUDENT ACTIVITIES

Rural Technology Development Club aims to identify the problems prevailing in the rural areas and to works to develop technologies and devices to address them. The Club strives to fill the technological void existing in the rural areas. Keeping this in mind, the team regularly surveys different villages to understand the problems faced by the

rural populace.

STUDENT GYMKHANA

HoLFA

IITs have always been the cradle that groomed many a multifaceted personalities, thanks to those who still cherish the spark despite the academic work load they confront day after day. The founding of House of Literature and Fine Arts produced a platform conducive for nurturing such talents in the students.

Here at IITP, sports are just as important as academic aspirations. Students represent the institute every year in the Inter IIT Sports meet, and other competitions. Experienced coaches help the students reach levels of athleticism, agility, skill and endurance.

SPORTS

HUMAN POWERED VEHICLE CHALLENGE 2014

A team of a few students participated in the Human Powered Vehicle Challenge 2014 organized by the American Society of Mechanical Engineers and secured an All-India-Rank 10. They designed and fabricated an ergonomic Human Powered Trike which can go upto speeds of 45kmph.

INTERNATIONAL SAE BAJA 2015

Another team successfully cleared the Virtual Round of International SAE BAJA 2015, an event organized by SAE in which over 300 teams participated. Being the only team from Bihar and one among the two IITs being selected, they now are working hard towards completing the fabrication of the All-Terrain Vehicle.

SUPRA SAE INDIA 2014

Cleared the Virtual Round of SUPRA SAE INDIA 2014 and secured an All India Rank of 21 and first among all IITs particpated. The team designed a Formula Styled Car (max speed 100kmph) whose fabrication is under process funded by the college.

GANDHIAN YOUNG TECHNOLOGICAL INNOVATION AWARD 2014

Awarded Gandhian Young Technological Innovation Award 2014 for the project "Transceiver for Satelite based communication during Emergency using TV White Spaces".

GenNext tricycle!

HACKCON14

Ranked at 9th position out of 231 teams participating in HackCon14, a first-of-its kind national college hacking contest, conducted by Microsoft India, which brought together India's brightest engineering minds to compete in a battle of hacking skills.

GOOGLE SUMMER OF CODE

Students from IIT Patna regularly qualify for and complete, on a regular basis, Google Summer of Code, a global program that students stipends to write code for open source projects.

STUDENT ACHIEVEMENTS Wait for vehicle to hit market after modifications, then pedal, apply gear and zoon twelve in the control of the contro

Shri Ajai Chowdhry, Chairman, BOG, IIT Patna & co-founder of HCL, lecturing at IIT Patna on Entreprenuership

DIGNITARIES AT IIT PATNA







COLLEGE FESTIVALS



Indian Institute of Technology Patna organises various festivals throughout the academic year to inculcate a sense of responsibility and teamwork along with fine-tuning academic and technical skills.

Anwesha, the annual techno-cultural festival, organised as a four day extravaganza, includes a wide spectrum of events ranging across technical, cultural, literary and management domains. The festival is organized in the first week of February and provides a stage for the students to showcase their co-curricular and extra-curricular prowess.

Celesta, the three day technical festival, comprises of events that help the students nurture their practical engineering skills. Reverberance, the intra-college fest, brings out the innate competitiveness of the students to vie for the much coveted hall-trophy. Last but not the least, Nebula, the freshers' festival, is organised to make the new additions to the IIT Patna family to feel at home and orient them towards the unique culture here.





CAMPUS AND INFRASTRUCTURE



- IIT Patna is presently running from its transit campus, the permanent campus is on brink of completion and in very near future the institute expects to shift to our state of the art permanent campus at Bihta, a suburb of Patna.
- IIT Patna's transit campus is equipped with all the facilities to match the high standards set by IITs.
- The Central Library at IIT Patna provides access to many volumes of books and online access to a huge number standard journals.
- Students have facilities for playing Basketball, Volleyball, Lawn Tennis, Football, Badminton, Cricket, Table Tennis, etc on the campus with coaches for training.
- Computing facilities provide state-of-the-art simulation and CAD facilities. The students are provided with High Speed Internet on campus for constantly staying updated with the latest information.
- All the Lecture halls are equipped with High Quality Audio and Visual Multimedia Facilities.

The Training and Placement Cell headed by the Professor-In-Charge handles all the training and placement activities for the pre-final and graduating students of all the departments of the institute. The Cell along with the Student Coordinators provides the best possible assistance to the recruiters and also put their consummate efforts, extending from the contacting companies to managing all logistics of arranging for tests, group-discussions, pre-placement talks and final interviews.

The Training and Placement Cell is well-equipped with excellent

The Training and Placement Cell is well-equipped with excellent infrastructure to support every stage of the placement process.

The facilities include

- Seminar Rooms to conduct workshops and pre-placement talks
- Fully Equipped Group Discussion and Interview Rooms
- Video-conferencing facility
- Fully computerized and air conditioned office
- Infrastructure to support online and written screening test

TRAINING AND PLACEMENT CELL (TPC)



FROM THE TPC PROFESSOR-IN-CHARGE

The rigorous entrance procedure ensures that IITs have the best of the country's brains. The flexible, wide and dynamic curriculum has led to the development of various branches of technology as per interest of students. Apart from regular courses, students are also engaged in various cultural, sports, literary and techno-management activities throughout the year. We have already developed a number of good modern high level laboratories for practical training of our students. Previous batches of students have successfully graduated and they had excellent placement in various public and private sector industries and organisations in yesteryears.

The Institute has earned for its excellent academic and extracurricular activities in India and abroad. We would request you to kindly visit our campus for selecting candidates of your choice on convenient dates. The Institute earnestly looks forward to having an enthusiastic participation from your organisation.⁹⁹

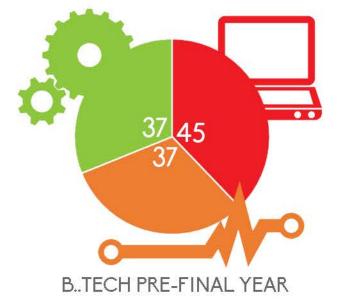
Dr. K. C. Ray
Training and Placement Cell
IIT Patna

DEMOGRAPHICS

ENGINEERING

B.TECH FINAL YEAR







PLACEMENT DATA

IIT Patna has been successful in carving out a niche for itself as one of the premier technical institutes of the country and has accomplished the motive of serving the society with the engineers possessing the best quality.

Computer Science and Engineering

The Computer Science and Engineering department was successful in giving out top notch placements to the students in the previous session in esteemed organisations like Microsoft, Amazon, Cisco, Finisar, Infosys etc. The average salary package was in the range of 11.58 lpa.

Electrical Engineering

The Electrical Engineering department was at par with all branches in giving out placements to the students in the previous session in many revered organisations like Cisco, Samsung SISO, Dovertech, DRDO, Silabtech etc. It had an average package in the range of 6.66 lpa.

Mechanical Engineering

The Mechanical Engineering department was equally successful in giving out great placements to the students in the previous session in many respected organisations like Trident, L&T, Hero Moto Corp, DRDO, etc. It had an average package in the range of 6.53 lpa.

PAST RECRUITERS

Tricon Infotech

Airvana Bank of America Amazon Bank of India Bankbazaar.com Belzabar Software Bridgei2i BPCL Caterpillar CISCO **Dev Factory** Dover India DRDO Finisar Flipkart **FlyTXT** Google Headstrong Hero Motocorp **HPCL** IBM GBS Infosys IOCL Indian Navy L&T Lucid India Masamb Electronics Microsoft Morgan Stanley Odessa Tech Samsung Electronics Samsung Software Center Paytm Sapient Nitro SiconTech Siemens Sigmoid Analytics SilabTech SP Algo **Tata Consultancy Services** Trident Synopsys Tata Motors Limited Tata Technologies TCS

Yodlee Infotech

ZS Associates

MoU with International Universities

University of Houston, USA
University
University of South Australia
University
Georgia State University, USA
Texas A&
Washington State University, USA
National

University of Saskatchewan, Canada
University of Hartford, USA
Texas A&M University, USA
National University of Singapore

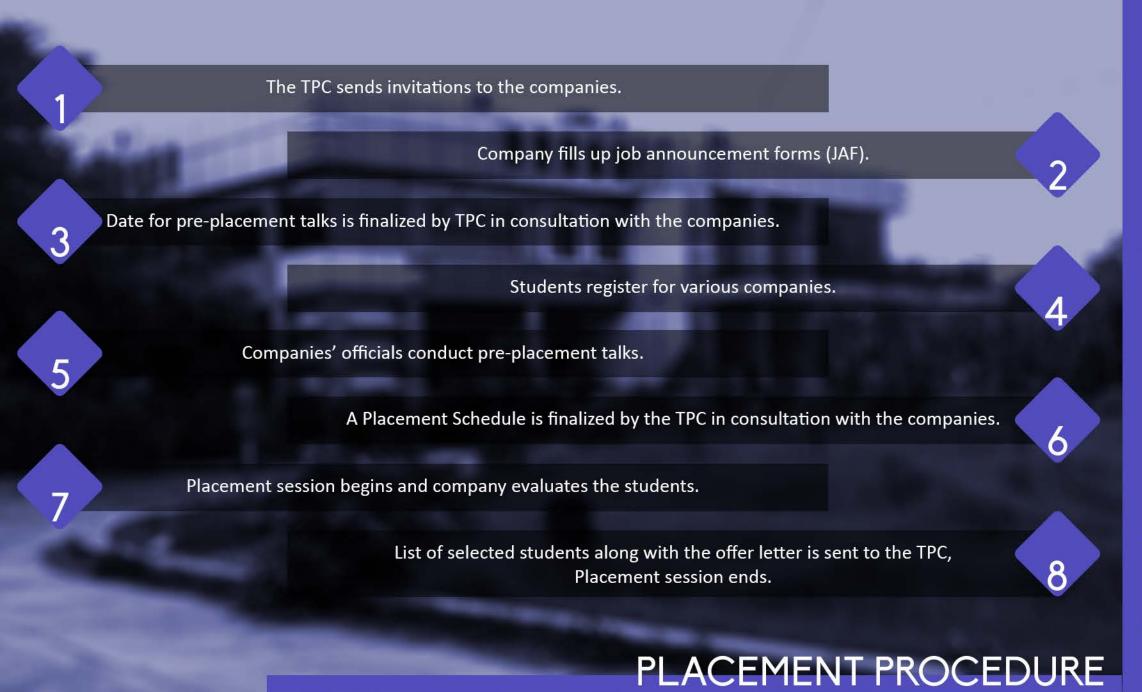
University of New South Wales, Australia
University of South California, USA
University of Auckland, New Zealand
Louisiana State University, USA

Companies and Institutions

JCB India Ltd.

AG Measurematics Atair India Alumunus Software Ltd. Amazon Appulse Technologies Pvt. Ltd. **Aspiring Minds** Atomic Energy Regulatory Board Areva Industries Bajaj Auto Ltd. Bank of India Belzabar Software **BHEL** Bonfiglioli Transmission Pvt. Ltd. BOSCH Ltd. **BPCL BSNL CMERI** Caterpillar Inc. CDAC Chloride Batteries, Singapore COMSOL Multiphysics Pvt. Ltd. COREEL Tech. Dassault Systémes DRDO Ernst and Young Pvt. Ltd. **EdGate Technologies** General Electric Games Inc. Hero Motor Corp. HP India Software Hyundai Motors **Hughes Systique IBM** I-CEE **IDBRT** IISc, Bangalore IYC World Soft, Infra. Indian Navy Interra Systems **IOCL**

STUDENT EXPOSURE



TPC TEAM

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Testimonials From Leading Recruiters

"Very committed and passionate about new technology. Showed a lot of enthusiasm and confidence in picking up new tasks and finishing them on time."

-Microsoft

"Quick learners and very strong on fundamentals. They start contributing towards the success of the team from day one."

-Amazon

"They have made an outstanding contribution to meet our customers' need."

-LG Soft India

"Proactive in learning and came up with new ideas."

-General Electric (GE) India

"Students at IIT Patna were very enthusiastic and took initiative. They have enormous opportunity to explore and move ahead in their professional spheres."

-Flipkart

CONTACTS

The Training and Placement Cell (TPC) IIT Patna organises training and placement activities in the Institute.

Professor-in-charge

Training and Placement Cell

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