

Indian Institute of Technology Patna
भारतीय प्रौद्योगिकी संस्थान पटना

PLACEMENT BROCHURE 2022-23



**COMMUNICATION
SYSTEM
ENGINEERING**

About
us!



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 of the State of Bihar, has historical significance. It was a knowledge centre in the past that attracted visitors and scholars from many places worldwide. 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.

IIT Patna is developing fast and would like to come up as an institute of excellence promoting intelligent, hardworking and technically curious minds. We have already created a state-of-the-art infrastructure to impart world-class education, including classrooms and laboratories. We have a wide range of research programmes and many curricular and extra-curricular events to ignite students' minds.

To raise the quality of our education and research, we have already signed MoUs with leading international universities, and some more MoUs are finalising. We are promoting exchange programmes with the best schools in the world, and also a large number of scientists and technologists have visited the IIT Patna campus during the last four years. We envision developing this institute as one of the top institutes of overall education.

ADDRESS BY THE HOD



Dr. Rajib Kumar Jha
Head of Department
Electrical Engineering

"It is with great pleasure that I introduce the students of Communication Engineering graduating next year after going through the 2-year MTech course. The communication branch in IIT Patna is one of the most advanced in the country, where the focus is given to both research and applications.

The students have completed their core courses which have built a solid platform upon which they can proceed with their projects. The projects will mould them further so they can achieve specializations within their chosen sub-field. They will be ready for the industry where they will strive undeterred towards advancement and excellence.

We would cordially welcome the industries in India and abroad to be part of placements this year and hope to create and strengthen the relationships between our institutions 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."

With best wishes!

ACADEMIC COURSES OFFERED

core

- Advanced Digital Communication
- Wireless Communication
- Optical Communication
- Information Theory and Coding
- Communication Network



Electives

- VLSI Technology
- Digital Image Processing
- Advanced Bio-Medical Signal Processing
- Analog and Mixed-signal.
- Emerging Wireless Technology
- Deep Learning for Video Surveillance System
- Radio Frequency Integrated Circuits
- Random Process and Estimation Theory
- Low Power Circuits and Systems

LAB Facilities

Optical Communication Lab

Research Areas:

Free Space Optical Communication, Under Water Optical Communication, Digital Signal Processing for Optical Communication, Active/Passive Silicon Photonic Devices.



Wireless Communication Lab

Research Areas:

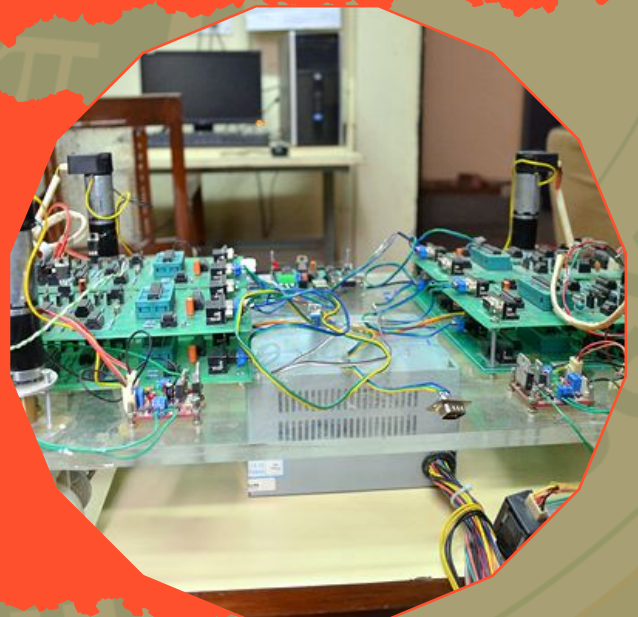
Study of Waveform Contenders for 5G, MC Modulation Schemes for Satellite COM, Massive MIMO, Millimetre Wave Technology, Designing of Transceiver for Cognitive Radio, Channel Estimation using Machine Learning Algorithm.



RF & Microwave Engineering Lab

Research Areas:

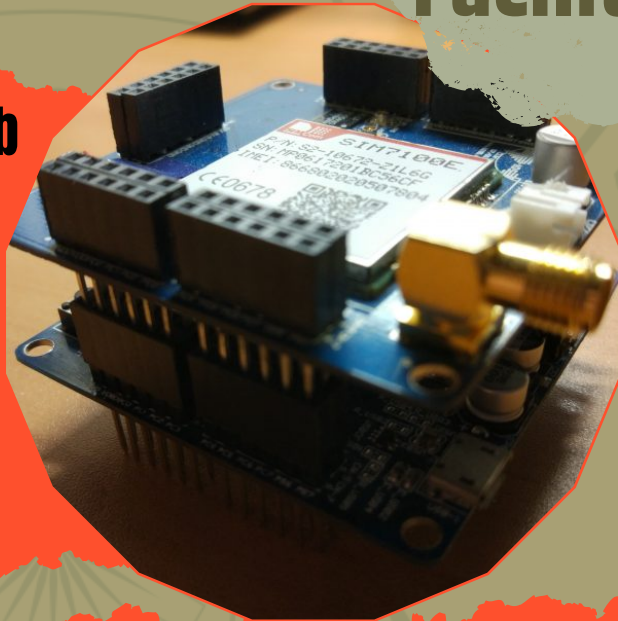
Different filters like Planar filter, Tuneable filter, RF MEMS based filter, Oscillators, Power Amplifier Design, Computational Electromagnetics, Frequency Synthesizers.



LAB Facilities

Sensor Network Research Lab

Research Areas:
Wireless Sensor Network, Internet of Things, Cyber Physical Systems.



Digital Signal & Image processing Lab

Research Areas:
EEG & ECG Signal Analysis, Breast and Blood Cancer Detection, Medical Image Watermarking, 3D / 4D Image reconstruction, Compressive sensing, Stochastic Resonance for weak signal detection.



Optical Networking Lab

Research Areas:
Physical layer impairment-aware WDM backbone networks, Traffic grooming, energy efficiency in backbone and access networks, CapEx and OpEx studies, Elastic Optical Network, Next generation PON, Hybrid wireless-optical broadband access, Software Define Networks, Computer communication and networks.



ACHIEVEMENTS OF OUR DEPARTMENT



- 1. Our Department has published more than 200 research papers in the best journals and conferences in the World in the last couple of years.**
- 2. Three students from the Department have been awarded PM fellowship for research in the last year.**
- 3. Department undergraduate students and faculties are associated with practical research in healthcare, such as Covid-19 detection and classification of Breast cancer detection. UG/PG students are involved in high efficiency solar and wind power conversion Research areas.**
- 4. First International Symposium on 5G Jointly Organized By Indian Institute of Technology Patna (IITP) and Centre for TeleInfrastruktur, Aalborg University (CTIF).**
- 5. The Department focuses on Interdisciplinary applications by using different AI-based subjects such as DL for surveillance, computer vision and many more.**
- 6. Many students are now a part of prestigious institutions such as ISRO , Railways Communication Division, DRDO and many more.**
- 7. Students were selected for Gandhian Young Technological Innovation (GYTI) Award.**
- 8. Senior IEEE member faculties with publications amongst the best journals of the World.**

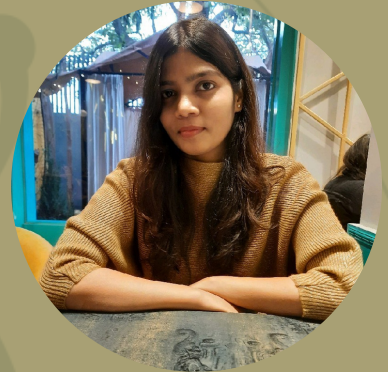
2022 PASSOUTS



Mr. Nitish Kumar Singh
Offered FTE in Intel and
Qualcomm



Mr. Nishu Kumar
Project Engineer at IIT
Kanpur



Ms. Shilpi Sagar
Interned and offered PPO
in NXP semiconductors.



Ms. Jyoti Agrahari
Offered FTE in CDAC and
Synopsys.



Ms. Jeny Khan
Interned and offered PPO
in Intel.



Mr. Pavan Adireddy
Offered FTE in Qbit labs
and NXP semiconductors.

**Current batch
Demography**



12 (All Male)

PREVIOUS RECRUITERS

INTERNSHIPS



MEDIATEK



BOSCH

life.augmented



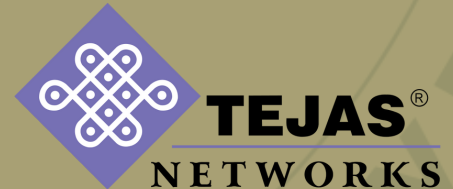
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PLACEMENTS

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AMD



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