Indian Institute of Technology Indore

Advertisement for Admission to Ph.D. Program in Electrical Engineering (EE) for Autumn Semester of Academic Year (AY) 2025-26

(WALK-IN INTERVIEW Under FA, FAP, and FAR Category only)

IITI/Acad/PhD Admissions/25-26

February 26, 2025

IIT Indore invites applications from highly motivated and research-oriented students for admission to its PhD program in the Department of Electrical Engineering for the Autumn Semester of Academic Year (AY) 2025-26 as per the below-mentioned categories of admission and time schedule. Candidates can visit the profiles of the faculty members listed below at the link http://ee.iiti.ac.in/faculty.html before applying. To know about different categories of admission (FA, FAP, and FAR), kindly refer to the main PhD advertisement webpage at https://academic.iiti.ac.in/phdadvt.php

Time Schedule of PhD admission:

Last date of online application through https://academic.iiti.ac.in:8443/nregistration.jsp	March 20, 2025 (Thursday) Latest by 23:59 hrs. IST
Dates of PhD selection process (in-person written test and interviews)	March 21 and 22, 2025 (Friday and Saturday)

Minimum Educational Qualifications (MEQs) and Qualifying Examination

For Indian Applicants: Master's degree in Electrical/ Electronics/ Electronics & Communication / Physics / Instrumentation and Control Engineering / Material Science & Engineering / Mathematics or any other equivalent degree with specialization in the areas of communication and signal processing or micro/nanoelectronics & VLSI area or power electronics and power systems/control systems (with first division as defined by the awarding Institute/University) AND having UGC/CSIR/DBT - JRF qualification or DST INSPIRE fellowship or Equivalent fellowship. Candidates having only GATE qualification in EE/EC/IN/PH papers or UGC-NET-LS qualification may be considered under FA (Project) mode, if any faculty members are having JRF/SRF vacancies under sponsored projects.

OR

Four-year Bachelor's degree OR five-year integrated degree in Electrical Engineering/ Electronics and Communication Engineering OR Electrical & Electronics Engineering/ Instrumentation & Control Engineering / Engineering Physics (with first division as defined by the awarding Institute/University) **AND** having UGC/CSIR/DBT - JRF qualification or DST INSPIRE fellowship or Equivalent fellowship. Candidates having only valid GATE qualification in EE/EC/IN/PH papers or UGC-NET-LS qualification may be considered under FA (Project) mode, if any faculty members are having JRF/SRF vacancies under sponsored projects.

Important Instructions:

- 1. All eligible candidates, fulfilling the minimum eligibility criteria, must apply online through the website (http://academic.iiti.ac.in:8080/nregistration.jsp).
- 2. After applying online, the signed application form along with the following documents should be sent by email to admission-ee@iiti.ac.in
 - a) Self-attested photocopies/scanned originals of all relevant supporting documents such as degree certificates, mark sheets from 10th class onwards, date of birth certificate, fellowship award letter, GATE score card, etc., that they wish to present before the selection committee.
 - b) Two recent passport size photographs.
 - c) Receipt of fee (Rs.100/-) paid through SBI i-collect.
 - d) Letters of recommendation duly signed by a minimum of <u>two referees</u>, who have known the applicant in a professional capacity, are mandatory for PhD selection process and must be sent directly to <u>admission-ee@iiti.ac.in</u>

The format of the recommendation letter can be found along with this advertisement. If the above documents/certificates and recommendation letters are not received by email before the application deadline, then the candidates may not be considered for the selection process.

- 3. **Important: DO NOT** send any form or documents by post.
- 4. Eligible candidates who submit online application before 23:59 Hours (IST) on March 20, 2025 (Thursday) and fulfill the minimum eligibility criteria are strongly encouraged to report at 10.00 AM on March 21, 2025 (Friday) at Takshshila Lecture Hall Complex, IIT Indore, Simrol, Indore 453552. Candidates must take a note that no separate email/communication will be sent to applicants regarding shortlisted candidates and PhD selection process.
- 5. PhD written test and interviews will commence at 10.30 AM on March 21, 2025 (Friday). The selection process may extend up to March 22, 2025 (Saturday). Prospective candidates are requested to plan for necessary travel arrangement ahead to avoid any inconvenience at the last minute. No communication in any form regarding the change of date, request for conducting online interviews, etc. will be entertained.

- Prospective candidates should bring relevant documents (original and photocopies) as mentioned above on March 21, 2025 (Friday) to present before the selection committee failing which they may not be considered for the selection process.
- 7. No TA/DA will be paid for attending the PhD selection process. Limited hostel accommodation (on payment basis) will be available inside IIT Indore campus. The candidates can contact the undersigned (admission-ee@iiti.ac.in) for availing the hostel accommodation during their visit at IIT Indore.
- 8. Candidates who wish to appear for the PhD selection process and fulfill the eligibility criteria may also send their Resume/CV to the faculty member whose area is of interest to them. The areas of interest and detailed profiles of faculty members participating in PhD admission are given below. Candidates are encouraged to visit the webpage of faculty members listed below to know more about their ongoing research work and areas of interest.
- Mere fulfillment of the minimum eligibility criteria does not entitle anyone for admission into the PhD program in the Department of Electrical Engineering.



Prof. Shaibal Mukherjee

Hybrid Nanodevice Research Group (HNRG) led by Prof. Shaibal Mukherjee needs sincere and motivated PhD students to work in RRAMs in Image Processing, Circuit Design; Quantum Sensors for Healthcare and Agriculture (https://hnrg.profiles.iiti.ac.in and https://www.quantechl2m.com/). HNRG has strong collaboration with industries and academia in India and in the USA, KAUST, Russia, France, Sweden, Italy, Japan, Australia, Taiwan, and Germany. Candidates, having expertise in Microcontroller programming / Verilog / PSpice / Python are desirable. Till date, 22 PhD students have graduated / submitted thesis from HNRG with 135+ journal papers, 110+ conference papers, 11 book/book chapters and 14 patents (granted: 11, filed and published: 3). Former PhD graduates from HNRG are successfully placed in IIT, IMEC, NITs, IIITs, and Japan (https://hnrg.profiles.iiti.ac.in/phd_graduated.php). Interested candidates should send their resume at shaibal@iiti.ac.in



Prof. Vipul Singh

Prof. Vipul Singh's research group MNRG focuses on wide range of topics primarily related to **Organic electronics**, **Oxide based semiconductors**, **LSPR effect**, **Optoelectronic devices**, **Bio/chemical/gas sensors**, **synthesis of nanostructured materials**. MNRG strives for academically brilliant and motivated candidates having past background in Electrical/Electronics/ Instrumentation engineering/ Material Science & Engineering and Applied Physics and having passion to pursue research at the forefront of nanoelectronics and allied areas. Fellowship awardees are encouraged to apply to our group under FA category. For more details, please visit our homepage: http://www.iiti.ac.in/people/~vipul/, for more details contact me at vipul@iiti.ac.in



Prof. Abhinav Kranti

Low Power Nanoelectronics Research Group is engaged in pioneering research on capacitorless DRAM, steep switching transistors, material-device-circuit co-design and vertically stacked transistors, all of which are essential for the development of next generation logic and memory technology. The group has very strong collaborations with leading international researchers, and after completing PhD, students often receive offers for post-doctoral positions abroad. Exceptionally talented and motivated candidates, with strong interest in Semiconductor Devices, CMOS, Nanoelectronics, Biosensors, VLSI and Circuit Design intending to work on emerging research problems are strongly encouraged to apply. For more information, please visit: http://iiti.ac.in/people/~akranti/. For more details, please contact me at akranti/. For more details, please contact me at akranti//(iiti.ac.in/people/~akranti//(iiti.ac.in/peopl



Prof. Mukesh Kumar

Prof. Mukesh Kumar is leading Optoelectronic Nanodevice Research Laboratory (Opto Nano Group). His research interests include Optoelectronic Devices, VLSI Technology, Microwave Photonics, Nanoelectronics, Integrated Photonics and Device Fabrication. He has supervised 10 PhD-scholars so far. He is also serving as an adjunct-faculty at Purdue School of Engineering & Technology, IUPUI, USA. His research-group has ongoing-research-collaborations with leading-scientists in India, France, UK, Russia, South Korea, Germany, and USA. He is looking for motivated and hard-working PhD-candidates who are with a background in Electronics and related areas and are interested to work in the above-mentioned research-areas. For further details, please visit http://iiti.ac.in/people/~mukesh.kr. Contact: mukesh.kr@iiti.ac.in



Prof. Ram Bilas Pachori

Prof. Ram Bilas Pachori works in the areas of Signal and Image Processing, Biomedical Signal Processing, Non-stationary Signal Processing, Speech Signal Processing, Brain-Computer Interface, Machine Learning, AI and IoT in Healthcare. He has 365 publications which include journal papers (228), conference papers (96), books (11), and book chapters (30). His publications have approximately 19000 citations with an h-index of 74 as per Google Scholar. He has supervised 23 Ph.D. students for their theses. He is looking for the Ph.D. students to work in the above mentioned research areas. Please visit his homepage for more details: http://iiti.ac.in/people/~pachori/



Prof. Vimal Bhatia

Prof. Vimal Bhatia (http://iiti.ac.in/people/~vbhatia / vbhatia@iiti.ac.in) is leading collaborations with researchers from the UK, Ireland, Norway, Finland, France, Canada, Czech Republic, and the US, with more than 300 peer-reviewed publications, 5 patent granted and 18 PhD thesis has been submitted. Research on a) Performance analysis of beyond 5G/6G communications, b) OFDM, MIMO, NOMA, Cognitive Radio, Visible Light Communications, Quantum Communications c) Bio-inspired image processing, biometry, radar using machine and deep learning algorithms. Bright and highly motivated candidates, having background in Communications/Signal Processing/Mathematics/Statistics/Electronics/Electrical Engineering/Computer Science or equivalent are encouraged to apply. Former PG students placed in IIT, NIT, IIIT, NMIMS, Australia, Canada, Saudi Arabia, UK, EU, and Qualcomm.



Dr. Dibbendu Roy

Dr. Dibbendu Roy obtained a Joint-PhD from University of Melbourne and IIT Kharagpur. Post PhD, he worked as a Postdoc at KTH Royal Institute of Technology, Sweden. His research focuses on developing mathematical models using optimization, machine learning, game theory and network calculus for resource allocation and scheduling in next-generation communication networks. You can visit his profile and website at https://dibbend8.github.io/dibbendu/



Dr. Lokesh Kumar Dewangan

Dr. Lokesh Kumar Dewangan specializes in the control and dynamics of HVDC systems/grids. He has completed his PhD from IIT Bombay and was working as post-doctoral researcher at ECN Nantes, France and KU Leuven, Belgium prior to joining the department of electrical engineering at IIT Indore. His major research focuses on modeling, stability analysis, and controller design within multi-vendor power electronics-based future power systems. With this expertise, I offer mentorship and guidance to highly motivated researchers having a background in power electronics and power systems. Join our vibrant academic community at IIT Indore, where collaboration and innovation thrive. For more details, please visit the website: https://sites.google.com/view/lokeshdewangan/home.

For any queries, please contact:

DPGC Convener, Department of Electrical Engineering,

Indian Institute of Technology Indore, Indore - 453552, India

E-mail: admission-ee@iiti.ac.in