Indian Institute of Technology Indore

Advertisement for Admission to Ph.D. Program in Electrical Engineering

IITI/Acad/PhD Admissions/2019-20 **April 30, 2019**

IIT Indore is a premier institute for higher education and research in India and is currently ranked in the bracket of 351-400 in the Times Higher Education World University Rankings 2019, 2nd amongst Indian Institutes. IIT Indore invites applications from highly motivated and research-oriented students for admission to its PhD Program in the Discipline of Electrical Engineering for the Autumn Semester of Academic Year (AY) 2019-20 as per the prescribed categories of admission and time schedule. Candidates MUST visit the profiles of the faculty members available at http://ee.iiti.ac.in/faculty.html before applying for the PhD Program.

Kindly refer to the main PhD Advertisement of the Institute available at **http://academic.iiti.ac.in/phdadvt.php** for details on **Admission Category, Minimum Educational Qualifications (MEQ), Qualifying Exam, Application Fee and Application Procedure.**

Categories of Admission:
(Please refer to the main page of IIT Indore academic portal)

Minimum Eligibility (Qualifying Degree and Examination)
(Please refer to the main page of IIT Indore academic portal)

Last date of Online Application through http://academic.iiti.ac.in:8080/nregistration.jsp **May 22, 2019 (Wednesday)**

Date of Written Test and/or Interview **May 23-24, 2019 (Thursday-Friday)**

IMPORTANT INSTRUCTIONS (for Indian Nationals):

1. Prospective applicants **must** apply online through our website (http://academic.iiti.ac.in:8080/nregistration.jsp). **Candidates need NOT to send the hard copy of the submitted online application by post or courier.**
2. PhD written test and/or interviews shall be conducted on **May 23-24, 2019 (Thursday and Friday)** at **Room No. 204, Manganese Building (Pod 1E), IIT Indore, Simrol 453552, Indore.** Eligible candidates, who have submitted online application (before the last date) and fulfil the minimum eligibility criteria, must report by **9 am** on **May 23, 2019**. Candidates must take a note that no separate email/communication will be sent to applicants regarding PhD selection process. **No communication, in any form, regarding short listed candidates, accommodation, change of date, syllabus of written test and/or interview etc. will be entertained**. Mere fulfilment of the minimum eligibility does not entitle a selection into the PhD program.
3. **Prospective candidates must bring the following documents on May 23, 2019, to present before the selection committee:**
   (a) Printout of the submitted online application form, two recent passport size photographs, self-attested photocopies and originals of all relevant supporting documents such as degree certificates, mark sheets, date of birth certificate, etc., from Xth class onwards. Candidates may also bring original and attested photocopies of any other testimonials, documents or certificates that they wish to present to the selection panel.
   (b) A printout of the SBI i-Collect receipt confirming the payment of the application fee of Rs. 100.
   (c) Letters of recommendation duly **signed and sealed in a confidential envelope** from a minimum of **two referees** who have known the candidate in professional capacity in the **specified format**. The letters are mandatory for PhD selection process and should be addressed to **The Chairperson, PhD Selection Committee, Electrical Engineering, IIT Indore**. The same can be sent by email to the prospective supervisor(s).
4. No TA/DA will be paid for attending the PhD selection process.
5. Candidates who wish to appear for the PhD selection process and fulfil the minimum eligibility criteria may also send their resume/CVs to the faculty members (**from the list below**) of their interest **in addition to applying online through the website as stated above**. Candidates are advised to visit webpage of below faculty members to know about their ongoing research activities and areas of interest. **Applicants with UGC/CSIR Junior Research Fellowship (JRF) award in Electronic Sciences/Physical Sciences or any other external fellowship/scholarship are strongly encouraged to apply under the Fellowship Awardee (FA) category.**

IMPORTANT INSTRUCTIONS (for International Applicants):

Prospective applicants must apply online through our website (http://academic.iiti.ac.in:8080/nregistration.jsp). After submitting the application online, the eligible candidates should send the signed hard copy of the application along with a recent photograph, printout of SBI i-Collect payment receipt, and photocopies of self-attested relevant certificates by post to **DPGC Convener, Electrical Engineering (Scandium, Pod 1A), Indian Institute of Technology Indore, Simrol 453552, Indore, Madhya Pradesh, India**, latest by May 20, 2019. Only shortlisted international candidates shall be contacted for the selection process. For international applicants, application fee is exempted.

Faculty members and their research interests:

Dr. Abhinoy Kumar Singh (abhinoy.singh@iiti.ac.in)	Dr. Abhinoy Kumar Singh has joined IIT Indore as an INSPIRE Faculty after completing postdoc from McGill University, Canada. His major research interest is in estimation and filtering algorithms with application to target tracking problems. In recent years, he has also been working on tackling biomedical problems, especially, efficient glucose monitoring in diabetes treatment, with application of estimation algorithms. Being a tool for target tracking problem, the estimation/filtering algorithm is key to several defense and space technologies. It is also well applicable in financial and biomedical modelling, artificial intelligence in robotics, diagnosis and prognosis of heavy industrial equipment *etc*. These domains contribute large in world GDP and open scope for huge career opportunities. Potential candidates with strong background in control systems and/or mathematics, especially probability and stochastic theory, are encouraged to apply. For further detail, please visit IIT Indore website: http://people.iiti.ac.in/~abhinoy.singh/
Dr. Saptarshi Ghosh (sghosh@iiti.ac.in)	Dr. Saptarshi Ghosh has completed his Ph.D. from IIT Kanpur and Postdoc from Chung-Ang University, Seoul, South Korea. His areas of research interest include electromagnetics, frequency selective surfaces, metamaterials, microwave absorbers, antennas, and other passive microwave devices. He is also working on various cutting-edge technologies, such as 3-D printing, Inkjet printing, microfluidic technologies, and 5G communication. Motivated candidates, having a strong background in Electromagnetics and related areas, are highly encouraged to apply. For more information and recent publications, please visit the weblink: http://iiti.ac.in/people/~sghosh/
Prof. Vimal Bhatia (vbhatia@iiti.ac.in)	Prof. Bhatia completed his Ph.D. from The University of Edinburgh (UK), and is currently leading Signals and Software Group (SaSg) @ IIT Indore with active collaborations with researchers from the **UK**, **Ireland**, **Norway**, **Finland, France**, **South Africa**, and the **US**, with external funding of over 15 Crores from DST, MeitY, UKIERI, AKA Finland, and MHRD. The SaSg research group is actively involved in R&D on a) Performance analysis of beyond 5G communication links, b) Adaptive algorithms, c) OFDM, MIMO, NOMA, Cognitive Radio, Visible Light Communications for 5/6G and beyond networks, d) RADAR signal processing, e) Bio-inspired signal processing, machine and deep learning algorithms and f) Solutions for industry and defence. The group has attracted students from abroad, IISc/IITs/NITs/IIITs and other institutes. Bright and highly motivated candidates, having background in **Communications/Signal Processing/Physics/Mathematics/Statistics/Electronics/Electrical Sciences/Electrical Engineering/Computer Science & Engineering or equivalent** are encouraged to apply. Former post-graduate students from SaSg placed in NIT, IIIT, NMIMS, Australia and in Qualcomm. For more information, please visit: http://iiti.ac.in/people/~vbhatia.
Prof. Ram Bilas Pachori (pachori@iiti.ac.in)	Prof. Ram Bilas Pachori works on the development of new methodologies based on the non-stationary signal models for analysis and classification of biomedical signals. He also works on time-frequency analysis-based methods for speech signal processing and non-stationary signal processing. He is looking for the Ph.D. students to work in the areas of Speech Signal Processing, Biomedical Signal and Image Processing, Signal Processing, Machine Learning, Brain-Computer Interfacing. Please visit his homepage for more details: http://www.iiti.ac.in/people/~pachori/
Dr. Shaibal Mukherjee (shaibal@iiti.ac.in)	**Hybrid Nanodevice Research Group (HNRG)** led by Dr. Shaibal Mukherjee works in advanced devices in **RF Transistor, Artificial Neural Network / Hardware Security, RRAMs / Neuromorphic Computing,** and **Solar Energy** (http://iiti.ac.in/people/~shaibal/). HNRG has been involved in strong collaborative research activities with industries and institutions in India (**Intel, EnviroWisers, IISc Bangalore, IIT Bombay, CEERI Pilani, RRCAT** etc.) and in **USA, Russia, France, Japan, Australia, Sweden,** and **Germany**. Bright and inspired candidates, having a background in **Physics/ Materials Science/ Electronics/ Computer Science & Engineering** are strongly encouraged to apply. Former PhD graduates from HNRG are successfully placed in IIT Ropar and IIITs (http://iiti.ac.in/people/~shaibal/phd_graduated.php).

Dr. Mukesh Kumar
(mukesh.kr@iiti.ac.in)

The research group of Dr. Mukesh Kumar, in **Optoelectronic Nanodevice Research Laboratory** (OptoNano Group), has been working in **Optoelectronic Devices, Nanoelectronics, Integrated Photonics, and Device fabrication** for applications in optical interconnects, high speed communications and bio-sensing. OptoNano Group is actively involved in Device Innovations through novel designs and cost-effective fabrication of smart on-chip devices based on Silicon and other hybrid materials (Graphene, ITO, Zinc Oxide, Silicon Nitride etc.) for future communication, computing and sensing. The group has ongoing research collaborations with leading scientists in India, France, UK, Russia, South Korea, Germany and USA. Motivated and bright candidates, having a background in **Electronics and related** areas are ideally suitable and thus strongly encouraged to apply. For further details, please visit http://iiti.ac.in/people/~mukesh.kr