

# Indian Institute of Engineering Science and Technology, Shibpur



## INVITATION OF APPLICATIONS FOR FACULTY POSITIONS

Advertisement No. AU/RO/18/76, Date: 03.08.2018

Indian Institute of Engineering Science and Technology, Shibpur, an Institute of National Importance engaged in teaching, research and development requires faculty for its various academic units. The Institute invites application from Indian nationals, possessing excellent academic background, commitment to top quality teaching and proven credentials for carrying out outstanding research and development for the following Departments / Schools/ Centres:

### **Engineering :**

#### **(i) Architecture, Town and Regional Planning**

**Specialization:** Architectural Conservation, Building Energy and Management, Built Environment (acoustics, daylighting, thermal comfort), Communication Design, Energy Studies and Development, Environmental Planning, Housing, Industrial Design, Infrastructure Planning, Landscape Architecture, Planning in Ecologically Sensitive Areas, Regional Planning, Transit Planning and Decision Making, Urban Design.

**The candidate must have a degree in Bachelor of Architecture; and a degree in Master of Architecture/its equivalent, or Master of Planning/its equivalent, or Master of Design/its equivalent or in a relevant discipline for Assistant Professor (on Contract) and Ph.D for higher cadre.**

#### **(ii) Civil Engineering**

**Specialization:** Structural Engineering, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Water Resources, Hydraulics Engineering, Construction Technology/Management, Geomatics Engineering and Earthquake Engineering.

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. or equivalent degree in Civil Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

#### **(iii) Computer Science and Technology**

**Specialization:** Computer Science and Engineering and Technology

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. or equivalent degree in Computer Science and Technology or in a relevant discipline, as degree/ degrees preceding Ph.D.**

#### **(iv) Electrical Engineering**

**Specialization:** 1. Control System & Instrumentation, 2. Power and Energy Systems, 3. Power Electronics and Machine Drives.

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. in Electrical Engineering, or in a relevant discipline, as degree/ degrees preceding Ph.D.**

#### **(v) Electronics and Telecommunication Engineering**

**Specialization:** Optoelectronics and Optical communications, VLSI design and testing, Embedded systems and microcontrollers, Communication and Signal Processing, Communication and Networks.

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. or equivalent degree in Electronics and Communication Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

#### **(vi) Mechanical Engineering**

**Specialization:** Production Engineering, Thermal Engineering, Machine Design

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. or equivalent degree in Mechanical Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(vii) Metallurgy and Materials Engineering**

**Specialization:** Extractive Metallurgy (with expertise in Iron making/Steel making/Non-ferrous extraction/ foundry), Mechanical Metallurgy (with expertise in Fatigue/Fracture/Creep), Computational Materials (with expertise in Ab-initio/Phase – Field/ Molecular Dynamic/ finite Element Simulation), Surface Engineering (with expertise in Coating/Laser/Plasma/ Other surface modification techniques), Advanced Materials (with expertise in Electronic/Magnetic/Energy Materials), Ceramic/Polymeric Materials.

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. or equivalent degree in Metallurgy and Materials Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(viii) Mining Engineering**

**Specialization:** Geomechanics, Opencast Mining, Mine Planning and Design, Mineral Processing, Mine Environment, Environmental Management, Geoinformatics, or any other related field.

**The candidate must have B.E./ B. Tech / M.E./ M. Tech degree in Mining Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**Science****(i) Chemistry**

**Specialization:** Organic Chemistry - Synthetic/ Bio-Organic Chemistry; Physical Chemistry – Experimental Spectroscopy/ Experimental Biophysical Chemistry/ Experimental Surface Chemistry.

**The candidate must have B.Sc (Hons.) and M.Sc in Chemistry or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(ii) Earth Science**

**Specialization:** Igneous Petrology, Metamorphic Petrology, Geochemistry and Mineralogy, Ore Geology, Geophysics.

**The candidate must have B.Sc. (Hons) degree in Geology/ Applied Geology and M.Sc in Geology/ Applied Geology/ Geophysics or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(iii) Mathematics**

**Specialization:** Financial Mathematics, Mathematical Analysis, Fuzzy Sets and Systems, Quantum Mechanics, Relativity and Cosmology, Non-linear Dynamics, Data Modeling and Forecasting.

**The candidate must have B.Sc. (Hons) and M.Sc in Mathematics or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(iv) Physics**

**Specialization:** Condensed Matter Physics, Electronics, High Energy Physics, Nuclear Physics, Photonics.

**The candidate must have B.Sc. (Hons) and M.Sc in Physics or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**Humanities and Social Sciences**

**The candidates must have M.A. in English, or M.A./ M. Sc. in Economics, or M.A./ M. Sc. in Geography with specialization in Regional Planning, or M.A./ M. Sc. in Sociology with specialization in Science and Technology Studies, or M.A. in Philosophy with specialization in Logic or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**Interdisciplinary :****(i) Aerospace Engineering and Applied Mechanics**

**Specialization:** Propulsion, Flight Dynamics and Control, Space Dynamics, Aerostructures, Aerodynamics, Orbital Mechanics.

**The candidate must have B.E./ B.Tech. in Aerospace/ Aeronautical/ Civil/ Mechanical Engineering; and M.E./ M.Tech in Aerospace/ Aeronautical Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(ii) Information Technology**

**Specialization:** Software Engineering, High performance computing, Hardware and Architecture, Embedded systems, Algorithms, Data Base Management Systems, Computer Networks, Distributed computing, formal Language and Automata, Information Security, Machine learning and AI, Cloud Computing, Information and Signal Processing, Wireless Communication, Computer Vision and Image Analysis.

**The candidate must have B.E./B.Tech./ M.E./M.Tech. in IT/ CST/ ECE or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(iii) M.N. Dastur School of Materials Sciences and Engineering (MNDSMSE)**

**Specialization:** Composite Materials: Synthesis and micromechanical characterization, Polymeric materials: Biopolymer processing, fabrication and application, Nanomaterials, Nanophotonics, Nanoelectronics, Surface Engineering: Coating technology, Nano-Semiconducting materials, Optical and Transport properties of nanomaterials, Nano-sensors, Physics of materials.

**The candidate must have B.Sc./ M.Sc./ B.E./ B.Tech./ M.E./ M.Tech. in relevant discipline of Science and/or Engineering, as degree/ degrees preceding Ph.D.**

**(iv) School of Community Science & Technology (SOCSAT)**

**Specialization:** Microbiology/ Food Biotechnology, Food Product Development/ Food Waste Utilization, Food Processing and Nutrition Science, Nutritional Biochemistry, Food Product Development, Food Analysis, Microbial Enzyme Technology, Flavour Technology.

**The candidate must have B.Sc./ M.Sc./ B.E./ B.Tech./ M.E./ M.Tech. in relevant discipline of Science and/or Engineering, as degree/ degrees preceding Ph.D.**

**(v) School of Mechatronics & Robotics (SOMR)**

**Specialization:** Mechatronics, Robotics, Control System, Embedded System, Product Design and Development, Signal Processing, CAD-CAM Automation, Motion Control.

**The candidate must have B.E./ B. Tech./ M.E./ M. Tech. in Mechatronics/ Robotics/ Mechanical Engineering/ Electrical Engineering/ Electronics Engineering/ Instrumentation Engineering/ Computer Science or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(vi) School of VLSI Technology**

**Specialization:** Analog Mixed Signal VLSI Design, Digital VLSI Design, Test and Verification of VLSI Circuits, Nano-scale Devices and Interconnects, VLSI Physical Design.

**The candidate must have B.E./ B.Tech. in Electrical Engineering/ Electronics and Communication/ Computer Science/ Information Technology/ M.E./ M. Tech in relevant Specialization or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(vii) Centre of Healthcare Science & Technology (CHST)**

**Specialization:** Biomedical, Biotechnology, Pharmaceutical Engineering with expertise in biomaterials, Medical Devices and Instruments, Biomedical Optics and Imaging, Cell Biology, Bio-mechanics, Regenerative Medicine, Bioinformatics.

**The candidate must have B.E./ B. Tech./ M.E./ M.Tech./ B. Sc./ M.Sc./ B.Pharm./ M.Pharm./ MS. (Pharm.) with relevant specialization or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**(viii) Centre of Excellence in Green Energy & Sensor Systems (CEGESS)**

**Specialization:** Crystalline/ Thin Film Silicon Solar Cells; Advanced materials for Solar Cells/ Sensors/ Storage; Biomass Energy Generation; Solar PV systems including Microgrid or BESS.

**The candidate must have B.Sc. (Hons) and M.Sc. in Physics/ Chemistry, B.E./ B.Tech/ M.E./ M. Tech. in Materials Science/ Electronics and Telecommunication Engineering/ Electrical Engineering or in a relevant discipline, as degree/ degrees preceding Ph.D.**

**NOTE:**

1. All new entrants shall have Ph.D. in the relevant/ equivalent discipline, and shall have First Class in the preceding degrees. Candidates obtaining Ph.D directly after B.E./ B. Tech. are eligible to apply.
2. For faculty in the department of Architecture following will be essential qualification without insisting on credit point requirements at Assistant Professor level:
  - M.Arch./ M.Plan./ M.Des. with 01 year professional experience : Assistant Professor at AGP of Rs.6000/-
  - M.Arch./ M.Plan./ M.Des. with 02 years of professional experience : Assistant Professor at AGP of Rs.7000/-
  - For higher cadres the Essential Qualification and credit point requirement will remain same as given in the table for Engineering and Sciences.
3. Reservation rules of the Government of India will be strictly followed.
4. This being an advertisement governed by the flexible faculty recruitment rules, the number of positions for internal candidates are not restricted by the number of positions shown below. However, the total number of faculty positions will not exceed the sanctioned positions of the Institute.
5. Relevant notifications from MHRD issued till the last date of submission of application forms will be applicable. Relevant notifications published till the date of publication of the advertisement are to be found in the Annexure A and B.
6. Number of vacancies in all or any of the categories (including reserved vacancies) may be increased / decreased without any notification.
7. Based on the recommendation of the Selection Committee, the Institute may offer to a candidate a post/AGP less than that applied for.
8. The Institute reserves the right to modify / defer or cancel full / part of the advertisement/ recruitment at any stage of processing without assigning any reasons.
9. Specialization: A candidate with any specialization in a relevant discipline as mentioned earlier may apply. However, the concerned Departments/Schools/Centres will shortlist the name(s) as per their requirement.
10. Internal faculty members with any specialization are eligible to apply.
11. Pension : Freshly recruited candidates shall be governed by the New Pension Scheme of the Govt. of India
12. Incentives at par with other CFTIs.

**Number of Vacancies:**

SI No.	Name of the Post	Total
1	Professor	09
2	Associate Professor	20
3	Assistant Professor & Assistant Professor (on Contract)	80

***Minimum Qualifications and Experience for the Posts***

<b>Designation, Pay Band and Academic Grade Pay</b>	<b>Essential Qualification</b>	<b>Essential Requirements</b>	<b>Cumulative Essential Credit Points</b>
<b>Assistant Professor (on Contract)</b> PB-3 with <b>Academic Grade Pay</b> of Rs.6000/- [as per 6 <sup>th</sup> CPC]	PhD	NIL	NIL
<b>Assistant Professor (on Contract)</b> PB-3 with <b>Academic Grade Pay</b> of Rs.7000/- [as per 6 <sup>th</sup> CPC]	Ph.D	01 year post Ph.D. experience of Teaching and Research in Institution of repute / Industry	10
<b>*Assistant Professor</b> <b>PB-3 with Academic Grade Pay of Rs.8000/-</b> with a minimum pay of Rs.30000/- [as per 6 <sup>th</sup> CPC]	PhD	03 years after Ph.D. or 06 years total teaching and research experience in reputed academic Institute / R&D Labs / relevant industry	20
<b>Associate Professor</b> <b>PB-4 with Academic Grade Pay of Rs.9500/-</b> with a minimum pay of Rs.42800/- [as per 6 <sup>th</sup> CPC]	PhD	(6) years after Ph.D. of which at least 3 years at the level of Assistant Professor with AGP Rs.8000/- Or (9) years total working experience, of which 3 years should be after Ph.D., with at least 3 years at the level of Assistant Professor with AGP RS. 8000/-	50
<b>Professor</b> <b>PB-4 with Academic Grade Pay of Rs.10500/-</b> with minimum pay of Rs.48000/- [as per 6 <sup>th</sup> CPC]	PhD	10 years after Ph.D. or 13 years total working experience, out of which 07 years should be after Ph.D. At least 03 years at the level of Associate professor with AGP of Rs.9500/- Or 04 years at the level of Associate Professor with AGP of Rs.9000/- or combination of Rs.9000/- and Rs.9500/- or equivalent in an Institution of repute / R&D lab or relevant industry.	80

***General Information***

- Degrees referred above should have been awarded by a recognized University / Institute.
- Mere eligibility will not vest any right on any candidate for being called for interview. The decision of the Institute in all matters will be final. No correspondence will be entertained from the candidates in connection with the process of selection / interview.
- The Institute reserves the right to call for interview only those candidates shortlisted on the basis of their qualification, experience, research and publication records and departmental requirements etc.
- The Institute reserves the right to fill or not to fill any or all the posts advertised.
- Persons employed in Government Organizations / Quasi Government Organizations should submit their application through proper channel.

- Train fare (to & fro) will be paid as per Institute rules from residential address to IEST, Shibpur by the shortest route for out station candidates only.**
- On special request by a candidate selected for interview but staying abroad, an interview through Skype may be arranged.
- Canvassing in any manner may entail disqualification of the candidature.
- Any dispute with regard to the selection / recruitment process will be subject to Courts / Tribunals having jurisdiction over Kolkata.
- Candidates possessing requisite qualification and experience are required to apply in prescribed application form and Biodata Sheet (downloaded from the website [www.iests.ac.in](http://www.iests.ac.in)) and to submit to the Receiving Section of the Institute either in person or by post alongwith a **DD of Rs.600/-** (Rupees six hundred only) drawn in **favour of "Registrar, IESTS"** on any Nationalized Bank **payable at Kolkata**. Candidates (including those applying from abroad) may also pay the Application fee through '**Fund Transfer**' in the following bank account:

**Registrar, IESTS,**

**United Bank of India, IFSC Code : UTBIOBUSF63, A/c No. : 0171050031536**

Such candidates must mention the NEFT/RTGS Code and date of transfer in the specified place in the application form.

- SC/ST candidates and internal faculty members are exempted from paying application fee.
- Candidates who applied in response to the Advt. No. JL/D(AA)/17/45(EMPF) dated 21.07.2017 need not apply afresh. Their applications will be considered for short-listing. However, they may update their CV, if necessary, by applying to the Registrar before the last date of submission of application. Such candidates will write on the top of the envelope "UPDATING PREVIOUS APPLICATION" and (i) his/her name (ii) Post with AGP applied for (iii) Department/ School/ Centre where applied.
- No fresh application against the previous Standing Advertisement No. JL/D(AA)/17/45(EMPF) dated 21.07.2017 will be considered after 06.08.2018.
- For any other detail information, one may contact the Assistant Registrar at the following e-mail address: [arssb@iests.ac.in](mailto:arssb@iests.ac.in).

The application, completed in all respect along with eight (8) sets of photocopies of it and Biodata sheet is to be sent to the "**Registrar, IEST, Shibpur, WB -711103, India**" **latest by 27<sup>th</sup> August, 2018 by 5 p.m.** Only one set of self-attested copy of mark sheet(s), certificate(s) and testimonial(s) etc. is to be attached with the original. The candidate must write on the top of the envelope (i) his/her name (ii) Post with AGP applied for (iii) Department/ School/ Centre where applied.

- However, soft copy of the application alongwith Biodata sheet in pdf format may be sent in advance to [arssb@iests.ac.in](mailto:arssb@iests.ac.in) by 27<sup>th</sup> August 2018.

**Registrar**