



भारतीय प्रौद्योगिकी संस्थान खड़गपुर  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

**Advertisement No.: R/01/2022 Dated January 01, 2022**

**Subject: Advertisement for various Faculty Positions**

Indian Institute of Technology Kharagpur, an Institute of Eminence (IoE), is the first and the largest in the chain of IITs engaged in teaching, research and development requires faculty for its various academic units. The Institute invites online applications from Indian nationals, Persons of Indian Origin (PIOs) and/or Overseas Citizens of India (OCI) [\*], possessing excellent academic background, commitment to top quality teaching and proven credentials for carrying out outstanding research and development for various Departments / Centres / Schools / Academy :

[\*] Foreign Nationals (other than OCIs and PIOs) are encouraged to apply for faculty positions for fixed tenure not exceeding five years on contract basis subject to clearance from Government of India (GoI).

**FACULTY OF BIO-TECHNOLOGY AND BIO-SCIENCES**

- 1) Department of Biotechnology

**FACULTY OF ENGINEERING AND ARCHITECTURE**

**Mechanical Sciences Division:**

- 1) Department of Aerospace Engineering
- 2) Department of Agricultural and Food Engineering
- 3) Department of Civil Engineering
- 4) Department of Mechanical Engineering
- 5) Department of Metallurgical & Materials Engineering
- 6) Department of Mining Engineering
- 7) Department of Ocean Engineering & Naval Architecture
- 8) School of Water Resources

**Electrical & Computer Sciences Division:**

- 1) Department of Electrical Engineering
- 2) Department of Electronics & Electrical Communication Engineering
- 3) Department of Computer Science & Engineering

**Chemical Sciences Division:**

- 1) Department of Chemical Engineering

**Architecture, Design & Planning Division:**

- 1) Department of Architecture & Regional Planning

**FACULTY OF SCIENCES**

- 1) Department of Physics
- 2) Department of Chemistry
- 3) Department of Mathematics
- 4) Department of Geology & Geophysics
- 5) Centre for Oceans, Rivers, Atmosphere and Land Sciences

**FACULTY OF HUMANITIES, SOCIAL & ECONOMIC SCIENCES**

- 1) Department of Humanities & Social Sciences
- 2) Centre for Rural Development and Innovative Sustainable Technology

## **FACULTY OF INTERDISCIPLINARY SCIENCE & ENGINEERING**

- 1) Department of Industrial & Systems Engineering
- 2) Materials Science Centre
- 3) Centre of Excellence on Safety Engineering & Analytics (COE-SEA)
- 4) Centre of Excellence for Indian Knowledge System

### **SCHOOL OF LAW**

- 1) Rajiv Gandhi School of Intellectual Property Law

### **SCHOOL OF MANAGEMENT**

- 1) Vinod Gupta School of Management

#### **IMPORTANT NOTE**

- The areas of specializations in Departments/Centres/Schools/Academy shall be based on the requirement by the respective Departments/Centres/Schools/Academy.
- The list of Department/School/Centre/Academy wise specialisations may be viewed at the home page of the online application portal.
- The Institute reserves the right to shortlist the candidates as per the requirement of the respective Department/Centre/School/Academy depending upon exigencies. Prospective Candidates are advised to constantly visit the Institute's website for updates.

#### **ELIGIBILITY CRITERIA**

**Posts:** Professor, Associate Professor and Assistant Professor

**Qualifications for the Post:** Ph.D. with first class or equivalent at the preceding degree in the appropriate branch with a very good academic record throughout.

**Experience for the Posts:**

<b>Posts</b>	<b>Experience required for the post</b>
<b>Professor</b>	A minimum of 10 years' teaching / research / industrial experience of which at least 4 years should be at the level of Associate Professor in IITs, IISc Bangalore, IIMs, NITIE Mumbai and IISERs or at an equivalent level in any such other Indian or foreign Institution(s) of comparable standards.
<b>Associate Professor</b>	A minimum of 6 years teaching / research / industrial experience, of which at least 3 years should be at the level of Assistant Professor or equivalent positions in IITs, IISc Bangalore, IIMs, NITIE Mumbai and IISERs or in any such other Indian or foreign Institution(s) of comparable standards.
<b>Assistant Professor Grade I</b>	At least 3 years teaching / research / industrial experience, excluding however, the experience gained while pursuing Ph.D.
<b>Assistant Professor Grade II</b>	<ul style="list-style-type: none"><li>• Candidates with less than 3 years experience may be appointed on contractual basis as Assistant Professor Grade II.</li><li>• At the entry level they may be placed in Level 10 of Pay Matrix with basic pay of Rs. 70,900 or Rs. 84,800 in Level 11 of Pay Matrix depending upon the experience and shall move to level 12 of Pay Matrix with a minimum basic pay of Rs. 1,01,500 on completion of 3 years of requisite experience and on assessment of satisfactory performance.</li></ul>

#### **Pay level and Pay Matrix for the Posts:**

<b>Position</b>	<b>Level and Pay Matrix</b>	<b>Pay Band (Pre-revised)</b>	<b>AGP (Pre-revised)</b>	<b>Minimum basic pay in pay level</b>	<b>Gross emoluments (approx) including DA/Transport Allowance at the prevailing rate</b>
Professor	Level-14A Pay Matrix: Rs.159100-220200/-	PB-4 Rs. 37,400- 67,000/-	Rs. 10,500	Rs. 1,59,100	Rs. 2,13,137
Associate	Level-13A2	PB-4	Rs. 9,500	Rs. 1,39,600	Rs. 1,87,592

Professor	Pay Matrix: Rs. 139600-211300/-	Rs. 37,400- 67,000/-			
Assistant Professor Grade I	Level-12 Pay Matrix: Rs. 101500-167400/-	PB-3 Rs. 15,600- 39,100/-	Rs. 8,000	Rs. 1,01,500	Rs. 1,37,681
* Assistant Professor Grade I in IITs, IISc Bangalore, IIMs, NITIE Mumbai and IISERs on completion of 3 years of service shall move to Level 13A1 of Pay Matrix and will, however, continue to be designated as Assistant Professor Grade I.					

**Reservation:** Without any compromise on qualification, experience and competence, reservation for SC/ST/OBC/EWS/PWD categories is applicable as per MoE/Government of India rules. The certificates issued by the Competent Authority needs to be attached in support of his/her claim.

**Accommodation:** Suitable residential accommodation as per rules will be provided in the Campus of the Institute on joining the Institute.

**Incentives for pursuing Excellence in teaching and research:**

- a) Innovative Research Grant under **the Institute Scheme for Innovative Research and Development (ISIRD)** be provided to new faculty members upto a maximum of Rs. 25 Lakh for equipment and infrastructure and an additional Rs. 3 Lakh for consumables, contingency and travel. Additionally, a number of Research Challenge grants are available.
- b) A Cumulative Professional Development Allowance (CPDA) of Rs. 3 Lakhs for every block period of 3 years (Rupees one lakh per year) may be made available to every member of the faculty on reimbursable basis to meet the expenses for participating in both national and international conferences, paying the membership fee of various professional bodies and contingent expenses.
- c) An additional amount of Rs. 50,000/- is given to a faculty member for attending conferences abroad who is a Principal Investigator of a Sponsored Project amounting to at least Rs. 15 Lakhs and has at least three Published Papers in referred journals in the preceding three years.
- d) Reimbursement of relocation charges within India / abroad of upto Rs. 1,50,000/- to the faculty members at the time of their joining.
- e) Interest free soft advance of Rs. 50,000/- to the newly recruited faculty members.
- f) Honorarium of Rs. 15,000/- per month to the faculty members who have been awarded the S.S. Bhatnagar Prize OR who are fellows of at least two National Academies.
- g) Transport Allowance and re-imburement of Telephone bills upto Rs. 1500/- per month as per rules.
- h) Free local telephone facility in the Department as well as residences within the campus.
- i) Children Education Allowance (CEA) / LTC facility as per Government of India rules.
- j) Medical facility for self and other dependent family members in the B C Roy Technology Hospital within the campus and for referrals to Speciality Hospitals as per IIT Kharagpur rules.

**General Information**

- Minimum requirement of experience may be relaxed in respect of outstanding candidates.
- Degrees obtained by the candidate 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, interaction in the department, etc.
- The candidates should be preferably below 35 years of age for the post of Assistant Professor.
- 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.
- Travel support to the extent of Air fare (economy class) by Air India by the shortest route within India and Institute Guest House facilities free of charges in the campus to the candidates for appearing the interview for faculty position.
- Canvassing in any manner may entail disqualification of the candidature.

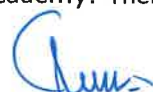
- Any dispute with regard to the selection / recruitment process will be subject to Courts / Tribunals having jurisdiction over Kolkata.

Candidates possessing requisite qualification & experience are required to **apply online ONLY** (<https://erp.iitkgp.ac.in/Jobs/auth/facapps.htm>) on or before **31-01-2022**. **Hardcopy of the application is NOT required. Candidates are requested to upload PDF files of all degree certificates/testimonials/caste certificate/age proof certificate etc. as file attachment at an appropriate place.**

For any other details please contact Deputy Registrar, E-III, Email: [asregre@adm.iitkgp.ernet.in](mailto:asregre@adm.iitkgp.ernet.in) / [recsec@adm.iitkgp.ernet.in](mailto:recsec@adm.iitkgp.ernet.in)

If any technical problem encountered with online application, please contact through phone: +91-3222-281017/18/19.

Candidates may also contact the Heads of the various Departments / Centres / Schools / Academy. Their address, phone numbers and email are available on Institute webpage.

  
कुलसचिव / Registrar



भारतीय प्रौद्योगिकी संस्थान खड़गपुर  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

**Advertisement No.: R/01/2022 Dated January 01, 2022**

**Subject:** Specializations for Faculty Recruitment against advertisement No.: R/01/2022  
Dated January 01, 2022

**FACULTY OF BIO-TECHNOLOGY AND BIO-SCIENCES**

**1) Department of Biotechnology**

Biochemical Engineering; Bioprocess Engineering; Biological Engineering; Chemical Engineering; Molecular Parasitology with relevant R&D experience at the M.Tech, PhD and Post-doc levels in Biochemical/Bioprocess/Biological Engineering; Metabolic Engineering with relevant hands-on R&D experience at the PhD and Post-doc levels; Systems Biology/Synthetic Biology with relevant hands-on R&D experience at the PhD and Post-doc levels.

**FACULTY OF ENGINEERING AND ARCHITECTURE**

**Mechanical Sciences Division:**

**1) Department of Aerospace Engineering**

Reconfigurable Helicopter, Aircraft and Satellite Control, Avionics, Inertial Navigation, Inter-Planetary Satellite Mission, Hypersonic and Supersonic Combustion, Ion and Electric Propulsion, Aerodynamics, Aircraft Design, Multi Scale Aerospace Structural Modeling, Aeroelasticity, Vibration control of Large Aerospace Structures, Aircraft and Satellite Health Monitoring (At least one degree in Aerospace Engg.)

**2) Department of Agricultural and Food Engineering**

Farm Machinery & Power [Precision Agriculture, Human factors, AI & ML applications, Automation/robotics in agricultural operations]; Food Process Engineering [Equipment & Machine Development with hygienic practices & automation, AI & ML applications, Transport Processes]; Aquacultural Engineering [Design of hydraulic structures/ fresh & brackish water farm structures/ fishing gear & cage culture for improved fish production; Fisheries biology].

**3) Department of Civil Engineering**

Hydraulic and Water Resources Engineering; Transportation Engineering; Environmental Engineering; Geotechnical Engineering; Structural Engineering

**4) Department of Mechanical Engineering**

Acoustics, Additive Manuf., Automobile Engg, Biomedical Engg, Composites, Dynamics & Control, Fluid Power Automation & Control, Hydraulic Machines, Machining, Micro Nano Precision Engg, Mechatronics, Non Traditional Manuf., Renewable Energy, Robotics & Autonomous Systems, Smart Materials, Tribology, Vehicle Dynamics, Vibrations.

**5) Department of Metallurgical & Materials Engineering**

Sustainable Extractive Metallurgy; Processing of Materials (Joining of Materials, solidification, Additive Manufacturing, etc.); Functional Materials (Energy Materials, Magnetic Materials, Electronic Materials including Thin Films, Bio Materials, etc.); Corrosion and High Temperature Oxidation; Any other Emerging Areas in Metallurgical and Materials Engineering.

**6) Department of Mining Engineering**

Rock Mechanics; Mining Methods & Planning; Ventilation; Mine Environment & Hazards; Geomatics; Mining Machinery & Processing.

### **7) Department of Ocean Engineering & Naval Architecture**

Applications are invited from qualified candidates with expertise in the following fields:

- i) Marine Hydrodynamics including CFD, potential flow simulations;
- ii) Marine Structures including Marine safety and risk assessment;
- iii) Wave hydrodynamics and hydroelasticity;
- iv) Ship design and production;
- v) Control systems of ships/underwater vehicles

### **8) School of Water Resources**

Research / Field / Industry experience in: (i) Groundwater Modelling and Management; Water Economics and Governance (ii) Hydro-informatics / Information & Communication Technology (ICT) in Water (iii) Water Pricing; Water Governance and Policy; Urban/Rural Water Supply Systems; Water & Wastewater Treatment and Reuse (iv) Industrial Wastewater Management.

### **Electrical & Computer Sciences Division:**

#### **1) Department of Electrical Engineering**

Machine Drives and Power Electronics, Control Systems, Power and Energy Systems, Instrumentation and Signal Processing.

#### **2) Department of Electronics & Electrical Communication Engineering**

Communications, Signal Processing, Wireless Networks, Image and Video Processing, Machine Learning, Circuits and Systems for Signal Processing, VLSI Design, RF and Microwave Engineering, Antenna and Propagation, RFIC.

#### **3) Department of Computer Science & Engineering**

Systems and Networks, Algorithms and Theoretical Computer Science, Software Engineering, Artificial Intelligence and Machine Learning, Cryptography, Privacy and Security, Visual Information Processing, Complex and Social Networks, Language and Information Technologies, Data and Web Mining, VLSI & Embedded systems.

### **Chemical Sciences Division:**

#### **1) Department of Chemical Engineering**

Transport Phenomena, Fluid flow; Heat and Mass Transfer, Reaction Engineering, Thermodynamics; Instrumentation and Process Control, Pollution control; Biomaterials, Nano and Composite materials; Bioengineering.

### **Architecture, Design & Planning Division:**

#### **1) Department of Architecture & Regional Planning**

Urban Design [Landscape Architecture, Conservation]; Physical Planning [Urban Planning, Housing, Transportation]; Socio-Economic & Regional Planning [GIS & Remote Sensing, Econometrics, Planning Statistics].

## **FACULTY OF SCIENCES**

#### **1) Department of Chemistry**

Inorganic synthesis: metalloporphyrin, cluster and cages, nanomaterials; inorganic photochemistry, bioinorganic chemistry, materials chemistry. Peptides and peptidomimetics, metabolomics, organic materials; enzyme/DNA-RNA based catalysis. Experimental biophysical chemistry and resonance spectroscopy; theoretical reaction dynamics.

#### **2) Department of Geology & Geophysics**

Geology [Coal Geology, Metamorphic Petrology, Ore / Economic Geology, Environmental Geology, Mathematical Geology]; Geophysics [Nuclear Geophysics, Remote-sensing (with application to

geological and geophysical problems); Artificial Intelligence and Machine Learning Applications to Geological/Geophysical problems.

### **3) Department of Mathematics**

Artificial Intelligence, Algorithms, Coding & Information Theory, Formal Methods, Machine Learning and any branch of Theoretical Computer Science; Functional Analysis, Topology, Mathematical Finance, Number Theory, Partial Differential Equations, Scientific Computing, Numerical Analysis, Probability & Statistics.

### **4) Department of Physics**

Astrophysics, Cosmology, Gravitation, Nuclear, Particle and High Energy Physics, Theoretical Physics, Atomic and Molecular Physics, Photonics, Quantum Optics, Quantum Computing and Quantum Information, Quantum Condensed Matter, Machine Learning, Energy Devices, Opto-Spintronics, Complex Systems, Statistical Physics, Non-equilibrium Systems, Nonlinear Instabilities, Computational Fluid Dynamics, Nano Science, Biophysics, Experiments on Correlated, Topological, Novel Matter and Exotic States.

### **5) Centre for Oceans, Rivers, Atmosphere and Land Sciences**

## **FACULTY OF HUMANITIES, SOCIAL & ECONOMIC SCIENCES**

### **1) Department of Humanities & Social Sciences**

Economics [General Equilibrium, Welfare Economics, Social Choice Theory, Behavioural Economics, Advanced Macroeconomics/ Econometrics, AI and ML for Economics]; English [Communication Studies, Language Teaching]; Philosophy [Logic, Business Ethics]; Psychology [Industrial/ Organisational/ Health/ Positive/ Cognitive/ Applied Psychology]; HRM [HR Analytics, HRIS, Compensation Management, Other Applied Fields of HR: AI, Block Chain]; Research Methodology Experience and Multivariate Statistics applied to Psychology/ HRM.

### **2) Centre for Rural Development and Innovative Sustainable Technology**

## **FACULTY OF INTERDISCIPLINARY SCIENCES & ENGINEERING**

### **1) Department of Industrial & Systems Engineering**

Industrial Engineering; System Engineering; Operations Research; Production and Operations Managements; Supply Chain Managements; Manufacturing System; System Dynamic and Simulation; Engineering Ergonomics and Human Factors; Safety Engineering and Analytics; Healthcare Systems Engineering Product; Design and Life Cycle Management; Quality Engineering; Information Systems and E-business; Data Analytics.

### **2) Materials Science Centre**

Polymer Rheology and processing; Ceramic Engineering [B. Tech. with specialization in Structural Ceramics].

### **3) Centre of Excellence on Safety Engineering & Analytics (CoE-SEA)**

Safety engineering & management; Safety analytics; Prevention through design (PtD); Probabilistic risk assessment & uncertainty analysis; Ergonomics & human factors; Human error; behaviour & human reliability analysis; Occupational health; Injury epidemiology; Safety Economics; Industrial/ Mine/ Chemical process/ transportation/ Construction/ Infrastructure/ Agricultural/ Manufacturing & machinery/ Electrical/ Fire Safety; Cyber-physical systems safety & security; disaster management, Application of data analytics, virtual & augmented reality, IoT, AI, ML, human sensing technologies and other Industry 4.0/5.0 technologies & techniques in safety.

### **4) Centre of Excellence for Indian Knowledge Systems [CoE-IKS]**

Sanskrit and Natural Language Processing; other languages of India (Language sciences); Ganita, Jyamiti, Bijaganita, Samkhyavishleshantathya (Mathematics, Geometry, Algebra, and Computational sciences); SthapatyaVastuVidya, NirmanVidya and ParibashaVidya (Built-environmental sciences); Nandantathya and Shilpa Shastra (Aesthetics and Design Sciences); ArthaShastra and Nyaya Shastra (Economics and Ethical Social sciences); Domains of AYUSH (Ayurveda, Yoga, Unani, Siddha, Homeopathy); Rasayana and BhautikaVidya (Chemical and

Physical sciences); Darshan and MahajagatikaVidya (Cosmology, Cosmogony and Astronomical sciences).

### **SCHOOL OF LAW**

#### **1) Rajiv Gandhi School of Intellectual Property Law**

Tax Law, Labour & Industrial Law, ICT & Automation Law, Corporate Law, Public Law, Criminal and Procedural Law, Intellectual Property Law

### **SCHOOL OF MANAGEMENT**

#### **1) Vinod Gupta School of Management**

Marketing Management: Marketing Analytics, International Marketing, B2B Marketing, Sales and Distribution, Retail Marketing, Digital Marketing. Human Resource Management and Organizational Behavior: HR Analytics, Labor Relations. Finance and Accounting: Financial Technologies (FinTech), Actuarial Modelling, Entrepreneurial Finance. Economics.