



भारतीय प्रौद्योगिकी संस्थान खड़गपुर
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Advertisement No.: R/07/2021 Dated July 01, 2021

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 Chemistry
- 2) Department of Geology & Geophysics
- 3) Department of Mathematics
- 4) Department of Physics

FACULTY OF HUMANITIES, SOCIAL & ECONOMIC SCIENCES

- 1) Department of Humanities & Social Sciences

FACULTY OF INTERDISCIPLINARY SCIENCE & ENGINEERING

- 1) Department of Industrial & Systems Engineering
- 2) Materials Science Centre
- 3) Cryogenic Engineering Centre

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- 4) Centre of Excellence on Safety Engineering & Analytics (COE-SEA)
- 5) 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:

Posts	Experience required for the post
Professor	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.
Associate Professor	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.
Assistant Professor Grade I	At least 3 years teaching / research / industrial experience, excluding however, the experience gained while pursuing Ph.D.
Assistant Professor Grade II	<ul style="list-style-type: none"> • Candidates with less than 3 years experience may be appointed on contractual basis as Assistant Professor Grade II. • 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.

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Pay level and Pay Matrix for the Posts:

Position	Level and Pay Matrix	Pay Band (Pre-revised)	AGP (Pre-revised)	Minimum basic pay in pay level	Gross emoluments (approx) including DA/Transport Allowance at the prevailing rate
Professor	Level-14A Pay Matrix: Rs.159100-220200/-	PB-4 Rs. 37,400- 67,000/-	Rs. 10,500	Rs. 1,59,100	Rs. 1,90,359
Associate Professor	Level-13A2 Pay Matrix: Rs. 139600-211300/-	PB-4 Rs. 37,400- 67,000/-	Rs. 9,500	Rs. 1,39,600	Rs. 1,67,544
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. 1,22,967

* 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 MHRD/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:

- 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.
- 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.
- 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.
- Reimbursement of relocation charges within India / abroad of upto Rs. 1,50,000/- to the faculty members at the time of their joining.
- Interest free soft advance of Rs. 50,000/- to the newly recruited faculty members.
- 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.
- Transport Allowance and re-imbursement of Telephone bills upto Rs. 1500/- per month as per rules.
- Free local telephone facility in the Department as well as residences within the campus.
- Children Education Allowance (CEA) / LTC facility as per Government of India rules.
- 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/FacultyCareer/advtFacultyRecruitment.jsp>) on or before **31-07-2021**. **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, Phone: +913222- 282135/282137, Fax: +913222-282020, Email: asregre@adm.iitkgp.ernet.in / 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. Their address, phone numbers and email are available on Institute webpage.

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कुलसचिव / Registrar



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INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Advertisement No.: R/07/2021 Dated July 01, 2021

Subject: Specializations for Faculty Recruitment against advertisement No.: R/07/2021
Dated July 01, 2021

FACULTY OF BIO-TECHNOLOGY AND BIO-SCIENCES

1) Department of Biotechnology

Structural biology; Membrane biology and biophysics; Pharmacology and toxicology; Synthetic biology, Tissue engineering; Biomechanics and Bioengineering; Biochemical engineering; Bioenergy, Bio-refinery technology; Stem cell biology; Biochemistry, Immunology, Enzymology, Molecular Microbiology; Neurobiology, microbial pathogenesis; Genetics; Plant Biotechnology; Metabolic Engineering; Environmental Biotechnology.

FACULTY OF ENGINEERING AND ARCHITECTURE

Mechanical Sciences Division:

1) Department of Aerospace Engineering

Flight Mechanics; Aerodynamics; Propulsion [Ion Thruster, Plasma Thruster, Hypersonic Aircraft Thruster Design, Supersonic Combustion]; Structures [Real time Morphing Structures for Aircraft Control, Multiscale Modeling of Aircraft Structures].

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

Extractive Metallurgy; Processing of Materials (Joining of Materials, Solidification, Additive Manufacturing, etc.); Functional Materials (Energy 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.

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7) Department of Ocean Engineering & Naval Architecture

Hydrodynamics: Study of flow around ships and offshore structures, CFD applications; Structural engineering [Structural computations of Marine constructions]; Ship design and development: All stages of design and production; Wave dynamics: Loads on offshore structures, vibrations analysis

8) School of Water Resources

Groundwater Modelling and Management; Water Economics and Governance; Hydro-informatics / Information & Communication Technology (ICT) in Water; Urban/Rural Water Supply Systems; Water & Wastewater Treatment and Reuse; 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.

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3) Department of Mathematics

Artificial Intelligence, Algorithms, Coding & Information Theory, Cryptography, Formal Methods, Machine learning and any other branch of Theoretical Computer Science; Geometry, Topology, Number Theory, Functional Analysis, Representation Theory, Partial Differential Equations, Optimization, Scientific Computing, Numerical Analysis, Probability & Statistics.

4) Department of Physics

Gravitation, Astro-particle Physics and Cosmology, Atomic and Molecular Physics, Photonics, Quantum Optics, Quantum computing, and Quantum Information, Quantum condensed matter, Machine Learning, Energy Devices, Opto-Spintronics, Nonlinear instabilities, Computational fluid dynamics, Nano Science, Biophysics, experiments on correlated, topological, novel matter and exotic states.

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.

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) Cryogenic Engineering Centre

Cryogenic processes and applications: Liquefaction and fluid management systems for the energy and space sectors, Target fields of technologies: LNG, oxygen and hydrogen ,Applied superconductivity: Superconducting technology in energy and power sectors, Target fields of technologies: HTS based power transmission, electrical machines such as motors, generators etc., SMES etc., Low-temperature physics: Research on Quantum materials and designing of quantum devices for computing and astronomical/space/particle physics explorations, Milli Kelvin refrigerator.

4) 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.



5) Centre of Excellence for Indian Knowledge Systems [CoE-IKS]

Sanskrit and Natural Language Processing; other languages of India (Language sciences); Ganita, Jyamiti, Bijaganita, Samkhya vishleshan tathya (Mathematics, Geometry, Algebra, and Computational sciences); Sthapatya Vastu Vidya, Nirman Vidya and Paribesha Vidya (Built-environmental sciences); Nandan tathya and Shilpa Shastra (Aesthetics and Design Sciences); Artha Shastra and Nyaya Shastra (Economics and Ethical Social sciences); Domains of AYUSH (Ayurveda, Yoga, Unani, Siddha, Homeopathy); Rasayana and Bhautika Vidya (Chemical and Physical sciences); Darshan and Mahajagatika Vidya (Cosmology, Cosmogony and Astronomical sciences).

SCHOOL OF LAW

1) Rajiv Gandhi School of Intellectual Property Law

Information Technology Law; Family Law, Tax Law; Constitutional Law; Labour and Industrial Law; Corporate Law; Procedural Laws; International Law; Intellectual Property Law.

SCHOOL OF MANAGEMENT

1) Vinod Gupta School of Management

Production and Operations Management, Operations Research, Logistics and Supply Chain Management; Digital Transformations, E-commerce, Business Analytics. Big Data Analytics; Economics; Human Resource Management.

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