INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
POWAI, MUMBAI – 400 076

Advertisement No. D-26/2018-2019

IIT Bombay invites applications from well qualified Indian nationals (including Persons of Indian Origins (PIOs) and Overseas Citizens of India (OCIs) and foreign nationals* for faculty positions at the level of Professor/Associate Professor/Assistant Professor (Grade I & II) in its various academic Departments, Centres, Schools and Inter-disciplinary programs.

This is a rolling advertisement. There is no last date.

Reservation: without any compromise on qualification, experience and competence, reservation as per government of india rules @ 15%, 7 ½ % and 27% for SCs, STs and OBCs respectively is applicable at entry level positions of Assistant Professor Grade I & II together in science and technology departments. However, in recruitment for faculty posts in subjects other than science and technology reservation shall also be applied in full including for the posts of Associate Professors and Professors. Necessary certificates must be enclosed with the application form. The GOI policy on reservation of faculty positions also includes persons with physical disability and Economically Weaker Section (EWS).

DEPARTMENTS: Aerospace Engineering, Biosciences & Bioengineering, Chemical Engineering, Chemistry, Civil Engineering, Computer Science & Engineering, Earth Sciences, Energy Science & Engineering, Electrical Engineering, Humanities & Social Sciences, Mathematics, Mechanical Engineering, Metallurgical Engineering and Materials Science, Physics.

SCHOOLS: Shailesh J. Mehta School of Management

CENTRES: Industrial Design Centre, Centre for Environmental Science & Engineering (CESE), Centre for Studies in Resources Engineering (CSRE), Centre for Technology Alternatives for Rural Areas (CTARA), Centre for Urban Science & Engineering (CUSE)

INTER-DISCIPLINARY GROUPS: Industrial Engineering & Operations Research, Systems & Control Engineering, Educational Technology, Climate Studies.

QUALIFICATION:

Ph.D with First class or equivalent (in terms of Grades etc.) at the preceeding degree and a good academic record throughout.

(Ph.D. is not required for entry level position in Industrial Design Centre)

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*Foreign national here means a person who does not have either an Indian passport, or a PIO/OCI card. Foreign nationals can be offered contractual appointment for up to five years. The appointment can be renewed thereafter.

EXPERIENCE (Required on the date of application) :

Professor	A minimum of ten years teaching/research/professional experience of which at least 4 years should be at the level of Associate Professor in a research organization or industry as on the date of application. The candidate should have demonstrated leadership in research in a specific area of specialization in terms of guidance of Ph.D. students, strong record of publications in reputed journals and conferences, patents, laboratory/course development and/or other recognized relevant professional activities.
Associate Professor	A minimum of six years teaching/research/professional experience of which 3 years should be at the level of Assistant Professor Grade I, Senior Scientific Officer/Senior Design Engineer in a research organization or industry. The candidate should have demonstrated adequate experience of independent research in terms of guidance of M.Tech. and Ph.D. students, publications in reputed journals and conferences, patents, laboratory/course development and/or other recognized relevant professional activities.
Assistant Professor Grade I	A minimum of three years teaching/research/professional experience, excluding the experience gained while pursuing Ph.D. Candidate should have demonstrated research capabilities in terms of publications in reputed journals and conferences. *Eligible candidates with less than the requisite experience may be taken as Assistant Professor Grade II in the Academic Level 10 or 11 with appropriate pay based on post doctoral experience.*

Assistant Professor Grade II

Candidates not eligible for Assistant Professor Grade I may be appointed as Assistant Professor Grade II. At the entry level they may be placed in Academic Level 10 and shall move after 1 year to Academic Level 11. After 3 years in Academic Level 10 & 11 together the person brought on regular position as Assistant Professor Grade I in Academic Level 12.

On completion of 3 years service as Assistant Professor Grade I with Academic Level 12, shall move to Academic Level 13A1.

PAY BAND :

PROFESSOR ***Academic Level 14A (Rs.159100-Rs.220200)*** *For Direct recruits, minimum pay in the Pay Matrix to be fixed at Rs.1,59,100/- p.m.* *Gross salary as on 11th March, 2018 is Rs.1,81,267/- p.m.*	Allowances as admissible to Central Government employees.
ASSOCIATE PROFESSOR ***Academic Level 13A2 (Rs.139600-Rs.211300)*** *For Direct recruits, minimum pay in the Pay Matrix to be fixed at Rs.1,39,600/- p.m.* *Gross salary as on 11th March, 2018 is Rs.1,60,012/- p.m.*	
ASSISTANT PROFESSOR GRADE I ***Academic Level 12 (Rs.101500-Rs.167400)*** *For Direct recruits, minimum pay in the Pay Matrix to be fixed at Rs.1,01,500/- p.m.* *Gross salary as on 11th March, 2018 is Rs.1,18,483/- p.m.*	
ASSISTANT PROFESSOR GRADE II ***Academic Level 10 (Rs.57700-Rs.98200)*** *For Fresh recruits, minimum pay in the Pay Matrix to be fixed at Rs.84700/- p.m.* *Gross salary as on 11th March, 2018 is Rs.1,00,171/- p.m.* *OR* ***Academic Level 11 (Rs.68900-Rs.117200)*** *One year post Ph.D. experience – Rs.89900/- p.m.* *Gross salary as on 11th March, 2018 is Rs.1,05,839/- p.m.* *Two years post Ph.D. experience – Rs.92600/-p.m.* *Gross salary as on 11th March, 2018 is Rs.1,08,782/- p.m.*	

GENERAL INFORMATION

In addition to incentives which are a part of the pay package according to 7th Pay Commission norms, the following apply :

a) Seed grant up to Rs. 20 Lakh is available to new faculty members. This enables an early start to research work until project funding from external agencies can be obtained.

b) The Institute provides a Cumulative Professional Development Allowance (CPDA) of Rs. 3 Lakhs for every block period of 3 years, minimum of Rs. 2 Lakhs is earmarked for presenting papers at conferences and a maximum Rs. 1 Lakh is available towards membership fee of professional bodies and contingency expenditure. One additional conference in the block period is supported from IRCC/donation funds subject to availability.

c) A 'Young Faculty Award' instituted from Alumni of the Institute, to faculty joining at the Assistant Professor Grade I & II of Rs.1.0 Lakh/year for the first four years after joining.

d) Reimbursement of relocation charges of upto Rs.1.0 Lakhs for faculty from abroad for reimbursement of air fare for self and spouse and cost of transportation of goods. Reimbursement of upto Rs.50,000/- for self and family and transport of goods for faculty joining from within India.

e) An honorarium of Rs.15,000/- per month to the faculty who have obtained Bhatnagar Award and to faculty who are fellows of atleast two National Academies.

The information sheet containing full details of the areas of specialization in which faculty are required and application form is available on the institute's website http://www.iitb.ac.in > Faculty Recruitment. The application must be complete with full details of educational qualifications including year of obtaining Ph.D., including date of defense, list of publications (with reprints of the best papers), teaching/ research/industrial experience, date of birth alongwith the names and contact details of four referees. The PDF files of all the documents may be sent to the Registrar, IIT Bombay.

NOTE:

1. Separate applications must be sent if a candidate is applying for a faculty position in more than one Department/Centre/School etc.

2. The candidates should be preferably below 35 years of age for the post of Assistant Professor.

3. Candidates should have an excellent academic record, good communication skills, a commitment to high quality undergraduate and post-graduate education and demonstrated ability to carryout original and creative research.

4. Foreign Nationals who are “Persons of Indian Origin” (PIO) or Overseas Citizens of India (OCI), in whose case, if selected, permission will be sought from Govt. of India before he/she can join the Institute.

5. Other Foreign Nationals, in whose case, if selected, appointment will be on a contract basis for up to 5 years subject to permission from the Govt. of India before he/she can join the Institute.

6. Political and security clearance from Ministries of External Affairs and Home Affairs is necessary in every case for individuals with foreign passports.

7. Mere fulfillment of the qualifications and experience requirement laid down does not entitle a candidate to be called for interview.

8. The Institute encourages interaction of the faculty with industry, other research and professional institutions. Consultancy is encouraged at IIT Bombay and liberal consultancy policies are in practice.

9. Facilities for research and development activities exist in all the Departments, Schools and Centres. These are being continuously modernized with contemporary equipment and services. Good facilities also exist for computing. The Institute has a well stocked library with 2.54 lakhs volumes of books, 1.19 lakhs bound volumes of journals, 0.68 lakhs reports, pamphlets, standards etc. and 3400 e-books.

10. A technology business incubator hosted by the Institute, called the Society for Innovation and Entrepreneurship (SINE), (http://www.sineiitb.org) serves to promote technology based entrepreneurship by faculty.

11. Candidates belonging to SC/ST communities, Persons with Disabilities (PwD) and also Female candidates are exempted from payment of application fee. Also, no fee is applicable to candidates applying from abroad. Candidates other than those mentioned above, must send a Demand Draft for Rs.100/- drawn on any nationalized bank payable at Mumbai, in favour of Registrar, IIT Bombay along with the application.

12. Candidates called for interview will be re-imbursed apex air fare by Economy class from the place of their residence and back by the shortest route preferably by Air India.

13. About 90% of the faculty and research staff live on the Campus. The Institute endeavours to provide suitable accommodation to all faculty. However, initially new faculty may have to stay in transit accommodation. Every faculty quarter on campus is provided with intercom and broadband Internet access.

14. Most of the day-to-day facilities are available on the Campus including two banks, a post office, a small shopping center, two schools (upto 12^{th} standard) for children, a well equipped 65 bed hospital, sports facilities including a swimming pool and vast play-ground for field games. Cultural facilities include film clubs, Classical music societies, debating and drama and a hobbies club. The Staff Club in particular is a center of social and cultural activities.

15. The Institute may consider candidates whose areas of specialization lie outside those stated herein, provided these persons have an outstanding academic record.

16. Persons employed in Government/Semi-Government Organization or Educational Institutions must apply through proper channel OR shall provide No Objection Certificate while applying or at the time of Interview.

17. The Institute reserves the right to fill or not to fill any or all the posts advertised.

Sd/-

Date: March, 2019 **REGISTRAR**

AREAS OF SPECIALIZATION

Aerospace Engineering, Biosciences and Bioengineering, Chemical Engineering, Chemistry, Civil Engineering, Computer Science and Engineering, Earth Sciences, Electrical Engineering, Energy Science and Engineering, Humanities and Social Sciences, Industrial Design Centre, Mathematics, Mechanical Engineering, Metallurgical Engineering and Materials Science, Physics, Shailesh J. Mehta School of Management, Centre for Environmental Science and Engineering, Centre of Studies in Resources Engineering, Centre for Technology Alternatives for Rural Areas, Centre for Urban Science and Engineering, Industrial Engineering and Operations Research, Systems and Control Engineering, IDP in Educational Technology (IDP-ET), IDP in Climate Studies.

Aerospace Engineering	**Specializations**
Professor Associate Professor Assistant Professor	Department is looking for candidates in all the areas of Theoretical/ computational/ experimental study and technology development related to aerospace engineering, with special emphasis on Vehicle Dynamics & Control and related disciplines and Aircraft Design & Optimization. Notwithstanding the above, department would also consider applications from exceptional candidates in other areas e.g. Propulsion and Aerodynamics.

Department of Biosciences & Bioengineering	**Specializations**
Professor Associate Professor Assistant Professor	Developmental Biology, evolutionary biology, enzymology, genetics, genomics, cell/molecular biology with expertise in high-resolution microscopy, structural biology with expertise in cryo-electron microscopy, computational biology, big data analysis, bioinformatics, systems biology, physiological systems modelling, electrophysiology, cellular physiology, neuroengineering, signal processing and biomedical instrumentation. Exceptional candidates in any other areas of biosciences & bioengineering may be considered

Chemical Engineering	**Specializations**
Professor Associate Professor Assistant Professor	Reaction Engineering and Catalysis, Interfacial Science & Engineering, Transport and Separation Processes, Process Systems Engineering & Control, Food & Biochemical Engineering, Polymer and Materials, Nanotechnology, Thermodynamics, Membrane Science & Technology, Electrochemical Engineering

Chemistry	**Specializations**
Professor	Chemical biology of nucleic acids, Stereoselective synthesis of hetrocycles and applications to natural products, Complex carbohydrate synthesis
Associate Professor	Statistical mechanics, theory and simulation of soft matter with emphasis on chemical applications
Assistant Professor	Computational bioorganic chemistry, Organic photochemistry and photocatalysis, Total synthesis of complex natural products

Civil Engineering	**Specialisation**
Professor Associate Professor	Transportation Systems Engineering, Geotechnical Engineering, Water Resources Engineering, Structural Engineering, Ocean Engineering, Remote Sensing applications in Civil Engineering, Construction Technology and Management
Assistant Professor	**Transportation Systems Engineering :** Analysis, design and performance of highway/airfield pavements, Pavement preservation, management and rehabilitation **Geotechnical Engineering :** Rock mechanics, Environmental geotechnology, Geotechnical centrifuge Modelling, Geo-hazards **Water Resources Engineering :** Fluid Mechanics – (Experimental and theoretical studies, fluid turbulence), Computational fluid dynamics – numerical modelling, Hydraulics – (Experimental, computational, theoretical hydrodynamics, eco-hydraulics, hydraulic structures), Groundwater hydrology (Theoretical, experimental computational), Environmental fluid mechanics/ hydraulics (Pollution in aquatic system, water supply, wastewater management), Experimental hydrologist (Field measurement, instrumentation and measurements) **Ocean Engineering :** Analysis and design of fixed and floating structures, Geotechnical and foundation analysis of ocean structures Construction and operation of ocean structures **Remote Sensing applications in Civil Engineering :** Photogrammetry, Remote sensing applications, Advanced surveying (GPS/Lidar/Sonar) **Construction Technology and Management/Structural Engineering :** Advanced construction materials, Construction management

Computer Science & Engineering	**Specializations**
Professor Associate Professor Assistant Professor	Any area of Computer Science & Information Technology

Earth Sciences	**Specializations**
Associate Professor	Isotope Geochronology Ground water Hydrology
Assistant Professor	Isotope Geochronology Ground water Hydrology Micropalaeontology Sedimentology/Sedimentary Petrology Economic Geology Mineral Exploration/Mining Geology Mathematical Geology/Geostatistics Quantitative Geomorphology and GIS Geophysics with specialization in seismics / Seismology Geophysics with specialization in Petrophysics related to petroleum exploration Geophysics with specialization in Computational Geophysics /

	Geophysical modeling / Geophysical Signal processing Geophysics with specializations in Electrical/Electromagnetic methods
	Post: Assistant/Associate Professor **1) For Isotope Geochronology** **Essential Qualifications:** 1)Master Degree in Science(Geology) with excellent academic record. 2) Ph.D. in areas related to Isotope Geochronology **Desirable:** Experience in noble Gas Mass Spectrometry/IRMS/LA-ICP-MS **2)For Groundwater Hydrology** **Essential Qualifications:** 1)Master Degree in Science(Geology/Geo-physics) or any other relevant branch of engineering with excellent academic record. 2)Ph.D. in areas related to groundwater hydrology with emphasis on numerical modeling/simulation. **Desirable:** Proficiency to evolve field strategies for water resource management and handle field equipments **Post: Assistant Professor** **3)For Micropalaeontology** **Essential Qualifications:** 1)Master of Science Degree in Geology with excellent academic record. 2)Ph.D. in Micropalaeontology with specialization in Foraminifera **Desirable**: Candidate should have research experience in field-based and stratigraphic problems. **4)For Sedimentology/Sedimentary Petrology** **Essential Qualifications:** 1))Master of Science Degree in Geology with excellent academic record 2)Ph.D. in Sedimentology/Sedimentary Petrology **Desirable:** Experience in ichnology/sequence stratigraphy and experience in petroleum industry **5)For Economic Geology** **Essential Qualifications:** 1)Master of Science Degree in Geology with excellent academic record. 2) Ph.D in Economic Geology/OrePetrology/Geochemistry of Ore Deposits with specialization hydrothermal or magmatic ore deposits. **Desirable**: Experience in fluid/melt inclusion studies. **6) For Mineral Exploration/Mining Geology** **Essential Qualifications:** 1)Master of Science Degree in Geology /B.Tech/M.Tech in mining with excellent academic record. 2)Ph.D. in Economic Geology/ Mining with specialization or industrial experience in Mineral Exploration/Mining Geology/Mineral Beneficiation/Geostatistics" **Desirable**: Experience in Geostatistics **7) For Mathematical Geology/Geostatistics**:

	Essential Qualifications: 1)Master of Science Degree in Geology/Geophysics/Mathematics with excellent academic record 2)Ph.D in any area of Earth Sciences/Geostatistics/Mathematics with significant application of multivariate statistical techniques, stochastic processes or geostatistics in Earth Sciences. **Desirable:** Post-doctoral work in application of statistical techniques to geoscience problems. **8) For Quantitative Geomorphology and GIS** **Essential Qualifications:** 1)Master of Science Degree in Geology/Geospatial Technology with excellent academic record 2) Ph.D. in quantitative Geomorphology with experience in Geospatial data management and modelling. **Desirable:** Experience in microwave remote sensing and LiDAR **9)For all positions related to Geophysics** **Essential Qualifications:** 1)Master of Science degree/M.Tech degree in Geophysics or fields related to Geophysics with excellent academic record 2) Ph.D. in relevant field of Geophysics **Desirable:** Industrial experience for fields related to Petroleum exploration with experience in Quantitative and/or Qualitative seismic interpretation

Electrical Engineering	**Specializations**
Professor Associate Professor Assistant Professor	Communication and signal processing, theory of control and computing, Power Electronics and Power Systems, Microelectronics and VLSI design, Electronic Systems

Energy science & Engineering	**Specializations**
Assistant Professor Associate Professor Professor	Energy in Buildings , Conventional Energy/IC Engines, Energy Policy, Energy Management, Process Integration, Clean Coal, Electrical Energy System, Grid Connection of Renewables, Power Electronics and Controls, Solar Thermal, Energy Efficiency, Biofuel/Bioenergy, Combustion, Wind, and Hybrid system.

Humanities & Social Sciences	**Specializations**
Professor Associate Professor Assistant Professor	***Economics*** Development Economics, International Economics, Finance, Agricultural Economics, Econometrics, Public Finance and Public Policy, Behavioural Economics, Micro and Macroeconomics Theory, Industrial Economics
	English The Early Modern, Comparative Literature, Cultural Studies, Literary Theory,Literature and Other Arts, Translation Studies, Literary Modernisms, The Long 19th Century, Empire, Nation and Region, Book History, Theoretical Linguistics (particularly Semantics) and Cognitive

	Linguistics.
	Philosophy Indian Philosophy, Logic, Philosophy of Science, Political Philosophy, Ethics, Aesthetics, Cognitive Science, Analytical Philosophy, Continental Philosophy, History of Philosophy.
	Psychology Cognitive Psychology, Organizational Psychology/Behaviour, Social Psychology, Clinical Psychology
	Sociology Agrarian studies, Science Technology & Society, Quantitative research methods, Demography and society Sociology of education, Political sociology, Historical sociology, Family and kinship studies
	Cell for Indian Science and Technology in Sanskrit Astronomy (Jyotisha), Mathematics (Ganita), Metaphysics

Industrial Design Centre	**Specializations**
Professor	Product Design, Mobility and Vehicle Design
Associate Professor	Communication Design, Animation, Interaction Design, Mobility and Vehicle Design
Assistant Professor	Product Design, Communication Design, Animation, Interaction Design, Mobility and Vehicle Design

Mathematics	**Specializations**
Professor Associate Professor Assistant Professor	Algebra, Algebraic Geometry, Algebraic Topology, Combinatorics, Differential Geometry, Functional Analysis, Harmonic Analysis, Number Theory, Numerical Analysis, Partial Differential Equations, Probability and Statistics.

Mechanical Engineering	**Specializations**
Professor Associate Professor Assistant Professor	**The Department of Mechanical Engineering is looking for individuals with outstanding academic record for faculty positions in the following areas:** Experimental and Computational Mechanics, Dynamics and Controls, Robotics, Biomechanics, Mechanics of soft matter, Tribology, Combustion process and applications, Refrigeration, Air Conditioning and Cryogenics, Nuclear Engineering, Product Design and Manufacturing focusing on CAD/CAM/CIM/PLM, Composite manufacturing processes, Manufacturing automation and control including Cyber Physical Systems and real time process control, Application of manufacturing analytics/Artificial Intelligence/Machine learning/Soft Computing and allied approaches to manufacturing.

Metallurgical Engineering & Materials Science	**Specializations**
Professor Associate Professor Assistant Professor	Metallurgical Engineering and Materials Science

Physics	**Specializations**
Professor Associate Professor Assistant Professor	1. Condensed Matter Physics-Theory 2. Condensed Matter Physics-Experimental 3. Optics/Photonics/spectroscopy-Theory 4. Optics/Photonics/Light-matter interactions/Nano-photonics/Ultrafast phenomena/Spectroscopy -Experimental 5. High Energy Physics – Theory 6. High Energy Physics and Nuclear Physics-Experimental 7. Astronomy, Cosmology, Gravity – Theory 8. Astronomy, Cosmology, Gravity – Experimental 9. Statistical Physics/Bio Physics/Soft Matter Physics/ Non-Linear Dynamics -Theory 10. Bio Physics/Soft Matter Physics/ Non-Linear Dynamics -Experimental

Shailesh J. Mehta School of Management	**Specializations** **Areas (in bold-face are current high need areas)**
Professor Associate Professor Assistant Professor	Decision Sciences & Quantitative Methods, Economics, Finance & Accounting, Information Systems, International Business, Marketing, Operations Management, Organizational Behavior & Human Resource Management, Strategic Management, Technology Management, Any other (General Management).

Centre for Environmental Science & Engineering	**Specializations**
Professor	Biotransformation and Toxicity Evaluation of Complex Organic Pollutants, Physicochemical and Biological Treatment Processes, Air Pollution Control, Technologies and Mitigation Strategies for Climate Change
Associate Professor	Physicochemical and Biological Treatment Processes, Environmental Systems Modelling, Analysis of hydro climatic extremes, Solid Waste Management, Climate Change and greenhouse gas mitigation
Assistant Professor	Air Quality Management – Measures and Modelling, Health and Economic Risk, Air Pollution Control, Aerosol Science and Engineering, Sustainable Development (Policies and Actions), Environmental Law, Environmental Management; Cleaner Technologies and Preventive Environmental Management, Microbial Ecology, Environmental Microbiology, Ecosystem Monitoring – structure and function, risk assessment, modelling response to climate change, Environmental Impact and Risk Assessment

Centre for Studies in Resources Engineering	**Specializations**
Professor Associate Professor Assistant Professor	Oceanography, Atmospheric Remote Sensing, Water Resources, Climate Change Modeling, Snow, Glaciers, Ice studies, Natural Hazards and Disaster Management, Forestry and Ecology, Planetary Sciences, Geocomputation and Scientific Visualization, Computer Vision and image analysis for remote sensing data, Surveying and geodesy, Urban Development and Town Planning, Agricultural Engineering **Special requirments :** The candidate is expected to have a strong background in the use of remote sensing and geospatial tools in the domain areas of his/her expertise, and experience in mathematical modeling. The candidate should have studies mathematics subjects

	during his/her undergraduate (e.g. B.Sc./BE/B.Tech. Etc.) degree programs. For more information : head@csre.iitb.ac.in

Centre for Technology Alternatives for Rural Areas	**Specializations**
Professor Associate Professor Assistant Professor	Development Studies with special emphasis on Public-Policy and Governance issues, Environmental issues such as Global Warming and Clean Development Mechanism, and also Economics and Conservation. Technology Transfer and Extension and in the Context of Regional Planning and Development. Design and implementation of Development Projects. Sociology of Science, History of Science & Technology in the context of Regional Development in India. **Natural Resources Planning and Utilization :** (i) Soils and Agriculture (including Horticulture, Organic Farming), (ii) Energy (including renewables), (iii) Water Resources (including Micro-Watershed) *Detailed description may be seen on the webpage (www.ctara.iitb.ac.in)*

Centre for Urban Science and Engineering	**Specializations**
Professor Associate Professor Assistant Professor	CUSE is looking for exceptionally good candidates whose background, contributions and interests lie at the intersection of policy, planning, infrastructure and/or informatics as they pertain to urban centric solutions.

Industrial Engineering & Operations Research	**Specializations**
Assistant Professor	Candidates with proven research work and training in one or more areas will be considered: Contemporary operations management both in services (including energy. Finance, health and logistics sectors) and products (including digital products). Quantitative models, including data driven models for pricing and revenue management, contract design, procurement, service level planning, resource allocation, staffing and other areas. System Dynamics and Simulation including distributed and hybrid simulation, and simulation based optimization. Candidates with excellent research work and very good academic background in all other areas of Industrial Engineering and Operations Research, broadly construed, will continue to be considered.

Systems & Control Engineering	**Specializations**
Associate Professor Assistant Professor	All areas of Systems and Control Engineering

IDP in Educational Technology (IDP-ET)	**Specializations**
Professor Associate Professor Assistant Professor	The current focus area of research of the IDP-ET is the development of pan-domain cognitive abilities. These include engineering design thinking, systems thinking, computational thinking, deductive reasoning,

	troubleshooting, scientific modeling, feasibility analysis, estimation, problem-posing, data representation & analysis and so on. While the focus primarily targets undergraduate students, the scope also includes thinking skills for school students or teachers. pedagogy and assessment for technology enhanced learning, computer supported collaborative learning, theoretical underpinnings for technology enhanced learning, educational psychology, cognitive science, human-computer interaction, design and development of AI and ICT based tools, game-based learning, virtual worlds, learning analytics, mobile learning. Candidates with a strong record in other areas of educational technology and related fields are also encouraged to apply. For more details, please see www.et.iitb.ac.in .

IDP in Climate Studies	**Specializations**
Assistant Professor, Associate Professor, Professor	**The Interdisciplinary Programme in Climate Studies seeks applications from exceptional candidates, with specialization from among areas listed below, common to all levels of applicants.** **Climate science**: Global and regional climate modeling, numerical weather prediction, atmospheric/ocean modeling, climate model development and improvement, climate model validation & verification, implementation of models on parallel computing systems. Process and phenomenological studies related to deep convection and rainfall, land-atmosphere-hydrological processes, surface fluxes, atmospheric thermodynamics, mesoscale cloud systems, aerosol and trace gas processes (formation and fate), aerosol, trace gas & cloud radiative balance, synoptic scale ocean/atmosphere circulation (Coupling, surface/sub surface mixing dynamics, boundary layer physics) . Inverse modelling, dynamical downscaling and bias correction, climate change assessment. *Desirable:* Significant experience in modelling tropical and Indian atmosphere and climate, experience in field expeditions and big data analysis. **Climate Policy:** Vulnerability and Adaptation assessment, climate change mitigation, coastal vulnerability, vulnerability and adaptation in specific sectors (agriculture, industry, transport, energy, coastal), Carbon Capture and Sequestration, climate change impacts, economics of climate change, climate justice and ethics, climate change and migration, climate governance and action plans, climate uncertainty, climate negotiations, decentralized climate policies, climate change and regulations, climate resilience, climate and urban planning. *Desirable:* Significant experience in methods and techniques of vulnerability and adaptation assessment, tools and techniques in policy / mitigation related research.

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Date: Updated in March, 2019 **REGISTRAR**