

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016

ROLLING ADVERTISEMENT FOR THE POST OF ASSOCIATE PROF. / PROFESSOR & EQUIVALENT
Rolling Advertisement No. IITD/2022/PROF-2

IIT Delhi invites applications from well qualified Ph.D Degree holders for the following faculty positions at the level of **Professor** and **Associate Professor** in its various Academic Units.

This is a rolling advertisement. There is no last date. However, the processing of the applications by the Academic Unit will be done in two cycles every year and the deadlines are respectively First Cycle – 31st December and Second Cycle – 30th June of the respective year.

Table-A: Academic Units

<u>Post</u>	<u>Pay Level</u>
Professor	Rs.1,59,100 – 2,20,200/- (minimum pay of Rs.1,59,100/-)in Academic Level 14A
Associate Professor	Rs.1,39,600 – 2,11,300/- (minimum pay of Rs.1,39,600/-)in Academic Level 13A2

Table-B: Computer Services Centre

<u>Post</u>	<u>Pay Level</u>
System Manager (SG)	Rs.1,59,100 – 2,20,200/- (minimum pay of Rs1,59,100/-)in Academic Level 14A
System Manager	Rs.1,39,600 – 2,11,300 /- (minimum pay of Rs1,39,600/-)in Academic Level 13A2

- *HRA and other allowances will be as per the Central Government Rules.*
- *Institute specifically encourages applicants from SC/ST/OBC category as well as persons with disability to apply for these positions.*

Foreign Nationals can be appointed on 5 years renewable contract basis and have to obtain work visa from Government of India.

MINIMUM QUALIFICATION AND EXPERIENCE FOR POSITIONS LISTED IN (TABLE A):

Ph.D with First class or equivalent grade at the preceding degree in an appropriate branch/discipline with a good academic record throughout.

EXPERIENCE (Required as on the last date of

application): PROFESSOR:

Minimum 10 years Teaching/Research/Industrial experience of which at least 4 years should be at the level of

Associate Professor in IITs or in similar institutes of national importance or at an equivalent level in any other Indian or foreign institutions /institutions of comparable standards.

ASSOCIATE PROFESSOR:

Minimum 6 years Teaching/Research/Industrial experience of which at least 3 years should be at the level of Assistant Professor or equivalent in IITs or similar institutes of national importance or at an equivalent level in any other Indian or foreign institutions /institutions of comparable standards.

The areas below mentioned against each Academic Units are only indicative and not exhaustive. The Institute is open to receiving applications from outstanding candidates with specialization in these and other related areas.(TABLE A): -

1. **APPLIED MECHANICS:** Solid mechanics, Fluid mechanics, Design engineering and interdisciplinary areas of mechanics including but not restricted to Biomechanics, Nanomechanics, Multifunctional materials and structures, Structural health monitoring, Soft robotics, Machine learning in mechanics, Two-phase flows, Environmental fluid flows, Granular flows, Solid-fluid interactions, Naval Architecture, etc.
2. **BIOCHEMICAL ENGG. & BIOTECHNOLOGY:** DBEB is an interdisciplinary department open to both scientists (biologists, chemists, physicists) and engineers (chemical, biochemical). We are particularly interested in candidates engaged in the rational development of processes for production of biochemicals using microbial, mammalian and plant cell cultures. We are equally interested in candidates involved in the development of enabling tools or technologies for the above processes such as metabolic engineering, synthetic biology, computational biology and systems biology.
3. **CHEMICAL ENGG:** All areas of Chemical Engineering.
4. **CHEMISTRY: For Professor:** Molecular Simulations of condensed phases.
For Associate Professor: Bioinorganic chemistry, organo catalysis.
5. **CIVIL ENGG: Environmental:** Water and Waste Water Engg., Air Pollution Control Engg., Solid and Hazardous Waste Engg., **Geotechnical:** Geotechnical Engg., Geo- environmental Engg., Rock Mechanics, Rock Engg., **Structures:** Structural Engg., Construction Materials, Construction Management, **Transportation:** Transportation and Traffic Planning, Transportation and Traffic Engg., Pavement Engg., **Water Resources:** Water Resources Engg. and related Areas.
NOTE: *The candidate should have B.E./B.Tech. or equivalent degree in Engineering with Ph.D. in the relevant area.*
6. **COMPUTER SCIENCE & ENGG :** Priority areas for hiring are quantum computing, computational and systems biology, security and cryptography, autonomous intelligent systems, scientific computing, architecture and design automation, embedded and cyber-physical systems, parallel and distributed computing and systems, networks, data bases and data analytics, and collaborative computing. Outstanding candidates in other areas of computer science will also be considered. Candidates with an interdisciplinary or applied research focus are expected to demonstrate a strong research profile in core computer science areas.
7. **DESIGN:** All areas of Design and Innovation including but not limited to Industrial Design, Product Design, Engineering Design, Design Creativity, Design Theory & Methodology, Applied Ergonomics and

Human Factors in Design, Universal and Inclusive Design, Participatory Design, Design Automation and Design Optimization, Design Computing and Design Informatics, Materials and Design, Design for Product Life-Cycle, Art and Design, Form and Aesthetics, Digital Media Design, Social and Cultural aspects of Design, Design policy, Design Strategy, Design Management, Toy and Game Design, Information Design, Service Design, Automotive Design, Design for UX,UI, HCI, Graphic Design, Communication Design.

- 8 **ELECTRICAL ENGG:** In all areas of Electrical Engineering including Electronics & Circuits, Control & Automation, Communication, Computer Engineering, Power Systems, Power Electronics, Machines & Drives.
- 9 **ENERGY SCIENCE & ENGINEERING:** **For Professor:** Plasma Science and Technology, Solar Thermal Technology, Electrical Power System.
For Associate Professor: Experimental Plasma Science and Technology, Solar Photovoltaic Devices and Systems, Solar Thermal Technology, Power Electronics and, Wind and Hydro Energy.
- 10 **HUMANITIES & SOCIAL SCIENCES:** **Economics:** Development Economics, Specialization in Microeconomics/Macroeconomics/International Trade/ Economic History is desired. However, exceptionally good candidates in any other specializations in Economics are also encouraged to apply. **Linguistics:** Semantics, Neuro-linguistics, Phonology, Comparative Syntax, Theoretical/Formal Syntax, Psycholinguistics, Language Acquisition, Computational linguistics. **Literature:** Indian Literature, Gender and feminism, Literature Theory, Twentieth Century literature, South Asian literature, Contemporary literature, The City. **Philosophy:** All sub-disciplines of philosophy, with a special focus on the following areas: ethics, metaphysics, history of philosophy, political philosophy, philosophy of law, logic, epistemology, philosophy of mind, environmental philosophy, feminist philosophy, philosophy of culture, philosophy of religion, philosophy of technology, and philosophy of science. Applications are especially welcome from philosophers with access to philosophical texts in non-English languages, and who belong to diverse traditions of philosophy indifferent parts of the world. **Psychology:** Social Psychology, Positive Psychology, Cognitive Psychology, Neuropsychology, Computational Psychology. **Sociology:** Sociology of Religion, Sociology of Food and Agriculture, Prison.
- 11 **MANAGEMENT STUDIES:** Operations & Supply Chain Management, Marketing Management, Strategic Management, Technology Management, Telecom Systems Management, Human Resource Management, Organizational Studies, Corporate law, Finance, Economics, Information Systems, Business Analytics-Big Data/Natural Language Processing/Deep Learning/AI, Digital Transformation-IoT/Blockchain/Information Security Management, Entrepreneurship.
- 12 **MATERIAL SCIENCE AND ENGINEERING:** Material processing and characterization, Materials modeling, polymeric materials, Alloys, composites and structural materials, Functional materials, Nanostructured materials, Materials for sustainable technology, Fracture Mechanics and process Metallurgy and Corrosion Science and Engineering.
- 13 **MATHEMATICS:** All areas of Pure and Applied Mathematics, Theoretical Computer Science, Probability and Statistics.
- 14 **MECHANICAL ENGG:** “All areas of Design and Production and Industrial Engineering-Operations Research & Analytics. Further, outstanding candidates in the area of thermofluids with strong fundamentals in the domain of their specialization. Applicants in the areas of Industrial Engineering-Operations Research & Analytics specializations are especially encouraged to apply”.
- 15 **PHYSICS:** Quantum Materials, Quantum Technology & Quantum Information Systems, Applied Optics, Optical Design & Fabrication, Atomic, Molecular Spectroscopy, Plasma Physics.

- 16 **TEXTILE & FIBRE ENGINEERING:** Textile Engineering, Textile Technology, Textile Chemistry, Fibre Science & Technology, and other Engineering and Science (such as Civil, Mechanical, Chemical, Electrical/Electronics, Materials, Polymers, Mathematics, Physics, Chemistry, Bio- Sciences and Management) with demonstrated research experience in areas relevant to textiles and fibres.
- 17 **APPLIED RESEARCH IN ELECTRONICS (CARE) : Microwaves and RF:** RFIC and RFMEMS, Imaging and Surveillance, RF Digital Co-design, Active and Reconfigurable Antennas and Arrays, High Power Solid-State Systems, Non-linear Modeling and Measurements, Components & Systems up to THz; **Microelectronics:** MEMS and Microsystems, Micro sensors development for defense and space applications, High speed electronic devices and circuits, Quantum Electronic devices for Quantum Information Technology; **Signal Processing:** Acoustic Signal Processing, Underwater and Air Acoustics, Speech and Audio Processing, Signal Processing for Communications, Sensor Array Signal Processing, Multi-sensor Data Fusion, Machine Learning for Signal Processing, Signal Processing for Internet-of-Things; **Multi-disciplinary:** Modern Radar Systems.
- 18 **ATMOSPHERIC SCIENCES (CAS):** All areas of Atmospheric and Oceanic Science.
- 19 **AUTOMOTIVE RESEARCH AND TRIBOLOGY (CART):** Power Electronics for EV applications, EV charging infrastructure and smart charging solutions, Vehicular Telematics and Embedded system for EVs, Connected and Autonomous EVs, Vehicle dynamics and control, Condition Monitoring for EV components, Materials for EV components.
- 20 **BIOMEDICAL ENGG. (CBME): Bio-Instrumentation:** Electrical Engg. Electronics, Medical Sensors, **Biomechanics:** Medical Implants, Mechanical Engg, Design Engg., Production Engg., Material Science & Engg., **Bio-Imaging:** Electrical, Electronics, Optical, **Biomaterials:** Manufacturing, Processing, Characterization.
- 21 **RURAL DEVELOPMENT AND TECHNOLOGY (CRDT):** Rural Resources, Energy systems & Infrastructure; Resilience & Climate Change; Disruptive Technologies; Engineering Design, Artisanal/Agricultural Tools & Crafts; Indian Knowledge system, Skill Development & Entrepreneurship; Water resource management, Sanitation & Soil Health; Microbial & Biomass Technologies; Food science & Nutrition, Food processing & Technology (All above areas in rural context)
- 22 **SENSORS, INSTRUMENTATION AND CYBER-PHYSICAL SYSTEM ENGINEERING (SeNSE):** (more details at <http://bit.ly/SENSE-faculty-advertisement>).
- 23 **TRANSPORTATION RESEARCH AND INJURY PREVENTION CENTRE:** TRIP-Centre(Transportation Research and Injury Prevention Centre) at IIT Delhi invites applications from well qualified Ph.D. degree holders with a strong academic background for the posts of Associate Professor and Professor specializing in transport planning and traffic safety, Automotive safety, Impact biomechanics, sustainable transport safety; vehicular pollution, transport economics, transport geography (statistics/epidemiology with a focus on population and demographics. Applicants can seek joint appointments in suitable Departments and Centres at IITD. TRIP Centre is a new academic unit established in May, '21. The Centre promotes and facilitates collaborative research and technology development in transportation research and injury prevention field.
- 24 **BHARTI SCHOOL OF TELECOMMUNICATION TECHNOLOGY AND MANAGEMENT (BSTTM):** All areas of telecom technology and management.

25. **AMAR NATH & SHASHI KHOSLA SCHOOL OF INFORMATION TECHNOLOGY (ANSKSIT)** Computational Neuroscience, Medical Applications of Information Technologies, Computational & Systems Biology, Embedded Systems & Sensors, Computer Security, Internet of Things (IoT).
26. **KUSUMA SCHOOL OF BIOLOGICAL SCIENCES (KSBS)**: **For Professor:** Peptide Therapeutics and related areas, **For Associate Professor:** Basic Fundamental Research in Biological Sciences in the areas of Structural Biology, Infectious Diseases & Non- communicable Disorders, Cognitive & Computational Neurosciences.
27. **SCHOOL OF PUBLIC POLICY (SOPP)**: The applicants must have a demonstrated track record of research in the area of public policy with broad focus on Science, Technology & Innovation (STI) and Development, and expertise in one or more of the specific areas of (1) Energy & Environment (2) Health innovations & systems (3) Sustainable Habitats (4) Agriculture, Food & Water (5) Industry & Economy (6) Internet, Digital Information & Society (7) Innovation Systems & Processes, and (8) Technical Higher Education. For further details, please see <http://ssp.iitd.ac.in/>
28. **SCHOOL OF ARTIFICIAL INTELLIGENCE (ScAI)** : In all areas of artificial intelligence, Subareas of interest include (but are not limited to) deep learning, reinforcement learning, probabilistic models, data mining, information retrieval, multi-agent systems, knowledge representation and reasoning, mathematical foundations of AI, ethics of AI, applied AI such as NLP, computer vision, robotics, AI on the edge, etc., and applications of AI to domain areas such as healthcare, agriculture, education, industry 4.0, etc. ScAI strongly encourages applicants with demonstrated track-record of working at the intersection of an application area and the AI fields.

MINIMUM QUALIFICATION AND EXPERIENCE FOR POSITIONS LISTED IN (TABLE

B):Sr. SYSTEM MANAGER (SG):

- Ph.D in Computer Science/Engineering/Applied Sciences with 10 years experience **OR**
- M.Tech. in Computer Science/Engineering/Applied Sciences with 12 years experience **OR**
- B.Tech. or M.Sc. in Computer Science/Engineering/Applied Sciences or M.C.A. with 14 years experience; and
- First class or equivalent grade in all university-level degrees in respective discipline, with a consistently good academic record;
- Strong academic background and work experience with computer systems or computer systems/applications software (including high-performance computing) or computer networks;
- Proven technical competence in managing a large complex of computer systems or computer systems/applications software or computer networks or computer/network services; and
- Proven managerial ability to manage a Center offering computer, software or network services, and interfacing with the user community.

SYSTEM MANAGER:

- Ph.D in Computer Science/Engineering/Applied Sciences with 8 years experience **OR**
- M.Tech. in Computer Science/Engineering/Applied Sciences with 10 years experience **OR**
- B.Tech. or M.Sc. in Computer Science/Engineering/Applied Sciences or M.C.A. with 12 years experience; and
- First class or equivalent grade in all university-level degrees in respective discipline, with a consistently good academic record;
- Strong academic background and work experience with computer systems or computer systems/applications

software (including high-performance computing) or computer networks; and

- Proven technical competence in managing a large complex of computer systems or computer systems/applications software or computer networks or computer/network services.

TABLE-B: COMPUTER SERVICES CENTRE Specializations:-

Systems: Virtualization, AD and LDAP, Kerberos, Network Storage Management Systems, NFS and CIFS Shares, Shell, Scripting, CGI, Perl Scripting, Python, Systems Programming for Windows, Linux, MAC, Security Infrastructure Security, Apache, Cloud Computing, Parallel Computing, HPC.

Network Programming: Firewalls, Network Management, Mail Configuration and Management, Webhosting, VPN, Proxies, https, Programming and Monitoring of Switches, Routers, Hubs, etc.

Applications: Web Application Development, Database Management, and Administration, Web Security, Scripting, CMS, Java, Spring, Hibernate, Reporting Tools like Jasper, Framework knowledge of different Languages/Scripting Languages, SVN.

General requirement (Optional): CCNA, CDCP, PMBOX, Vmware, Java, ITIL, etc. certification will be optional at Senior and Middle-level positions (for Sr. System Manager(SG) and System Manager). Certification on any of the above at entry level (System Architect level) is mandatory.

The following benefits are applicable for the post mentioned in Academic Units:-

- A start-up seed grant of up to ₹ 20,00,000/- is available to develop research capability in the area of expertise of the faculty member to set research goals for oneself. The Institute also provides an additional grant of ₹ 30,00,000/- as matching equipment grant to build new capability / high-value research facility in emerging areas via special project funding from external agencies. These grants are to be availed within 3 years of joining. The strategic goal of this fund is to aim for bigger projects.
- A cumulative Professional Development Allowance (PDA) of ₹ 3,00,000/- for every block period of 3 years is available to every member of the faculty to meet the expenses for participating in conferences, membership fee of various professional bodies, procurement of books and periodicals and contingent expenses.
- Faculty Members are eligible for reimbursement of telephone/mobile bills up to a ceiling of ₹ 2700/- plus taxes (for Pay Level 14A) per month AND ₹ 2250/- plus taxes (for Pay Level 13A2) per month.
- Relocation allowance, as a reimbursement of expenses incurred by a faculty member on travel by him/her and his/her family and for transportation of household goods, limited to ₹ 2,50,000/- for faculty joining the Institute from abroad and ₹ 1,25,000/- for faculty joining the Institute from India.
- Faculty members are eligible to apply for Chair Professor Positions which attracts a grant of ₹ 5,00,000 per annum for a period of 3 years, (extendable up to 5 years).
- Institute bestows Faculty Research Awards to faculty members, across designations, in recognition of their significant research contributions.
- Other than above some more additional benefits and incentives are available in the institute. For further details please see at https://home.iitd.ac.in/uploads/Benefits_and_incentives_to_faculty.pdf

NOTES:

- Government of India policy on reservation of faculty positions/Computer Programming Staff as applicable to IITs, including that for persons with disability, will apply.
- The minimum requirement of qualifications and/or experience may be relaxed in respect of exceptionally outstanding candidates in certain areas.
- A mere fulfillment of required minimum qualifications and experience does not entitle a candidate to be called for an interview/discussion.
- The Institute reserves the right to fill or not to fill the posts advertised.
- No correspondence whatsoever will be entertained from the candidates regarding postal delays, conduct and result of the interview, and reasons for not being called for interview or selection.
- Depending upon the qualification and experience, a higher start/salary may be offered in deserving cases.

- Separate online applications must be filled, if a candidate is applying for a faculty position in more than one Academic Unit. Candidates having overlapping interests in more than one Academic Unit can be considered for joint appointment (if selected).
- The candidates called for interview will be paid AC2-Tier by Train/Economy Class by Air or actual expenditure and AC Taxi by road (from Airport/Railway Station/ISBT and back) fare from their place of residence/work and back by the shortest route within India.
- 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.

IIT Delhi makes every attempt to help faculty members settle in their academic role and to grow professionally.

ACCOMMODATION: Suitable residential accommodation as per Institute rules shall be provided on the Campus joining the Institute (this is subject to availability). With the renovation of many apartments, almost all interested new faculty members would be able to get an apartment soon in the Campus. Faculty members can avail accommodation outside the campus on lease till regular accommodation is provided in the campus. Institute supports payment of monthly rental of up to ₹35,000/- for the same.

ABOUT THE CAMPUS: Extending into an area of 320 acres, the campus is imaginatively laid out with a picturesque landscape with clean and wide roads. The campus provides all essential amenities for community living including Staff Club, Sports Complex (both indoor & outdoor) Hospital, Shopping Centre, Banks, ATMs, Post Office, numerous food courts, Community Centre, etc.

HOW TO APPLY: It is a requirement that candidates use the IIT Delhi website (<https://home.iitd.ac.in/jobs-iitd/index.php>) to fill-up and submit application online against the aforesaid faculty position. The website also contains useful information of various aspects of working and living at IIT Delhi and recruitment process

As a precaution, after submitting the application through the website, please retain a copy of the application. Candidates employed with Government/Semi-Government Organizations or with Autonomous Bodies must print a copy of the electronic submission and submit the printed version through proper channel at the address given below. Candidates who have applied online may please log in to our site (<https://ecampus.iitd.ac.in/IITDFR-0/login>) and check the status whether their applications have been received or not.

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