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

ROLLING ADVERTISEMENT FOR THE POST OF ASSISTANT PROFESSOR AND EQUIVALENT POSITION Rolling Advertisement No. IITD/2022/AP-1

IIT Delhi invites applications from well qualified Ph.D Degree holders for the following faculty position at the level of **Assistant Professor** in its various Academic Units and **System Architect** in Computer Services Centre.

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

Post	Pay Matrix as per 7 CPC
Assistant Professor Grade-1	Pay Level 12 (Rs.1, 01,500-1, 67,400) with minimum Pay of Rs.1, 01,500/-
&	After completion of 3 years of service as Assistant Professor in Pay Level 12,
System Architect	the candidates will be considered for movement to Pay Level 13A1
	(Rs.1,31,400- 2,04,700)

- ❖ HRA and other allowances will be as per the Central Government Rules.
- Age: Preferably below 35 years. Age relaxation for reserved candidates as per Govt. of India is as under: SC/ST 5 years, OBC-NCL 3 years, EWS no age relaxation, General PWD 10 years.
- ❖ Institute specifically encourages applicants from SC/ST/OBC/ EWS category as well as persons with disability.

MINIMUM QUALIFICATION AND EXPERIENCE FOR POSITION OF:-

ASSISTANT PROFESSOR (Grade I):-

Ph.D with First class or equivalent grade at the preceding degree in an appropriate branch/discipline with a good academic record throughout. A minimum of three years teaching/ research / professional experience, excluding the experience gained before andwhile pursuing Ph.D Candidate should have demonstrated research capabilities in terms of publications in reputed journals and conferences.

Candidates with Ph.D but with less than 3 years experience can be considered for Assistant Professor Grade II i.e. Pay level 10 (Rs. 70,900-Rs.98,200/-) or Pay level 11 (Rs. 73,100-Rs. 1,17,200/-) on contract basis to be regularized as per institute norms.

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

SYSTEM ARCHITECT IN COMPUTER SERVICE CENTRE:-

❖ Ph.D in Computer Science/Engineering/Applied Sciences with 3 years experience

<u>OR</u>

- ❖ M.Tech. in Computer Science/Engineering/Applied Sciences with 5 years experience **OR**
- ❖ B.Tech. or M.Sc. in Computer Science/Engineering/Applied Sciences or M.C.A. with 7 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.

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.

ACADEMIC UNITS: -

1. <u>APPLIED MECHANICS</u>: 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). Weare 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, the candidate should have undergraduate education in chemical or allied engineering disciplines.
- 4. <u>CIVIL ENGG:</u> Environmental: Water and Waste Water Engg. Air Pollution ControlEngg. Solid and Hazardous Waste Engg. Geotechnical: Geotechnical Engg., geo- environmental Engg, Rock Mechanics and Rock Engg., Structures: Structural Engg.Construction Materials, Construction Management, Transportation: Transport and Traffic planning, Transportation and Traffic Engg., Pavement Engg., Water Resources: Water Resources Engg, and related areas.
- 5. COMPUTER SCIENCE & ENGG.: High Performance Computing and Visualization, Machine Learning and Artificial Intelligence, Wired and Wireless Networks, Mobile Computing Cyber –physical Systems & Internet of Things(IOT), Algorithms & Complexity, Logic & Verification, Information Management, Information Retrieval, Data Analytics and Data Sciences, Computer Vision, Graphics & Robotics, Programming Languages, Semantics, Analysis & Language Implementation, Distributed & Multicore Computing, Operating Systems and Cloud Computing, Cryptography and Cryptosystems, Systems and Information Security, Human Computer Interaction, Embedded Systems, Computer Architecture, VLSI and Design Automation.
- 6. <u>DESIGN</u>: 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 nad 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.
- 7. <u>ELECTRICAL ENGG.</u>: In all areas of Electrical Engineering including Electronics& Circuits, Control & Automation, Communication, Computer Engineering, Power Systems, Power Electronics, Machines & Drives.
- 8. **ENERGY SCIENCE & ENGINEERING:** Renewable Energy Technologies, Energy Storage, Electrical Power Systems, Power Electronics, Electrical Machines and Drives, Control and Instrumentation for Energy Applications, Electronic Devices, Thermodynamics, Fluid Mechanics, Heat Transfer, and Combustion pertaining to Energy Systems.

- 9. **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, Literary 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, environmentalphilosophy, 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 in different parts of the world. Psychology: Social Psychology, Positive Psychology, Cognitive Psychology, Neuropsychology, Computational Psychology. Sociology: Sociology of Religion, Sociology of Food and Agriculture, Prison.
- 10. 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/Al, Digital Transformation-loT/Blockchain/Information Security Management, Entrepreneurship,
- 11. **MATERIAL SCIENCE AND ENGINEERING:** Material synthesis, processing and characterization, Materials modeling, polymeric materials, Alloys, composites and structural materials, Functional materials, Nanostructured materials, Materials for sustainable technology and process Metallurgy and Corrosion Science and Engineering.
- 12. **MATHEMATICS:** Probability, Statistics, Optimization, Scientific Computing, Theoretical Computer Science and Machine Learning and Data Science.
- 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".
- 14. **PHYSICS:** Quantum Materials, Quantum Technology & Quantum Information Systems, Applied Optics, Optical Design & Fabrication, Atomic, Molecular Spectroscopy, Plasma Physics.
- 15. **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.
- 16. <u>APPLIED RESEARCH IN ELECTRONICS (CARE)</u>: Microwaves and RF: RFICand 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 SignalProcessing, Multi-sensor Data Fusion, Machine Learning for Signal Processing, Signal Processing for Internet-of-Things; **Multi-disciplinary**: Modern Radar Systems.

- 17. **ATMOSPHERIC SCIENCES (CAS):** All areas of Atmospheric and Oceanic Science.
- 18. **AUTOMOTIVE RESEARCH AND TRIBOLOGY (CART):** Power Electronics for EV applications, Battery management systems and other storage technologies for EVs,EV charging infrastructure and smart charging solutions, Vehicular Telematics and Embedded system for EVs, Connected and Autonomous EVs, Vehicle dynamics and control.
- 19. <u>BIOMEDICAL ENGG (CBME)</u>: Bio Instrumentation; Electrical Engineering, Electronics, Medical Sensors, Biomechanics; Medical Implants, Mechanical Engineering, Design Engineering, Production Engineering, Material Science & Engineering, Bio Imaging; Electrical, Electronics, Optical.
- 20. **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) **Preference will be given in these areas:** Artisanal/Agricultural Tools & Crafts; Resilience & Climate Change; Water resource management & Food science & Nutrition.
- 21. <u>SENSORS, INSTRUMENTATION AND CYBER-PHYSICAL SYSTEM ENGINEERING (SeNSE)</u>: (more details at http://bit.ly/SENSE-faculty-advertisement).
- 22. TRIP-Centre (Transportation Research and Injury Prevention Centre): Invites applications from well qualified Ph.D. degree holders with a strong academic backgroundfor the posts of Assistant Professor/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 center's 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.
- 23. **OPTICS AND PHOTONICS CENTRE:** Optical Engineering, Optical Instrumentation and Metrology, Optical Imaging, Fiber Optics, Integrated Optics, Optical Communication, Optical Sensors, Laser Science and Technology, Ultrafast Optics, Silicon Photonics, Nanophotonics, Plasmonics, Biophotonics, Green Photonics, Statistical and Quantum Optics, Quantum Photonics, Terahertz Photonics, Optical Metamaterials, Nonlinear Optics, Optical and Magneto-optical Storage Devices, Photonic Devices, and other relevant areas.
- 24. BHARTI SCHOOL OF TELECOMMUNICATION TECHNOLOGY ANDMANAGEMENT (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 & Sensor, Computer Security, Internet of Things (IOT).

- 26. **KUSUMA SCHOOL OF BIOLOGICAL SCIENCES (KSBS):** Basic/ Fundamentalresearch in Biological Sciences in the areas of Structural Biology, Infectious diseases & non-communicable disorders and 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. More details are found at http://www.scai.iitd.ac.in
- **29. Computer Service Centre**: System Architect.

The following benefits are applicable for the post of Assistant Professor:-

- 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 grantto 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 ofjoining. 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 ₹ 2,250/- plus taxes (for Pay Level 12/13/13A) per month and ₹ 1,200/- plus taxes (for Pay Level 10 and 11) 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.
- Candidates for the post of Assistant Professor are eligible for "Young Faculty Incentive Fellowship", initially for a period of 3 years from date of joining till the movement to Pay Level

13A1 (whichever is earlier). The fellowship grants an honorarium of ₹ 25,000/-per month over and above the salary.

- 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, inrecognition of their significant research contributions.
- Other than above some more additional benefits and incentives are available in theinstitute. For further details please see https://home.iitd.ac.in/uploads/Benefits and incentives to faculty.pdf

NOTES:

- The policy of Govt. of India on reservation of faculty positions 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 entitlea 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 interviewor selection.
- Depending upon the qualification and experience, a higher starting salary maybe offered to deserving candidates.
- Separate online applications must be filled in, 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 theshortest route within India.
- Persons employed in Government/Semi-Government Organization or Educational Institutions must apply through proper channel OR shall provide "**No ObjectionCertificate**" 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 accommodations, located on the campus, shall be provided as per Institute rules to the faculty members on joining the Institute (this is subject to availability). 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 $\stackrel{?}{\sim} 35,000$ /- 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 (http://www.iitd.ac.in/jobs- iitd/index.html) to fill-up and submit application online against the aforesaid faculty position. The website also contains useful information on 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 givenbelow. 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.

Address for Correspondence:
Joint Registrar (E-I)
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E-mail: fac_recruit@admin.iitd.ac.in

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