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/2021/AP-1

IIT Delhi invites applications from well qualified Ph.D Degree holders[1] 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 LEVEL (as per 7th CPC)
Assistant Professor (Grade I)	**Pay Level 12 (Rs.1,01,500-1,67,400)** with minimum Pay of Rs.101500/-. After completion of 3 years of service as Assistant Professor in Pay Level 12, the candidates will be considered for movement to Pay Level 13A1 (Rs.1,31,400-2,04,700)
System Architect	**Pay Level 12 (Rs.1,01,500-1,67,400)** with minimum Pay of Rs.101500/-. After completion of 3 years of service as System Architect in Pay Level 12, 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.*
- *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. and 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 and while 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).

[1] Foreign Nationals will be 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 **OR**
- 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. **APPLIED MECHANICS** : Design Engineering, Solid Mechanics, Fluid Mechanics and Interdisciplinary areas of Mechanics including but not restricted to Biomechanics, Nano-mechanics, Multifunctional materials, Solid-Fluid interactions, Naval Architecture, etc.

2. **BIOCHEMICAL ENGG. & BIOTECHNOLOGY:** Bioprocess and metabolic Engineering (Mammalian Cell Technology, Enzyme bioreactors, Bio-separation Engg with specialization in Chromatography and Nano-filtration, Genome Engineering), Systems and Computational biology (Quantitative biology, Synthetic biology) and Molecular biology of disease, Diagnostics and Bio-nanotechnology (Nano-biosensors, Therapeutics/drug delivery)

3. **CHEMICAL ENGG:** All areas of Chemical Engineering, the candidate should have undergraduate education in chemical or allied engineering disciplines.

4. **CHEMISTRY** : Biochemistry

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 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.

6. **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.

7. **DESIGN :** Industrial Design, Product Design, Engineering Design, Creativity and innovation, Design Theory & Methodology, Applied Ergonomics and Human Factors in Design, Universal and Inclusive Design, Design for UX/UI, HCI; Graphic Design, Communication Design, Computer Aided Design and Manufacturing, Design Automation and Design Optimization, Design Computing and Design Informatics, Materials & Design, Design for Product Life-Cycle, Art & Design, Product Aesthetics, Digital Media & Design, Social and Cultural aspects of Design, Design Policy, Design Strategy, Design Management.

8. **ELECTRICAL ENGG.** : In all areas of Electrical Engineering including Electronics & Circuits, Control & Automation, Communication, Computer Engineering, Power Systems, Power Electronics, Machines & Drives.

9. **HUMANITIES & SOCIAL SCIENCES**: Economics, (specialization in Macroeconomics is desired. However, exceptionally good candidates in any other specializations in Economics are also encouraged to apply), English Literature, Linguistics, Philosophy, Psychology, Sociology.

10. **MANAGEMENT STUDIES**: Operations & Supply Chain Management, Marketing Management, Strategic Management, Technology Management, Telecom Systems Management, Human Resource Management, Corporate law, Finance, Economics, Information Systems, Business Analytics, 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.

13. **MECHANICAL ENGG.** : All areas of Design and Production and Industrial Engineering (including Operations Research and Analytics), Energy, Transportation motive power, Mirco and Nano – scale fluid mechanics and heat transfer, Thermal Engineering of processes. Applicants in the areas of Production and Industrial Engineering specializations are especially sought.

14. **PHYSICS** : Quantum materials, Quantum information and Quantum Photonics and other areas of Physics.

15. **TEXTILE TECHNOLOGY** : Textile Engineering, Textile Technology, Textile Chemistry, Fibre Technology, Polymer Science & Engineering and other Engineering and Sciences with demonstrated research experience in areas relevant to textiles.

16. **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, mm-wave and THZ electronic devices, 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.

17. **ATMOSPHERIC SCIENCES** : Ocean Modeling, Climate Modeling, Mesoscale Studies and Atmospheric dispersion.

18. **AUTOMOTIVE RESEARCH AND TRIBOLOGY (CART)** : Power Electronics, Electric drive train and controls for EVs, Battery, Battery management systems and other storage technologies for EVs, EV charging infrastructure and smart charging solutions, Ancillary services and Demand Side Management (DSM) with EVs. Standards, policies and regulations for EVs, Connected and Autonomous EVs, Development of Tribo-materials and smart materials for EVs, Tribo-dynamics, Lubrication and lubricants, friction and wear control, studies of bulk material handling, NVH and condition monitoring, reliability and maintenance.

19. **BIOMEDICAL ENGG.** : **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. **ENERGY STUDIES** : Electrical Power Systems, Chemical and Thermal Energy Storage, Internal Combustion Engines and Alternative Fuels, Solar Thermal and Photovoltaic Systems.

21. **RURAL DEVELOPMENT AND TECHNOLOGY (CRDT) :** Rural Resources, Energy Systems & Infrastructure; Resilience & Climate Change; Disruptive Technologies; Engineering Design, Artisanal/ Agricultural Tools & Crafts; Skill Development & Entrepreneurship; Water, Sanitation & Soil Health; Microbial & Biomass Technologies; Food Technology, Health & Nutrition.

22. **SENSORS, INSTRUMENTATION AND CYBER-PHYSICAL SYSTEM ENGINEERING (SeNSE):** Candidates must have an ability to build world-class research facilities, and a proven/ demonstrated history of hands-on product and prototype development at the individual/ team level in- Optical Engineering (optical fabrication, laser systems and optical instrumentation), Precision mechanics,

electronics systems and instrumentation, sensors, smart systems, cyber-physical systems. (more details at http://bit.ly/SENSE-faculty-advertisement)

23. **BHARTI SCHOOL OF TELECOMMUNICATION TECHNOLOGY AND MANAGEMENT**: All areas of Telecom Technology and Management.

24. **AMAR NATH & SHASHI KHOSLA SCHOOL OF INFORMATION TECHNOLOGY**: Computational Neuroscience, Medical Applications of Information Technologies, Computational & Systems Biology, Embedded Systems & Sensor, Computer Security, Internet of Things (IOT).

25. **KUSUMA SCHOOL OF BIOLOGICAL SCIENCES**: Basic/ Fundamental research in Biological Sciences in the areas of Structural Biology, Infectious diseases & non-communicable disorders and cognitive & computational neurosciences.

26. **PUBLIC POLICY**: 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/

27. **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

28. **COMPUTER SERVICES 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 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.

- Reimbursement of telephone/mobile bills up to a ceiling of ₹ 2,250 plus taxes and ₹ 1,200 plus taxes as applicable per month for faculty members in pay levels 12/13/13(A) and 11, respectively.
- 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 or for the duration of appointment or till the movement to Pay Level 13A whichever is earlier. The fellowship grants an honorarium of ₹ 25,000 per month over and above the salary and other benefits admissible.
- Faculty are eligible for Chair Positions that entitle faculty members to 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:

- 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 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 starting salary may be 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 (Department/Centre/School). 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 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 ₹ 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 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.

Address for Correspondence:

Joint Registrar (E-I)
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