

Indian Institute of Technology Hyderabad Advertisement No. IITH/HR/Faculty/01/2023

Starting date of applications: 11.04.2023 Closing date of applications: 02.05.2023 05:30 pm

1. General Information:

IIT Hyderabad (IITH), established in 2008, is consistently ranked among the top 10 Indian Engineering institutes in the NIRF and QS World Rankings. It has 4200+ students (~1200 PhD students), 300 faculty and 300 staff. With about 8750 publications, ~1,30,000 citations, 1670 projects worth of Rs. 680+ Crores, 170+ patents and 125+ startups, IITH is one of the fastest growing institutions in the Country. IITH has been striving for excellence passionately with a motto of Inventing and Innovating in Technology for Humanity (IITH).

IIT Hyderabad invites applications from exceptionally bright and motivated Indian Nationals or OCIs with an established record of independent, high-quality research and commitment to teaching for positions of Assistant Professor, Associate Professor and Professor at IIT Hyderabad (www.iith.ac.in) in the following Departments. All the three levels are not being advertised in the current round by certain departments, details of which are provided in Section 4.

- **♦** Artificial Intelligence
- **❖** Biomedical Engineering
- **❖** Biotechnology
- Chemical Engineering
- Chemistry
- Civil Engineering
- ❖ Computer Science & Engineering
- Design

- Electrical Engineering
- Entrepreneurship and Management
- Liberal Arts
- ♦ Materials Science and Metallurgical Engineering
- Mathematics
- ♦ Mechanical and Aerospace Engineering
- Physics

For specializations required in these departments please see below. Interested candidates may apply through an online portal https://faculty.recruitment.iith.ac.in and attach the relevant certificates/documents that are asked.

Women candidates are especially encouraged to apply.

Candidates who have got their PhD from IITH will be considered for a faculty position at IITH after completing 5 years from the date of thesis defence. However, exceptional meritorious candidates may be considered without fulfilling the above condition.

Reservation as per Government of India rules for SC/ST/OBC-NCL/EWS are applicable for all positions including Assistant Professors, Associate Professors and Professors in the above-mentioned departments. Necessary certificates must be enclosed with the application form. GOI policy on reservation of faculty positions also includes persons with Physical disability.

If a candidate is interested in applying to more than one department, he/she should submit a separate application for each of the departments of interest.

Recruitment will be based on the need in given areas within the department. However, exceptionally meritorious candidates in any area of specialization pertaining to the said department will also be considered.

The institute reserves the right to fill or not to fill any or all of the advertised posts. Mere fulfillment of the qualifications and experience requirement does not entitle the candidate to be called for an interview.

The Institute provides support to cover relocation expenses for a new faculty member, and also provides a significant start-up research grant. In addition, the Institute provides Cumulative Professional Development Allowance (CPDA) of Rs. 3 lakhs for every block of 3 years to meet the expenses for participating in international conferences, national conferences and paying the membership fee of various professional bodies and contingent expenses. The faculty and their families are covered by an attractive Contributory Health Services Scheme.

2. <u>Description of posts and required qualifications</u>:

2.1 Assistant Professor Grade I:

As per 7th CPC, the minimum pay to be fixed at Rs. 1,01,500 (Matrix pay level of 12) along with admissible allowances. After completion of 3 years of satisfactory service, they may be placed in matrix level 13A1.

Qualification: The candidate must have a PhD with first class at all preceding degrees.

Experience: At least 3 years in industrial/research/teaching experience after completion of PhD.

2.2 Assistant Professor Grade II:

Candidates without 3 years' industrial/research/teaching experience after completion of PhD applying for direct recruitment as Assistant Professor Grade I, may be taken as Assistant Professor Grade II and the minimum pay to be fixed at Rs. 98,200 (Matrix pay level of 10) along with admissible allowances. Once selected in this position, the candidate will be considered for the post of Assistant Professor Grade I upon fulfilling the required work-experience

For Assistant Professor Grade II and Assistant Professor Grade I positions, the applicants are expected to be younger than 35 years, with age relaxation for various categories. However, in exceptional cases, this may be relaxed.

The candidates are expected to have a strong record of research publications in reputed journals and referred conferences, patents, etc.

<u>Seed Grant:</u> IITH provides a seed grant to new Faculty to get them started on their research, while they await the results of their project proposals submitted to external funding agencies.

New faculty should apply within six months of joining for the Seed Grant. Assistant Professors are eligible for a Seed grant of up to Rs. 30 lakhs, which includes fellowship for one PhD student for 3 years.

2.3 Associate Professor:

As per 7th CPC, the minimum pay is to be fixed at Rs. 1,39,600 (Matrix pay level of 13A2) along with admissible allowances.

Qualification: The candidate must have a PhD with first class at all preceding degrees.

Experience: A minimum of 6 years in teaching/research/professional experience, of which 3 years should be at the level of Assistant Professor, Senior Scientific Officer/Senior Engineer in a research organization or industry.

The candidates are expected to have a strong record of research guidance, sponsored research, publications in reputed journals and referred conferences, patents, etc.

For Associate Professor position, the candidates are expected to be younger than 45 years. However, in exceptional cases, this may be relaxed.

2.4 Professor:

As per 7th CPC, the minimum pay is to be fixed at Rs. 1,59,100 (Matrix pay level of 14A) along with admissible allowances.

Qualification: The candidate must have a PhD with first class at all preceding degrees.

Experience: A minimum of 10 years in teaching/research/professional experience, of which at least 4 years should be at the level of Associate Professor in an academic institute or equivalent position in a research organization or industry.

The candidate should have demonstrated leadership in research in a specific area of specialization in terms of guidance of MTech and PhD students, and has a strong record of sponsored research, publications in reputed journals and referred conferences, patents, laboratory/course development and other recognized relevant professional activities.

For Professor position, the candidates are expected to be younger than 55 years. However, in exceptional cases, this may be relaxed.

3. Relaxation in age limit:

3.1 Age relaxation for various categories:

Category	Age relaxation
Reservation policy as per GoI norms is followed.	
SC/ST	5 years
OBC-NCL	3 years
PWD	Relaxation for PWD candidates: 15 years for SC/ST, 13 years for OBC-NCL
	and 10 years for General Category.

- 3.2 Reservation for 'Persons with Disabilities' with minimum of 40% disability: Reservations will be given as per the GOI guidelines.
- 3.3 The candidates submitting applications under the EWS category should upload a valid EWS Certificate issued for the current financial year. Income statement of the whole family need to be submitted.
- 3.4 OBC-NCL certificate should not be more than two financial years old from the last date of application.

4. Particulars of specializations required in each department:

Note: IITH reserves the right to focus on specific areas for its recruitment. The fields mentioned below are meant to be indicative of the departments' current requirements, which may change without notice. However, outstanding candidates in any field relevant to the department will also be considered.

4.1 Artificial Intelligence

The department is seeking applications from suitable candidates for the posts of **Assistant Professor**, **Associate Professor and Professor**.

Candidates with outstanding research publication records in any area of Artificial Intelligence and Machine Learning may apply. Candidates should have a strong academic background with their bachelor's degree in any area of science and engineering but should have their PhD in the area of AI/ML and require an outstanding publication record with contributions in any area of AI and its applications, including interdisciplinary AI research. Successful candidates are expected to engage in cutting edge AI research and be capable of offering Institute-wide courses in AI and ML to the growing community of AI users and practitioners at IITH.

For more details about the department, please visit https://ai.iith.ac.in/.

4.2 Biomedical Engineering

The department is seeking applications from suitable candidates for the posts of **Assistant Professor**, **Associate Professor and Professor**.

The areas for consideration are: Biomedical Instrumentation and Biomedical Devices using patient data or for patient applications. Biomedical Image and Signal Processing with work on Nuclear Magnetic Resonance Imaging (NMR/MRI), CT, PET-CT, Rehabilitation engineering, Experimental and Computational Biomechanics, Systems Biology, Brain-machine interfaces and Computational Biology, Neural Engineering, Computational Neuroscience.

For more details about the department, please visit https://bme.iith.ac.in/.

4.3 Biotechnology

The department is seeking applications from suitable candidates for the posts of **Associate Professor and Professor.**

Associate Professor: Alternative mRNA splicing, Prostate Cancer.

Professor: Protein misfolding, aggregation & toxicity- biochemical & genetic mechanisms silico and in vitro characterizations of nucleic modulation: *In* and proteins involved respectively in microsatellite repeat expansion disorders and Gramvirulence negative bacterial traits and, Exploring the amyloidogenic mechanism of yeast protein and, SARS-CoV-2 evolutionary analysis and, dynamics Development of databases and, algorithms and application tools development for biomolecular interaction prediction and modeling; X-ray crystallography and Biochemical studies of biomolecular complexes involved in Epigenetic gene regulation or DNA repair.

For more details about the department, please visit https://biotech.iith.ac.in/.

4.4 Chemical Engineering

The department is seeking applications from suitable candidates for the posts of **Associate Professor and Professor.**

Area of specialization: Biomechanics (sub-field: Cardiovascular Mechanics) and Complex Fluid Rheology; Reaction Engineering and Catalysis; Biochemical and Bioprocess Technology.

For more details about the department, please visit https://che.iith.ac.in/

4.5 Chemistry

The department is seeking applications from suitable candidates for the posts of **Associate Professor and Professor.**

The candidates should have bachelor's and master's degrees in chemistry with a first-class or equivalent.

Associate Professor: Areas for consideration are i) Laser Spectroscopy of Gas-Phase Molecular Clusters and Complexes (Preferably in Quantitative Analysis of Non-covalent Interaction); ii) Bio-Organic Chemistry (Preferably Biomimetic Enzymatic Models); iii) Supramolecular Chemistry (Preferably Self-Assembly of Extended Conjugated Molecules), (iv) Organic synthesis (Preferably in catalytic (transfer) hydrogenation and its application in natural products/pharmaceutically relevant products/fine chemicals).

Professor: Areas for consideration are (i) Materials Electrochemistry emphasizing Batteries and Hybrid Super capacitors; and (ii) Inorganic Phosphor materials

For more details about the department, please visit https://chemistry.iith.ac.in/.

4.6 Civil Engineering

The department is seeking applications from suitable candidates for the post of **Professor**.

Candidates with outstanding research records in the below areas of Civil Engineering may apply.

- 1. Risk and Reliability in Geotechnical & Geo-environmental Engineering
- 2. Unsaturated Soil Mechanics
- 3. Wastewater Treatment and Reuse
- 4. Waste Management & Resource Recovery
- 5. Environmental Health with respect to Trace Pollutants

For more details about the department, please visit https://civil.iith.ac.in/.

4.7 Computer Science and Engineering

The department is seeking applications from suitable candidates for the posts of **Assistant Professor**, **Associate Professor and Professor**.

Assistant Professor: Areas for consideration are: Computer Architecture, Cloud and Distributed Computing, Computer Graphics/Virtual Reality, Cyber security, Databases and Information Management, Formal Methods, IoT, Operating Systems, Compilers/Program Analysis and Programming Languages, Software Engineering.

Candidates with Artificial Intelligence/Machine Learning background are expected to apply to the AI department. However, if they prefer to apply to the CSE department, they should agree to be an adjunct faculty of AI department, if selected to the CSE department, so that they help in the growth of AI department also.

Candidates found exceptional by the selection committee will be awarded a salary top-up for their first year funded by an endowment.

Associate Professor: Areas for consideration are: Artificial Intelligence/Machine Learning and Theoretical Computer Science.

Professor: Areas for consideration are: Artificial Intelligence/Machine Learning, Computer Networks, Theoretical Computer Science.

Candidates in areas not mentioned above, with a proven record of publishing in top venues, are also welcome to apply.

For more details about the department, please visit https://cse.iith.ac.in/.

4.8 Design

The department is seeking applications from suitable candidates for the posts of **Assistant Professor and Associate Professor.**

A PhD in Design/Creative Arts or in any relevant field of Design with demonstrable written output in the form of monographs, essays, journal papers, curatorial texts, editorials are essential.

Areas for consideration are: Product Design, Interaction Design visual design, visual communication, Animation, Artificial Intelligence in Design, Printing, Painting, Sculpture, Applied Art, Film-making, Cinematography, Editing, Sound Design, Music Production, VFX and, Visual Communication, Typography and Publication Design, Digital Media, Augmented

Reality, Augmented Reality, Virtual Reality, User Experience, Architectural Design, Textile Design, Furniture Design.

For more details about the department, please visit https://design.iith.ac.in/

4.9 Electrical Engineering

The department is seeking applications from suitable candidates for the posts of **Assistant Professor**, **Associate Professor and Professor**.

Assistant Professor: Areas for consideration are: All sub-disciplines of control systems and engineering, Information theory and statistics, Practical and theoretical aspects of machine learning, Receiver design and hardware aspects of communication systems, Quantum information theory, Quantum computing, Privacy and security aspects of communications and computing, Communication networks, Communications, machine learning and control, Computer vision, GaN, SiC and other new power devices for High/Medium power application, Integrated Circuits and Systems, Heterogenous Integrated and Microsystems Packaging, Quantum and Nanoscale devices for next-generation computing, Microwave engineering.

Associate Professor and Professor: Candidates with outstanding research records in any area of Electrical Engineering may apply.

For more details about the department, please visit https://ee.iith.ac.in/

4.10 Entrepreneurship and Management

The department is seeking applications from suitable candidates for the post of **Associate Professor and Professor.**

Area of Specialization for consideration are: Entrepreneurship, Startup Management, Ecopreneurship and Green Startups, Deep Tech Entrepreneurship, Rural Entrepreneurship.

For more details about the department, please visit https://em.iith.ac.in/

4.11 Liberal Arts

The department is seeking applications from suitable candidates for the posts of **Associate Professor and Professor.**

Area of specialization for consideration are: Anthropology, Cultural Studies, Cognitive Science, Development Studies, English, English Language Teaching, Economics, Fine Arts, Linguistics, Performing Arts, Psychology, Sociology.

For more details about the department, please visit https://lba.iith.ac.in/.

4.12 Mathematics

The department is seeking applications from suitable candidates for the post of **Assistant Professor**, **Associate Professor and Professor**.

Assistant Professor: The applicant must have at least one of their post-graduate and PhD in Mathematics/Statistics with a strong background in any of the following research areas: Computational Geometry; Mathematical Finance and Stochastic Calculus; Classical and Nonclassical Optimisation; Theoretical and Computational Data Sciences; Mathematical Logic; Knowledge Representation, and Reasoning; Computational Complexity Theory.

Associate Professor: Partial Differential equations and Spectral Graph Theory

Professor: Banach Algebra and Harmonic Analysis

For more details about the department, please visit https://math.iith.ac.in/.

4.13 Mechanical and Aerospace Engineering

The department is seeking applications from suitable candidates for the post of **Professor**.

Candidates with outstanding research records in the area of Non-linear dynamics may apply.

For more details about the department, please visit https://mae.iith.ac.in/.

4.14 Materials Science & Metallurgical Engineering

The department is seeking applications from suitable candidates for the posts of **Associate Professor and Professor.**

Associate Professor: Phase Transformations of Welding and Additive Manufacturing; Spin-orbitronics for High Frequency Device Applications; Plasmonics, Nanophotonics, Metasurfaces; In-situ Electron Microscopy; Mechanical Behavior of Materials both at Room temperature as well as High Temperature

Professor: Computational Phase Transformations, Phase-field Modeling

For more details about the department, please visit https://msme.iith.ac.in/.

4.15 Physics

The department is seeking applications from suitable candidates for the posts of **Associate Professor and Professor.**

Associate Professor: Physics beyond the Standard Model, Holography/ Gauge-Gravity Duality (AdS/CFT)

Professor: Magnetism and Spintronics, Nanoionics based devices, Ultrafast dynamics of atoms, molecules and complex systems, Ultrafast Optics and applications, Galaxy Clusters and Cosmology; Pulsar Timing.

For more details about the department, please visit http://physics.iith.ac.in/.