# Annexure – I of Updated Rolling Advertisement No. IITD/2025/AP-1 Dated 12.3.2025

**Institute minimum shortlisting criteria for an Assistant Professor (Grade I and Grade II):**

- Ph.D. with 3 years' experience (excluding the experience gained while pursuing Ph.D.) only for Grade I.
- For Grade II, PhD. is the qualifying requirement.
- First class or equivalent grade in preceding degree in respective discipline, with a consistently good academic record.
- Demonstrated ability to teach and communicate well.
- Preferred age is under 35 years for male and 38 years for female candidates (to be relaxed by 5 years in case of persons with benchmark disability, SC and ST categories and 3 years in case of OBC-NCL).
- At least 4 refereed conference/journal papers, of which at least 2 should be in reputed journals.
- Individual academic units may have additional shortlisting criteria and can be seen below.

## Areas in which applications are sought in academic units with additional shortlisting criteria:

| S. No. | Academic Unit | Areas | Additional Criteria for Shortlisting in the Academic Unit |
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| 1 | DEPARTMENT OF APPLIED MECHANICS | Solid mechanics, Fluid mechanics, Design engineering, and interdisciplinary areas of mechanics including but not restricted to Product Design, Biomechanics, Multiscale mechanics, Multifunctional materials and structures, Structural health monitoring, soft robotics, Machine learning in mechanics, Two-phase flows, Environmental fluid flows, Granular flows, Turbulence, Solid-fluid interactions, etc. | **Publication Record:**<br>• Minimum 4 SCI/SCIE listed reputed journal papers with at least 3 as first author.<br>• For applicants with product design background, a minimum of 4 papers with at least 3 SCI/SCIE listed reputed journal papers as first author.<br>• One granted patent will be considered equivalent to one journal publication.<br>**Academic background:** At least one degree from Engineering Discipline. |
| 2 | DEPARTMENT OF BIOCHEMICAL | **Research Areas:** Metabolic engineering, synthetic biology, enzyme and bioprocess | **Publication Record:** Published at least 3 original research articles in reputed journals as first author. |

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| | ENGINEERING & BIOTECHNOLOGY | technology, mammalian cell technology, downstream processing, advanced biomanufacturing. | **Academic background:** Chemical Engineering or Biochemical Engineering is preferred. Exceptional candidates with other academic backgrounds will be considered. |
| 3 | DEPARTMENT OF CHEMICAL ENGINEERING | Preferable research areas:<br>• Energy, environment, and sustainability<br>• Healthcare technologies<br>• Novel materials<br>• Process systems engineering with a focus on AI and ML | **Academic background:** Required B. Tech or equivalent in Chemical Engineering or allied areas such as Biochemical Engineering and/or Biotechnology, and Petroleum Engineering/ Technology and/or PetrochemicalsEngineering/ Technology.<br>**Publication Record:** Candidate should have published at least 4 peer-reviewed original research articles (in SCI journals) with 3 as first author in Journals with an impact factor of at least **3.0**.<br>**Additional:** Applicants who have completed their Ph. D from IIT Delhi, should have at least 3 years of post-doctoral or research experience outside of IIT Delhi |
| 4 | DEPARTMENT OF CHEMISTRY | Priority areas:<br>• All areas of Organic Chemistry, including Medicinal Chemistry and Chemical Biology<br>• Chemistry of s-block elements<br>• Inorganic polymers<br>• Organometallic chemistry and reaction mechanism<br>• Inorganic spectroscopy | **Publication Record:** Minimum of eight publications in reputed journals, with at least four of them as first author. |
| 5 | DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING | Priority areas for hiring are Artificial intelligence/machine learning and robotics; Security, Privacy and Reliability (incl. Cryptography, Formal verification and Software Engineering); Quantum computing, Systems (incl. Distributed and Parallel computing, Operating Systems, Networks, Databases, Computer Architecture, Cloud Computing, Compilers, Cyber-physical systems), Computer Graphics and Vision. | **Publication Record:** At least 4 papers in reputed journals/ peer-reviewed conferences.<br>Should have demonstrated overall quality of research workand its impact and relevance to CSE. |

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| | | 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<br>strong research profile in core computer science areas. Candidates with an interdisciplinary or applied research focus are expected to demonstrate a strong research profile in core computer science areas. | |
| 6 | DEPARTMENT OF ENERGY SCIENCE & ENGINEERING | Photovoltaic Systems, Electrical Energy Systems, Thermodynamics, Fluid Mechanics, Heat Transfer pertaining to Energy Systems, Fuel Technology, Wind energy systems, Energy systems modelling and simulations, Energy Policy and Planning. | **Publication Record:** Minimum 5 with at least 3 in reputed journals.<br><br>**Academic background:** The eligible essential undergraduate academic degree for all the positions:<br>(i) Chemical Engineering<br>(ii) Electrical Engineering /Electrical and Electronics Engineering<br>(iii) Energy Engineering<br>(iv) Mechanical Engineering<br>(v) Physics (at PG level)<br>(vi) Energy Science and Engineering (at PG level) |
| 7 | DEPARTMENT OF MANAGEMENT STUDIES | Micro economics, Macro-economics, Econometrics, Simulation Modelling, Probabilistic/Stochastic Modelling, Service Operations, Behavioral Modelling, The Future of Work & Workforce, Normative Ethical and Sustainable Processes, Positive Organizational Psychology, Business Analytics - Big Data / Natural Language Processing / Deep Learning / AI Digital Transformation - loT / Blockchain | **Publication Record:**<br>**Reputed Journals:**<br>• Rating of A or above as per the latest ABDC listing from the Australian Business Deans Council<br>• Rating of 3 or above as per the latest ABS listing from Chartered Association of Business Schools. UK.<br>• Rating of QI (Quartile 1) as per the latest listing of the web of science from the Clarivate Analytics. |

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| | | / Information Security Management Extended Reality and Digital Platforms, Entrepreneurial Finance, Strategic Management, Technology Management, Strategic Innovations, Strategic Entrepreneurship, Marketing Research, Marketing Analytics. | **Other:**<br>• First class throughout in the academics.<br>• Teaching feedback desirable but not mandatory. |
| 8 | DEPARTMENT OF MATERIAL SCIENCE AND ENGINEERING | • Polymeric materials: recycling of polymers, sustainable polymers, polymer-based devices, polymer processing, polymer rheology, polymer conformations, polymer crystallization.<br>• Structural materials: correlative microscopy involving multiple high resolution electron microscopy; urban mining and recycling of precious metals and critical minerals (extractive focusing circular economy); extreme environmental materials (ceramics, hypersonic, nuclear, aerospace and space materials for high strain-rate- and shock-resistance); composite materials (C-C, CMC, MMC, refractory-based).<br>• Functional materials: advanced microscopy characterization for functional Materials, non-chemical single crystal growth techniques (MBE, ALD).<br>• Computational: meso-scale modelling (crystal plasticity emphasizing on microstructure), continuum methods in modelling, modelling for materials processing, modelling of amorphous materials. | **Publication Record:** At least 7 publications (relaxation canbe considered in the case of exceptional candidates) in reputed refereed journals, with at least 3 publications as first communication author in the last 3 years. Research Area should be relevant to the current requirement of research and/ or teaching in the department.<br><br>**Academic background:** All faculty applicants should have agood academic track record with at least 60% marks at all levels. |
| 9 | DEPARTMENT OF TEXTILE & FIBRE ENGINEERING | Textile Engineering, Textile Technology, Textile Chemistry, Fibre Science & Technology, and other Engineering and | **Publication Record:** At least 4 refereed SCI indexed journals papers. |

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| | | Sciences (such as Civil, Mechanical, Chemical, Electrical/ Electronics, Materials, Polymers, Computers, Mathematics, Physics, Chemistry, Biosciences and Management) with demonstrated research experience in areas relevant to textiles and fibres. | **Additional:** Those who have applied in the last one year for Assistant Professor position, and not shortlisted/ selected on any criteria other than experience, shall not be considered for one year from the date of interview of that round of selection. |
| 10 | CENTRE FOR APPLIED RESEARCH IN ELECTRONICS (CARE) | **MW:** Millimeter-wave and THz components and sub-systems, Active and reconfigurable antennas and arrays, Intelligent Reconfigurable Surfaces, Microwave imaging and surveillance, microwave device characterization and modelling.<br>**SP:** Statistical Machine Learning, Radar/Sonar Signal Processing, Underwater and Air Acoustic Signal Processing, Quantum Information Processing, Optimization Algorithms/Techniques for Signal Processing.<br>**ME:** RF MEMS, THz Electronics, Semiconductor Quantum Computing Hardware, High-Voltage and High-Speed CMOS, Spintronics RF Devices. | **Publication Record:** Minimum 6 with at least 3 in reputed journal and at least 2 of these should be in the last 3 years.<br>Area of Expertise should be relevant to CARE.<br>Potential for very good, applied research and development work.<br><br>**Academic background:** First class from bachelor's degree onwards. |
| 11 | CENTRE FOR ATMOSPHERIC SCIENCES (CAS) | Modelling and data assimilation in oceanography; Biogeochemical cycles; Weather and climate forecasting; and Meteorological observations. Exceptional candidates in all the other areas of atmospheric and oceanic sciences will also be considered. | **Publication Record:** At least 4 high-quality papers relevantto CAS in reputed journals demonstrating excellence in scientific research.<br>**Additional:** Candidates who have previously been approvedfor Stage-II interaction will not be considered unless there is a substantial improvement in their research profile. |
| 12 | CENTRE FOR BIOMEDICAL | **Bio Instrumentation:** Electrical and Electronics Engineering with applications in | **Academic Record:** 1st Class throughout<br>**Publication Record:** |

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| | ENGINEERING (CBME) | Biological systems/Biomedical Sensors.<br>**Biomechanics:** Rehabilitation, sports and movement bio-mechanics, Mechanical Engineering, Biomedical device design, Computational biomechanics and simulations.<br>**Bio Imaging:** Biomedical Optics, Image processing and analysis, Magnetic Resonance (MR) hardware. | *For Grade II*<br>Case 1: Minimum of 4 first author and total of 8 research publications (all non-review) each of which should have IF ≥ 3.<br>OR<br>Case 2: Research publications (all non-review) with cumulative IF ≥ 30 of which minimum IF ≥ 15 must be as first author.<br><br>*For Grade I:*<br>Case 1: Minimum of 5 first author and total of 10 research publications (all non-review) each of which should have IF ≥ 3.<br>OR<br>Case 2: Research publications (all non-review) with a cumulative IF ≥ 35 of which minimum IF ≥ 20 must be as first author.<br><br>**Other:** For applicants with an immediate degree from IIT Delhi a 6-years cooling off period (spent at another organization) is recommended.<br><br>Should not have been interviewed in the last 1year (previous two cycles) |
| 13 | CENTRE FOR RURAL DEVELOPMENT AND TECHNOLOGY (CRDT) | 1. Bioenergy and biofuels for energy sustainability in rural areas<br>2. Water and soil conservation practices at watershed level.<br>3. Food biochemistry with rural application.<br>4. Food grain storage structure engineering for rural applications.<br>5. Decentralised drinking water treatment systems with rural application | **Publication Record:** Should have published at least 3 original research articles (review articles are excluded) and out of which at least 1 as first author in reputed journals listed in SCI or WoS. When the candidate is not the first author, the work reported in paper should belong to doctoral or postdoctoral work of the candidate.<br><br>**Academic background:** First class or equivalent grade in all preceding degrees in respective discipline, with a consistently good academic record.<br>Doctoral research work should have potential for rural application |

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| | | | **Other:** Potential for good teaching. |
| 14 | SCHOOL OF PUBLIC POLICY (SoPP) | The applicants must have a demonstrated track record of research in the area of public policy with a broad focus on Science, Technology & Innovation (STI) and Development, and expertise in one or more of the specific areas of:<br>(1) Agriculture, Food & Water<br>(2) Energy & Environment<br>(3) Health innovations & systems<br>(4) Industry & Economy<br>(5) Innovation Systems & Processes,<br>(6) Internet, Digital Information & Society<br>(7) Sustainable Habitats<br>(8) Technical Higher Education. | **Publication Record:** At least 4 S&T-oriented policy papers* in peer-reviewed journals/published proceedings of peer- reviewed conferences, with at least 2 papers in reputed journals.<br><br>(*) Since authored books, edited volumes, and chapters in edited volumes are key channels of disseminating scholarly work by policy researchers and social scientists, such sources will be given appropriate consideration as to whether they are equivalent to journal publications. A chapter in a scholarly edited volume/book and an edited collection of articles will be considered equivalent to a single journal paper while a single authored book/monograph will be deemed equivalent to a maximum of 5 journal papers. |
| 15 | SCHOOL OF ARTIFICIAL INTELLIGENCE (ScAI) | In all areas of Artificial Intelligence, with sub-areas of interest including (but not limited to) Machine Learning Theory & Optimization, Deep Learning, Representational Frameworks, Computer Vision, Natural Language Processing, Data Science and Data Fusion, Information Retrieval & Recommender Systems, Learning on Graphs, Robotics, Multi-agent Systems, Embodied AI, Reinforcement learning, Responsible AI, Fairness in AI based systems, and Applications of AI to Domain areas such as Healthcare, Physical Systems including Energy Materials and Earth Observation, Human-in-loop Optimization, Generative | **Publication Record:** Candidate is required to fulfil a minimum requirement of 4 papers in the indexed journal/conferences. At least two of these papers should be in reputed venues. The candidate should have demonstrated overall quality of research work, and its impact and relevance for AI. |

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| | | Design, Scientific Computing, Cognitive and Social Sciences, among others. Additional areas of interest include AI for Edge Computing, AI for Hardware Based Optimization, AI for Mobility, Federated Learning & AI Privacy, AI & Cybersecurity and AI for Policy and Governance. Yardi School of AI strongly encourages applicants who have significant AI depth and/or have a demonstrated track-record of working at the intersection of an application area and the AI fields. More details are found at https://scai.iitd.ac.in | |
| 16 | Transportation Research and Injury Prevention Centre (TRIPC) | TRIP Centre, which focuses on reducing adverse health effects of road transport, welcomes applications from candidates with demonstrated track record of research and expertise in one or more of:<br>(1) Transport planning and road safety; (2) Sustainable transport safety; (3) Vehicular pollution (air/thermal/noise); (4) Urban studies; (5) Transport equity (6) Automotive safety; (7) Impact biomechanics; (8) Transport economics. (9) Transport geography; (10) Statistics, with a focus on population studies and demographics; (11) Injury and chronic disease epidemiology; and (12) Climate change and disaster risk reduction.<br>The areas of interest listed here are indicative, not exhaustive. | **Other:** Candidates who have previously appeared for Stage II interaction will not be considered again for shortlisting until one year after the date of such interaction. |

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| 17 | Department of Mathematics | Algebra, Partial Differential Equations, Numerical Analysis, Harmonic Analysis, Topology, Functional Analysis, Theoretical Computer Science, Optimization, Probability, Statistics | **Publication Record: For Grade_II:** At least 4 refereed journal papers indexed in JCR/AMS/ Scopus (of which 3 should be in reputed journals, out of which at least 1 paper published/accepted within the two years prior to the date of application.<br><br>**Publication Record: For Grade_I:** At least 5 refereed journal papers indexed in JCR/AMS/ Scopus (of which 4 should be in reputed journals, out of which at least 1 paper published/accepted within the two years before the date of application.<br><br>**(*Reputed Journal Criteria) a)** at least 0.5 JCR impact factor as published by Thomson Reuters. **b)** at least 0.4 MCQ as published by AMS mathSciNet. **c)** Q1, Q2 list of journals of SJR (Scopus) in the subject area). All the above indices are for the year 2023 and were published in the year 2024. **Academic background:** First class or equivalent grade where division is not mentioned, in (Master's degree in Mathematics/ Applied Mathematics/ Operations Research/ Statistics/ Computer Science) and in Bachelor's degree (B.Sc./ B.A/ B.Tech./ B.S. in Science or engineering/ technology). If a candidate has only a Bachelor's degree before a Ph.D., he/she must have a first class or an equivalent grade in Bachelor's Degree. **Additional:** If an applicant has been awarded Ph.D. from IIT Delhi, the candidate must have defended the thesis on or before June 30, 2022. The applicant must not have been rejected (either in Stage-II or interview) against any advertised faculty position of IIT Delhi after June 30, 2024. |