# Indian Institute of Technology (Banaras Hindu University) Varanasi-221005, India

## Advertisement No. IIT(BHU)/FA/Conventional Advt./01/2025

To apply: Click here

IIT (BHU) Varanasi invites online applications from well qualified and meritorious Indian Nationals for faculty positions at the level of Associate Professor and Professor in its various Science & Engineering Departments and Interdisciplinary Schools. Persons of Indian Origin (PIO) and Foreign Nationals can apply for above faculty positions.

<u>Departments</u>: Architecture, Planning & Design\*, Ceramic Engineering, Chemical Engineering & Technology, Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics Engineering, Mechanical Engineering, Metallurgical Engineering, Mining Engineering, Chemistry, Mathematical Sciences, Physics and Humanistic Studies.

<u>Schools</u>: Biochemical Engineering, Biomedical Engineering and Materials Science & Technology.

Preferred areas of specialization for the post of Associate Professor and Professor in the above-mentioned Departments/Schools are attached as Annexure-A.

## The date of submission of online applications is from 01.07.2025 to 21.07.2025.

Minimum Qualification for all faculty positions is Ph.D with first class or equivalent (in terms of grades, etc.) at the preceding degree in the appropriate branch, with a very good academic record throughout. Additional required details on experience etc. are mentioned below:

Associate Professor: A minimum six years of Teaching/Industry/Research experience from the date of thesis defence (excluding the experience gained while pursuing Ph.D), of which at least three years' as Assistant Professor Grade-I in Pay Level 12 or Assistant Professor (Regular) with AGP of Rs. 8000/- (pre-revised) or Senior Scientific Officer/Senior Design Engineer in a reputed organisation as on the date of application. The candidate should have demonstrated adequate experience of independent research in terms of guidance of M.Tech and Ph.D students, strong record of publications in reputed peer reviewed journals of good impact factor, patents, laboratory/course development and/or other recognized relevant professional activities.

**Professor**: A minimum 10 years of Teaching/Industry/Research experience from the date of thesis defence (excluding the experience gained while pursuing Ph.D), of which at least four years' at the level of Associate Professor in IITs, IISc Bangalore, IIMs, NITIE Mumbai and IISERs or at an equivalent level in any such other Indian or foreign institution/institutions of comparable standards as on the date of application. The candidate should have demonstrated leadership in research in a specific area of specialization in terms of guidance of M.Tech & Ph.D students, strong records of publications in reputed peer reviewed journals

of good impact factor, patents, laboratory/course development and/or other recognized relevant professional activities.

The candidates should have demonstrated strong research capabilities in terms of publications in reputed peer reviewed journals of good impact factor and/or patents.

**Probation**: Period of probation in regular appointment will be one year.

**Reservation**: Gol policy on reservation including EWS and Divyang will be followed for faculty positions.

# Candidates applying for a faculty position in the Department of Architecture, Planning and Design must have a valid Council of Architecture (COA) registration certificate.

The details of pay scale admissible at the time of joining are as follows:

Post	Pay Level of 7 <sup>th</sup> CPC	Entry Pay
Associate Professor	13A2	139600
Professor	14A	159100

The pay carries all other allowances as admissible to a Central Government employee stationed at Varanasi. The fringe benefits, such as HRA, LTC, medical re-imbursement, education allowance for children, contribution towards New Pension Scheme (NPS), reimbursement of telephone bills, book grants, research initiation grant (up to Rs. 10 lakhs), financial support towards national and international conferences etc. shall be permitted as per the Institute norms. Relocation charges towards transportation of personal effects are also provided as per the Institute norms.

The applications for the above mentioned positions will be received through online portal only. The link is as under:

#### https://facultyrecruitment.iitbhu.ac.in.

#### Notes:

- (i) Mere eligibility will not entitle any candidate for being called for interview.
- (ii) The requirements of minimum qualification and/or experience may be relaxed in the case of candidates with outstanding credentials.
- (iii) Reservation as per Gol norms.
- (iv) The Institute reserves the right to fill or not to fill any or all the post(s) advertised without assigning any reason.
- (v) Applicants not found suitable for higher positions may be considered for lower positions in the same area.
- (vi) All correspondence should be addressed to **the Office of the Faculty Affairs, Indian**Institute of Technology (BHU), Varanasi-221005, India. E-mail:

  facultyrecruitment@iitbhu.ac.in. For any clarification, candidates may contact the
  Office of the Faculty Affairs on the above address.

(vii) Contact details of Heads/Coordinators of the Departments/Schools are available at the Institute website <a href="http://www.iitbhu.ac.in">http://www.iitbhu.ac.in</a>. The candidates may also approach them for any specific clarification.

# ADDITIONAL INFORMATION

- 1. Candidates applying for a faculty position in the Department of Architecture, Planning and Design must have a valid Council of Architecture (COA) registration certificate and a scanned copy of the same should be uploaded alongwith the documents.
- 2. Candidates applying for a position in more than one Department/School are required to fill separate online application forms.
- 3. The candidate is responsible for the correctness of the information provided in the application form. If it is found at a later stage that any information given in the application form is incorrect/false the candidature/appointment is liable to be cancelled/terminated.
- 4. Depending upon the exceptional qualification and experience, higher initial pay may be offered to deserving candidates as decided by the Selection Committee.
- 5. Candidates called for presentation will be paid second AC railway fare from the nearest Railway station of the place of duty or residence to Varanasi for an overnight journey. Air fare will be paid for travelling in Economy class by any Airlines within India only from the local airport of place of duty/residence/last duty station and the tickets must be purchased from the three Government of India Authorized Travel Agents viz. (i) M/s. Balmer Lawrie & Company Ltd. (ii) M/s. Ashok Travels & Tours and (iii) IRCTC. In addition, he/she will be paid Taxi fare from residence/place of duty to local Railway Station/Airport and back as well as Varanasi Railway Station/Airport to the Institute & Back. Also, his/her expenses related to boarding & lodging at the Institute Guest House / outside the campus will be reimbursed as per the Institute norms.
- 6. Applicants, who are employed in Government, Semi-Government Organizations or Institutions, should send their application form **THROUGH PROPER CHANNEL** else they will be required to produce a **NO OBJECTION CERTIFICATE** from their present employer at the time of interview.
- 7. The Institute reserves the right to restrict the number of candidates for interview to a reasonable limit on the basis of qualifications and experience higher than the minimum prescribed in the advertisement and other academic achievements.
- 8. No information will be sent to those candidates who are not short-listed for interview. No correspondence, whatsoever, will be entertained from the candidates regarding conduct and result of interview and reasons for not being called for interview or selection.
- 9. For availing reservation, the candidates must upload desired certificates in prescribed format with the application form.

- 10. Foreign Nationals who are Persons of Indian Origin (PIO), if selected, permission will be sought from Govt of India before he/she can join the Institute. Other Foreign Nationals, if selected, appointment will be on a contract basis for up to five years subject to permission from Govt of India before he/she can join the Institute.
- 11. Political and security clearance from Ministries of External Affairs and Home Affairs is necessary in every case for individuals with foreign passports.
- 12. The application forms received through any other mode shall not be entertained and the Institute does not take responsibility to inform such candidates.
- 13. Any corrigendum/changes/updates related to the recruitment process shall be available on the official IIT (BHU) website (www.iitbhu.ac.in).
- 14. The prospective candidates must ensure that they possess requisite minimum qualification prescribed for each of the advertised position.
- 15. In case of any inadvertent mistake in the process of selection which may be detected at any stage even after the issue of appointment letter, the Institute reserves the right to modify/withdraw/cancel the appointment without any notice to the candidate.
- 16. Candidates should submit their valid SC/ST/OBC-NCL/PWBD/EWS certificates, issued by the competent authority in the prescribed format along with the application form in support of their claim. A current OBC-NCL/EWS certificate issued by the appropriate authority be submitted as per the prescribed format of Government of India.
- 17. Candidates employed in Government and Semi-Government Organizations, Public Undertakings, University and Educational Institutions must apply with the consent of their present employers. If they anticipate unavoidable delay in their applications being forwarded through proper channel, they may submit advance copies of their applications through the portal or submit No Objection Certificate at the time of interview. All experience certificates mentioning designation, pay, and tenure must be duly signed and sealed by the employer.

# Area of Specialization for the post of Associate Professor and Professor

# Annexure- A

SI.	Department/	Area of Specialization(s)				
No	School	Area Sub-Area				
1.	Architecture, Planning & Design	<ul><li>(i) Landscape Architecture</li><li>(ii) Architectural History &amp; Theory</li><li>(iii) Building Engineering &amp; Managemen</li><li>(iv) Visual Design and Communication</li><li>(v) Heritage and Conservation</li></ul>	t			
2.	Electronics Engineering	<ol> <li>RF and Microwave Engg.</li> <li>Communication System Engg.</li> <li>Microelectronics</li> <li>Digital System Engg.</li> <li>VLSI Architectures &amp; Chip Design</li> </ol>				
3.	Ceramic Engineering	<ol> <li>Electro-ceramics and Semiconductors</li> <li>Multifunctional nanostructured materials</li> <li>Ultra-high temperature Materials</li> <li>Glass-ceramics and composite materials</li> <li>Bioceramics, Bioglass and bioelectronics for healthcare applications</li> <li>Ceramic additive manufacturing and 3D printing</li> <li>Theoretical and computational materials</li> <li>Materials Informatics</li> <li>Recyclable, sustainable materials and circular economy</li> </ol>				
4.	Chemical Engineering & Technology	<ol> <li>Transport Processes</li> <li>Thermodynamics, Modeling and Simulation</li> <li>Energy and Environment</li> <li>Electrochemical Engineering</li> <li>Process Dynamics and Control</li> <li>Artificial Intelligence</li> <li>Advanced Materials.</li> </ol>	ulation			
		Artificial Intelligence & Computer Vision	<ol> <li>Artificial Intelligence</li> <li>Multi Objective Optimization</li> <li>Machine Learning</li> <li>Deep Learning</li> <li>Soft Computing</li> <li>Computer Vision</li> <li>Image/Video Processing</li> <li>Multimedia, Sentiment Analysis</li> <li>Natural Language Processing</li> <li>Information Retrieval</li> <li>Reinforcement Learning</li> </ol>			
5.	Computer Science & Engineering	Data Engineering & High- Performance Computing	<ol> <li>Parallel/Distributed Computing</li> <li>Big Data Analytics</li> <li>DBMS</li> <li>Cloud Computing</li> </ol>			
		<ul> <li>Systems &amp; Networks</li> <li>Theoretical Computer Science</li> </ul>	<ol> <li>Quantum Computing,</li> <li>Computer Architecture,</li> <li>IoT,</li> <li>Wireless Sensor Networks,</li> <li>Network Security,</li> <li>Bio-Computing,</li> <li>Software Engineering,</li> <li>5G Networks,</li> <li>Block-Chain</li> <li>Algorithms</li> </ol>			

6.	Electrical Engineering	2. Theory of Computation 3. Graph Theory 4. Cyber Security 5. Cryptography 6. Queening Theory 7. Game Theory 1. Electrical Machines and Drives 2. Power Systems 3. Control Systems Engineering 4. Power Electronics		
7.	Mathematical Sciences	<ol> <li>Topology,</li> <li>Operator Theory,</li> <li>Complex Analysis,</li> <li>Artificial Intelligence (A.I.) / Machine Learning (M.L.),</li> <li>Theoretical Computer Science,</li> <li>Numerical Analysis,</li> <li>Statistics,</li> <li>Stochastic Process,</li> <li>Financial Mathematics,</li> <li>Bio-informatics,</li> <li>Applied Mathematics.</li> </ol>		
8.	Mining Engineering	1. Mineral Beneficiation 2. Metal Mining 3. Mining Method 4. Mine Design 5. Mining Machinery 6. Mining Geology 7. Surface Mining 8. U/G Coal Mining 9. Noble method of Mining 10. Mine Automation 11. Mine Surveying 1. Mine ventilation 2. Mine Fire  • Mine Environment 3. Mine Safety and Ergonomics 4. Surface Mining Environment		
9.	Metallurgical Engineering	<ol> <li>Sub-Surface Environment</li> <li>Computational Materials Engineering (esp. ab-initio methods, density functional theory, molecular dynamics simulations and accelerated alloy development using artificial intelligence-machine learning).</li> <li>Thermodynamic Measurements of Multicomponent Alloys (esp. lead-free solders, energy storage materials and high entropy alloys).</li> <li>Thermodynamics and Kinetics of Metallurgical Processes (esp. pyro-metallurgy, hydrometallurgy and electrometallurgy).</li> <li>Extraction of Ferrous and Non-ferrous Metals (esp. modelling of extraction processes, extraction of strategic minerals, beneficiation, carbon capture and storage for steel industry); Processing of Metals and Alloys; Management and Recycling of Metallurgical Wastes (esp. battery and electronic wastes).</li> <li>Mechanical Behavior and Processing (esp. finite element methods, component integrity and remaining life assessment, hydroforming, advanced processing technologies); Foundry and Near-net Shape Processing; Metal Joining; Surface Engineering; Corrosion and Prevention (esp. solar cells, oil pipelines, aerospace and automotive materials, bio-implants).</li> <li>Structural Metallurgy; Phase Transformations; Alloy Design and Development (esp. design of advanced steels, complex concentrated alloys.); Composites (esp. carbon-fibre composites),</li> </ol>		

		Advanced Materials (esp. electronic and magnetic materials, energy harvesting and storage); Characterization Techniques (quantitative and theoretical simulation of X-ray and electron diffraction, advanced electron microscopy, in-situ studies in TEM and SEM, correlative microscopy, quantitative high resolution microscopy and spectroscopy including aberration correction, electron energy loss spectroscopy).	
10.	Civil Engineering	Associate Professor:  (1) Highway safety and human factors (2) Traffic management and modelling (3) Intelligent transportation systems (4) Transportation economics and finance (5) Freight Planning and Modeling (6) Transport, environment and EIA (7) Transportation and Vehicular Emissions  • H&WR Engineering  (1) Turbulent flow  (2) River Morphodynamics and River Training Works  (3) Water Quality Modeling and Analysis  Professor:  (1) Impact of climate on Hydrological process and Hydraulic Structures  (2) Hydro Mechanical Analysis of Hydraulic Structures	
11.	Mechanical Engineering	1. Design Thinking, 2. Sensors and Bio-tribology, 3. Micro Electro-mechanical System (MEMS), 4. Robotics & Cybernetics. 1. Renewable Energy Technologies, (Hydrogen, Electric Mobility, PV and Fuel Cell Technology, Solar-Wind-biomass-Geothermal, etc.), 2. Experimental and numerical thermal and fluid science. 1. Micro-Nano Manufacturing, 2. Additive Manufacturing, 3. Unconventional Manufacturing, 4. Data Driven Manufacturing, 5. IOT, 6. COBOT & Automation, 7. Micro-nanomachining. 1. Simulation and Data Driven Decision Making, 2. Machine Learning and Blockchain Technology, 3. Large scale optimization. 1. Manufacturing automation, 2. Digital manufacturing 3. Nano-macro manufacturing.	
12.	Physics	Professor:  Condensed matter and Materials Physics, Optics, Photonics and Spectroscopy, Astrophysics and Space Sciences, Nuclear and High-energy Physics.	

		<ul> <li>Biophysics</li> <li>Nanoscience and Nanotechnology</li> <li>Associate Professor:</li> <li>Condensed matter physics,</li> <li>Astrophysics and Space sciences,</li> <li>Soft &amp; active matters and Biophysics,</li> </ul>			
		Atomic and molecular physics,     Optics, Photonics and Spectroscopy,			
		· Quantum information,			
		· Material Physics and Nanotechnology,			
		· Nuclear Physics,			
	School of	· High energy physics (i) Mechanical Metallurgy			
13.	Materials Science	(ii) Polymer Engineering			
13.	& Technology	(ii) Folymer Engineering			
		Associate Professor:			
		1: Physical Chemistry-			
		Electrochemistry, Electrochemical Energy Conversion and Storage, Li-Na battery.			
		2: Organic Chemistry-			
		Biomaterials and Bio-inspired Supramolecular Chemistry.			
		3: Inorganic Chemistry-			
		Bio-inorganic Chemistry; Metal Base Drug Development			
		Professor:			
	Chemistry	I: Organic Chemistry-			
14.		a) Pure Organic Synthesis			
		b) Natural Products / Biomolecules			
		c) Asymmetric Synthesis.			
		II: Physical Chemistry-			
		a) Solid State Chemistry			
		b) Electrochemistry			
		c) Computational Chemistry			
		d) Physical Chemistry for Molecular Spectroscopy.			
		III: Polymer Chemistry; Fuel Cell; and Sensor.			
		IV: Physical Organic Electrochemistry; Organic Chemistry			
15	School of	(i) Biomechanics			
15.	Biomedical Engineering	(ii) Bioinstrumentation (iii) Biomaterials			
	Liigineeriiig	(i) Bioreactor Design and Scale-up/ Plant Design.			
	School of Bio- Chemical Engineering	(ii) Fermentation Technology			
4.6		(iii) Bioinstrumentation and Control			
16.		(iv) Food Engineering			
		(v) Metabolic Engineering			
		(vi) Bioinformatics/Computational Biology			
	Humanistic	(i) Cognitive Psychology			
17.	Studies	(ii) Psychology			
		(iii) Economics			