



Dr B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR - 144027

**Admission to PhD (Full-Time and Part-Time) Programme in Engineering, Sciences,
Humanities and Management for the Academic Year 2022-2023
(Session January- 2023)**

Applications are invited for admission to PhD (Full-Time and Part-Time) Programme in Engineering, Sciences, Humanities and Management for the Academic Year 2022-2023 (Session January-2023). The Broad areas of Research, Eligibility Criteria, Selection Procedure, Reservation, Teaching Assistantship-cum-Scholarships etc. are given in this advertisement.

How to apply: The link to fill the online application form can be accessed through Institute website www.nitj.ac.in. Please submit separate application forms, if applying for more than one programme. An application fee of Rs.1000/- (Rs.500/- for SC/ST/PWD candidates) is required to be paid online. The candidates are required to apply online and there is no requirement to send the Hard Copy of the application form to the Institute. Application fee shall not be refunded in any case.

Last date for submission of online application form is 10/01/2023.

For more details, the candidates are advised to visit the Institute website www.nitj.ac.in for updates.



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Dr B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR – 144027

Admission to PhD (Full-Time and Part-Time) Programme for the Academic Year 2022-2023
(Session January-2023)

A) PhD (Full-Time, Admission under financial support from NIT Jalandhar and Part-Time without financial support):

Sr. No.	Department Email address of HOD	(Broad Areas of Research)
01	Biotechnology obt@nitj.ac.in	Bioprocess Engineering, Industrial Biotechnology, Bioprocess and Bioreactor Design, Biohydrogen, Biofuels, Microbial and Environmental Biotechnology, Biorefinery, Bioplastics, Enzyme Engineering, Environmental Biotechnology, Microbial and Environmental Biotechnology, Enzyme Technology, Bioinformatics, Proteomics, Environmental Remediation, Environmental Microbiology, Applied Microbiology, Nanobiotechnology, Biofilms, Wastewater treatment, Bioremediation, Algal biotechnology, Bio-chemical/Bioprocess engineering for biorefinery, Bioenergy/Biofuels, Bioplastics production and degradation, Biosynthesis of value-added chemicals
02	Chemical Engineering och@nitj.ac.in	Environment engineering, Advanced Oxidation Processes, Treatment of effluent of textile industry, Nanomaterials for Energy and Environment, Catalysis, Reaction Engineering and modelling, Selective hydrogenation, Remediation of Sugar industry waste, Conversion of biomass to fuels and chemicals, Lignin valorization, Biofuels and Bioproducts, Waste to energy, Solid waste Management, Thermochemical conversion Processes, Composite Materials and Corrosion, Multiphase Flow, CFD simulations of non-Newtonian fluids, Microfluidics, Heat transfer studies of Nano fluids(LSA), Rheology of complex fluids, Polymeric thin films Hydrogels, Bio-fluid mechanics, Fabrication of smart materials, Magnetic-field driven flow instabilities, Hydrodynamic stability, poroelasticity, CFD, Risk Assessment, Fire Dynamics, Fire Retardant Coatings, Chemical Process Safety, Modelling and Simulation, CO2 sequestration, waste water treatment utilization and management, Edible films and coatings, Nanomaterials Synthesis for Energy Application, Droplet-based microfluidics for sensing and Biomedical application, Heat transfer in porous media, Surfactant thin film stability analysis, New and Renewable Energy, Membrane Separation Process, Chemical Process Safety, polymers and composite, bio fuels, Nanomaterial / Nanocomposite, Multiphase flow, Polymer-nanoparticle composites, Photo-nano-catalysis, Thin Film Polymeric Coatings, Renewable hydrogen production and Antimicrobial coating, Hydrocarbon Engineering, Polymeric sensors, Anti-dust coatings, Biodegradable and edible films and composites, Anti dust coatings, Antifouling coatings, Modeling using Artificial Intelligence/Machine Learning Techniques, Bio-inspired adhesives, Building material, Porous media flow, Process Control, Process Safety, Renewable hydrogen production, Waste to wealth, Waste Utilization and Management
03	Civil Engineering oce@nitj.ac.in	Structural Engineering, Geotechnical Engineering, Transportation Engineering, Environmental Engineering, Water Resources Engineering
04	Computer Science & Engineering ocs@nitj.ac.in	Digital Image Processing, Machine Learning, Deep Learning Information Security, Big Data, Data Hiding, WSN's Internet of Things, Network Security, Computer Network, Data Science, Adversarial ML, Databases & Data Mining, Security, Explainable AI
05	Electrical Engineering oic@nitj.ac.in	Artificial Intelligence and computer vision, Field computations in HV environments, E-field reduction using Optimization techniques, Substation design, Illumination modeling, and design, Condition monitoring of transformers, Bio-systems, Exposure studies
06	Electronics & Communication Engineering oec@nitj.ac.in	Electromagnetic Applications in Biomedical, 5G Communication, RF/Wireless Communications, Human-computer interactions, RF Circuits Design, Assistive Technology Serious Games for learning / Health, Biomedical Signal/Image processing, Signal/Image Processing, Telemedicine, Healthcare, Digital Signal Processing and Its Applications, VLSI Circuit Design, Nanoscale Devices and Nanoelectronics, Analog and Digital Design, Low Power VLSI Design, Machine learning, Intelligent Networks Wireless & Adhoc N/W Signal Processing, Antenna Engineering- EBG based antenna, Beamforming Antenna, Aperture Antenna, Conformal Antenna, RF and Microwave components and systems- Filters, couplers, circulator, Communication

		Network, Machine to Machine Communications, Layer protocols for IoT, MAC Protocols,
07	Information Technology ocs@nitj.ac.in	Cloud computing, Edge computing, IoT, Artificial Intelligence, Blockchain, Soft Computing
08	Instrumentation & Control Engineering oic@nitj.ac.in	Biomedical Instrumentation & amp, Signal Processing, Smart sensors and/or sensor systems, digital image processing and ML, machine vision and ML, WSN and applications, Intelligent IoT system, VI and AI applications, Power System Operation and Control, Microgrids, Renewable Energy, Applications of Soft Computing, Bio Medical Instrumentation, Deep learning, Process Control, Robotics and Industrial Automation, AI, Control System, Process Control & amp, Instrumentation, Application of Soft Computing Techniques, Model Predictive Control, Renewable Energy, Machine/Computer Vision, Machine/Deep/Quantum Learning, Soft Computing & amp, Optimization Techniques, Drone (UAV) Technology, Nonlinear Dynamical Control and Optimization, Optimal, Adaptive and Robust Control, Process Design, control and Integration, Green Energy (Bio-Fuel), Biomedical Instrumentation and Machine Learning, statistical applications based solutions to healthcare diseases, computational and experimental approaches for rehabilitation, Ayurveda and biomedical engineering, Biomedical Instrumentation and Machine Learning, statistical applications based solutions to healthcare diseases, computational and experimental approaches for rehabilitation, Control System, Sliding Mode Control, Fractional Order Control, Two-Wheeled Mobile Robot, UAVs, DC-DC Converters in LED Drivers, Applications of Machine Learning, Model Order Reduction Techniques, Applications in Load Frequency Control, Automatic Voltage Regulator in Power System, Solar System, Renewable Energy, Biomedical Engineering, Low Temp. Instrumentation, Thermal Properties, Aerospace Application
09	Industrial & Production Engineering oie@nitj.ac.in	Additive Manufacturing, Agriculture Machining, Business Excellence, Circular Economy Systems, Data Analytics, Quality Management, Decision Science, Design, Energy (Solar) and Sustainability, Ergonomics & amp, Human Factors Engineering, Hybrid Machining, Industrial Revolutionary Aspects, Internet of Things (IoT), Life Cycle Assessment, Machining, Materials and Sustainability, Nature Inspired Optimization Algorithms, Non-Conventional Manufacturing Processes, Non-Conventional, Non-Traditional Machining, Occupational Health And Safety, Operational Excellence, Advanced Manufacturing, Operations and Industrial Management, Operations And Supply Chain Management, Operations Management, Optimization, Optimization of Industrial Systems, Optimization of Manufacturing Systems, Optimizing Techniques, Planning, Quality Control, Reliability And Maintenance Engineering, Risk and Safety of Operational Processes, Scheduling and Performance Optimization of Manufacturing Systems (CMS, FMS, RMS), Simulation Of Production Systems, Solar Energy, Surface Coating, Supply Chain Management, Supply Chain Performance System, Surface Coating, Welding, Sustainable Environment, Sustainable Manufacturing, Theory of Constraints, Logistics & amp, Supply Chain, Optimization of Production Systems, Modelling of Manufacturing Processes, Industry 4.0, Advanced Manufacturing.
10	Mechanical Engineering ome@nitj.ac.in	Mechatronics Robotics System Dynamics & Control Modeling and Simulation of Physical Systems, Biomechanics, Solar Thermal Energy desalination Tracking Mechanism and Systems) and Polygeneration, Fluid and Thermal Sciences
11	Textile Technology otx@nitj.ac.in	Yarn Manufacturing, Technical Textiles, Apparel Quality Characterization, Process Control in spinning, Medical Textiles, Liquid Filtration, Environmental Pollution Textile reinforced composites, Textile Chemical Processing
12	Humanities & Management ohm@nitj.ac.in	General Management, Marketing Management, Human Resource Management, Entrepreneurship development and Management. Area of specialization: English Language and Literature, ELT, Professional Communication, Linguistics, Gender and Culture Studies, Feminism, 1.Schizoanalysis of Literature 2. Psychoanalysis and Popular Culture 3. Health Humanities 4. Literary and Critical Theory 5. American Literature 6. Comic Studies 7. Popular Culture Green Marketing, sustainable purchase behaviour, Brand Management, Marketing Management, Services Marketing, Rural Marketing and Retail Marketing Gender Studies, Diaspora, Postcolonial Theory, Comparative Literature and Soft Skills

13	Physics oph@nitj.ac.in	Laser Plasma Interactions, Theoretical Nuclear Physics, Radiation Physics, Experimental Nuclear Physics, Theoretical High Energy Physics, Soft Condensed Matter Physics- Experimental (Liquid Crystals), Condensed Matter Physics (Experimental), Theoretical High Energy Physics, Theoretical Condensed Matter Physics, High Energy Physics, Experimental Condensed Matter Physics, Quantum Thermodynamics Nanomaterials and Nanotechnology
14	Chemistry ocy@nitj.ac.in	Superabsorbents/ Smart Nano-materials, Biodegradable Green Nano-composites, Nano-science and Technology Nano and environment friendly functional smart materials, Materials chemistry/Surface Chemistry Smart Polymers, Organic Synthesis Nanocatalysis and Organic Synthesis, Advance Materials, Chemosensors for detection of hazardous and bioactive compounds Inorganic Chemistry (Synthesis of coordination complexes and their applications, sensors and Computational Chemistry Green nanomaterials for environmental remediation, Green synthesis of nanomaterials for pollutant detection and remediation of Water, Transition metal based nanostructures: Analytical methodologies and industrial applications 1. Multifunctional Porous Materials (Metal Organic Frameworks and Covalent Organic Frameworks) for Energy, Environment and Catalysis applications 2. Nanomaterials for Chemo- and Biosensing and Catalysis Inorganic Chemistry (Catalytic applications of metal complexes), Supramolecular chemistry (Optical Chemo-sensing Applications) Ionic liquid, Surface wettability, Oil-water and emulsion separation, Deep eutectic solvents, Thermodynamics, Superhydrophobic-Superhydrophilic surfaces, Organic synthesis, fluorororganic chemistry, heterocycles
15	Mathematics oma@nitj.ac.in	Applied Mathematics (Solid Mechanics, Thermoelasticity)
16	Centre for Energy and Environment occe@nitj.ac.in	New and Renewable Energy, Solar Energy, Bio Energy, Biofuels, Hybrid Systems, Fuel cells, Climate Change, Environmental and allied area of Renewable Energy
17	Sports and Healthcare Research Centre	Artificial intelligence applications in Healthcare, physiology, Electromagnetic application for biomedical applications. medical textiles, filtration textiles, signal processing, modelling and simulation, environmental health, sports training methods, scientific computing

B) Eligibility Criteria

1) PhD Full-Time (under Institute Fellowship)

- **Engineering Departments (Sr. No. 1 to 11): Engineering Departments: General (For all Departments):**
Master's Degree in Engineering/Technology in the relevant area of research along with Bachelor's Degree in appropriate branch of Engineering/Technology with a first class or minimum 60% marks (or CGPA of 6.5 on 10 point scale) in the qualifying examination.
- For all Engineering Departments (Sr. No. 1 to 11), direct Ph.D. admission is also available in case of candidate with B Tech/B.E./BS (4 year) with a CGPA of 8.5 and above on a 10-point scale or 80% aggregate from a Centrally Funded Technical Institute (CFTI). All such candidates must be GATE qualified. Number of credit courses to be cleared will be 24 credits before comprehensive examination.

Engineering Department Specific Qualifications:

(i) Department of Biotechnology:

- (a) The Candidate should be B.E./B.Tech and/or M.E./M.Tech in the relevant branches of Engineering/Technology out of which either B.E./B.Tech. or M.E./M.Tech should be in Biotechnology/ Environmental Biotechnology/ Biochemical engineering/ Bioengineering/ Bioinformatics/ Environmental engineering/ Chemical Engineering/ Biomedical engineering/ Biological science and Bioengineering/ Computational biology.
- (b) Apart from above qualification, the Candidate with M.Sc./MS/M.Pharm in Biotechnology/Industrial Biotechnology/Environment Biotechnology/Biochemical Engineering/ Biochemical Technology/ Environmental Engineering/ Biomedical Technology/Biochemistry/Microbiology/Bioinformatics/ Pharmacy and in allied areas of

Biotechnology with GATE/NET/GPAT in Biotechnology/Life sciences/Pharmacy are also eligible.

- (c) The candidates with GATE/CSIR-UGC NET/GPAT do not require to clear Institute written examination for shortlisting towards “presentation and interaction” session. The admission to the PhD programme shall be solely based upon performance of the individual candidates during “presentation and interaction” and availability of the Supervisor in the proposed area of research.
 - (d) The M.E./M.Tech/M.Pharma candidates without GATE/NET/GPAT need to clear Institute written examination for shortlisting towards “presentation and interaction” session. Once selected based on the “presentation and interaction” session, they can join in PhD (full time) programme with stipend.
 - (e) The M.Sc/ MS/M.Pharma candidates without GATE/CSIR-UGC NET/GPAT need to clear Institute written examination for shortlisting towards “presentation and interaction” session. Once selected based on the “presentation and interaction” session, they can join in PhD (part time) programme.
- (ii) **Department of Chemical Engineering:** The qualification for admission to PhD programme in the Department is Master Degree in Chemical Engineering or its allied branches. Master degree in Science (Chemistry or its equivalent) must have qualified in GATE/NET for scholarship. However, the candidate with Master degree in Science without GATE/NET can join in PhD (Part-Time) Programme.
 - (iii) **Department of Instrumentation and Control Engineering:** The candidate should have Master’s degree in Science in related fields but more preference will be given to Master’s Degree in Science with Engineering (Ex. M.Sc Engg.). Interdisciplinary department candidates will also be allowed (Ex. CSE, Mechanical Engg./Chemical Engg. Etc.).
 - (iv) **Department of Textile Technology:** The qualification for admission to PhD programme is M. Tech. in any discipline whereas B.Tech should be in Textile Technology/Engineering.
 - (v) **Centre for Energy and Environment:** M. Tech. in Renewable Energy, Chemical Engineering, Electrical Engineering (and allied areas), Instrumentation & Control, Material Science, Agriculture Engineering, Mechanical Engineering, Thermal Engineering, Packaging Technology etc. along with B. Tech. or Master Degree in Environmental Science/Technology or M.Sc. in Physics, Chemistry with a first class of minimum 60% marks (or CGPA of 6.5 on 10 point scale in the qualifying examination).
 - (vi) **Department of Industrial and Production Engineering:** Candidates with M.Tech. in any discipline and MBA in Operations, Supply Chain Management, Information Technology and Business Analytics will be considered eligible for admission in PhD Programme in the department, provided they are willing to undertake research in relevant areas of expertise available in the Department.
 - (vii) **Department of Information Technology:** Candidates with Master degree in Engineering /Technology in the relevant (CSE/IT) branch along with Bachelor degree in appropriate (CSE/IT/ECE) branch of Engineering / Technology with a first class or minimum 60 % marks (Or CGPA of 6.5 on 10 point scale) in the qualifying examination.
- **Science Departments:** Master’s Degree in appropriate branch of Science with a first class or minimum 60% Marks (or CGPA of 6.5 on 10 point scale) in the qualifying examination.
 - **Humanities & Management:**
 - **Humanities:**
 - **PhD (English Literature):** Master’s degree in English or English Language Teaching with at least 55% marks or a CGPA of 6.0 on 10 point scale.
 - **PhD (Linguistics):** Master’s degree in Linguistics or English or English Language Teaching with at least 55% marks or a CGPA of 6.0 on 10 point scale.

- **Management:**

- **PhD (Management):** Master's degree in Management or Commerce with at least 60% marks or a CGPA of 6.5 on 10 point scale.

The candidates in Humanities and Management must be NET/GATE qualified for the award of stipend-cum- teaching assistantship as per Ministry of HRD norms and Institute norms.

- **Sports and Healthcare Research Centre:**

- Master degree in Engineering /MD degree in Physiology / 4 year degree course in Medicine/ Master degree in sport Sciences/ 3 year Master degree in Medical Physiology/ Master degree in exercise physiology.
- Desirable: Experience in signal processing/ experience in exercise physiology/ exercise prescription/sports/ computational modelling

Note 1: Only primary mode of evaluation (CGPA or percentage) as mentioned in the qualifying degree certificate/mark sheet will be considered while verifying eligibility. Conversion from CGPA to percentage or vice versa given by individual Institute/University will not be allowed

Note 2: For the SC / ST / PwD applicants, the eligibility requirement of marks be relaxed by 5%, or by a CGPA of 0.5 (on a 10 point scale) at both the Bachelor's and Master's level

- 1.1 For all Engineering Departments, GATE is not mandatory for scholarship of the candidates with Master's degree in Engineering. Candidate with Master's degree in science must have qualified in GATE/NET for scholarship. However, the candidates with Master's degree in Science without GATE/NET can join in PhD (Part-Time) programme.
- 1.2 For all Engineering Departments, it is also possible for Direct Ph.D. admission in case of candidate with B Tech/B.E/BS (4 year) with a CGPA of 8.5 and above on a 10 point scale or 80% aggregate from a Centrally Funded Technical Institute (CFTI). All such candidates must be GATE qualified. Number of credit courses to be cleared will be 24 credits before comprehensive examination.
- 1.3 Candidates with GATE/NET (JRF/LS)/ UGC (JRF/LS) /GPAT/ Inspire Fellow / Sponsored by some outside agency as a full-time candidate need not clear Institute written examination. For all other candidate(s), Institute written examination is to be cleared. However, GATE/NET (JRF/LS)/ UGC (JRF/LS) /GPAT/ Inspire Fellow/ Sponsorship from outside agency or Institute Examinations are only for shortlisting of the applicants. Mere shortlisting of an applicant does not confirm admission to Ph.D. Programme. The admission shall be solely based upon the performance of individuals during "presentation and interaction" and availability of the Supervisor in the proposed area of research.

2) PhD programmes (Part-Time):

Faculty/Technical/Scientific staff of NITJ, External candidates sponsored by Industry/Institute having R & D facility recognized by NITJ having minimum two-years' experience and possessing the same academic qualifications as that for PhD regular candidates, are eligible to apply for PhD Programme as a part-time candidate. The Part-Time candidate(s) shall be required to submit a No Objection Certificate from their Employers stating that the concerned candidate(s) is an employee of that organization and is allowed to pursue his/her research work at NIT, Jalandhar, and his/her routine work permit him/her to devote sufficient time for research work.

For a foreign national candidate who applies through Ministry of Human Resource Development, Govt. of India, or Indian Council of Cultural Relations, Govt. of India, are eligible to apply provided that they possess the same minimum qualifications as required for PhD admission in case of Regular candidates.

3) PhD (Full-Time) with external fellowships like JRF/DST INSPIRE etc.

Candidate who has already secured funding/fellowship from reputed external agencies like JRF/DST INSPIRE etc. can also apply for admission to PhD (Full-Time) programme. These candidates, if selected, will not be provided any fellowship/contingency grant by the Institute.

4) PhD (Full-Time) for candidates/staff working under the Research Projects sponsored by MHRD/DST/UGC or some other government agency at NIT, Jalandhar

The candidate/staff working under the projects at NIT, Jalandhar sponsored by MHRD/DST/UGC/some other government agency/industrial organization and coordinated by the institute faculty as certified by the concerned Principal Investigator/Coordinator, those having appropriate provisions for salaries and contingency grant for the required shall also be eligible for admission to PhD Full-Time programme, only if, they have at least two years of remaining Project period at NIT Jalandhar.

5) Visvesvaraya PhD Scheme Phase –II

03 Full-Time PhD seats are available under the Visvesvaraya PhD Scheme Phase –II funded by Ministry of Electronics and IT (MeitY) in the Department of Electronics & Communication Engineering. The details are as under:

Title of the Project	Visvesvaraya PhD Scheme Phase –II	
Funding Agency	Ministry of Electronics and IT (MeitY).	
Number of PhD seats	03 (Full time)	
Position	PhD fellowship	
Fellowship Amount and other Benefits	Fellowship	Rs. 38750/- (1 st and 2 nd year) Rs. 43750/- (3 rd , 4 th and 5 th year)
	Reimbursement of Rent	As per Funding Agency Norms
	Research Contingency grant	Rs. 1,20,000/ year
	Other/detailed Terms and Conditions: As per Visvesvaraya PhD Scheme Phase –II funded by Ministry of Electronics and IT (MeitY). Link : https://phd.digitalindiacorporation.in/home	
Eligibility Criteria and Admission Procedure	As per the PhD Full-Time (under Institute Fellowship)	
Broad Areas of Research	Antenna Design, Electromagnetic for Biomedical Applications, and allied areas.	
	VLSI Design, Nano-electronics, Nanoscale Semiconductor Design, High Power Device, and allied areas.	
Name of the Supervisors	Prof Binod Kumar Kanaujia (ECE) Dr Ashish Raman (ECE)	
Nodal Officer/ PI/Contact Person	Dr Ashish Raman (ECE Department) Email: ramana@nitj.ac.in	

The academic qualifications for the programmes mentioned at Sr. No. 2, 3, 4 & 5 will be same as that for PhD (Full-Time) as mentioned at Sr. No. B.

C) Seat Matrix:

The number of seats depends upon the number of available research guides in the Institute, vacancies available with the guide and research infrastructure in the concerned Department. The admission of candidates to PhD programme depends on the expertise available in a department and the willingness of the candidate to work in the corresponding research areas. The following table shows the tentative number of seats available in various Departments for admission during January 2023, however, it is not obligatory for the Institute or concerned Department to fill all the seats mentioned in this matrix. The number of seats may increase/decrease as per the vacancies available at the time of admission.

S. No.	Name of Department	PhD (Full-Time) tentative number of Seats Institute Fellowship						Tentative no. of seats under JRF/DST/Inspire Fellowship etc.	Tentative no. of seats under Part-Time (Institute)	Tentative no. of seats under Part Time (Under Project)
		TOTAL	UR	OBC	SC	ST	EWS			
1.	Biotechnology	02	1	1	0	0	0	07	05	04
2.	Civil Engineering	05	2	1	1	0	1	01	03	--
3.	Chemical Engineering	13	5	4	2	1	1	03	23	--
4.	Computer Science & Engineering	03	1	1	0	0	1	04	05	--
5.	Electronics & Communication Engineering	13	5	4	2	1	1	03	10	--
		03 Full-Time PhD seats are also available under the Visvesvaraya PhD Scheme Phase-II funded by Ministry of Electronics and IT (MeitY) detailed at (6) above								
6.	Instrumentation & Control Engineering	12	4	4	2	1	1	01	06	--
7.	Industrial & Production Engg	09	3	2	2	1	1	--	05	--
8.	Mechanical Engg	02	1	1	0	0	0	--	01	--
9.	Textile Technology	05	2	1	1	1	0	--	04	--
10.	Physics	06	2	1	1	1	1	11	02	--
11.	Chemistry	04	2	1	0	0	1	10	03	--
12.	Mathematics	01	1	0	0	0	0	--	--	--
13.	Humanities & Management	03	1	1	1	0	0	08	--	--
14.	Centre for Energy & Environment	01	1	0	0	0	0	--	01	--
15.	Information Technology	01	1	0	0	0	0	02	02	--
16.	Electrical Engineering	01	1	0	0	0	0	--	--	--
17.	Sports and Healthcare Research Centre	01	1	0	0	0	0	--	03	--
	TOTAL	82	34	22	12	6	8	50	73	04

Reservation of the PhD (Full-Time) Institute Fellowship Seats shall be as per Government of India norms and number of seats available in the respective Department.

Horizontal Reservation of 5% to PwD candidates in each category (UR, EWS, SC, ST, OBC) shall be applicable

Candidates are advised to apply accordingly. No request for admission to a reserved category seat which is 'NIL' as per this advertisement shall be considered.

D) Admission Procedure

- i. Candidates with GATE/NET (JRF/LS)/ UGC (JRF/LS) /GPAT/ Inspire Fellow / Sponsored by some outside agency as a full-time candidate need not clear Institute written examination. For all other candidate Institute

written examination is to be cleared. However, GATE/NET (JRF/LS)/ UGC (JRF/LS) /GPAT/ Inspire Fellow/ Sponsorship from outside agency or Institute Examinations are only for shortlisting of the applicants. Mere shortlisting of an applicant does not confirm admission to Ph.D. Programme. The admission shall be solely based upon the performance of individuals during “presentation and interaction” and availability of the Supervisor in the proposed area of research.

- ii. The admission to PhD programme (Full-Time/Part-Time) in all disciplines mentioned in this advertisement shall be made purely on the basis of a “presentation” to be made by the shortlisted applicants in their proposed area of research followed by “interaction” to be conducted by the respective Department Admission Committee. Mere shortlisting of an applicant does not confirm admission to Ph.D. Programme.
- iii. Shortlisting of candidates (other than GATE/NET (JRF/LS)/ UGC (JRF/LS)/GPAT/ Inspire Fellow / Sponsored by some outside agency as a full-time candidate) shall be done by Departmental Admission Committee for the process of “presentation and interaction” for the applicants. For this purpose, a screening test shall be conducted by the respective Departments. Only those applicants who score marks above the cutoff of 40%, i.e. 24 marks out of 60 for UR category candidates, and 35% i.e. 21 out of 60 for SC/ST/OBC/EWS/PWD candidates in the screening test shall be eligible for presentation and interaction process. Marks obtained in the screening test shall not be counted for preparation of final merit list of the successful candidates.
- iv. The Pattern of Examination shall be as of GATE and NET examination. The Screening Test will be of MCQ Mode.
- v. The Department Admission Committee for each Department shall recommend the suitable candidates for admission based on its assessment of presentation and interaction. Marks obtained in the screening test shall not be counted for preparation of final merit list of the successful candidates.
- vi. Merely shortlisting of an applicant does not confirm admission to Ph.D. programme. The admission shall be solely based upon performance of individuals during “presentation and interaction” and availability of the Supervisor in the proposed area of research. The Department Admission Committee/Institute reserves the right not to recommend any candidate for admission to PhD in the respective Department if the performance of the shortlisted candidates is not found satisfactory during “presentation and interaction”. The decision of Department Admission Committee (approved by the competent authority of the Institute) shall be final.
- vii. The merit list of the selected candidates (based on presentation & interaction) shall be prepared on marks basis. A candidate who scores less than 40 marks (out of 100) for “presentation & interaction” shall not be considered “qualified” for admission to PhD programme and his/her name shall not be recommended for admission by Departmental Admission Committee.
- viii. The list of recommended candidates for admission to PhD (Full-Time) programme shall be made in order of merit.
- ix. All the admitted candidates shall be governed by the PhD regulations of the Institute and other instructions issued by the Institute time to time.

E) Other Issues

- i. An applicant is required to apply on different application forms in case he/she wants his/her candidature to be considered in more than one Department. The candidates applying under Full-Time (Institute Fellowship) in the Department of Electronics and Communication Engineering need not to apply separately i.e. they have to only opt for the willingness whether they are willing to pursue under the Full-Time (Institute Fellowship) or under Visvesvaraya PhD Scheme.
- ii. Category (UR/EWS/OBC/SC/ST/PWD) once chosen by the applicant in his/her application form shall not be changed at a later stage. Candidate(s) claiming any reservation category (EWS/OBC/SC/ST/PWD) and also UR category should apply on separate application forms for the purpose.
- iii. OBC-NCL/EWS Certificate must have been issued on or after **1st April 2022** so that the candidates from creamy layer are identified. No certificate issued before this date shall be acceptable.
- iv. All the candidates should ensure that they possess the required educational qualification by the last date of submission of the application under this Advertisement.

- v. **Certificate Checking:** The certificates (in original) of all the candidates recommended for admission shall be checked by the individual Department before deposition of fee by the candidates.
- vi. The candidate (in service) applying for full-time PhD programmes need to apply through proper channel. Any application without “No Objection Certificate” from the employer shall not be considered for shortlisting.
- vii. The application without proof of application fee as applicable/self-attested copies of documents/certificates/testimonials shall be rejected and shall not be considered for shortlisting.

F) Reservation

The reservation rules will be followed as per Government of India guidelines prevailing at the time of admission, at the Institute level for Full-Time programme (i.e. 40.5% for UR, 27% for OBC, 15% for SC and 7.5% for ST and 10% for EWS category) as per the seat matrix shown in this Advertisement.

G) Teaching Assistantship-cum-Scholarships

Eligible candidates for stipend cum teaching assistantship shall be paid as per instructions issued by Ministry of Human Resource Development (MHRD) from time to time.

- (i) For all Engineering Departments, GATE is not mandatory for scholarship for the candidates with Master's degree in Engineering. Candidate with Master's degree in science must have qualified in GATE/NET for scholarship. For all other Programmes, GATE/NET shall be compulsory for Institute Scholarship. Candidates admitted under Full-Time (Institute Fellowship/JRF/any other external Fellowship) will be allotted certain teaching load as prescribed by the Institute time to time.
- (ii) No Stipend cum Teaching Assistantship/Scholarship/Fellowship and Contingency grant shall be given to the candidates admitted as under Part-Time PhD programme. However, Stipend-cum-Teaching Assistantship/Scholarship/Fellowship and Contingency grant to the candidate working under the Sponsored Projects/ Visvesvaraya PhD Scheme coordinated by the faculty of the institute shall be given as per the terms and conditions of the project.
- (iii) In case, the provisional admission is done under some project grant/financial support from other funding agencies, the relevant rules of the funding agency shall be implemented for the disbursement of stipend/scholarship. No financial assistance shall be given by the Institute in such cases. All other criteria of admission to Ph.D. programmes shall remain same for such candidates.
- (iv) Stipend-cum-teaching assistantship for Research Scholars admitted to the appropriate discipline under Institute support shall be started from the date of his/her joining in the Department.

H) Important Dates

Sr. No.	Activity	Date
1.	Last date for submission of Applications	10.01.2023
2.	Display of list of eligible candidates by the concerned HOD in the Institute website	12.01.2023
3.	Written Test (if required, in the respective Department. Reporting time 10.00 AM)	16.01.2023
4.	Display of list of candidates eligible for presentation & interaction	16.01.2023 by 4:00 PM in the respective Departments
5.	Presentation/interaction by all eligible candidates	17.01.2023
6.	Display of list of selected candidates	19.01.2023
7.	Deposition of fee & Registration	19.01.2023
8.	Commencement of classes	23.01.2023
9.	Last date of fee submission & Registration	28.01.2023

All the dates mentioned above are tentative subject to change at any stage by the competent authority. All the candidates interested in seeking admission are requested to visit the Institute website regularly for updates.

- I) All disputes pertaining to the admissions shall fall within the jurisdiction of Jalandhar only.
- J) All admissions will be provisional till these are confirmed subject to medical fitness, payment of all the fees, fulfillment of eligibility conditions, and verifications of certificates by the Academic Section of the Institute.
- K) After payment of fee, no fee refund request shall be entertained in any case.
- L) The Institute reserves the right to modify or cancel this Advertisement/any part of this Advertisement at any stage.

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Dean Academic