Defence Institute of Advanced Technology

(Deemed to be University) under section 3 of UGC Act 1956),

Girinagar, Pune-411025

Ph.D. Programmes- January- 2026

Applications are invited for admission to Ph.D. Programme, as per description below.

Introduction:

Defence Institute of Advanced Technology (DIAT) is a Technological Institute of National repute for higher learning. The Institute imparts education and training in Advanced Technologies used for Tri-services, DRDO, DPSUs etc. DIAT found its roots in 1952, as a training institute that has grown over the years into a premier teaching and research institute for DRDO and the Armed Forces.

The main focus of the institute is to evolve as an Innovative Unique Research University to develop indigenous contemporary Defence related technologies and also to provide technological solutions to the Services. DIAT is committed to generate high quality and talented human resource in broad areas of Defence Technologies to cater the needs of DRDO, Armed Forces and other Defence establishments.

DIAT offers admission to **Ph.D. (full-time)** in the frontier areas of Engineering & Applied Sciences.

Department /School-wise area of Research are as under: [Institutional Scholarship Category].

In addition, Project Staff (JRF/SRF/RA) and Candidates with CSIR-NET, DST, UGC-NET or any other National fellowship / scholarship available to them are also eligible to apply for Ph. D. admission in any subject area of the concerned Department / School.

Sr. No	Department / School	Subject / Research Area
1	Metallurgical and Materials Engg.	Polymer Composite, Biotechnology / Microbiology / Biochemistry/ Nanocomposites/ Flexible Electrodes/ Textile Materials/ Biomaterials/ Bio nano technology / Bio nano polymer, High Entropy Alloys, High Temperature Materials, Coating/ Corrosion, Supercapacitor and battery type electrode materials, Piezoelectric materials, Armor materials, Coating materials, Composite materials, High Temperature coating and Ceramics, Additive manufacturing, Texture Thermomechanical Processing of Metallic Materials Electrical Steel, Additive Frictions stir Processing/Welding, Corrosion Behaviour in Metallic Materials, Polymer Nanocomposites for energy storage and water treatment, polyurethane foam for acoustic absorption and oil-water separation and carbon foams for energy storage, Polymer blend structure property relationship,
2	Electronics Engg.	Antennas, Computational Electromagnetics, Energy Harvesting, Metamaterials, Radar, Radar Signal Processing, RF Photonics, RF/Microwave/Millimetre wave Passive and Active circuits, RFID, Microwave Imaging and Non-destructive Testing., EMI/EMC, Shielding material, Stealth Technology, UAV, Signal Processing, Robotics, UAV Surveillance, Underwater Acoustic, Intelligence, Embedded System, VLSI, FPGA, SoC, SDR, AI &ML, Electronic Warfare, Wireless Power Transfer, Localization.
3	Computer Science & Engineering	Block Chain Technology, Cryptography, Secure Software Engineering, Post Quantum Cryptography, Artificial Intelligence, LLM, Game Theory, QML, ML for IoT, Cyber Security for AI, Cyber Security, AIML, DL Applications, Computer Vision, AI for Cyber Security, Deep Neural Networks, Generative AI, XAI, Responsible AI, AI for Cyber Security, Operating System, Malware Analysis, NLP, Secure Programming/Processing, Computer N/W, HPC, Multicore Architecture, Hardware Security, Cloud Computing and IoT.
4	Applied Mathematics	Applied Mathematics, Convection in Porous Media, Computational Numerical Method's for Differential Equations (AI / ML, Finite Element Method (s)), Mathematical Modelling, Cryptography, Fluid Mechanic with AI & ML, Numerical Solution to PDF, Machine Learning, Image Processing, Deep Learning, Computer Science Electronics, and Communication Engineering Robotics, Signal Processing, Machine Learning, Deep Learning, ML, DL, Fuzzy Metric Spaces, Probability Statistics.

5	Applied Chemistry, Energy and Environment.	Synthesis and Applications of Ionic Liquids, Membrane Process Green Solvents, Combustion of Hydrogen, Photocatalytic Hydrogen Generation, Biomass to Fuel, Fuel Cell Membranes, Adsorption of Solutes, Wastewater Treatment, Co2 sequestration, Nanotechnology, Nanomaterial chemical synthesis QDs noble metal & metal hybrid chalcogenides for opto-electronics & energy application, Organic Chemistry, Organic Synthesis, Energetic Materials, Organic Hybrid Nanomaterials, Nanocomposites, Catalysis, Biomaterials Characterization, Biomimecity, Hydrogels, Sol-Gel Synthesis, Mesoporous Materials, Heat transfer enhancement, Heat Exchangers, Refrigeration and Air conditioning, Solar thermal application, Photovoltaics, Desalination, IC Engine, CFD, Bio-fuels, Water to Energy, Hydrogen Fuel Cell, Energy Management, Phase Change Materials, CFD and Heat Transfer, Hydrogen Storage, Electric Vehicles, Artificial Intelligence and Optimization, Solar Energy, Gas recovery from hydrates, Environmental Impact, Sustainability and Climate Science.
6	Mechanical Engg.	Indentation, Deformation behaviour, Impact Mechanics, Surface Engineering, Tribology, Avionics, FEM, Vibration & PEGT, Broad area of Mechanical Engineering & its allied Branch, Composite material processing, Additive manufacturing, Micro Machining, Surface Engineering, CFD, Fluid Mechanics, Blast, Hardened Structures, Terramechanics, CFD, FSI, Shock tube Blast Valve, Heat Transfer, Composite structures, Fracture Mechanics, Functionally Graded Structures, Impact Mechanics, Heat transfer, Fluid Mechanics, Flow Control.
7	Aerospace Engg. and Autonomous Systems.	Robotics Control, Control of Autonomous System, Underwater Robotics, Humanoid Robot, Aerial Robotics, Control & Guidance in Aerospace Engineering.
8	Applied Physics	Memristors, Photosensors, Microfluidic Lab-on-chip systems, Electronics-Nose for chemical VOC sensor, Radar Absorbing Materials, Metamaterials, Photoacoustic/Optical Communications, Optical Nano Materials, Fiber laser & amplifiers, solid state lasers, Biophotonics / Optics, Photonics, Optics, Lasers, Terahertz.
9	School of Defence Technology Management	Behavioural Sciences, Aviation Management, Project Management, Supply Chain Management, Quality Management, Operation Research, Industrial Engineering, Aviation Technology, Maritime Surveillance, Applied AI/ML in Technology & Management.

Note: The candidates applying for Ph.D. Programme will be given opportunity to opt for a Joint Supervision in Ph.D Programme, with the Homi Bhabha National Institute (HBNI), Birla Institute of Technology and Science (BITS) and CSIR – Central Scientific Instruments Organizations (CSIR-CSIO), Chandigarh.

Eligibility:

a) Qualification

- A candidate, seeking admission to the Ph.D. program, shall be required to have passed the qualifying examination, securing at least 55% marks or equivalent CGPA/DGPA. A relaxation of 5 % of marks may be allowed for those belonging to SC/ST/OBC (non-creamy layer) / PWD - (Divyang) categories. The qualifying degrees are: -

a) Master of Engineering/Master of Technology (or equivalent) for Ph.D. in Engineering/Science.

OR

b) Master in Science (M.Sc. or equivalent) for Ph.D. in Science

OR

c) A 1-year / 2-semester master's degree programme after a 4-years / 8-semesters bachelor's degree programme or 2-year /4-semester master's degree programme after a 3-year bachelor's degree programme, or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in point scale wherever grading system is followed.
Provided that a candidate seeking admission after a 4-years/8-semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer), Differently-Abled/EWS and other categories of candidates as per the decision of the Commission from time to time.

d) For School of Defence Technology Management:

i) ME/M.Tech/MBA/ MS, in relevant discipline / (Science, Engineering, Management).

OR

ii) A 1-year / 2-semester master's degree programme after a 4-years / 8-semesters bachelor's degree programme or 2-year /4-semester master's degree programme after a 3-year bachelor's degree programme, or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in point scale wherever grading system is followed.

Provided that a candidate seeking admission after a 4-years/8-semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer), Differently-Abled/EWS and other categories of candidates as per the decision of the Commission from time to time.

- A candidate who has passed the qualifying examination with the requisite percentage of marks as prescribed above and who fulfills the following requirement may be considered for admission to the Ph.D. programme:-

a) Qualified in a national- level test such as CSIR/UGC NET, JEST, Graduate Aptitude Test for Engineering (GATE), Rajiv Gandhi National fellowship, NBHM etc. DIAT will decide the subject-wise and category-wise GATE/NET cut-off.

OR

b) A candidate who is a recipient of National Doctoral Fellowship or other fellowships from government / semi-government organization such as Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC), INAE, All India Council for Technical Education (AICTE), Department of Science and Technology (DST), Dept. of Biotechnology (DBT), Defence Research and Development Organization (DRDO), Department of Atomic Energy (DAE) and similar organizations.

- Project Staff [JRF/SRF/RA] from DRDO Laboratories & DIAT working under sponsored projects may be allowed to register for PhD, subject to fulfilling eligibility criteria **AND / OR** qualified GATE/NET examination. After completion of project, if the student is qualified in GATE/NET or any other national exams etc. he/she may be eligible for DIAT fellowship as per DIAT rules.

b) Age limit

Not above 35 years as on Jan, 01, 2026.
Relaxations as per Govt. of India rules apply to SC / ST / OBC / PH applicants.

Note:-

- Women candidates are encouraged to apply for admission.
- The Institute shall implement the reservation policy in Ph.D. admission in accordance with relevant act of Parliament being in-force from the time.
- A PWD (Divyang)/ SC/ST/OBC (non-creamy layer) candidate shall not get double benefit of being an SC/ST/OBC (non-creamy layer) as also a PWD candidate.

Selection:

Admission to Ph.D. will be based on the performance in the entrance exam (written test) conducted by the department concerned followed by a personal interview.

Financial Assistance:

a) The selected Ph.D. candidates against this admission notice, admitted as full-time Ph.D. students [Institutional Scholarship category] will be provided financial assistance as per the Institute's rules, in force from time to time. Currently the institutional fellowship for the first two year is of Rs. 37000/- and after that Rs. 42000/- upto 05 years / till the submission of thesis, whichever is earlier. The Ph.D. students (who are provided Institute fellowship) may also be assigned 4-6 hours per week of teaching/research assistantship for conducting tutorial or laboratory work and evaluation.

b) In addition to the Ph.D. scholarship, such candidates would also be entitled to a contingency grant (presently **Rs.** 15,000/- per year) in accordance with the decisions of the Institute.

Boarding / Lodging:

Selected candidates will be provided hostel accommodation (Exclusive Girls Hostel available). Mess facilities are available on payment basis. The present monthly charges towards boarding and lodging are Rs. 7000/- (subject to revision). However, Rs. 40,000/- is to be deposited at the beginning of each Semester towards lodging and boarding charges, in advance. A security deposit of Rs. 10,000/- would need to be paid to the Hostel Office.

How to Apply:

The application form is available at the Institute's website http://www.diat.ac.in . Application fee of Rs. 500/- for General / OBC category & Rs. 250/- for SC/ST & Women candidates, per programme is required to be paid either online (through State Bank collect) or by Demand Draft drawn in favour of Vice Chancellor, DIAT, Pune, payable at Pune-411025. The filled in application form in the prescribed proforma has to be forwarded in a sealed envelope, super scribed "Application for Admission to PhD Programme in the Department / School of _____" to the Joint Registrar (Academics), Defence Institute of Advanced Technology, Girinagar, Pune 411025 along with the DD / online generated receipt and self-certified copies of mark lists, certificates and other testimonials. These documents should reach DIAT latest by on or before **14th Nov 2025**. Postal delay will not be entertained. **Candidates seeking admission to more than one Department/School need to apply separately (Maximum Two Departments).**

General Information:

- Since the applications may be short listed, mere possessing of the prescribed qualifications would not entitle a person to be called for a written test/interview. The Institute may restrict the number of candidates to be called for written test / interview to a reasonable limit, based on qualifications / marks higher than the minimum prescribed in the advertisement.
- For short listing of candidates, the department screening committee may decide subject-wise and category-wise GATE/NET cut-off.
- Application once made will not be allowed to be withdrawn and fees once paid will not be refunded on any count nor can it be held in reserve for any other admission process
- Canvassing in any form will be a disqualification. Postal delay shall not be entertained.
- No correspondence will be entertained in respect of advertisement, interview, selection etc. The list of Shortlisted candidates will be displayed on http://www.diat.ac.in website along with other information viz. date of Interview / Written Test / Result. The candidates are requested to check the DIAT (DU) Website http://www.diat.ac.in for related information from time to time.

Course Fee and Other Charges:

Selected candidates for the Ph.D programmes are required to pay Semester Fee @ Rs. 37,000/- per semester (for Gen & OBC) and @ Rs. 22,000/- (for SC & ST), caution deposit of Rs. 20,000/- & Rs.6000/- as Admission fee payable immediately at the time of joining.
From 3rd year onwards @ Rs. 42,000/- per semester (for Gen & OBC) and @ Rs. 27,000/- (for SC & ST), Fees payable up to submission of thesis by candidate admitted to Ph.D. programme shall be as prescribed by the Institute from time to time.

Important Dates:

- **Last Date of receipt of Hard copy of application :14th Nov 2025**
- **Tentative Date of Written Test / Interview :12th Dec 2025**
- **Tentative date of commencement of the programme :1st week of Jan 2026**