



Defence Institute of Advanced Technology

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

Girinagar, Pune-411025

Ph.D. Programmes- January- 2024 Batch

Category - MoD Sponsored /Self Sponsored (DRDO, Tri-Services), Industry Sponsored / Other R&D Govt. Organizations.

Applications are invited for admission to Ph.D. Programmes for the Session Jan-2024, as per description below.

Details of Department / School-wise vacancies for admission to PhD Programme Jan-2024.

Sr. No.	Department / Schools	Subject/Research Area	Vacancies
1	Aerospace Engineering	NIL	0
2	Metallurgical & Materials Engg.	Biotechnology / Microbiology / Biochemistry/ Nanocomposites/ Flexible Electrodes, Bulk Metallic Glass & Nano materials, High Energy Alloys, High Temperature Materials, Control welding, Entropy Alloy, 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, Computational Materials Engineering, Energy Materials, Machine Learning, Microstructural modelling, Organic Photovoltaics, Phase-field modelling, Modelling, Simulation and Experimentation of Batteries and Supercapacitors.	08
3	School of Computer Engineering and Mathematical Science.	AI, Cyber Security, Secure Cyber Physical System, IoTs, AI/ML/AR/VR/, Block Chain Technology, Post Quantum Cryptography, Applied Cryptography, Secure Software Engg, Deep Learning Application, Computer Vision & Image Processing, Audio Processing, NLP, Digital Forensics, Deep Learning, GANs, HAR, LLMS, Malware Analysis, Sanskrit Processing, High Performance Computing Operating System, Mathematics / Statistics or Any Branch of Engineering.	24
4	Applied Physics	Tactile Sensing/MEMS Based Sensors/AI-ML based sensing devises, THz Technology, Ultrafast Lasers, Nonlinear Optics	02
5	Applied Chemistry	Propellants, Pyrotechnics, Defence Chemistry, Nanomaterial for energy application, Synthesis and Application of Ionic Liquids, Photocatalytic Hydrogen Generation. Wastewater Treatment, Energy Storage Materials, Catalysis & Combustion, Adsorption of Solutes, Membrane Process, Hybrid Materials, Catalysis, Nanotechnology, Biomimiccity, Mesoporocyt Materials, Biotechnology / Life Sciences / Food Technology.	04

6	Electronics Engineering	Antenna Microwave Engg. & OTH Radar, Radar, Radar Signal Processing, FPGA, SAR, RF, Photonics, Brain Computer Interfacing, Human Computer Interaction, Signal Processing, Automations, RFID, Antennas, Microwave Circuits, Embedded Systems, VLSI, SoC, SDR, AI&ML.	05
7	Mechanical Engineering	Surface Engg, Mechanical Behaviour, High Strain Rate deformation, Composite Structure, Additive manufacturing, composite material processing, Impact Analysis, Micro Machining, CFD, Fluid Mechanics, CFD/Blast/FSI, High strain rate, hardened structures, Terr-mechanics etc. Flow Separation and control, Thermal management systems, Fracture Mechanics.	11
8	School of Robotics	Robot Vision, Control & Dynamics, Aerial Robotics, Underwater Robotics, Robotics, Control Systems, Sensor Data fusion, Semantic perception, Dual arm manipulation.	03
9	Technology Management	HR Management, Strategic Management, Organizational Behaviour, Supply Chain Management, Quality Management	02
10	School of Quantum Technology	Quantum Communication, Quantum Metrology & Sensing, Quantum Materials, Quantum Simulation & Quantum Machine learning.	05
11	School of Energy & Environmental Systems	Green solvents, Combustion of Hydrogen, Photocatalytic Hydrogen Generation, Biomass to Fuel, Energy Storage Materials, Fuel Cell Membranes, Adsorption of Solutes, Wastewater Treatment, Thermal and Fluid Power, Bio-fuels and Bioenergy, Internal and External Combustion Engines, Fuel Cell, Energy Management, Solar Energy, Hydrogen fueling and storage, Artificial Intelligence and Optimization, Radiation Heat Transfer, Solar Energy, Gas recovery from hydrates & sustainability, Thermal management of electric vehicles.	03

* The number of vacancies is only indicative and DIAT reserves the right in this matter.

Eligibility for External Part Time Research Scholar:

- 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.
 - b) Master in Science (M.Sc. or equivalent) for Ph.D. in Science
 - c) BE/B.Tech with 10 years of research/industrial experience for PhD in Engineering / Science.
 - d) For Dept. of Technology Management:
 - i) MBA/MMS/PGDM (2 years) from reputed institutes / M.Sc/ME/M.Tech
 - ii) BE/B.Tech with 10 years of research / Industrial experience
 - iii) M.Phil (Defence and Strategy Studies)
 - e) A candidate who is sponsored as a part-time candidate by a government department / public sector undertaking / R & D, with at least five years of relevant experience, who shall work for his/her PhD in his/her parent organization fulfilling the residency period requirement as per Rules & Regulations for the Award of the Degree of Doctor of Philosophy - 2016. The candidate is required to submit a NOC, sponsorship and work experience certificate from the parent organization. [Annexure I & J]

Last Date of Application:

Duly filled-in application in the prescribed proforma may be forwarded to the Joint Registrar (Academics), DIAT (DU), Girinagar, Pune-411025 so as to reach on or before **08th Dec 2023**.

Selection:

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

Course Fee & Other Charges:

MoD Sponsored (DRDO & Service Officers) & MoD Self-Sponsored (DRDO &

Service Officers) Candidate: Selected candidates for the Ph.D programmes are required to pay Semester Fee @ Rs.50,000/- per semester payable immediately on joining, Rs. 1000/- as alumni life membership and caution deposit of Rs. 10,000/-

For Industry Sponsored, Other R&D Govt. Organisations, DPSU's, Govt. Industry etc are required to pay Semester Fee @ Rs. 65,000/- per semester payable immediately on joining Rs. 1000/- as alumni life membership and caution deposit of Rs. 10,000/- & Rs. 4000/- as a one time fee.

Important Dates:

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| ➤ Last Date of receipt of Hard copy of application | : | 08 th Dec 2023 |
| ➤ Tentative Date of Written Test / Interview | : | Last week of Dec 2023 |
| ➤ Tentative date of commencement of the programme | : | 1 st week of Jan 2024 |
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Sr. No.	Department / Schools
1	Aerospace Engineering
2	Metallurgical & Materials Engg.
3	School of Computer Engineering and Mathematical Science.
4	Applied Physics
5	Applied Chemistry
6	Electronics Engineering
7	Mechanical Engineering
8	School of Robotics
9	Technology Management
10	School of Quantum Technology
11	School of Energy & Environmental Systems