



Defence Institute of Advanced Technology

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

Girinagar, Pune-411025

Ph.D. Programmes- July- 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 July-2024, as per description below.

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

Sr. No.	Department / Schools	Subject/Research Area
1	Aerospace Engineering	Flight dynamics, Aerodynamics. Navigation guidance and control.
2	Metallurgical & Materials Engineering.	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, Chemistry, Polymers, Biopolymers.
3	School of Computer Engineering and Mathematical Sciences.	Secure IIOT, Fairless evaluation in AI Systems, Geo Spatial GIS, Artificial Intelligence & Machine Learning, AR/VR, Cryptography, Block Chain, Trusted Computing, Software Engineering, Cyber Security/IoT, AIML, Computer Vision, Deep Learning, Generative AI/Digital Forensics, Cyber Security, Computer optimization, NLP, Applied Mathematics, Machine learning in Biofluid mechanics, Fluid Mechanics, Numerical Analysis, Finite Element Methods, Image Processing, Data Science, Machine Learning, Deep Learning, Computer vision, Adversary generation, computer Vision, Probability.
4	Applied Physics	Ultrafast Lasers, Fiber Optics, Nonlinear Optics.
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, Mesoporous Materials, Biomaterials, Energetic Materials, Biotechnology, Life Sciences, Food Technology.
6	Electronics Engineering	Antenna Microwave Engg. & OTH Radar, Radar, Radar Signal Processing, FPGA, SAR/ISAR, RF, Photonics, Brain Computer Interfacing, Human Computer Interaction, Signal Processing, AI&ML, Antenna Design, RF& Microwave, EMI/EMC, Electromagnetic Shielding Material, Wideband Radar, Millimetre wave, RFID, Antennas, Microwave and Millimetre Wave Circuits, Antenna for Automotive, Embedded System FPGA, VLSI, SoC, SDR, AI&ML, Flexible Electronics.

7	Mechanical Engineering	Impact Mechanics, Surface Engineering, Tribology, Composite material processing, Additive manufacturing, Micro Machining, Surface Engineering, Composite Structures, Fracture Mechanics, Functionally Graded Structures, Battery Thermal Management Systems, Fluid Mechanics, CFD, Heat Transfer.
8	School of Robotics	Robotics Control System, Underwater Robotics, Control System, Underwater Robotics. Aerial Robotics, Humanoid Robot.
9	Technology Management	HR, Strategic Management, Organizational Behaviour, Supply Chain Management, Quality Management, Project Management, Sustainable Management, Data Analytics, Machine Learning.
10	School of Quantum Technology	Quantum Communication, algorithms and theory, Quantum Metrology & Sensing, Quantum Simulation & Quantum machine learning, Optical Quantum Computing, Quantum Optics.
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, CO2 sequestration, Heat transfer enhancement, Heat Exchangers, Refrigeration and Air conditioning, Solar thermal applications- Photovoltaics, Desalination, IC Engines, CFD, Bio-fuels, Waste 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.

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) M.Sc/ME/M.Tech/MBA in relevant discipline
 - ii) BE/B.Tech with 10 years of research / Industrial experience
 - 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 Ph.D. 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 **03rd May 2024**.

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 fee 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 fee 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 | : | 03rd May 2024 |
| ➤ Tentative Date of Written Test / Interview | : | 30th May 2024 |
| ➤ Tentative date of commencement of the programme | : | 1st week of July 2024 |
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