



# Defence Institute of Advanced Technology

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

Girinagar, Pune-411025

## Apply for DIAT Post-doctoral Fellowship

Applications are invited for DIAT Post-doctoral Fellowship, as per the description below.

### Introduction:

Defence Institute of Advanced Technology (DIAT) is 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 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.

### Department /School:

Details about the various departments and schools, faculty profiles, and academic programs are available at the Institute's website [www.diat.ac.in](http://www.diat.ac.in)

### Eligibility:

Ph.D degree holders within three years of the award of the Ph.D degree, or those who have submitted a Ph.D thesis. Applicants who are about to submit their thesis are also eligible to apply. Still, their selection will be subject to the condition that they have submitted their thesis before the expiry of the award offer's validity. Applicants should have research publications in high-impact-factor SCI journals.

Although the Post-doctoral Research Fellowship is open to Indian nationals, Persons of Indian Origin (PIOs), and Overseas Citizens of India (OCIs). A certain number (up to 20%) of fellowships may be offered to foreign nationals.

### Department /School Specialisation:

Sr. No.	Dept/School	Subject Area / Specialization
1	Applied Physics	FPGA and Data Acquisition, Machine Learning for Sensor Applications.
2	School of Defence Technology and Management	Data Analytics in Defence Strategies, AI-Augmented Supply Chain Resilience: A Digital Twin and Blockchain Approach, AI-Driven People Analytics Framework for Strategic Workforce Planning and Talent Optimization.
3	Applied Mathematics	Heat and Mass transfer in Porous Media, Convection in Porous Media, Numerical Solution to Differential Equations, Numerical-AI-ML methods through Differential equations, Bio-Mechanics with ML, Numerical Analysis, Digital Image Processing, High Dimensional

		Data Analysis, Engine Prognostics, Image super resolution, AI and ML, Deep Learning, Acoustic conditioning, Statistical Machine Learning, Random Matrices.
4	Metallurgical and Materials Engg.	Polymer Engineering, 3D/4D printing, Plastic Recycling, Green Nanocomposites, Energy storage electrode and nanocomposites for Energy harvesting applications, Nanohybrid materials for drug delivery, Additive Manufacturing, Friction stir Processing / welding, Thermo-mechanical processing of Metallic Materials, Microstructure and Texture, Nanocomposites, Polymer Nanocomposites, Composites, Polyurethane foams, Mechanical Properties, High Entropy Alloys, Metal Matrix Composites, Deformation Behavior of Materials, Powder Metallurgy, High Temperature Deformation.
5	Electronics Engg.	Radar, Radar Signal Processing, FPGA, SAR, RF Photonics, RF, Microwave, EMI/EMC Shielding material, Antenna Stealth Technology, UAV, Signal Processing, Robotics, UAV, Surveillance, Underwater Acoustic, Intelligence Radar, RFID, Microwave Passive & Active Circuits, Reconfiguration / Smart Antennas, Wireless Power Transfer, Electronic Warfare, Millimeter wave Circuit & Components, Embedded System, FPGA, VLSI, SoC, SDR, AI & ML.
6	Aerospace Engg. & Autonomous System	Aerodynamics, Robot Dynamic & Control, Robot Motion Planning, Control of Autonomous System, Underwater Robotics, Robot Vision, Aerial Robotics, Parameter Estimation of Air Vehicles, Guidance & Control of Air Vehicle.
7	Mechanical Engg.	CFD, Fluid Mechanics, Mechanical Engg. Analysis and Design of Composite Structures, Fracture Mechanics, Material Characterization/Stress analysis / Solid Mechanics/Machine design, Characterization of FRP composite materials, Finite Element Analysis, Natural Fiber Reinforce Composite (NFRC) materials, Stress Analysis, High Sustain rate, deformation, Ballistic Impact, Surface Engg/ Tribology, Vibration, FEM, CAD/CAM/Robotics, Manufacturing Consideration in Design, Fabrication, Characterization and Processing of Composite Materials, High speed machining/green machining of aerospace materials, Precision Robotic Welding of Aerospace Materials, Micro manufacturing / Micromachining of "Difficult to cut materials". Surface Engineering, Additive Manufacturing (3D Printing). Analysis and Design of Composite Structures, Fracture Mechanics, Thermal Engg, Active & Passive flow separation control, Thermal and Fluids, Computational Fluid Dynamics (CFD), High strain rate experimental analysis using Shock Tube, Experimental study of explosive storage / hardened structures under blast loading, Fluid structure Interaction (FSI) simulation of blast resistant structures, Design and analysis of blast protection devices such as blast valves and blast doors etc.
8	Computer Science and Engg.	AI, LLM, Game Theory, QML, Cyber Security for AI, ML for IoT, Secure Cyber Physical Systems, Anonymous network, secure AI models, Blockchain Technology, Cryptography, Secure Software Engg., Post Quantum Cryptography, Computer vision, Deep learning, Cyber Security, Generative AI, Cybersecurity for AI, Responsible AI, Cyber Security, NLP, IoT, Hardware Security and Network-on-chip.
9	Applied Chemistry, Energy and Environment.	Development of Safe Hydrogen, Photocatalysis and applications, Energy Storage / Phase Change Materials, Green Solvents / Ionic Liquids, Bipropellant rocket fuels, Wastewater treatment, Metal Organic Frameworks, Organic and hybrid nanomaterials,

		Nanoparticles and nanocrystals synthesis, Self-assembly and Biomimiccity, Fuel Cells, Energy; and Sustainability, Bio-fuels and Bio-diesel Combustion Engineers, CFD & Heat Transfer, Hydrogen fueling and storage, AI and Optimization, Thermal Management.
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**Age Limit:**

35 years, relaxable upto 5 years in case of SC/ST/Physically disabled and women candidates and 3 years in case of OBC (Non-Creamy Layer) candidates. The last date of the application call will be considered for calculating the maximum age limit.

**Tenure:**

Two years, extendable for up to one more year based on outstanding performance and approval by the Vice Chancellor.

**Remuneration:**

The fellowship is purely a temporary assignment and is tenable initially for a period of 2 years. The fellows will be entitled to receive the grants as given below

Sr. No	Budget Head	Amount
1	Fellowship	Rs. 55,000/- P.M+HRA  Rs. 35,000/- P.M+HRA for candidates who have submitted the thesis, but the degree has not yet been awarded
2	Research Grant	Rs. 2,00,000/- Per Annum
3	Overheads	Rs. 1,00,000/- Per Annum

Research grant can be used for minor equipment, consumables, contingencies and domestic travel. There is no provision for providing manpower support under this scheme. The Fellow is expected to undertake the research objectives by himself/herself during the entire duration of the fellowship. The fellows must seek the consent of DIAT if they intend to be away from the Institute (except for field work related to the project) continuously for a period of more than eight weeks.

**Mode of Selection:**

Eligible candidates can apply in the prescribed format, available on the website, at any time of the year. However, the selections will be made twice a year, in June and December, depending on the posts available. Applications received two months before the scheduled interview date will be considered for shortlisting and a call for an interview. Eligible candidates must route their applications through the sponsoring organisation [Wherever applicable].

Applications of the employed (Permanent/Temporary) candidates from outside DIAT system will only be considered provided that:

1. Director/Vice-Chancellor of the sponsoring laboratory/University recommends the application, citing the reasons for mutually benefiting the research in the DIAT laboratory vis-à-vis the organisation of the applicant, where he/she is a permanent/temporary employee.
2. Undertaking from organization where employed that Extraordinary Leave (EoL) without pay will be granted for the entire tenure of the Post-doctoral Research Fellowship, if selected.
3. Selections for the "Post-doctoral Research Fellowships" will be made based on the presentation of the proposed research project, followed by an interview of shortlisted candidates

by specially constituted Committees. Applicants from abroad may also be considered in absentia, if eligible. Selection of foreign nationals will be subjected to clearance by DIAT/DRDO HQ.

### **Accommodation and other benefits:**

Accommodation may be provided by DIAT if available. Postdoctoral Fellows will be entitled to medical benefits as per DIAT rules.

### **Terms & Conditions:**

- i) Candidates who have obtained their PhD from a DIAT will not be eligible for a PDF in the DIAT under this scheme.
- ii) Selected candidates are expected to join within two months of the award's effective date.
- iii) The Post-doctoral Fellowship will involve full-time research work, which should be of a significantly higher standard than PhD work.
- iv) The Post-Doctoral Fellow will be evaluated annually for their progress.
- v) The Post Doctoral Fellow will acknowledge DIAT support in all publications/ patents/ reports resulting from research performed at DIAT.
- vi) The PDF should also assist the Department at DIAT, such as helping PhD students and PG students, and providing support in the laboratory and at conferences.

**Foreign applicants may submit their application form through email on [jr@diat.ac.in](mailto:jr@diat.ac.in)**

### **Additional Information:**

1. The Institute reserves the right to screen and call only those candidates for an interview who are deemed suitable. Thus, just fulfilling the minimum eligibility criteria would not entitle one to be selected.
2. The candidate is responsible for the correctness of the information provided in the application. If it is found at a later date that any information given in the application is incorrect or false, the candidature/appointment is liable to be cancelled/terminated.
3. Candidates are encouraged to contact the chair of their preferred department/s for additional information.
4. Selected candidates are expected to carry out their research work and other duties at DIAT only. The DIAT Post-doctoral Fellowship is non-transferable.

### **How to Apply:**

The following documents are required along with the application.

- (A) Dually filled Application form
- (B) Curriculum Vitae with a list of all publications.
- (C) PDF files of at least two and up to five important publications.
- (D) Proposed research plan (up to 500 words).
- (E) PDF file of PhD degree certificate, or provisional PhD degree awarded certificate, or PhD thesis submitted certificate.
- (F) Dually filled Application
- (G) Any other relevant information the applicant may want to furnish.

The application form is available at the Institute's website <http://www.diat.ac.in> . The filled in application form in the prescribed proforma has to be forwarded in a sealed envelope, super scribed "Application for Admission to Post Doctoral Programme in the Department / School of \_\_\_\_\_" to the Joint Registrar (Academics), Defence Institute of Advanced Technology, Girinagar, Pune 411025. The filled in application should reach DIAT latest by on or before **January 27, 2026**.

For any further information related to this, please contact:  
Email: [jr@diat.ac.in](mailto:jr@diat.ac.in) Phone No. : 02024604412 / 98