

राष्ट्रीय प्रौद्योगिकी संस्थान गोवा
NATIONAL INSTITUTE OF TECHNOLOGY GOA



**CALL FOR
POST-DOCTORAL FELLOW (PDF) POSITIONS
2024-25 SESSION**

Advt. No.: NITGOA/ADVT/PDF/2025/OW/001 Dated: 25 May 2025

INFORMATION BROCHURE

SELECTIONS TO POST-DOCTORAL FELLOWSHIP (PDF) PROGRAM FOR 2024-25 SESSION

1. INTRODUCTION

The PDF Program in Full-time (FT) mode is offered in the following Departments:

1. Applied Sciences (APS)
2. Computer Science and Engineering (CSE)
3. Electrical and Electronics Engineering (EEE)
4. Electronics and Communication Engineering (ECE)
5. Humanities and Social Sciences (HSS)

Departments and Specialization offered for Institutional Post-Doctoral Programme are listed in Annexure-I.

2. SCHEDULE

Announcement of inviting Applications:	May 25, 2025
Last date to receive applications:	June 20, 2025
Announcement of shortlisted candidates for written test/ interview:	June 25, 2025
Written test/ interview:	July 10, 2025
Announcement of selected candidates:	July 18, 2025
Reporting by the selected candidates (tentatively):	August 01, 2025

NOTE: The interested candidates who meet the eligibility criteria for admission may apply by filling this Google form at <https://forms.gle/dSwEFTsoEA5rhrCX7> with the filled in application form and the supporting documents including the necessary annexures. Further details about Institute Post-Doctoral Fellow (IPDF) are available on https://www.nitgoa.ac.in/academics/rules_and_regulations.html

3. ESSENTIAL QUALIFICATIONS

- a. The applicant should be an Indian national, with a Ph.D. or equivalent doctorate degree (e.g., D.Sc) awarded from recognized Institute/University. The candidate must have secured 6.5 CGPA on a 10-point scale grading system or 60% marks in Bachelor's or Master's level from a recognized Technical Institute or University in relevant discipline. CGPA/Percentage relaxation will be followed as per GOI norms.
- b. The applicant should apply within five years from the date of award of Ph.D. degree (i.e, Defense date).
- c. The applicant, who has completed their Ph.D. from NIT Goa, can apply after 2 years of completion of their Ph.D. Defense viva-voce approval date.
- d. Publication requirements:
 - i. For Engineering and Science, the applicant must have a minimum of 03 (three) publications as first author in SCI/SCIE or 03 (three) granted Indian/US Patents or a combination of Journal(s) & Patent(s) listed above.
 - ii. For Humanities and Social Sciences, the applicant must have a minimum of 03 (three) publications as first author in the ABDC/SSCI/Scopus indexed journals (non-paid)/UGC CARE-A or 03 (three) granted Indian/US Patents or a combination of Journal(s) & Patent(s) listed above.
- e. The upper age limit of applicant should be 35 years at the time of submission of the application. Age relaxation of 5 (five) years will be given to candidates belonging to SC/ST/OBC/Physically Challenged & Women candidates.

- f. Applicants working as regular employees need to produce a No objection certificate (NOC) from the employing organization.

4. SELECTION PROCESS

- a. The shortlisted candidates must appear for the written test/interview conducted by the departmental post-doctoral selection committee (DPDSC), and based on the performance and other credentials, the candidates will be selected for the Institute Post-doctoral Fellowship.

5. PERIOD OF ENGAGEMENT

- a. The appointment of Institute Post-doctoral Fellows (IPDF) is purely a temporary assignment and full time in nature. The duration of the fellowship will be normally for a period of 3 years. However, initially the offer will be made for one year and is extendable maximum upto three years based on performance evaluation.
- b. Review will be conducted every year, and will be on quantifiable outcomes based on the deliverable proposed and publications. A progress monitoring committee (PMC) will evaluate the progress annually and accordingly recommend for the extension. Based on the recommendations of the Progress Monitoring Committee (PMC), fellowship tenure may be extended.
- c. The continuation of IPDF of the candidate will depend on satisfactory report submission by the said committee. If the report is unsatisfactory, then the IPDF may be terminated even before one year period or as per the terms of appointment.

6. FELLOWSHIP AND OTHER BENEFITS

- a. A fellowship of Rs 60,000 per month (consolidated) will be offered.
- b. A contingency grant of Rs. 50,000 per annum towards purchasing consumables, attending conferences, meeting publication charges, etc., will be made available to the fellow on the recommendation of the mentor.
- c. No separate HRA is admissible. Institute accommodation shall be provided subject to availability with due charges as per institute norms.
- d. The IPDF will not be eligible to receive any other fellowship from government/non-governmental sources during the period of his/her engagement.
- e. If the candidate resigns from the postdoctoral fellowship before expiry of term, the candidate will have to give either one month notice or deposit one month fellowship to the Institute for the same.
- f. Leave rules will be followed as per Ph.D. rules and regulations of the Institute.

7. WORKS TO BE ASSIGNED

- a. The Head of the Department will assign the IPDF academic responsibilities such as taking lecture classes, tutorial classes, laboratory work, conduct of seminar, symposia, operation and maintenance of equipment, computer, etc.; not exceeding 8 hours per week.
- b. In addition to carrying out quality research work, the Post-Doctoral fellow is expected to assist the mentor (as Principal Investigator) in writing externally funded project proposals.
- c. IPDF are eligible to act as Co-guide for B.Tech/M.Tech students along with his/her Mentor with the approval of Dean (Academics) with the recommendations from Mentor, HoD and Dean (R&C).

- d. IPDF will be attached to the Department and Mentor(s) for carrying out full-time research and teaching in an area approved by the Department.
- e. IPDF shall be required to submit a comprehensive progress report to the Dean (R&C) office at the end of each semester.

8. TARGETS TO BE ACHIEVED DURING THE PERIOD OF ENGAGEMENT

- a. In Engineering and Science stream, the Post-Doctoral fellow must have a minimum of one publication (accepted/published) in SCI/SCIE/Indian/US Patent per year along with the mentor.
- b. In Humanities and Social Sciences stream, the Post-Doctoral must have a minimum of one publication (accepted/published) in ABDC/SSCI/Scopus indexed journals (non-paid)/ UGC CARE-A/Indian/US Patent per year along with the mentor.
- c. The candidate will present a progress report to Progress Monitoring Committee (PMC) every year describing the research work carried out and research results, supported by reprints or proofs or manuscripts of the papers/patents published or accepted for publication for this purpose.
- d. Further extension of postdoctoral fellow every year will be based on quantifiable outcomes and deliverables proposed in the initial proposal and the recommendations of PMC.
- e. The fellowship may be terminated at any time by the Institute if the research progress/conduct of the candidate is unsatisfactory, by giving one month notice to the Post-Doctoral fellow, on the recommendation of Mentor, forwarded through HoD and approved by Chairperson, PAC. Similarly, the postdoctoral fellow must give one month's notice through Mentor, forwarded through HoD and approved by Chairperson, PAC, if he/she wants to leave the fellowship before tenure completion.
- f. Any rights related to the IP generated out of the post-doctoral research will be owned by the Institute and will be governed by the Institute's IPR policy amended from time to time.

9. DOCUMENTS TO BE ENCLOSED ALONG WITH THE APPLICATION

- Copy of SSC/ Class X certificate in support of Date of Birth
- Copy of Intermediate/ (10+2)/ Class XII certificate
- Copies of Provisional certificate/ Degree certificates and Marks Memos of the qualifying Examinations (UG, PG, and PhD)
- Attested copy of the caste certificate
- For GEN-EWS candidates, EWS certificate issued on or after April 1, 2025 as per the format given in the Annexure-II.
- For OBC-NCL candidates, OBC-NCL certificate issued on or after April 1, 2025 as per the format given in the Annexure-III along with undertaking.
- No Objection Certificate from the employer issued on or after April 01, 2025 only is acceptable (Annexure-IV)
- Relieving certificate from the employer (at the time of admission)
- Photograph on the application form
- Application fee payment receipt with transaction number
- A research proposal/ plan formulated with respect to the research areas/topics mentioned in the Annexure-I
- List of publications along with the proof of indexing (e.g. SCI/ ESCI etc)
- Attach copy of the publications

10. LINK TO PAY THE APPLICATION FEE

The application fee (Non-refundable) is Rs. 1000/- for GEN/ GEN-EWS/ OBC-NCL candidates and Rs. 500/- for SC/ ST/ PwD/Woman candidates.

PDF Application Fee Payment Link – May 2025

<https://pmny.in/PAYUMN/Trf5mWtHpWFd> (for GEN/ GEN-EWS/ OBC-NCL candidates)

<https://pmny.in/PAYUMN/ZIQRACOrP0lO> (for SC/ ST/ PwD/Woman candidates)

Annexure-I

Sl. No	Department	No.	Area of Research	Title of the Proposal from Mentor	Name, Designation, and Contact Details of the Mentor
1.	CSE	1	Brain Computer Interface	EEG Signal Classification for Neural Prosthetic Devices.	Dr. Damodar Reddy Edla Associate Professor in Computer Science & Engineering National Institute of Technology Goa Cuncoim, South Goa, Goa-403703 Office: +91-832-2404216, Mobile: +91-9373151004, +91-9765127163 Email: dr.reddy@nitgoa.ac.in, dr.reddy.cse@gmail.com
		2	Medical Imaging	Early Stage Detection of Diabetic Retinopathy on OCT Images using Deep Learning	
		3	AI	Software Code Localization	Dr. Venkatanareshbabu Kuppili Assistant Professor, Computer Science and Engineering, National Institute of Technology Goa, Goa-India. M. 9049436708
		4	Adversarial Machine Learning	AI/ML Enabled Malware Analysis	Dr. Modi Chirag N Associate Professor, CSE Dept. M. 9423918821/8080053822 Email: cmodi@nitgoa.ac.in
		5	Blockchain and Security	Consent Management Framework on Blockchain	
2.	EEE	1	Smart Electric Grid, Electric vehicles, Wireless Power Transfer, and Applications of AI & ML	Design of Bi-directional Converters for Level- 1/2/3 EV Charging Station and feasibility studies for their installation to Support V2G Services.	Dr. Suresh Mikkili Associate Professor, Electrical and Electronics Engineering, National Institute of Technology Goa, Cuncoim Municipal Area, Salcete Taluka, South Goa District, State of Goa, Pin-403703 Ph. 7588133009.
				Smart and Secure Wireless Power Transfer for Electric Vehicles: Exploring IoT, Edge Computing, And Blockchain Solutions	
		2	Power Electronics, Renewable Energy Systems	GaN based converters for Electric Vehicles/ Renewable Energy Applications	Dr. Sree Raj E S Associate Professor, EEE NIT Goa
		3	Power Electronics	Battery charger for electric Vehicle	Dr. Soumitra Das Associate Professor, EEE, NIT Goa sdas@nitgoa.ac.in 9673436752
				PWM schemes for power converter	
	Electric Machine and Drives	Design, development and control of electric motor for electric vehicle applications			
4	Smart Electric Grids, Electric Vehicle integration, Distribution system Automation, Cyber Security, Micro grids	Design of a robust and secure V2G integration in Smart grids	Dr. C. Vyjayanthi Associate Professor, Electrical and Electronics Engineering, National Institute of Technology Goa, Cuncoim, South Goa, Goa, Pin-403703. Ph. 9765444061.		
5	Digital Signal Processing, Control Systems, Deep Neural Networks, FPGAs	Design and Development of Hardware Accelerators for Deep Neural Networks and its applications	Dr. Amol D Rahulkar Associate Professor, EEE, NIT Goa amol.rahulkar@nitgoa.ac.in 9545986271		

3.	ECE	1	Image and Video Processing	Deep fake detection and classification using deep learning Approaches	Dr. T. Veerakumar Associate Professor, Department of ECE tveerakumar@nitgoa.ac.in Ph:9976534050
		2	Microstrip Antenna Design; dielectric resonator antenna (DRA) design; Terahertz (THz) antennas; Smart Antennas, Antenna array design for 5G MM-Wave; Adaptive Beamforming; Power Divider Network for Array; Fractal Antenna; Phased Array Antenna; Wearable and Conformal Arrays; Array Pattern Synthesis; Evolutionary Algorithms	Design of reconfigurable antenna array	Dr. Anirban Chatterjee Assoc. Prof., Dept. of ECE, NIT Goa
		3	VLSI, Microelectronics	Data Converter	Dr. Nithin Kumar Y B Associate Professor Dept of ECE nithin.shastri@nitgoa.ac.in 8275681684
		4	Signal Processing in Wireless networks, Wireless Channel Estimation, Equalization and Precoding	Reaching the unreachable by using RIS assisted wireless communication system. Drone to drone communication	Dr. Trilochan Panigrahi Associate Professor Department of ECE Email: tpanigrahi@nitgoa.ac.in Mobile:7028746736
		5	Biomedical Signal Processing	Analysis of Heart Sound Signals using Time-frequency Methods	Dr Shivnarayan Patidar Assistant Professor, Email ID: shivnarayan.patidar@nitgoa.ac.in Mobile No.: 8329138521
		6	Thermal Imaging (Infrared Thermography) Applications, Microelectronics	Thermal Imaging (Infrared Thermography) Applications, Microelectronics	Dr Lalat Indu Giri
		7	RF and Microwave, AI and Microwaves, Antenna Engineering	Design and Development of various passive microwave components for millimeter waves. AI and ML for antenna optimization. Design and Development of planar and non-planar antennas for wireless communication.	Dr. Pragati Patel Assistant Professor Department of ECE Ph. No. 7588471862 Email pragati@nitgoa.ac.in
		8	Microwave imaging	Inverse solutions with Deep-learning in Microwave imaging	Dr. E. Mallikarjun Asst. Professor, Department of ECE, NIT Goa emallikarjuna@nitgoa.ac.in 9404763245
4.	HSS	1	Economics of Innovation	Introduction of AI and its impact on manufacturing firms in India	Dr. Sunil Kumar A Assistant Professor of Economics, Department of HSS, NIT Goa Mob: 9895631011 Email id: sunilkumar@nitgoa.ac.in

Proforma for Economically Weaker Section (EWS) Certificate

Government of

(Name & Address of the authority issuing the certificate)

[This certificate MUST have been issued on or after 1st April 2025]

Certificate No. _____

Date: _____

VALID FOR THE YEAR 2025-2026

1. This is to certify that Shri/Smt./Kumari _____, s o n / daughter/ wife of _____ permanent resident of _____, Village/Street _____ Post Office _____ District in the State/Union Territory _____ Pin Code _____ whose photograph is attested below belongs to Economically Weaker Sections, since the gross annual income* of his/her family** is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year 2022-2023. His/her family does not own or possess any of the following assets***:
 - i. 5 acres of agricultural land and above;
 - ii. Residential flat of 1000 sq. ft. and above;
 - iii. Residential plot of 100 sq. yards and above in notified municipalities;
 - iv. Residential plot of 200 sq. yards and above in. areas other than the notified municipalities.
2. Shri/Smt./Kumari _____ belongs to the _____ caste which is not recognized as a Scheduled Caste, Scheduled Tribe and Other Backward Classes (Central List).

Signature with seal of Office _____

Name _____

Designation _____

Recent Passport size attested photograph of the applicant

The income and assets of the families as mentioned would be required to be certified by an officer not below the rank of Tehsildar in the States/UTs.

Note:

- * Income covered all sources i.e. salary, agriculture, business, profession, etc.
- ** The term 'Family' for this purpose includes the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.
- *** The property held by a "Family' in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

Proforma for Other Backward Class (OBC Certificate)

(CERTIFICATE TO BE PRODUCED BY CANDIDATES FROM OTHER BACKWARD CLASSES APPLYING FOR ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER GOVERNMENT OF INDIA)

This is to certify that Shri/ Smt./ Kum. _____ Son/ Daughter of Shri/ Smt. _____ of Village/Town _____, District/ Division _____ in the _____ State belongs to the _____ Community which is recognized as a backward class under:

- i) Resolution No.12011/68/93-BCC(C) dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No. 186 dated 13/09/93.
- ii) Resolution No. 12011/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No. 163 dated 20/10/94.
- iii) Resolution No. 12011/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No. 88 dated 25/05/95.
- iv) Resolution No. 12011/96/94-BCC dated 09/03/96.
- v) Resolution No. 12011/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 11/12/96.
- vi) Resolution No. 12011/13/97-BCC dated 03/12/97.
- vii) Resolution No. 12011/99/94-BCC dated 11/12/97.
- viii) Resolution No. 12011/68/98-BCC dated 27/10/99.
- ix) Resolution No. 12011/88/98-BCC dated 6/12/99 published in the Gazette of India Extraordinary Part I Section I No. 270 dated 06/12/99.
- x) Resolution No. 12011/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No. 71 dated 04/04/2000.
- xi) Resolution No. 12011/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 21/09/2000.
- xii) Resolution No. 12015/9/2000-BCC dated 06/09/2001.
- xiii) Resolution No. 12011/1/2001-BCC dated 19/06/2003.
- xiv) Resolution No. 12011/4/2002-BCC dated 13/01/2004.
- xv) Resolution No. 12011/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 16/01/2006.

Shri/ Smt./ Kum._____and/ or his family ordinarily reside(s) in the_____District/ Division of_____State. This is also to certify that he/ she does not belong to the Persons/sections (Creamy Layer) mentioned in Column 3 of the Schedule to the Government of India, Department of Personnel & Training O.M.No.36012/22/93-Estt. (SCT) dated 08/09/93 which is modified vide OM No.36033/3/2004 Estt. (Res.) dated 09/03/2004 or the latest notification of the Government of India.

Dated:

**District Magistrate/ Competent Authority:
Seal**

NOTE:

- (a) The term “Ordinarily” used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (b) The authorities competent to issue Caste Certificates are indicated below:
 - i) District Magistrate/ Additional Magistrate/ Collector/ Deputy Commissioner/ Additional Deputy Commissioner/ Deputy Collector/ 1st Class Stipendiary Magistrate/ Sub-Divisional Magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate).
 - ii) Chief Presidency Magistrate/ Additional Chief Presidency Magistrate/ Presidency Magistrate.
 - iii) Revenue Officer not below the rank of Tahsildar, and
 - iv) Sub-Divisional Officer of the area where the candidate and/ or his family resides.
- (c) The annual income/ status of the parents of the applicant should be based on financial year ending March 31, 2023.

Declaration/ Undertaking for OBC Candidates only

I, _____ Son/ Daughter of Shri/ Smt.
_____ resident of _____ village/ town/ city,
_____ district, _____ State,
hereby declare that I belong to the _____ community which is
recognized as a backward class by the Government of India for the purpose of
reservation in services admission in Central Government Institutions as per orders
contained in Department of Personnel and Training Office Memorandum No.
36012/22/93 – Estt. (SCT), dated 8/9/1993. It is also declared that I do not belong to
persons/ sections (Creamy Layer) mentioned in Column 3 of the Schedule to the above
referred Office Memorandum, dated 8/9/1993, which is modified vide Department of
Personnel and Training Office Memorandum No. 36033/3/2004 Estt. (Res.) dated
9/3/2004 or the latest notification of the Government of India.

I also declare that the condition of status/ annual income for creamy layer of my parents/
guardian is within prescribed limits as on financial year ending on March 31, 2025.

Place:

Signature of the Candidate

Date:

Applications without declaration/undertaking not signed by Candidates will be rejected.

No Objection Certificate for Post-Doctoral Fellow Position

(Should be on the letter head of the employee's organization)

Ref. No.

Date:

To
The Director,
National Institute of Technology,
Cuncolim, Salcete-403703,
Goa

Sub.: No objection certificate for taking up Post-Doctoral Fellow Position at NIT
Goa

Dear Sir,

We have no objection if Mr./ Mrs./ Ms. _____ an employee of our
Organization/ Institute, joining as Post-Doctoral Fellow on full-time basis in the Department
Of at National Institute of Technology Goa and we _____
will relieve him/her from the duty along with a relieving certificate.

It is certified that he/she has completed _____ years of service in our Organization/
Institute as a regular employee.

Signature and Seal
Head of the Organization/ Institute

Note: No Objection Certificate issued on or after May 25, 2025 only is acceptable.

7. Areas of specialization: _____

8. Current areas of research: _____

9. Academic record starting with graduation: (please attach the copies of degree certificate)

Degree	College / University / Institute	NIRF Rank	Year of Joining	Year of Leaving	Percentage	Class / Division

10. Employment/Post-doctoral Experience [Particulars of your past position(s)]

Employer	Position held	Date of Joining	Date of Leaving	Pay with Scale of Pay

11. Names and addresses of three References (at least two of them should be familiar with your recent work)

Name			
Occupation or Position			
Address			
Fax			
E-mail			
Phone No.			

Please enclose the following files with the application

12. Research Project Proposal

13. List of publications with impact factor and indexing (e.g. SCI/ESCI etc) (Also attach the copy of the publications)

I hereby declare that I have carefully read and understood the instructions and particulars supplied to me, and that all entries in this form as well as the attached sheets are true to the best of my knowledge and belief.

Date:

Place: **Signature of the Applicant**

The completed application form along with all the required documents and annexures should be submitted via Google Form at: <https://forms.gle/dSwEFTsoEA5rhrCX7>