INFORMATION BROCHURE

Academic Session: 2025-2026

Ph.D. Programmes (Full-time/Part-time)



पूर्वोत्तर क्षेत्रीय विज्ञान एवं प्रौद्योगिकी संस्थान

NORTH EASTERN REGIONAL INSTITUTE OF SCIENCE & TECHNOLOGY
[Deemed-to-be-University, under Section 3 of the UGC Act, 1956]
[Under the Ministry of Education, Govt. of India, New Delhi]
Nirjuli – 791 109
Arunachal Pradesh

Opening of the portal for submission of online application along with requisite application fees	**Friday, November 7, 2025**
Last date for submission of applications online with requisite application fee	**Sunday, November 30, 2025**
Date for downloading of Admit Cards	**Wednesday, December 3, 2025 onwards**
Date of written test (Ph.D.)	**Thursday, December 11, 2025**
Publication of list of eligible candidates for Ph.D. admission interview	**Thursday, December 11, 2025** [List will be displayed on the Institute website]
Date of Interview of eligible candidates Ph.D. admission	**Friday, December 12, 2025** Venue: Respective Departments/Centre
Date of declaration of results	**Thursday, December 18, 2025** [Results will be displayed on the Institute website]

1. About the Institute

The North Eastern Regional Institute of Science and Technology (NERIST) was set up by the Government of India, initially as a project of the North Eastern Council, for providing a system of education to create technical manpower at various levels for the development of the North Eastern Region of the country. The foundation stone of the Institute was laid by late Giani Zail Singh, the then President of India, on 4th March, 1984, and the first batch of students was admitted to the Base Module in August, 1986, and subsequently, to Diploma and Degree Modules. In addition to the undergraduate programmes, the Institute also offers M.Sc., M.Tech., MBA (Full-time) and Ph.D. (both Full-time and Part-time) programmes.

The Institute attained the status of a Deemed-to-be-University under section 3 of the UGC Act, 1956, vide Notification No. F.9-15/2005-U.3, dated 31st May, 2005 by Ministry of Education (formerly, the Ministry of Human Resource Development), Government of India.

For detailed information about the Institute, please visit https://nerist.ac.in.

2. Vision and Mission of the Institute

Vision

To produce professionals with competency for pursuing excellence in Science and Technology Education, Research, and Entrepreneurship with ethical values and social sensitivity for offering specialized services to the society meeting the global requirements and standards in a multicultural environment.

Mission

1) Creating a niche in the field of science and technology education and research through an innovative modular system.
2) Producing globally competitive technical and scientific manpower in different disciplines with high ethical values, with particular reference to the North Eastern region.
3) Introducing in engineers/technologist and trainees a mind-set full of creativity to pursue excellence with focus on stakeholders, accountability, environment and people.
4) Developing collaborations with world class R&D organizations, industries and educational institutions in India and abroad for attaining excellence in teaching, research, and consultancy practices.

3. Eligibility Criteria for Ph.D. Admission

Sl. No.	PROGRAMME	ELIGIBILITY CRITERIA	REMARKS
1.	Doctor of Philosophy (Ph.D.) (Full-time and Part-time/Sponsored)	Candidates having Master's Degree in Engineering and Technology in relevant discipline or specialisation with 60% marks in aggregate or CGPA of 6.5 on 10-point scale and 55% marks in aggregate in Sciences/	(i) Applicants, who wish to pursue Ph.D. while in employment/service, need to submit an NoC (vide **Annexure-II)** from their respective employers stating that s/he will be

		Humanities and Social Sciences/Management.	relieved for the study during the period of the programme, at the time of Counselling-cum-Admission. (ii) Sponsoring Certificate from the employer (vide **Annexure – I)**, stating that period of study will be treated as on-duty with usual salary/allowances and s/he will be relieved during the period of study. Other rules and regulations will be governed by the UGC/AICTE from time to time.

4. How to Apply for Ph.D. programmes

Before filling up the online application form, candidates must read the instructions given below very carefully. For any assistance, please feel free to contact our Helpline numbers: 01141169130, or may send an email to infonerist@gmail.com.

I. Candidates must apply for **NEPGET 2025** in the **ONLINE** mode only by logging on to the website **https://neeonline.ac.in** or **https://nerist.ac.in**

1) Candidates must follow the instructions as they appear in the instruction panel.
2) Candidates can fill up the entire form in one session or enter one part of the information and save and complete the same at a later stage within the due dates of filling and submitting the form. Candidates are requested to carefully check all the data entered before final submission of the form. Any error may lead to the rejection of their application at any stage of time.
3) **The candidates must exercise caution while filling up the fields or selecting the options from the drop-down menu**. For example, a list of courses is mentioned along with the relevant field so that one can select the correct Course/Programme.
4) Candidates appearing in the qualifying examination in 2025 are also eligible to apply. However, they must produce mark sheets/grade cards/pass certificates on the day of counselling-cum- admission.
5) **A non-refundable and non-transferable** application fee of **₹ 1500.00 (Rupees Fifteen Hundred only)** along with the bank transaction charges is **applicable** for all candidates, irrespective of their categories.
6) **No request for any change in the application will be entertained after final submission.**

II. Guidelines for filling the Online Application Form
Applicants are required to keep ready the following before applying

1) An email ID for registration and for receiving all future correspondence till the admission process gets over.

2) One active mobile number to receive SMS-based notifications/communications related to the online application, admit card etc. till the admission process gets over.
3) Facility with internet connectivity.
4) A recent scanned passport sized colour photograph (for scanning and uploading in 'jpeg' format only. **The file size should be less than 100KB**). (Add the resizing link)
5) Your scanned signature using Blue/Black ink on white sheet (for scanning and uploading in 'jpeg' format only. **The file size should be less than 100KB**). (Add the resizing link)
6) Scanned/Soft copy of NET/GATE/CAT/MAT/SLET/NET Lecturer Fellowship score card/ certificate. (**Less than 100KB**)
7) Copy of ST/SC/OBC (Non-Creamy Layer)/EWS, should have the validity of one year at the time of counselling-cum-admission.
8) The date of admission-cum-counselling, should be produced in original during counselling-cum- admission.
9) Access to an online payment facility/service such as
    - Net Banking
    - Credit card
    - ATM-cum-Debit card

III. Important Notes for all applicants

1) A printout of the submitted online application form is to be retained by the candidate. The same has to be submitted along with the self-attested copies of supporting documents and the online application fee paid receipt at the time of counselling-cum-admission, if selected.
2) Original certificates issued by the Competent Authority supporting your filled-in details will be asked from you ONLY at the time of verification of documents/counselling-cum-admission. If the data provided in the online application are not supported by appropriate documents, then your application/claim for admission shall be summarily rejected.

Steps to be followed for filling the online application

The entire process of filling online application form can be completed using the following steps:

1) Register yourself for the online application process at **https://neeonline.ac.in** or through the institute website **https://nerist.ac.in**
2) Activate your online application with the email ID and your activation code received on your **registered email ID or mobile number.**
3) Select the Programme Type & Name and check the eligibility.
4) If the applicant confirms the eligibility criteria and continues, the next web page appears. In this page, the applicant is required to click on 'Application Details', upon which the application form appears on the screen. The applicant is required to fill up the details in the application form.
5) In the next step, the applicant is required to upload scanned image files of his/her Photograph and Signature one by one [as specified in 4 & 5 in the previous section].
6) In the next step, the applicant is required to fill the Academic details.

7) In the next step, the applicant is required to choose the Document details.

8) Once all the details are filled in, the applicant is required to review the details entered and **confirm the same**. No edit will be allowed once the application is confirmed/submitted.

9) Payment of fee is through ONLINE MODE only.

5. Departments

The Institute has twelve Academic Departments and one Centre. All the Departments have Ph.D. programmes except for the Department of Humanities and Social Sciences (HSS), which offers only Ph.D. programme. The Centre for Management Studies (CMS) offers two-year full time MBA and Ph.D. programmes.

The details about each Department and Centre can be accessed through the respective URLs given below:

A. Departments

Sl. No.	NAME OF THE DEPARTMENT	URL OF THE DEPARTMENT
1.	Agricultural Engineering (AE)	https://www.nerist.ac.in/agriculture
2.	Civil Engineering (CE)	https://www.nerist.ac.in/civil
3.	Computer Science & Engineering (CSE)	https://www.nerist.ac.in/computer-science
4.	Electronics & Communication Engineering (ECE)	https://www.nerist.ac.in/electronics
5.	Electrical Engineering (EE)	https://www.nerist.ac.in/electrical
6.	Mechanical Engineering (ME)	https://www.nerist.ac.in/mechanical
7.	Forestry (FO)	https://www.nerist.ac.in/forestry
8.	Chemistry (CY)	https://www.nerist.ac.in/chemistry
9.	Mathematics (MA)	https://www.nerist.ac.in/mathematics
10.	Physics (PH)	https://www.nerist.ac.in/physics
11.	Humanities & Social Sciences (HSS)	https://www.nerist.ac.in/humanities
12.	Food Engineering and Technology	https://nerist.ac.in/department-of-food-engineering-and-technology/

B. Centre

Sl. No.	NAME OF THE CENTRE	URL OF THE DEPARTMENT
1.	Centre for Management Studies	https://www.nerist.ac.in/cms

6. Discipline for Admissions

A. Department/Centre wise number of seats available & Area(s) of research for Ph.D. admission

Sl. No.	Department	No. of available seats	Areas of Research
1.	Agricultural Engineering	11	Agricultural Ergonomics/Anthropometry, Accident and injury prevention, Occupational health, Electronics and AI in machinery design, Digital Human Modelling, Design Optimization,

			Farm Tools and Equipment Design, Renewable Sources of Energy, Farm Machinery and Power; Impact of Climate Change on Water Resources, Springshed Management, Hydrological modelling, Cryosphere mapping/modelling, Hydro-informatics, Climate Change vulnerability and impact studies, Ground water- surface water interaction, Remote sensing application in water resources Engineering.
2.	Civil Engineering	16	Geotechnical Engineering, Environmental Science and Engineering, Transportation Engineering, Structural Engineering.
3.	Computer Science & Engineering	34	CVPR, Federated Learning, Machine learning, Deep Learning, Security in Networks, Reliability, Wireless Networking/ Opportunistic Network, MANET, WSN,GNN, Security, Image Processing, Cryptography, Video processing, Cognitive Radio Networks, Computer Network Security.
4.	Electronics & Communication Engineering	50	Communication System, Sensor and Circuits, Signal processing, Biomedical Signal and Image Processing, and Machine Learning. Semiconductor Devices, Biosensors and VLSI Circuits, Digital Design, Wireless Communication, Massive MIMO, Bio-Electronics, IoT, GaN and SiC based device, VLSI Technology, Electronic Sensor Design and Development, WSN, MEMS, Antenna, FELs, High Power Microwave Devices.
5.	Electrical Engineering	25	Electrical Machines and drives, Energy, Distributed Power Generation, Power Quality, Power Systems, Control Systems, Wind Energy, Energy Management, Renewable Energy, Smart Grids, Power Electronics, Micro grids, Digital electronics and Microprocessors, DSP, embedded Systems, Microcontroller, Electric Vehicles, Measurement and instrumentation, High Voltage Engineering, Artificial Intelligence-Fuzzy logic Controller, ANN, GA, Control and Instrumentation, Illumination Engineering, DSM Technology.
6.	Food Engineering and Technology	11	IoT in Food Processing, Thermal and Non-Thermal Food Processing, Novel Drying Technologies, Solar Greenhouse Drying, Smart and Edible Food Packaging, Modelling and Simulation, Product Development, 3D Food Printing, Waste Utilization, Process Optimization, Cereal and Legume Processing, Fruits and Vegetable Processing, Functional food.

7.	Mechanical Engineering	22	Mechanical Vibration, Robotics, CAD/CAM, Non-conventional machining, Composite materials, Additive manufacturing, Application of soft computing, Computational Modelling and optimization of machining processes, Rotor Dynamics, Machine design and Tribology, IC Engines and Biomass energy studies, Industry 4.0, Boiling heat transfer, Electric vehicle battery cooling.
8.	Forestry	03	Forest Genetics, Tree Improvement , Carbon sequestration, Forest Resource Management , Silviculture , Agroforestry.
9.	Mathematics	05	Differential equations, Partial differential equations, Algebra, Number Theory, Statistics
10.	Chemistry	04	Natural Products, Organic Synthesis, Metalloporphyrins, Metalloenzymes, Medicinal Chemistry, Docking Studies, Nanomaterial, Solar Energy, Photodynamic therapy, Enzyme kinetics.
11.	Physics	08	Microstrip Antennas/Microwave Electronics; Plasma Engineered Material, Green H2 production, Energy Harvesting and Environmental Remediation; Magnetic and Optoelectronic Properties of Nanomaterials; Density functional theory, Machine learning, Quantum Technology, Thermoelectricity, Optoelectronics, Energy storage; Oily wastewater treatment, condensed matter physics.
12.	Humanities & Social Sciences	Psychology:02	Social Psychology, Positive Psychology, Cross-Cultural Psychology, Health Psychology, Positive Psychology, Gender and Sexuality.
		Economics:04	Rural Development, Health Economics, Development Economics

7. Selection Procedure

Institute shall admit Ph.D. students through an Entrance Test. The selection procedure is as follows:

1) A GATE/NET qualified candidate in the relevant discipline/specialisation will be exempted from the Written Test for admission in Ph.D. However, s/he has to mandatorily appear in the interview conducted by the respective Department/Centre.
2) The written test shall be conducted for all those candidates who are not exempted from the same.
3) There will be a single question paper for each Department/Centre with 100 multiple-choice questions of one mark each. **The question paper will be divided into two sections (Section-A and Section-B) of 50 marks each. Section-A will comprise of questions from Research Methodology whereas Section-B will comprise of questions from the subjects of the respective Department/Centre.** For the syllabi of the written test, please refer to **Annexure – IV.**

4) The cut-off to qualify the written test will be 50% of the total marks. A relaxation of 5% marks will be allowed in the entrance examination for the candidates belonging to SC/ST/OBC (NCL)/PwD/EWS categories.
5) **Selection will be based on the total marks with a weightage of 70% for the written test and 30% for the performance in the interview.**
6) Interview will be conducted by the respective Department/Centre considering the following aspects:
    a) The candidate possesses the competence for the proposed research work.
    b) The proposed research area can be undertaken in the institute.
    c) The proposed research can contribute to new/additional knowledge.

Candidates are required to download the Admit Card from the website and no separate letter will be sent for the written test and interview.

The list of the selected candidates will be displayed on the Institute website **https://nerist.ac.in**.

Any telephonic query in this regard may be made at the following numbers of NERIST EPBX: (0360) 2257401 to 11 Extn: 6436/6036/6008; Fax No. (0360) 2258533/2257470.

8. Admission Procedure for Ph.D.

1) The selected and waitlisted candidates will be required to report to the Academic Section of the Institute on the specified date for counselling-cum-admission and registration.
2) The dates & time of **counselling-cum-admission and course registration of selected and waitlisted candidates of Ph.D. shall be notified in due course of time.**
3) Candidates must produce the relevant certificates and mark sheets of all examinations in original for verification at the time of counselling-cum-admission.
4) Admission will be allowed subject to production of medical fitness certificate and verification of all certificates and mark sheets.
5) If the result of the qualifying examination of the selected candidate has not been declared by the time of admission, s/he may be allowed for provisional admission, provided that the candidate submits examination completion certificate from the Principal/Head of the Institution and admit card of the said examination.
6) A candidate has to give an undertaking in the prescribed format for submission of the requisite documents by **February 15, 2026** failing which his/her registration will be cancelled.

Important Note: Any deviation from the stated documentary proof for the chosen reservation code mentioned in his/her application shall lead to rejection of his/her candidature. Proof of eligibility against a reservation code, other than All India General category candidates, must be produced at the time of counselling/admission.

9. Fee Structure

Please refer to the Institute web site, **https://nerist.ac.in** for detailed fee structure.

10. Anti-Ragging Undertaking mandatory for all students

Ragging is banned in the Institute. Anyone, who is found indulging in ragging, directly or indirectly, during the entire period of his/her study, will be punished as per the Institute rules.

Further, students must fill the Anti-ragging Undertaking on either of the following websites **www.amanmovement.org** or **www.antiragging.in** and the **hard copy of the Undertaking, as received by email, should be submitted to the Institute at the time of admission and also at the time of semester registration.**

11. Scholarship for Ph.D. students

The Institute provides fellowships to all full-time Ph.D. scholars. The scholars wishing to apply for other fellowships, including NFST, INSPIRE, UGC-NET JRF, CSIR-NET JRF, based on their eligibility are also allowed to do so.

12. Leave for Ph.D. (Full Time)

Grant of leave during the Ph.D. programme is subject to the provisions of the Academic Bye-Laws (Master and Ph.D. Programmes) and other regulations as amended from time to time.

13. Hostel facility

Hostel accommodation will be provided to Ph.D. Programmes (FT) students subject to the availability of seats.

14. Ban on Picnic

Due to regrettable incidents in the past wherein some students lost their lives during river-side picnics, the Institute has imposed a complete ban on picnics organised by the students. This decision has been taken to ensure the safety and well-being of the students.

Annexure - I

Format of Sponsorship Certificate for Ph.D. program for employed persons
(This should be typed on the letter head of the sponsoring organization)

Reference No. _____
Date: _____

To

The Director
NERIST
Nirjuli – 791 109
Arunachal Pradesh

Sub: Sponsorship Certificate.

Sir/Madam,

Mr./Ms. _____ who has been working in this organization as _____is hereby sponsored for admission into the Ph.D. programme at NERIST, from the session starting on _____ as a full time student.

The employee will be relieved from his/her duties in the organization to join the Ph.D. programme of NERIST.

Date: Signature:
Place: Name:
Designation:

Seal and Signature of sponsoring authority.

Annexure - II

Format of No-Objection Certificate for Ph.D. (Full Time/Part time) program for employed persons
(This should be typed on the letter head of the sponsoring organization)

Reference No. _____
Date: _____

To

The Director
NERIST
Nirjuli – 791 109
Arunachal Pradesh

Sub: No objection certificate

Sir/Madam,

It is hereby certified that Mr./Ms._____ has been working in this organization as _____.

This organization has no objection to his/her being admitted to the Ph.D. programme at NERIST, Nirjuli, from the session starting from _____ as a Full Time/Part Time student.

Date:
Place:

Signature:
Name:
Designation:

Seal and Signature of sponsoring authority.

Annexure - III

Format for No-Objection Certificate from Principal Investigator for project fellows
(This should be typed on the letter head of the sponsoring organization)

Reference No. _____
Date: _____

To

The Director
NERIST
Nirjuli – 791 109
Arunachal Pradesh

Sub: No objection certificate.

Sir/Madam,

Certified that Mr./Ms._____, working as a _____ in the project (title of the Project) _____ in the Department/Centre _____ funded by _____ since_____. I have no objection in allowing him/her to join the Ph.D. programme at NERIST under the category of project staff.

Further, he/she will be allowed to carry out his/her course work/research work of the Ph.D. programme without hampering the project work.

Date: Signature:
Place: Name:
Designation:

Seal and Signature of sponsoring authority.

SYLLABI FOR Ph.D. ENRANCE TEST

SECTION A: RESEARCH METHODOLOGY *(For all subjects under Science/Engineering/Humanities/Social Sciences/Management)*	
Unit-I	Research problem; Research objectives; Research methods, Types of research: Descriptive, Analytical, Applied, Fundamental, Quantitative, Qualitative, Conceptual and Empirical.
Unit-II	Literature review: primary, secondary, e-resources, database sources; Formulation of Hypotheses; Defining and formulating the research problems.
Unit-III	Research design and methods: Randomize block design, Complete randomize design and Latin squire design; Developing a research plan; Determining experimental and sample designs; Sampling error.
Unit-IV	Data Collection and analysis; Data Analysis with Statistical Packages - Hypothesis-testing - Generalization and Interpretation; Computer Processing.
Unit-V	Statistical Analysis: Introduction to Statistics – Probability Theories – Conditional Probability, Poisson Distribution, Binomial Distribution and Properties of Normal Distributions – Hypothesis Tests – One Sample Test – Two Sample Tests/Chi-Square Test, Association of Attributes - Standard Deviation – Co-Efficient of Variations. Statistical Applications – Correlation and Regression Analysis – Analysis of Variance – Partial and Multiple Correlation.
Unit-VI	Reporting and thesis writing; Types of report; Report writing; Bibliography; Referencing; Presentation; Importance of effective communication; Copy right; Intellectual Property Right and Patent Law; Plagiarism.
SECTION B: (Syllabus of National Level Tests like GATE/NET/CAT/MAT etc. for their respective branch subjects)	



पूर्वोत्तर क्षेत्रीय विज्ञान एवं प्रौद्योगिकी संस्थान

NORTH EASTERN REGIONAL INSTITUTE OF SCIENCE & TECHNOLOGY

[Deemed-to-be-University, under Section 3 of the UGC Act, 1956]

[Under the Ministry of Education, Govt. of India, New Delhi]

Nirjuli – 791 109

Arunachal Pradesh