



EC Call Letter List

PhD, 2024 - 25

The following applicants have been selected for written exam and/or interview for the department of Electronics & Communication Engineering for PhD Programme. The applicants are requested to go through additional information provided in their Call letters.

#	Name	Reference Number	Branch/Specialisation
1	Narendra Gali	PH2024EC0041	Electronics and Communication Engineering
2	Pravesh Kamlesh Upadhyay	PH2024EC0042	Electronics and Communication Engineering
3	Anoob B	PH2024EC0043	Electronics and Communication Engineering
4	Ashwini P	PH2024EC0044	Electronics and Communication Engineering
5	Bollapragada Venkata Durga	PH2024EC0046	Electronics and Communication Engineering
6	Sruthy Prakash	PH2024EC0047	Electronics and Communication Engineering
7	Rashmi S	PH2024EC0049	Electronics and Communication Engineering
8	Pooja A P	PH2024EC0050	Electronics and Communication Engineering
9	Archan Swetha Peddapalem	PH2024EC0051	Electronics and Communication Engineering
10	Hitesh Dagar	PH2024EC0052	Electronics and Communication Engineering
11	Purti Raghuveer Savardekar	PH2024EC0053	Electronics and Communication Engineering

Sd/-

Head Of Department

Electronics and Communication Engineering

**Dean
Academics**

No. PhD/2024-25/E6

Date: 08-11-2024

Admit CardTo the Shortlisted Candidates:**Sub: Ph.D. Programme – Written Aptitude Test / Interview for the year 2024-25 (Winter Session)**

With reference to your application for admission to the **Ph.D. Programme in the Department of Electronics and Communication Engineering**, you are requested to appear for the written test/interview at NITK Surathkal. You should produce all the original records such as Date of Birth Certificate, Degree Marks Cards, SC/ST/OBC/EWS certificate (if applicable as per proforma), Person with disability certificate (if applicable), Sponsorship letter (if applicable) and Conduct Certificate during the interview.

Department	: Department of <u>Electronics and Communication Engineering</u>
Place of Reporting	: Department of <u>Electronics and Communication Engineering</u>
Written Test Date and Time	: November 27, 2024, 9:00 AM at ECE Depart.
Announcement of shortlisted candidates for interview	: November 27, 2024, 12:00 PM at ECE Depart.
Interview Date and Time	: November 27, 2024, 2:00 PM at Meeting Room, ECE Depart. The interview may get extended to the next day. So, candidates are requested to make the necessary arrangements

NOTE:

1. Candidates should be prepared to appear for the written Aptitude Test before the interview. Fee Structure for PhD programme and Course syllabus for aptitude test are provided on Institute's website, i.e. www.nitk.ac.in. A copy of the syllabus for the aptitude test has been appended to this call letter.
2. Full-time/External Registrants - sponsored from Industry or other organizations including Educational Institutions, should have been serving in the sponsoring organisation for a period of at least 2 years after qualifying degree and have to produce a letter from their employer stating that the candidate is deputed for Research Programme (Full time /External Registrant) in the Institute on **full salary** during the study period. The employer should indicate that the candidate will not be withdrawn midway before the completion of the course. (Sponsorship letter should be in the format provided in the Application Form).
3. Your candidature for this test is provisional & is subject to your fulfilling the educational qualifications & other criteria prescribed for the programme as mentioned in Information Brochure, failing which your candidature can be summarily rejected after verification/scrutiny at a later stage.
4. Please keep the Admit Card ready during the test and interview. You are responsible for safe custody of the Admit Card and in the event of any other person using this Admit Card, the responsibility lies on you to prove that you have not used the service of an impersonator.
5. Please note that no expenses shall be payable for appearing in the written test/Interview.
6. The Selected candidates are required to pay fees and get admitted during the period from **9th to 13th Dec. 2024** by physically reporting at the Institute.
7. Candidates must give a 10-minute presentation of their research plans (not more than 6 slides). Email the presentation in PDF format to **ecnitk@gmail.com** on or before Nov 26, 2024.

Sd/ -

Head of the Department

Date: 08-11-2024

Syllabus for PhD Programme Aptitude Test

The test paper has two Parts: Part-1 is compulsory, and Part -2 is stream specific modules. The candidate is supposed to attempt Module A or Module B or Module C from Part-2 depending on the domain in which a candidate wishes to pursue PhD. Part-1 has 15 multiple choice type questions, whereas, each module of Part-2 has 15 multiple choice type questions. Each correct answer carries 1 mark and wrong answer carries -0.25 marks.

Note: Total duration of Exam is one hour. Calculator is permitted.

Part-1:

Linear Algebra, Calculus, Differential and Difference equations. Numerical methods, Transforms, Linear circuits and networks, Electronic components and Devices, Analog Electronics, Digital Electronics, Signals and Systems, Linear and Digital Control Theory

Part-2:

Module-A (CEN Stream)

Electromagnetic Waves, Probability and Random Processes, Communication Theory, Communication Circuits, Transmission Lines, Wave Guides, Antennas, Microwave devices and Circuits, Data Communications, Communication Networks, Satellite Communication, Optical Communication, Fundamentals of Signal Processing.

Module-B (SPML stream)

Time domain analysis of discrete-time systems - Basic discrete time signals, discrete-time Fourier Series, Z Transform – definition and properties, Discrete-time Fourier Series and its properties, Properties and applications of DTFT. Relationship between time, Z and frequency domains, DFT fundamentals and Properties of DFT. FIR and IIR filters analysis and design, Fundamentals of image processing. Data structures, Linked list, stacks and queues.

Module-C (VLSI Design)

Linear and Digital ICs, Digital System Design, VLSI Technology, CMOS VLSI, Mixed Signal Design, HDL, Data converters, Microprocessors, Computer Architecture and organization, Logic Synthesis, DSP Architectures, Embedded Systems.

Sd/-
Head of the Department