NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Admission to PhD Programme, 2022-23 (December Session)

List of Candidates Called for Written Test and Interview

Date of Written Test: 12-12-2022, 10.30 AM to 11.30 AM at Department of ECE

Date of Interview: 12-12-2022, 2.00 PM onwards at Meeting Hall, Department of ECE

Sl. No.	Name of the candidate	Reference No.
1.	RENUKA B	PH2022EC0047
2.	STHUTHI A	PH2022EC0048
3.	GOPALKRISHNA	PH2022EC0049
4.	ASHITHA V NAIK	PH2022EC0050
5.	NIDHI SAJWAN	PH2022EC0052
6.	SAIKAT DUTTA	PH2022EC0053
7.	KAMAL KANT	PH2022EC0054
8.	JASIL T K	PH2022EC0055
9.	RAJESH SUDI	PH2022EC0056

30/11/2022
(Dr. A. V. Narasimhadhan)
Co-ordinator

30.11.2022
(Dr. Raghavendra B. S.)
Co-ordinator

M. Ramesh
Nov. 30, 2022
(Dr. Ramesh Kini M.)
Secretary-DRPC

30.11.2022
(Dr. Ashvini Chaturvedi)
Chairman-DRPC

प्राध्यापक एवं विभागाध्यक्ष / PROF & HEAD
ई एंड सी विभाग / E & C Department
एन आई टी के, सुरतकल/N I T K, Surathkal
मंगलूर / MANGALORE - 575 025

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL
P.O. SRINIVASNAGAR, MANGALURU-575 025
Telephone: 0824-2473046, Website: www.ece.nitk.ac.in

Date: 30-11-2022

Shortlisted candidates for Ph.D. Programme–Written Aptitude Test / Interview for the year 2022-23

With reference to your application for admission to PhD 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 Certificate and Marks Cards of all semesters (UG and PG programmes), SC/ST/OBC/EWS certificate (if applicable as per proforma), Person with disability certificate (if applicable), Sponsorship letter (if applicable), Conduct Certificate and valid photo identity card. Please keep a self-attested photocopy of all these certificates readily available at the time of interview.

Department	: Department of Electronics and Communication Engineering
Place of Reporting	: Department of Electronics and Communication Engineering, NITK Surathkal
Written Test Date and Time	: December 12, 2022, 10.30 AM (Offline) at Department of ECE
Interview Date and Time	: December 12, 2022, 2.00 PM Onwards (Offline), Meeting Hall, Department of ECE

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 is given in a separate link.
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).
4. 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.
5. Please keep the Admit Card ready during the online 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.
6. Please note that no expenses shall be payable for appearing in the written test/Interview.
7. The Selected candidates are required to pay fees and physically report for admissions on any of the following dates: **22-12-2022, 23-12-2022 and 26-12-2022.**

30-11-2022

Head of the Department

प्राध्यापक एवं विभागाध्यक्ष / PROF & HEAD
ई एवं सी विभाग / E & C Department
एन आई टी के, सुरतकल/N I T K, Surathkal
मंगलूर / MANGALORE - 575 025

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL
P.O. SRINIVASNAGAR, MANGALURU-575 025
Telephone: 0824-2473046, Website: www.ece.nitk.ac.in

Date: 30-11-2022

Syllabus for PhD Programme Aptitude Test- December 2022-23

The Test paper has 2 Parts, Part-1 is compulsory, 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. Each part contains 15 multiple choice type questions. Each correct answer carries 1 mark and wrong answer carries – 0.25 marks.

Part-1: Time: 30 Minutes

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: Time: 30 Minutes

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.