

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

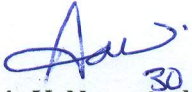
Admission to MTech Research Programme, 2022-23 (December Session)

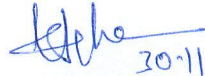
List of Candidates Called for Written Test and Interview


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

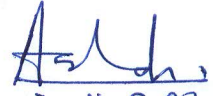
Date of Interview: 12-12-2022, 2.00 PM onwards at Meeting Hall, Department of ECE

Sl. No.	Name of the candidate	Reference No.
1.	SHUBHAM JAISWAL	MTR2022VL0092


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


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


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


30.11.2022
(Dr. Ashvini Chaturvedi)
Chairman-DRPC

प्राध्यापक एवं विभागाध्यक्ष / PROF & HEAD
ई. ए. सी. विभाग / E & C Department
एन. आई. टी. के., सुरथकल/NITK, 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

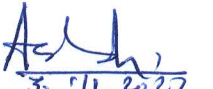
Shortlisted candidates for M Tech (R/S) Programme–Written Aptitude Test / Interview for the year 2022-23

With reference to your application for admission to M Tech (R/S) 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 programme), 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 a written Aptitude Test before the interview.
2. Candidates should be prepared to appear for the written Aptitude Test before the interview. Fee Structure for M Tech (S/R) 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.
3. Full-time/External Registrants - sponsored from Industry or other organizations, 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 M Tech / M Tech (Research) 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 the 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. ई. सी. विभाग / E & C Department
एन आई टी के, सुरथकल/NITK, Surathkal
मंगलूर / MANGALORE - 575 025

Date: 30-11-2022

Syllabus for M. Tech. (Research) 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 and/or Module B and/or Module C from Part-2 depending on the candidature for a particular M. Tech. Streams. Part-1 has 15 multiple choice type questions, whereas, each module of Part-2 has 10 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: Maximum marks for each module: 10 marks and time allocated for each module: 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)

SP Fundamentals: 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.

Data Structure Fundamentals: Algorithm analysis, Asymptotic notations. Divide and Conquer algorithms, Analysis of divide and conquer algorithms, master method, examples - merge sort, quick sort, binary search, 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.