## NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

राष्ट्रीय प्रौद्योगिकी संस्थान कर्नाटक, सुरत्कल P.O SRINIVASNAGAR, MANGALORE - 575025

**ME Call Letter List** 

PhD, 2023 - 24

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

| #  | Name                               | Reference Number | Branch/Specialisation  |
|----|------------------------------------|------------------|------------------------|
| 1  | Sharanabasava Mallikarjun Hangarge | PH2023ME0024     | Mechanical Engineering |
| 2  | AKSHAY S BHAT                      | PH2023ME0029     | Mechanical Engineering |
| 3  | RAMESH T R                         | PH2023ME0026     | Mechanical Engineering |
| 4  | SIVAKUMAR P                        | PH2023ME0025     | Mechanical Engineering |
| 5  | Sriharsha Kumar                    | PH2023ME0033     | Mechanical Engineering |
| 6  | MANIRAJ K                          | PH2023ME0030     | Mechanical Engineering |
| 7  | Rakesh Bharati                     | PH2023ME0028     | Mechanical Engineering |
| 8  | Vinaykumar Uppinal                 | PH2023ME0027     | Mechanical Engineering |
| 9  | Vishakha M                         | PH2023ME0032     | Mechanical Engineering |
| 10 | Puneeth H S                        | PH2023ME0031     | Mechanical Engineering |

Head Of Department Mechanical Engineering

**Dean Academics** 

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL P.O. SRINIVASNAGAR, MANGALURU-575 025

No. PhD/2023-24/E6

Date: 04-12-2023

#### Admit Card/Call Letter

Sub: Ph.D. Programme - Written Aptitude Test / Interview for the year 2023-24

Dear Applicants (as mentioned in ME Call Letter List)

With reference to your application for admission to PhD programme, you are requested to appear for the written test/interview at the Department of Mechanical Engineering, NITK Surathkal. You must 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 test. Please note that you have to report to the Department of Mechanical Engineering physically by 8.00 AM on December 14, 2023 for document verification before the written test.

Written Test Date and Time

: December 14, 2023 from 9.00 AM onwards

Interview Date and Time

: December 14, 2023 from 11.00 AM onwards

#### 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 below.
- 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).
- Candidates bearing Application Nos. PH2023ME0028 and PH2023ME0025 must produce signed application form along with Fee Receipt on the day of document verification (December 14, 2023 at 8.00 AM).
- 4. Candidates who have not submitted marks of final examination along with application form shall produce the same at the time of admission if available. However, candidates who have written final year examinations and yet to obtain final semester mark cards should submit the same on or before 31.01.2024.
- 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 sum narily rejected after verification/scrutiny at a later stage.
- Please keep the Call Letter ready during the test and interview. You are responsible for safe custody of the Call Letter and in the event of any other person using this Call Letter, the responsibility lies on you to prove that you have not used the service of an impersonator.
- Please note that no expenses shall be payable for appearing in the written test/Interview.
- The Selected candidates are required to pay fees and get admitted during the period 26.12.2023 to 27.12.2023 by physically reporting at the Institute.

DHe day the Department Professor & Head Dept. of Mechanical Engineering National Institute of Technology Karnataka, Surathkal

Srinivasnagar - 575 025, Mangalore (INDIA)

# DEPARTMENT OF MECHANICAL ENGINEERING NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL Ph.D Selections 2023-24

# Syllabus for the written test

Mathematics: Linear Algebra, Calculus, Differential equations, Complex variables, Probability and Statistics, Numerical Methods.

**Applied Mechanics and Design**: Engineering Mechanics, Mechanics of Materials. Theory of Machines, Vibrations, Concepts of Mechanical Design

Fluid Mechanics and Thermal Sciences: Basic Fluid Mechanics, Thermodynamic systems, and processes Heat Transfer Applications: Power Engineering: Air and gas compressors, I.C. Engines, Refrigeration and air-conditioning Turbo machinery, Renewable energy.

Materials and Manufacturing: Engineering Materials: Casting, Forming and Joining Processes: Machining and Machine Tool Operations: Metrology and Inspection: Computer Integrated Manufacturing:

Mechatronics and Industrial Automation: Mechatronics system, Instrumentation, Sensors and Actuators, Signal systems and control, Robotics, Modelling of systems.

### References:

- 1. J. Wickert, An introduction to Mechanical Engineering, Cengage Learning India Pvt. Ltd. 3rd edn. 2015
- 2. Gopa a Krishna K.R. Elements of Mechanical Engineering, Subhas Store, 2015.
- Gupta. P.N., and Poornima M.P., Elements of Mechanical Engineering, 4th Edition, Standard Publications Ltd., 2009.
- 4. Yunus Cengel & Robert Turner, Fundamentals of Thermal-Fluid Sciences. McGraw-Hill 4th Indian edn 2017
- 5. Rao P.N. Manufacturing Technology, Volume I and II, 5th Edn., McGraw-Hill 2018
- 6. Raje idra Karwa, A Textbook of Machine Design, Laxmi Publications, 3rd edn., 2018
- 7. Godfrey Onwubolu, Mechatronics: Principles and Applications, Elsevier India, 1st Edition.. 2006
- 8. Jiju Antony, Design of Experiments for Engineers and Scientists, Elsevier, 2nd Edn., 2018.
- 9. Kalpakjian S & Schmid S.R., Manufacturing Engineering and Technology, 7th edn., Pearson Education, 2018
- 10. Ervin Kreyszig, Advanced Engineering Mathematics, 10th edn., John Wiley and Sons, 2015.
- 11. Steven Chapra and R. Canale, Numerical Methods for Engineers, MCGraw-Hill 6th edn 2010

All candidates must undergo a written test conducted offline. Date and time of the test: 14-12-2023 at 9.00 AM.

Sd/ Hill

Head of the Department

Dr. Ravikiran Kadoli Professor & Head Dept. of Mechanical Engineering National Institute of Technology Karnataka, Surathkal Srinivasnagar - 575 025, Mangalore (INDIA)