NITK SURATHKAL

Since its inception in 1960, the National Institute of Technology Karnataka (NITK), Surathkal has established itself as a premier Institution engaged in imparting quality technological education and providing support to research and development activities. NITK has conferred the status of an Institution of National Importance vide NIT Act No.29 of 2007 by Govt. of India and is consistently ranked as one of the top ten technical institutions in India. Presently, NITK offers 9 Bachelors, 28 Masters and Doctoral Degree programs. The institute is located 22 kilometers north of Mangalore City along the Kanyakumari-Mumbai National Highway-66, amid 300 acres of sylvan surrounding with the picturesque Western Ghats on the east and sun-kissed sands of the Arabian Sea to the west.

NITK is committed to enhancing the capabilities and potential of our human resources with the objective of transforming them into leaders in their chosen areas of interest. Our vision is to strive for excellence, be globally competitive in technical education and focus on knowledge assimilation, generation, and dissemination. The year-long activities during the occasion showcased the glorious contributions of NITK in various fields of its activities and projected new initiatives for the coming years.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

The Department of Metallurgical and Materials Engineering (MME), one of the oldest Department at National Institute of Technology was established in the year 1965 with an objective to impart education and training in Metallurgical & Materials Engineering.

The Department offers one UG course and three PG level courses (Process Metallurgy, Materials Engineering, and Nano Technology). The Department has been active in carrying out funded R&D projects and many facilities for research are added in recent years. The Department has shown a strong presence in Physical metallurgy, Beneficiation processes. Some of the advanced facilities include TEM, SEM with EDS, FTIR, XRD, Optical Microscope with digital imaging, micro hardness, and impedance setup testing facilities are available for research and consultancy. 13 regular faculty members and 36 research scholars are dedicated for teaching and research works.

ABOUT THE WORKSHOP

Materials characterization is an integral part of understanding the structure-property relationships and suitable material applications. Biomaterial science is the broad interdisciplinary area where properties and processes at interfaces between synthetic materials and biological environments is studied. With the development in science and technology, characterization techniques have evolved and facilitated understanding of matter and advanced applications. Characterization tools and techniques are now available to assess structural as well as functional properties of a material. While the characterization is a major field for materials scientists, it remains an important aspect for all engineering areas and sciences. In-spite of being a multidisciplinary pursuit, understanding and interpreting data from characterization techniques can be difficult and misleading. Given this, it is important to know about the characterization techniques and their developments and at the same time use the obtained results carefully for right conclusions.

ATTENDING THE WORKSHOP WILL HELP THE PARTICIPANT TO:

- Learn basic and emerging trends in Advanced Materials
- To understand how medical biomaterials functioning to support the various body parts
- Learn important aspects of Materials Characterization tools

PROGRAMME CONTENTS

- **Talk on Advanced Materials and their Applications**
- **Talk on Biomaterials**
- **Talk on Synthesis of Nanomaterials**
- **Fundamentals of EBSD & Analysis of Minerals using EBSD**
- **Small Angle X-Ray Scattering**
- **Nanoindentation techniques**
- **X-Ray CT Scan**
- **Raman Spectroscopy**
- **XRD analysis**

Lectures will be delivered by Faculties & Scientists from IISc, IITs and NITK and Industry experts from Anton Paar, RDCIS- Ranchi, NAL, Oxford, INM Tech., Nanosurf.

ELIGIBILITY AND SELECTION CRITERIA

Programme is open to Faculties, Research Scholars and PG students of Engineering Colleges in the Department of Metallurgical & Materials Engineering and related Engineering and Science disciplines. Filled-in registration form in PDF should reach amtc2019@nitk.edu.in on or before 30th July, 2019. The selected participants will be informed of their selection by email by 2nd August, 2019. APPLICATION SHOULD BE SENT THROUGH E-MAIL ONLY.

REGISTRATION

There is no registration fee for NITK student but numbers of seats are limited up to 60. For Non-NITKian 1000/- INR will be charged for attending the workshop for 5 days. The course material and participation certificate will be provided free of cost (along with working lunch and tea). No TA/DA will be provided. All payment should be made by crossed demand draft in favor of "THE DIRECTOR NITK" payable at State Bank of India. NITK Campus, Surathkal Mangalore. (IFSC Code: SBIN0002273).

ACCOMMODATION

Limited accommodation may be provided to outstation participants on shared basis in the institute guest houses/ hostel on prior request. Participants have to bear the boarding and lodging expenses.

RESOURCE PERSONS

1. **Prof. Bikarmjit Basu**, IISc Bangalore
2. **Prof. Nithyanand Prabhu**, IIT Bombay
3. **Prof. Satyam Suwas**, IISc Bangalore
4. **Dr. Dipti Gupta**, IIT Bombay
5. **Dr. A.R. Phani,** INM Technologies, Bangalore
6. **Prof. Rekha P. D.,** Yenepoya Research Centre
7. **Prof. Vidya S.M.**, NITTE, Karkala
8. **Prof. P.U. Prakash Saxena,** MIT Manipal
9. **Dr. Sudarshan Kini**, NUCSER, NITTE, Mangaluru
10. **Mr. Hemant Gourkar,** Anton Paar, India
11. **Mr. Prasad Gosavi,** Anton Paar, India
12. **Dr. Renjith A. R.,** Oxford, India
13. **Dr. Sujit Kumar Dora,** Inkarp Instruments Pvt Ltd.
14. **Dr. Mangesh Mahajan,** Malvern Panalytical Pvt.

REGISTRATION FORM

(SUBMIT THIS FORM ELECTRONICALLY IN PDF - DO NOT POST -
Editable registration form is attached with the mail and is also available on NITK website)

National Institute of Technology Karnataka, Surathkal
Srinivasnagar, Mangalore 575025, India.

Five-day National Workshop on
Advanced Materials and Characterization Techniques
(AMCT 2019)
7th -11th August 2019

Name :.....

Designation: .....

Organisation: .....

Mailing Address: .....

PIN: ..... Telephone: .....

Mobile: ..... Email: .....

Registration details:

Amount: ..... DD No: .....

DD Date: ..... Bank name: .....

Accommodation required? YES / NO

DECLARATION BY THE PARTICIPANT

The information furnished above is true to the best of my knowledge. I agree to abide by the rules and regulations governing the programme. If selected, I shall attend the programme for the entire duration. I also undertake the responsibility to inform the Coordinator sufficiently in advance, in case I am unable to attend the programme.

Date: Signature of Applicant

SPONSORSHIP CERTIFICATE

Certified that Dr./Mr./Ms ..... is an employee of our institute and is hereby permitted to attend the Three-day National Workshop on "Advanced Materials and Manufacturing", if selected.

Signature of the Head of the Institution/Department
(with seal)

Place:
Date:

Five-day National Workshop on
Advanced Materials and Characterization Techniques (AMCT 2019)
7th - 11th August 2019

Sponsored by NITK Diamond Jubilee Committee, Ceramic and Glass Industry Foundation-American Ceramic Society, Anton Paar, India Pvt. Ltd., JEOL India Pvt. Ltd. Malvern Panalytical Pvt. Ltd., Inkarp Instruments Pvt Ltd.

Coordinators:
Dr. Mohammad Rizwanur Rahman
Dr. Saumen Mandal
Prof. Udaya Bhat K

Organized by

Department of Metallurgical and Materials Engineering
National Institute of Technology Karnataka
Surathkal, Srinivasnagar P.O., Mangalore-575 025
www: nitk.ac.in

HOW TO REACH NITK

Being situated right on the NH-66, the Institute is very well connected by bus routes to the North and South. Mangalore is also connected by NH-48 to Bangalore and there are a number of luxury buses plying daily between Mangalore and Bangalore all through the day. Surathkal, on the Konkan Railway line (linking Mumbai to Kanyakumari), is the nearest railway station and is a stopover for most trains passing through Konkan Railway. While Surathkal and Kankanady (Mangalore Jn.) are the closest alighting points for visitors coming by train from north: Mangalore Central is the terminus for many trains from South India. The Mangalore (Bajpe) airport is just 20 km from the campus.

IMPORTANT DATES

Last date for receipt of application: 30th July, 2019
Intimation of selection (via e-mail): 2nd August, 2019
Confirmation by participant: 5th August, 2019

WORKSHOP VENUE

MAIN SEMINAR HALL, ADMINISTRATIVE BUILDING

CONTACT INFORMATION:

Please address all communications to the Co-ordinators

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