

### One Week Online Short-Term Training Program on

## *“Modern Materials and Manufacturing”*

(October 12 -18, 2020)

Organized by

Department of Mechanical Engineering

Sardar Vallabhbhai National Institute of Technology, Surat, India -395007



### Organizing Committee

#### Patron

**Prof. S. R. Gandhi**  
Director, SVNIT Surat

#### Chairman

**Prof. Shailendra Kumar**  
Head, Mechanical Engineering  
Department, SVNIT Surat

#### Coordinators

**Dr. Pawan Sharma**  
(Assistant Professor, MED,  
SVNIT Surat)

**Dr. Biranchi N. Sahoo**  
(Assistant Professor, MED,  
SVNIT Surat)

**Dr. Amrut S. Mulay**  
(Assistant Professor, MED,  
SVNIT Surat)



### About the Institute

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961. It was later upgraded as a National Institute of Technology in 2002. It has been accorded the status of institute of national importance. SVNIT is one of the pioneering engineering institutions of the country which has nurtured many outstanding engineers in India & abroad. At present, the institute runs six UG programs, eighteen PG programs, three M.Sc. Five Years Integrated Programme and a Ph.D. program in all disciplines of engineering and applied sciences. The institute has an excellent placement record with several top-ranking companies visiting the campus every year.



### About the Department

The Department of Mechanical Engineering came into existence in the year 1961. The department has a team of 45 qualified and dedicated faculty members having specialization in various areas. At present, the department is offering a UG program (Mechanical Engineering), five PG programs (Mechanical Engineering, Turbo-machines, Manufacturing, CAD/CAM, and Thermal System Design) and a research program leading to M. Tech (Research) and Ph.D. degree.



### About the Programme

This programme will give an opportunity to understand the science of modern materials and modern manufacturing techniques. The focus will be on explaining the fundamental concepts of modern manufacturing technologies used for automobile, aerospace, electronics and biomedical engineering. Furthermore, the focus will be on explaining the behaviour of modern materials and the effect on their properties due to advance processing techniques. The key aspects related to properties, processing, process parameters, applications and economics will be discussed. To develop a better understanding of the technology, case studies, hands-on practice, and interaction with industry experts will be performed.

## Eligibility for participation

Faculty members/ research scholars/ PG scholars from academic institutes approved by the AICTE/ UGC/ MHRD working in Private/ Public/ Government organizations can attend the course

## Important Dates

Last date for registration 05-Oct-2020

Intimation to participants 07-Oct-2020

Course dates 12-18 Oct-2020

## Registration Fee

UG/PG students and

Ph.D. Research Scholars Rs. 200/-

Faculty Rs. 500/-

Industry Delegate Rs. 1000/-

## Contact Details

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## Major Course Content

The major topics to be covered in the short term course are:

- ❖ Introduction to modern materials
- ❖ Smart Materials and structures
- ❖ Nano and ultrafine grain materials
- ❖ Introduction to modern manufacturing technologies
- ❖ Additive Manufacturing
- ❖ Sustainable Manufacturing
- ❖ Advanced forming techniques
- ❖ Advanced material removal processes
- ❖ Modern welding techniques
- ❖ Reverse Engineering
- ❖ Virtual experience in modern manufacturing techniques such as 3D Printing, Cold Metal Transfer Welding.
- ❖ Future directions in modern materials and manufacturing.



## Tentative List of Speakers

- ❖ Prof. P. M. Pandey (IIT Delhi)
- ❖ Prof. A. K. Dubey (MNNIT Allahabad)
- ❖ Dr. Sushanta K. Panigrahi (IIT Madras)
- ❖ Dr. Prashant K. Jain (IIITDM Jabalpur)
- ❖ Dr. Jose Immanuel (IIT Bhilai)
- ❖ Dr. Girish C. Verma (IIT Indore)
- ❖ Dr. Varun Sharma (IIT Roorkee)
- ❖ Dr. Shiva S. (IIT Jammu)
- ❖ Dr. Dan Sathiaraj (IIT Indore)
- ❖ Dr. Vishal Gupta (Thapar University)
- ❖ Mr. Vinod Pandey (Adroitech Information Systems Pvt. Ltd.)
- ❖ Mr. Devendra Gope (Fronius India Pvt. Ltd.)



## Registration Details

Registration can be done using the following link or by scanning the given QR code:

<https://forms.gle/ycuzwq9dxcK9xvq77>



Time: 10:00 AM Onwards (Daily)

Selection will be as per the eligibility, and on First-Come-First-Served basis (Number of participants are limited to 50). Certificate will be awarded to the participants who attend all the sessions and clear MCQ test.

Details of account for program fee submission are:

Account Holder name	<b>Director SVNIT TEQIP IRG</b>
Account Number	<b>0277101028663</b>
Branch Name	<b>Canara Bank, Nanpura Branch Surat</b>
Bank IFSC	<b>CNRB0000277</b>