

**TEQIP-III SPONSORED  
SHORT TERM TRAINING PROGRAM**

on

**ADDITIVE MANUFACTURING -  
THEORY AND APPLICATIONS**

*10<sup>th</sup> to 14<sup>th</sup> June, 2019*

Coordinator

**Dr. Harshit K. Dave**

Organized by



**Department of Mechanical Engineering,  
Sardar Vallabhbhai National Institute of Technology,  
Ichchhanath, Surat - 395007, Gujarat, INDIA**

### **About Surat:**

Surat is a top ranking industrial city of the country with clean wide roads and over bridges. It is well known worldwide for textiles, zari, embroidery, and diamond industries. Several large scale industries are located in the city. Surat is situated on the main western railway route between Vadodara and Mumbai and connected to all part of the country through rail network. The institute is located at Ichchhanath on Surat-Dumas road at a distance of about 10 Km from Surat railway station and airport.

### **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 seven UG programs, eighteen PG programs and a Ph.D. program in all disciplines of engineering and applied sciences. The institute has an excellent placement record with a number of 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 37 qualified and dedicated faculty members having specialization in various areas. At present the department is conducting 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 Program:**

Additive Manufacturing (AM) refers to a group of methods and technologies that create arbitrarily complex three-dimensional structures through the sequential layer wise addition of materials in selected regions corresponding to digital slices of a computer-generated model. Commonly known as 3D Printing, this emerging technology is revolutionising the manufacturing industry with its ability to turn digital data into physical parts. In the last decade significant amount of research work has been carried out for commercialization and enhance the industrial use of AM technologies across the various sectors spanning aerospace, defence, automotive, biomedical, printing, electronics, industrial manufacturing, construction, education, jewellery, sculpture, and art, to name just a few.

The aim of this program is to provide a fundamental understanding on the state-of-the-art additive and digital manufacturing technologies to a broad spectrum of researchers, industry practitioners, executives, teachers and students. Focus will be on describing all the different

processes under the umbrella of 3D printing technologies, which covers both polymer and metal based systems. Industrial case studies will be used to demonstrate how the technology has been implemented at various application segments. Hands on practice and industrial visit will be included for better understanding of theory & applications.

**Major Course content:**

- Introduction to Additive Manufacturing
- 3D CAD modeling and STL file generation for Additive Manufacturing
- Different Additive manufacturing Technologies
- Different materials for Additive manufacturing
- Reverse Engineering for Additive manufacturing
- Hands on Experience for different processes
- Applications of Additive Manufacturing in Automobile, Aerospace, Casting, Art & Jewellery, Medical/Dental field, etc.
- Future direction in Additive manufacturing

**Program Faculty:**

The resource persons for the program shall include faculty from SVNIT, Surat and other IITs/NITs/Research Organizations/Industries.

**Eligibility for Participation:**

The programme is open to the teaching faculty members, Research Scholars, and Industry personnel.

**Registration Fee:**

The registration fees for the program is ₹ 1000/- for students (UG/PG students and Ph.D. research scholar), ₹ 1500/- for faculty members and ₹ 3000/- for industrial personnel.

Registration fee includes registration kit, course material and food. Limited accommodation can be made available in institute/hostel guest house on self payment basis. The non-refundable registration fees should be sent in the form of a Demand Draft in favour of **“Director SVNIT TEQIP - IRG”** payable at Surat.

The participants have to bear their own travelling expenses.

**Last Date of Registration:**

Hard copy of the duly filled and signed registration form along with registration fee should reach the coordinator on or before **May 31<sup>st</sup> 2019**. However, scanned advanced copy of registration form and demand draft must be sent through <https://forms.gle/EGXArB8iZQSNcJfF6> for early registration and confirmation.

