

ABOUT THE DEPARTMENT

The Department of Metallurgical and Materials Engineering (formerly Department of Metallurgical Engineering) admitted the first batch of B.E. students in 1967. Since its inception, this department has been one of the premier centers of excellence in the field of Metallurgical and Materials Engineering. It has expanded since then in many ways and now offers three post-graduate programmes with specialization in Welding Engineering, Materials Science & Engineering and Industrial Metallurgy. The post-graduate courses have been attracting candidates with varied engineering backgrounds and also sponsored candidates from engineering industries and academia. All programmes of the Department are accredited. The Department is recognized for excellence in teaching, research and services to industry. Faculty members of this department with rich experience in teaching and research have handled / are handling projects sponsored by agencies like MHRD, DRDO, AICTE, DST, NRB, DBT, MNRE, AR&DB, ISRO, Tata Steel, etc.. The Department is also a recognized center for QIP (Quality Improvement Programme) for both M.Tech. and Ph.D. programmes.

NTNU – NORWAY

The Norwegian University of Science and Technology (NTNU) is a public research university in Norway with the main campus in Trondheim and smaller campuses in Gjøvik and Ålesund. The largest university in Norway, NTNU has over 8,000 employees and over 40,000 students. NTNU is consistently ranked in the top one percentage among the world's universities, usually in the 101–500 range depending on ranking. NTNU does cutting edge research in the fields of energy, biology, manufacturing and IT.

TALTECH – ESTONIA

Established in 1918, Tallinn University of Technology - TalTech is the only technical university in Estonia, which specializes in engineering, business, public administration and maritime affairs. There are over 30 fully accredited international degree programmes (4 Bachelors, 18 Masters and 10 PhD programmes) that are available fully in English. TalTech is the third highest ranking university in the Baltic States. The additive manufacturing laboratory headed by Prof. Dr.-Ing. Prashanth Konda Gokuldoss is the only AM laboratory in the whole of Baltics (Latvia, Lithuania and Estonia) and does cutting edge research in AM.



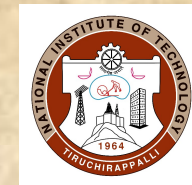
**One Week Workshop
on
ADDITIVE MANUFACTURING
(on-line mode only)
under SPARC programme
in association with
NTNU-Norway and Taltech-Estonia**

November 02-07, 2020

**for Faculty Members, Scholars and Students of
Engineering colleges & for Practicing
Engineers**

Principal Coordinators

**Dr. K. Siva Prasad
Dr. N. Ramesh Babu
Dr. V. Muthupandi**



**Organized at
Department of Metallurgical and Materials Engineering
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Tamil Nadu**

Introduction

Additive Manufacturing (AM) commonly known as 3D Printing is an emerging technology, which is revolutionizing the manufacturing industry with its ability to transform digital 3D CAD data into an industrially useful component. Its distinct ability to manufacture complex shapes and structures has already made it invaluable for the production of prototypes in the automotive, aerospace, jewelry, biomedical, and tooling industries. Every other day AM is seeing advances in all different aspects: process development, alloy development, design for additive manufacturing. Since the advancement is happening at a rather fast pace, it is requisite to have frequent workshops to disseminate the advances in the fields which connect a wide spectrum of science and technology.

The present workshop deals with all possible aspects connected with metal additive manufacturing including a brief introduction, different metal additive manufacturing processes, design and metallurgical aspects of metal additive manufacturing, microstructure-property correlations, process and property modeling, and simulations, standardization of the process, and structural integrity of materials.

Participants

This course is intended for the faculty and students of engineering colleges. However, interested practicing engineers and research scientists can also register for this course.

The topics covered in this course are very useful for the faculty and students of Metallurgy, Mechanical, Production, and Automobile Engineering as they study and teach these topics in courses namely, additive manufacturing and metallurgy of metal additive manufacturing.

Course Teachers:

SPARC foreign collaborators Prof. Filippo Berto, NTNU and Prof. Prashanth Konda Gokuldoss, NTNU, Norway and Tallinn University, Estonia; Dr. K. Sivaprasad, NITT, Prof. V Muthupandi NITT along with Faculty members from IISc, IITs and Additive Manufacturing Industry Experts

Course Content:

Additive Manufacturing – Basics, Additive Manufacturing Design, Metallurgy of additive manufacturing, Selective Laser Melting, Wire Arc Additive Manufacturing, Functionally Graded Materials, Additive Manufacturing Standards, Structural Integrity of Materials, Modeling aspects, etc.

Registration

Registration should be done using below link on or before **30th October, 2020** preferably in the attached format.

https://docs.google.com/forms/d/e/1FAIpQLSeGjwfkqABOriKV4Kw8y7Bf-p3xJv8xtOBGPco7Aa0mvtVvQ/viewform?usp=sf_link

There is NO REGISTRATION FEE for this course. All participants can get E-certificate of participation.

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