

Online Short Term Course on "Additive Manufacturing (3D printing): Principles and Practices"



21-25 September, 2020

Centre for Continuing Education (CCE)

Indian Institute of Science, Bangalore, India - 560012

Course Description:

Additive manufacturing is what used to be called rapid prototyping and is now popularly called 3D Printing. Today 3D printing is becoming an important section of manufacturing technology. This emerging method is projected to create a paradigm shift in the production of complex parts. In this course, basic principles and development of additive manufacturing, generalized process chain, Vat photopolymerization, powder bed fusion, extrusion-based processes, material jetting, sheet lamination and directed energy deposition processes, direct write technologies, low cost systems, process selection guidelines, post processing and software issues, direct digital manufacturing, design for additive manufacturing, rapid tooling, applications, business opportunities and future directions of the method will be covered.

Course Objectives:

Course will study methods used in additive manufacturing, theories governing the additive manufacturing, give information on materials, explain relations between materials to be processed and methods of additive manufacturing with introduction to common machines used for the technology and show applications and business opportunities with future directions.

Text Book:

Additive Manufacturing Technologies, Ian Gibson, David Rosen, Brent Stucker, Springer Publ. 2015.

Reference Books:

Laser Additive Manufacturing of High-Performance Materials, Dongdong Gu, Springer Publ. 2014

Understanding Additive Manufacturing, Andreas Gebhardt, Hanser Publishers, 2011

Minimum Qualification Required:

BE/BTech/MSc

Prerequisites:

No

Course Coordinator:

- Prof. Ashok M Raichur, Materials Engineering Dept., Indian Institute of Science, Bangalore – 560012
email- amr@iisc.ac.in

Registration: This course can be attended only by registration. The number of participants is limited to 50. The registration will be accepted on a first-come first-served basis.

Duration: 21 – 25 September, 2020 (5 Days)

Apply online at: <http://cce.iisc.ac.in/ssp-stc.html>

The registration fee is INR 20000 +18% GST

Last Date to Apply: 15 August 2020

Note: Classes will be conducted via Microsoft Teams/Google meet.