



Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)
An ISO 9008:2015 Certified, AICTE & CEA Recognized Institution
Old Bombay Road, Gachibowli, Hyderabad – 500 032.TS, India



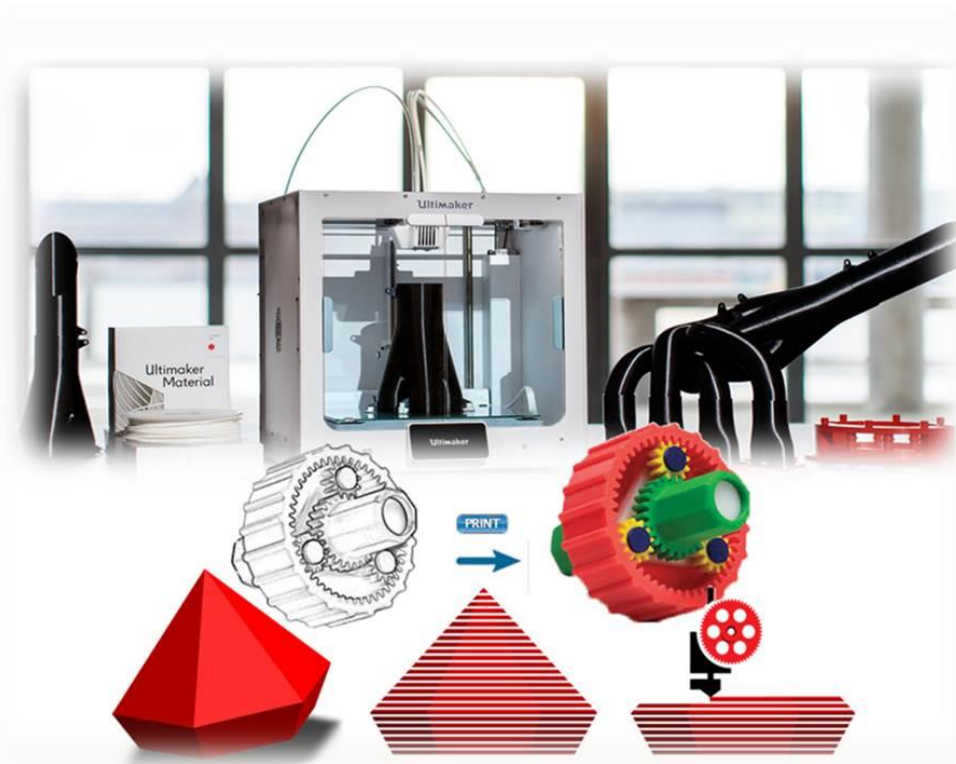
Management & Technology Division

Continuing Professional Development Programme on

Rapid Prototyping using 3D printing

(Inspiring Creativity, Innovation and Reverse Engineering)

22 - 26 July 2019



Centre for Promotion of Professional Excellence

INTRODUCTION:

3D Printing is a process of making a three-dimensional object of virtually any shape from a digital model. This is done using an additive process, where successive layers of material are laid down in different shapes. Additive manufacturing and 3D printing are the names synonymously used for this technology. However, there are subtle differences in all the three techniques.

In today's highly accelerated world of technology, rapid prototyping technology is ever evolving and extending to the new arenas every day.

In today's highly accelerated world of technology, rapid prototyping technology is ever evolving and extending to the new arenas including but not limited to:

- Aerospace
- Architecture
- Automotive production
- Education
- Healthcare devices manufacturing
- Jewellery
- Manufacturing
- Packaging
- Pre-surgery planning & Implants
- Product design validation
- Research and Development

Keeping in view the multifarious nature and result oriented ability of this technology, it is prudent that the staff and students from the Engineering colleges, professional across the industry are given exposure to futuristic technologies like 3D printing (3DP). In the coming decade, 3D printing will revolutionize design and manufacturing and there will be a whole host of new employment opportunities. It can be gainfully utilized in indigenization of manufacturing efforts by any organization. In addition to this, the technology has a huge potential to invoke creativity and innovation strokes in one's mind which is highly desirable in the current era.

This programme on "Rapid Prototyping using 3D Printing" is designed with an aim to bring out the awareness on 3D Printing and Associative technologies to the faculty, working professionals across the platform. 3D Printing is a flourishing advanced manufacturing technology which at its present state is being used for Rapid Prototyping and R&D projects. The scope is so exhaustive that it would not be an exaggeration if we say that this technology will make all other manufacturing methods obsolete in the years to come.

OBJECTIVES:

- To sensitize on the entire cycle of 3D printing process from design to prototyping.
- To enable participants explore the technology and evaluate the existing procedure in vogue for enhancing the prototyping facilities in the organization.
- To provide opportunity for the participants to deepen their knowledge and understanding of 3D printing & associative technologies which can be appropriately selected and gainfully exploited in their efforts towards Indigenization.

COURSE CONTENT:

- Over view of Additive Manufacturing & 3D printing
 - 3D Printing Technologies
 - 3D Printing Machines & Materials
 - Nature, Scope & Applications
 - Benefits & Limitations
- Overview of Computer Aided Designing and Drafting using AutoCAD / Fusion 360
- Printing demonstration on a 3D printer and hand-on Experience

METHODOLOGY:

Methodology of the programme includes class room Sessions with Lecture/discussion with audio visual aid, benched marked video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences, etc. All the sessions will be interactive demanding active participation from all the members. CMI will be the main method of instruction.

PROGRAMME RESOURCE PERSONS:



Mr. Surendra Kumar
Outstanding Scientist,
Former Director ARDE, Lab
(DRDO)
Former Director (I), Board of
Directors, HAL



Gp Capt (Retd) BS Phillora BE (ETC), AE (L), MMS (DS), MPhil, FIE,
Chartered Engineer (India), Certified Lead Auditor ISO 9001:2015
**Dean of Studies, Head Management & Technology
Division, Technical Advisor - Design & Prototyping Centre**

The other faculties consist of experts from industry, research establishments and academia besides that from ESCI.

TARGET PARTICIPANTS:

Professionals from Governments, Private sector and Public Sector Undertakings (from Design, Prototyping, Development, Service & Maintenance Divisions), Scientists working in Research Laboratories and Professors, Associated Professors, Assistant Professors, of various colleges & Universities, Startups into New product development, Dockyard personnel and repair shop personnel will find the programme useful.

BENEFIT TO THE PARTICIPANTS:

- Exposure on 3D printing from utility /indigenization point of view for the participants.
- Hands-on experience on desktop 3D printing machines.
- Interaction with Industrial and academic experts on the issues related to the process, procedure and application of the technology.
- Technical exposure through technical visits to the concerned research institutes and/or industry.

PROGRAMME VENUE, DATES & TIMINGS:

Venue: Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachibowli, Hyderabad. 500032. TS, India.

Dates: 22 - 26 July 2019

Timings: On the first day Registration will commence at 09.30 Hrs, on all other days the programme timings will be from 09.45-17.15 Hrs with breaks in between for tea and lunch.

COURSE DIRECTOR:



Mr. Jagdish Lolugu BE (Mech), M Tech (CAD/CAM), MA (PA)
Faculty I/c, Design & Prototyping Centre
(O): 040 6630 4183 / 84; (M): +91 998 550 6705
Email: dpc@escihyd.org | mt@escihyd.org

COURSE FEE:

₹ **25,500/- (Residential Fee)** per participant. Fee includes, course material, course kit, twin-sharing/single AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

DISCOUNTS:

- ❖ **Non-Residential Fee-** 10% discount on course fee is allowed for non-residential participants.
- ❖ **Group Discount:** Additional 10% discount for three or more participants, if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI before the commencement of the programme.)

Goods and Service Tax @ 18% is to be paid extra over and above the training fee. PAN Card No AAATT3439Q;

GST No. 36AAATT3439Q1ZV. (Under commercial training or coaching services).

Programme fee is to be paid in favour of "IE (I)-Engineering Staff College of India" in the form of demand draft payable at Hyderabad at par cheques payable at any Bank Branches.

Alternatively, the payment may be made by Electronic Fund Transfer (EFT) to ESCI - SB A/c No.0432104000039631 with The IDBI Bank Ltd., Gachibowli Branch, Plot No. 2-53/2, JNIBF, IIIT Junction, Gachibowli, Hyderabad-500032 by RTG's/ NIFT / IFSC Code No: IBKL0000432. ESCI PAN No. is AAATT3439Q. **While using EFT/ Draft method of payment, kindly forward a covering letter giving details on the names of the participants, Title and the programme schedule so that proper accounting can be done.**

REGISTRATION:

Online registration shall be available on ESCI website. **(Please visit our Web portal :www.escihyd.org).** To visit Management & Technology Division Webpage click <http://www.escihyd.org/index.php/mt-upcoming-trainings>

To register, manually please send your nominations giving details of name, designation, contact address, email address, mobiles no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

Head, Management & Technology Division

Engineering Staff College of India
Old Bombay Road, Gachi Bowli, Hyderabad 500 032, TS India
Phone: Direct 040 6630 4111, 6630 4112 & 6630 4105 & 4184
Fax: 040-66304103 & 9140-30995227
Email: mt@escihyd.org, dpc@escihyd.org

Contact for registration:

Mr. LV Rao
Programme Manager,
Land line: 040 66304105
Mob: 09949145865

CERTIFICATION:

A certificate of participation will be awarded to each participant on conclusion of the programme.

GENERAL INFORMATION:

- ESCI encourages participants to present case studies from their respective organizations.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation)
- Well-developed Information Centre and Internet facilities are available to the participants.
- **Nominating authorities are requested to kindly send the contact details of the participants while sending their nomination letter. This will help us in making necessary administrative arrangement for them.**