

Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India) (An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution) Old Bombay Road, Gachibowli, Hyderabad, Telangana – 500 032, India







ULTIMAKER 3 EXTENDED

FORM 2 SLA 3D PRINTER

Internship & Training on **3D PRINTING IN MANUFACTURING**



DESIGN & PROTOTYPING CENTRE

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Introduction:

The Design & Prototyping Cell, DPC at ESCI is a pioneering initiative which is set up to foster design and development skills among students, young engineers and technologists. The Centre aims to practice project based pedagogy and implement programs that emphasize experiential learning. The objective of the Centre is to emphasize on activities that are central to product design & development efforts of various industrial sectors and to encourage students, academicians, local entrepreneurs, communities and working professionals to take their own ideas from the drawing board to developing prototypes in view of starting a micro / small / medium business or inventing products or completing a project.

The Centre works for in the areas such as Digital Manufacturing - Additive, Reverse Engineering - 3D Scanning & 3D Printing, Industrial and Application, Drones, Mechatronics, Digital Electronics, Product Design & Development, Design Analysis & Optimization, Rapid Prototyping, Mechanization & Automation and other Emerging Technologies. The training programs are conducted for Academicians, Working Professionals, Research Scholars, Aspiring Entrepreneurs and Students. The programs include Workshops, Seminars, Guest Lectures, Interactive Sessions, Hands-on-skills Training, Projects and Internships. We also undertake R&D Consultancy projects, Reverse Engineering (Scanning) and 3D printing projects. The courses are so designed to enable the learners comprehend the basics, analyze the subtleties and to apply the knowledge in real life. The learning process in eternal and to learn something unlearning is equally important and hence every course starts with the basics so as to help the learner to begin afresh and get the complete benefit of the course.

Industrial Training content:

- Overview of Additive Manufacturing
- AM vs Traditional Manufacturing
- Benefits & Limitations of AM
- Different types of AM Techniques
- Selection of right technique for specific applications
- Applications of AM in Automotive, Aerospace and Medical domain
- Basics of Design for Additive Manufacturing
- Materials in AM
- Slicing software
- Post processing techniques
- Basics of Metal 3D printing

Course Outcomes:

- Understand the concept of Additive Manufacturing (3D printing) with its applications
- Understand the functioning, maintenance and troubleshooting of FDM and SLA printer.
- Capable of design, optimize and analyze the component.
- Conceptual clarity about Metal Printing.

Internship Details:

Duration	:	2 weeks training + 1 week hands on FDM and SLA + 1 week project
Venue	:	Engineering Staff College of India, ESCI
Fee	:	Rs. 6000/- (Inclusive of Tax)
Batch Size	:	4 – 5 (limited to 5 batches)

Assessment & Certificate: ESCI and Technology Partner

Internship Dates - 10th May – 06th June 2021

10th June – 08th July 2021

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