



# BOOTCAMP ON

# "DIGITAL MANUFACTURING"

**June 19<sup>th</sup> – June 24<sup>th</sup>, 2023**

**" 3D printing, CAD, CNC Machining, Laser Cutting, 3D Laser Scanning, Virtual Lab"**



**DAYALBAGH EDUCATIONAL INSTITUTE,  
DAYALBAGH, AGRA**

## **Bootcamp on Digital Manufacturing**

**(Unleashing Creativity with 3D Printing, CAD-CAM, CNC, Laser Cutting, Laser 3D Scanning, and Virtual Lab)**

The “Bootcamp on Digital Manufacturing” is a basic program designed to provide exposure to participants with the skills and knowledge required in rapid prototyping. This intensive six-day camp focuses on Six key prototyping technologies: 3D printing, CAD, CNC machining, and laser cutting, 3D Laser Scanning and Virtual Lab.

### **Overview**

Through a combination of theory, practical exercises, and interactive sessions, participants will gain a foundation in each digital manufacturing technique. The boot camp focuses on a balanced approach of theory and hands-on experience, allowing participants to put their newfound knowledge into practice immediately. They will have the opportunity to work on individual projects, experiment with different materials and receive guidance from experienced instructors.

### **Key Topics Covered**

1. Demystifying 3D Printing
2. CAD
3. CNC Router
4. Laser Cutting and Engraving
5. Tabletop CNC Milling
6. Tabletop CNC Lathe
7. Laser 3D Scanning
8. Virtual Lab

**Certificates are provided to all Participants**

## Registration

Register on:

<https://forms.gle/T2EkSGgxvFMc7q7R6>

or  
Scan



## Contact Details

7830558244

[abhishek151135@dei.ac.in](mailto:abhishek151135@dei.ac.in)

**Minimum  
Qualification to  
Register**

**10<sup>th</sup> Class Onwards**

**Last Date For Registration: 15-June-2023**

**Venue: FABLAB, School of Education,  
Dayalbagh Educational Institute,  
Dayalbagh, Agra-282005**

## Registration Charges

For DEI Students: Rs. 100/-

For Non-DEI Students: Rs. 500/-  
(inclusive GST)

ACCOUNT NAME	DEI CONFERENCE ACCOUNT
ACCOUNT NUMBER	305601010291491
IFSC CODE	UBIN0530565
BANK NAME	UNION BANK OF INDIA

**यूनियन बैंक ऑफ इंडिया**  **Union Bank of India**

भारत सरकार का उपक्रम A Government of India Undertaking



DEI CONFERENCE ACCOUNT

QR919997421555-1491@unionbankofindia



# BOOTCAMP on DIGITAL MANUFACTURING

## "Unleash Innovation with Rapid Prototyping Excellence"

Date: 19/06/2023 to 24/06/2023

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### DAY 1

- ✓ Introduction to Rapid Prototyping Techniques and their significance
- ✓ Overview of the boot camp schedule and objectives
- ✓ Understanding the Prototyping process and its key stages
- ✓ Session on Virtual Lab

### DAY 2

- ✓ 3D Printing Fundamentals and types of 3D printers and their capabilities
- ✓ Designing for 3D printing using CAD software
- ✓ Hands on Practice on FDM 3D Printer
- ✓ Session on Virtual Lab

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### DAY 3

- ✓ Introduction to CAD-CAM software and their features
- ✓ Creating 2D and 3D designs using CAD software
- ✓ Generating toolpaths and G-code using CAM software and Fabrication
- ✓ Session on Virtual Lab

### DAY 4

- ✓ Introduction to CNC routers and mills
- ✓ Setting up the CNC machine and workpiece
- ✓ Executing toolpaths and machining operations
- ✓ Session on Virtual Lab

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### DAY 5

- ✓ Understanding laser cutting and engraving technologies
- ✓ Designing for laser cutting and engraving using CAD software
- ✓ Material selection and settings for different applications
- ✓ Session on Virtual Lab

### DAY 6

- ✓ Combining multiple prototyping techniques into hybrid projects
- ✓ Iterative prototyping and rapid design iteration
- ✓ Finalizing prototypes and enhancing their aesthetics
- ✓ Session on Virtual Lab