

## About FDP

The five days Faculty Development Programme (FDP) is tailored to equip academic staff with the foundational knowledge and practical skills necessary to integrate 3D modelling and 3D printing technologies into their curriculum and research. Participants will move from theoretical concepts to hands-on application, enabling them to become campus catalysts for innovation in additive manufacturing.

## Programme Objectives

Upon completion of this FDP, participants will be able to:

- Understand the principles, processes, and applications of various additive manufacturing technologies.
- Fluently use industry-standard software for creating and modifying 3D models.
- Prepare models for printing using slicing software and operate FDM 3D printers safely and effectively.
- Design innovative projects and laboratory exercises that leverage 3D technologies for enhanced student learning outcomes.
- Identify opportunities for integrating 3D printing into research and departmental initiatives.

## Learning Outcomes

The programme is structured into four key modules:  
Module

I: Fundamentals Additive Manufacturing processes (FDM, SLA, SLS), materials science, and design thinking in the context of 3D printing.

II: 3D Modelling Introduction to CAD software (e.g., Fusion 360, SolidWorks), creating complex geometries, and file formats (STL, OBJ).

III: 3D Printing Slicing software essentials (Cura), printer operation, troubleshooting common issues, post-processing techniques.

IV: Integration Curriculum integration strategies, assessment methods, safety protocols, and future trends (4D printing, bio printing).

## Target Audience

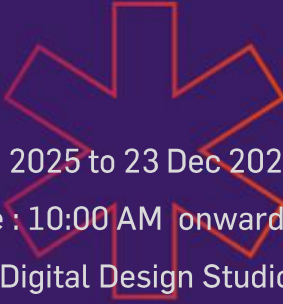
- Faculty members from Engineering, Design, Architecture, Arts, and Sciences departments.
- Lab technicians and workshop instructors.
- Researchers interested in digital modelling and prototyping.



# Faculty Development Programme

On

# “The 3D Printing Workflow”



Date : 16 Dec 2025 to 23 Dec 2025

Time : 10:00 AM onwards

Venue : Digital Design Studio,

Faculty of Art and Design

Ramaiah Technology Campus,

Peenya,

Bangalore – 560058