

Vasavi College of Engineering (Autonomous), Hyderabad - 500031

Department of Mechanical Engineering

OUTREACH PROGRAM

The department of Mechanical Engineering conducted a two-week Outreach Training Programme on **3D Printing and Reverse Engineering** for 15 cadets of Bison Division, Indian Army, Hyderabad from 24th March to 7th April, 2026. The students were trained on 3D Printing, CAD Modeling, Slicing Software, 3D Scanning, Hands-on Printing, Post-Processing Techniques. The students also undertook a mini project (Design to Final Print). The students went back with a rich experience in the above specified areas.

Vasavi College of Engineering (A) & Indian Army

Outreach programme
#MissionAdditiveManufacturing

BISON DIV
3D PRINTING CAPSULE

DESIGN:
CAD & 2D/3D Modeling
Creating digital assets for rapid prototyping

ACQUISITION:
3D Scanning & Prep
Data capture, STL/OBJ processing

MANUFACTURING:
Build & Calibration
FDM Machine setup, Advanced modeling

TACTICAL APPLICATION:
Mini-Project & Evaluation
Design to Final Print deployment

OPERATIONAL READY:
Troubleshooting & Finishing
Multi-materials (ABS, PLA), Warping fixes, Support removal

DATES: 24 Mar – 07 Apr 2026
LOCATION: Department of Mechanical Engineering,
Vasavi College of Engineering (Autonomous),
Ibrahimbagh, Hyderabad

"PRECISION IN EVERY LAYER. STRENGTH FOR EVERY MISSION."

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS)
DEPARTMENT OF MECHANICAL ENGINEERING
Outreach Programme for Bison Division, Indian Army
 (24 March 2026 to 7 April 2026)

Two Week Training on 3D Printing and Reverse Engineering

DATE	10.00 AM TO 1.20 PM	1.20 PM TO 2.00 PM	2.00 PM TO 4.15 PM
Day-1 24-03-2026	Introduction to 3D Printing, Types of Technologies, Overview of FDM (Dr. T. Ramamohan Rao)	LUNCH	Basics of CAD Modeling (Creating simple solid models) (Dr. J. Anjaneyulu)
Day-2 25-03-2026	Basics of CAD Modeling (Creating simple solid models) (Dr. T. Ramamohan Rao) 2D Sketching (Dr. T. Ramamohan Rao)		2D Sketching (Dr. J. Anjaneyulu)
Day-3 26-03-2026	File Formats (STL, OBJ), Model Exporting and Preparation (Dr. V.B.S. Rajendra Prasad)		Basics of CAD Modeling (Creating simple solid models) (Dr. V.B.S. Rajendra Prasad)
Day-4 28-03-2026	Introduction to Slicing Software (Cura/Repetier), Settings Overview (Mr. K. Veladri)		Solid Models (Dr. V.B.S. Rajendra Prasad)
Day-5 30-03-2026	FDM Printer Components, Machine Setup, and Calibration (Dr. V.B.S. Rajendra Prasad)		File Formats (STL, OBJ), Model Exporting and Preparation (Dr. K. Kishore)
Day-6 31-03-2026	Material Study (PLA, ABS, PETG) and Printing Parameters (Dr. T. Ramamohan Rao)		Demonstration on 3D Scanner to export the .STL file format (Dr. J. Anjaneyulu)
Day-7 01-04-2026	Hands-on Printing (Advanced Models) (Dr. T. Ramamohan Rao)		Hands-on Printing (Basic Models) (Mr. M. Venugopal Reddy)
Day-8 02-04-2026	Troubleshooting Common Issues (Warping, Stringing, Layer Shifting) (Mr. S. Sreekrishna)		Material Study (PLA, ABS, PETG) and Printing Parameters (Mr. M. Venugopal Reddy)
Day-9 04-04-2026	Post-Processing Techniques (Support Removal, Finishing) (Mr. S. Sreekrishna)		Hands-on Printing (Advanced Models) (Dr. J. Anjaneyulu)
Day-10 06-04-2026	Mini Project & Evaluation (Design to Final Print) (Dr. T. Ramamohan Rao)		Troubleshooting Common Issues (Warping, Stringing, Layer Shifting) (Dr. J. Anjaneyulu)
			Post-Processing Techniques (Support Removal, Finishing) (Dr. P.V.S. Subhashini)
			Mini Project & Evaluation (Design to Final Print) (Dr. J. Anjaneyulu)

Dr. T. Ramamohan Rao
Professor & HOD



24 March 2026 at 10:11 Hyderabad
Hyderabad



24 March 2026 at 15:01



24 March 2026 at 10:11 Hyderabad
Hyderabad



26 March 2026 at 10:49



31 March 2026 at 14:07



4 April 2026 at 10:04



9 April 2026 at 11:01

