



Event Circular

09/02/2026

We are pleased to announce that the Department of Mechanical Engineering, JB Institute of Engineering and Technology is organizing a **5-Day Workshop on “Mechanical Assembly and Disassembly of an FDM 3D Printer”** in association with Maker Global, Hyderabad.

The objective of this workshop is to introduce students to the rapidly evolving field of additive manufacturing and provide hands-on training in the assembly, disassembly, calibration, and maintenance of FDM-based 3D printers. The sessions will focus on understanding the working principles, mechanical components, and real-time industrial applications of 3D printing technology.

The workshop is designed to benefit students from all engineering branches and academic years, irrespective of their prior knowledge in the domain.

Event Details:

- **Dates:** 10th February 2026 to 14th February 2026
- **Time:** 10:00 AM to 4:00 PM
- **Venue:** 3D Printing Lab, Department of Mechanical Engineering, JBIET

Resource Persons:

- **Mr. Jay Patel**, Technical Intern, Maker Global, Hyderabad
- **Mr. Sai Srinath Reddy**, Technical Intern, Maker Global, Hyderabad

HOD-ME



Event Schedule

Workshop Title: "Workshop on Mechanical Assembly and Disassembly of an FDM 3D Printer"

Date: 10th February 2026 to 14th February 2026

Venue: Department of Mechanical Engineering, JBIET

Time: 10:00 AM – 4:00 PM

Day 1 – 10/02/2026 (Tuesday)

Time	Activity
10:00 AM – 11:00 AM	Inauguration Ceremony and Introduction to Additive Manufacturing
11:00 AM – 12:30 PM	Introduction to FDM 3D Printing Technology
12:30 PM – 01:30 PM	Lunch Break
01:30 PM – 03:00 PM	Overview of 3D Printer Components
03:00 PM – 04:00 PM	Discussion on Working Principles and Applications

Day 2 – 11/02/2026 (Wednesday)

Time	Activity
10:00 AM – 11:30 AM	Identification of Mechanical Components
11:30 AM – 12:30 PM	Assembly of Printer Frame
12:30 PM – 01:30 PM	Lunch Break
01:30 PM – 03:00 PM	Installation of Motion System
03:00 PM – 04:00 PM	Mounting of Extruder and Structural Alignment

Day 3 – 12/02/2026 (Thursday)

Time	Activity
10:00 AM – 11:30 AM	Electrical Connections of Printer
11:30 AM – 12:30 PM	Installation of Control Board
12:30 PM – 01:30 PM	Lunch Break
01:30 PM – 03:00 PM	Bed Leveling and Axis Calibration
03:00 PM – 04:00 PM	Nozzle Positioning and Testing

Day 4 – 13/02/2026 (Friday)

Time	Activity
10:00 AM – 11:30 AM	Safe Disassembly of Printer Parts
11:30 AM – 12:30 PM	Maintenance Procedures
12:30 PM – 01:30 PM	Lunch Break
01:30 PM – 03:00 PM	Troubleshooting Mechanical Issues
03:00 PM – 04:00 PM	Preventive Maintenance Practices

Day 5 – 14/02/2026 (Saturday)

Time	Activity
10:00 AM – 11:30 AM	Re-Assembly Demonstration
11:30 AM – 12:30 PM	Live Printer Operation
12:30 PM – 01:30 PM	Lunch Break
01:30 PM – 03:00 PM	Interaction Session
03:00 PM – 04:00 PM	Feedback and Certificate Distribution

Event Banner



JB INSTITUTE OF ENGINEERING AND TECHNOLOGY

Bhaskar Nagar, Moinabad Mandal ,Hyderabad, Telangana - 500075



Department of Mechanical Engineering



Resource Person

Mr. Jay Patel

Technical Engineer,

Maker Global,Hyderabad

**WORKSHOP
ON**

**MECHANICAL ASSEMBLY AND DISASSEMBLY
OF AN FDM 3D PRINTER**



Resource Person

Mr. Sai Srinath Reddy

Technical Engineer

Maker Global,Hyderabad

In Association with

Maker Global,Hyderabad -India

Date : 10th to 14th Feb 2026

Time : 2 PM to 4 PM

Venue: 3D Printing Lab,Department of ME, JBIET

Chief Patron

Shri. J.V. Krishna Rao
Secretary, JBES

Patron

Prof. Sanjay Chintakindi
Director, JBES

Patron

Dr. P. C. Krishnamachary
Principal, JBIET

Convener

Dr. Anoop Kumar
HOD-ME, JBIET

Coordinators

Mr.G.Gopinath . Asst. Professor
Mr.J.Nagaraju . Asst. Professor
Mr.A.Sai Kumar . Asst. Professor
Mr.V.Srinivsarao . Asst. Professor

Resource Persons Profile

Mr. JAY PATEL

Mr. Jay Patel is currently working as a Technical Intern at Maker Global, Hyderabad, where he has been contributing for the past one year in the domain of additive manufacturing and rapid prototyping technologies. He is a graduate from the Department of Mechatronics Engineering at ICFAI Hyderabad.

During his internship tenure, he has gained practical exposure in the assembly, operation, and maintenance of FDM-based 3D printers. His technical expertise includes mechanical assembly, printer calibration, troubleshooting of 3D printing systems, and understanding real-time industrial applications of additive manufacturing. He has been actively involved in conducting technical workshops and training sessions for students in the field of 3D printing technology.

Mr. SAI SRINATH REDDY

Mr. Sai Srinath Reddy is serving as a Technical Intern at Maker Global, Hyderabad, with one year of experience in handling additive manufacturing systems and 3D printing technologies. He completed his graduation in Mechatronics Engineering from ICFAI Hyderabad.

He possesses hands-on experience in mechanical assembly and disassembly of FDM 3D printers, electrical interfacing, printer calibration, and maintenance practices. His involvement in technical training programs and workshops has helped bridge the gap between academic learning and industrial practices in additive manufacturing. His areas of interest include rapid prototyping, automation systems, and advanced manufacturing technologies.

Event Report: “5-Days Bootcamp on Additive Manufacturing / 3D Printing”

Event Title: 5-Day Workshop Mechanical Assembly and Disassembly of an FDM 3D Printer

Dates: 10th February to 14th February 2026

Venue: 3D Printing Lab, Department of Mechanical Engineering, JBIET

Organized by: Department of Mechanical Engineering

In Association with: Maker Global – Hyderabad

Resource Persons:

- Mr. Jay Patel, Technical Engineer, Maker Global, Hyderabad
- Mr. Sai Srinath Reddy, Technical Engineer, Maker Global, Hyderabad

Introduction

The Department of Mechanical Engineering at JB Institute of Engineering and Technology organized a five-day workshop on *Mechanical Assembly and Disassembly of an FDM 3D Printer* from 10th to 14th February 2026 in association with Maker Global, Hyderabad.

The workshop aimed to provide students with hands-on experience in assembling, disassembling, calibrating, and maintaining Fused Deposition Modelling (FDM) based 3D printers. The sessions focused on understanding the mechanical structure, working principles, and real-time industrial applications of additive manufacturing systems.

Objectives

- To introduce students to FDM 3D printing technology
- To provide hands-on training on assembly and disassembly
- To understand mechanical components of 3D printers
- To train students in calibration and troubleshooting
- To create awareness about rapid prototyping technology

Schedule Overview

Day 1 : Introduction to 3D Printing and FDM Technology

The workshop commenced with an introductory session on additive manufacturing and the fundamentals of FDM 3D printing technology. Participants were introduced to various components of an FDM 3D printer such as the frame, extruder, stepper motors, build plate, guide rails, and control systems. The resource persons explained the working principle and applications of 3D printing in various industries.

Day 2 : Mechanical Components and Assembly Process

On the second day, participants were trained in identifying the mechanical parts of the 3D printer and understanding their functions. The session included step-by-step guidance on assembling the printer frame, installing motion systems, mounting extruder assemblies, and aligning structural elements for optimal performance.

Day 3 : Electrical Connections and Calibration

The third day focused on electrical interfacing and printer calibration. Students learned about wiring connections, installation of control boards, limit switches, and power supply units. The resource persons demonstrated calibration techniques including bed leveling, axis alignment, and nozzle positioning.

Day 4 : Disassembly and Maintenance

Participants were trained on safe disassembly procedures of the 3D printer components. The importance of regular maintenance, troubleshooting common mechanical issues, and replacing damaged parts was discussed. Preventive maintenance practices for enhancing printer life and performance were also covered.

Day 5 : Demonstration and Interaction Session

The final day included a live demonstration of the fully assembled 3D printer followed by interaction with the resource persons. Participants clarified their doubts regarding assembly techniques and printer operation. The workshop concluded with feedback collection and certificate distribution.

Outcomes

- Participants gained practical knowledge of FDM 3D printer assembly and disassembly
- Improved understanding of mechanical and structural components
- Developed troubleshooting and maintenance skills
- Enhanced awareness of additive manufacturing technologies

Feedback

Feedback collected from students highlighted:

- Feedback collected from the participants highlighted:
- Appreciation for the hands-on training and live demonstrations.
- Better understanding of mechanical assembly and disassembly of FDM 3D printers.
- Gained knowledge on printer calibration and maintenance techniques.
- Improved awareness of real-time applications of 3D printing technology.
- Interactive sessions helped in enhancing practical skills.

Vote of Thanks

Dr. Anoop Kumar, Head of the Department of Mechanical Engineering, JB Institute of Engineering and Technology, extended his heartfelt gratitude to the resource persons, Mr. Jay Patel and Mr. Sai Srinath Reddy, Technical Interns from Maker Global, Hyderabad, for delivering an informative and engaging five-day workshop on Mechanical Assembly and Disassembly of an FDM 3D Printer. He appreciated their efforts in sharing valuable technical knowledge and providing hands-on training to all the participants.

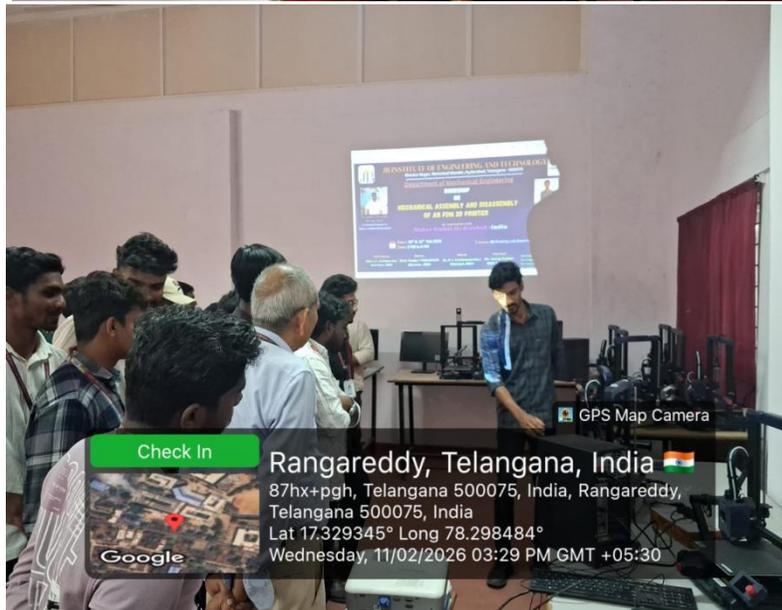
He expressed his sincere thanks to the Chief Patron, Shri. J. V. Krishna Rao, Secretary, JBES, for his constant encouragement and support in organizing such academic and skill-oriented programs.

Dr. Anoop Kumar also conveyed his deep gratitude to the Patrons, Prof. Sanjay Chintakindi, Director, JBES, and Dr. P. C. Krishnamachary, Principal, JBIET, for their visionary leadership, guidance, and continuous support which played a significant role in the successful conduct of the workshop.

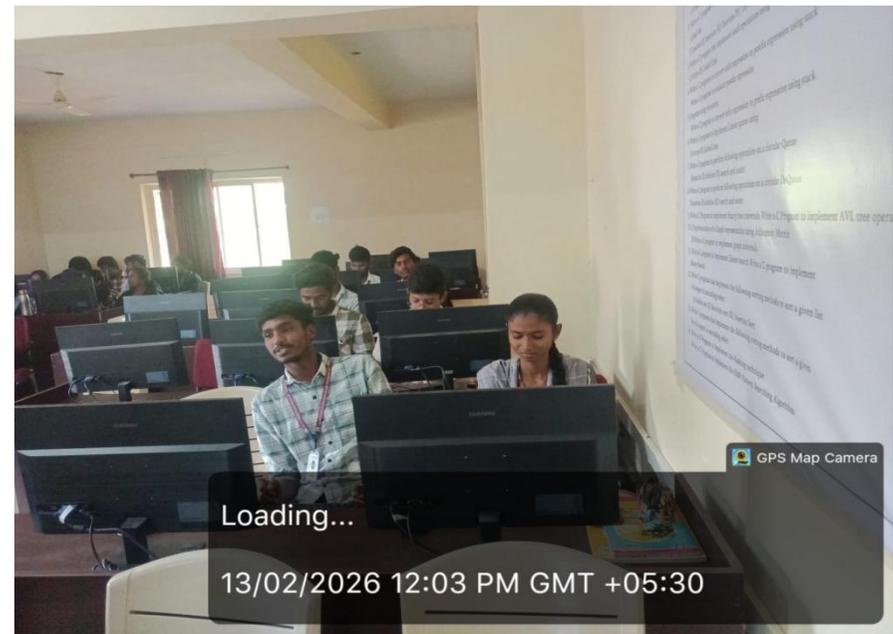
Furthermore, he acknowledged the dedicated efforts of the Coordinators — Mr. J. Nagaraju, Mr. Shaik Ashraf, Mr. A. Sai Kumar, and Mr. V. Srinivas Rao, Assistant Professors of the Department of Mechanical Engineering — for their meticulous planning and coordination throughout the program.

He also extended his appreciation to all the faculty members and participants for their enthusiastic involvement and active participation, which contributed immensely to the overall success of the workshop.

Event Photos









J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

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Bhaskar Nagar, Moinabad Mandal, Hyderabad, Telangana – 500075



DEPARTMENT OF MECHANICAL ENGINEERING

5-DAY Workshop on Mechanical Assembly and Disassembly of an FDM 3D Printer

Attendance Sheet

S.No.	Roll No.	Name of the Student	Year	Branch	10-02-26	11-02-26	12-02-26	13-02-26	14-02-26
1	23671A0301	G. Chandrashekar	III/II	Mech	Chandu	Chandu	Chandu	Chandu	Chandu
2	23671A0302	K. Chandrashekar	III/II	Mech	Chandu	Chandu	Chandu	Chandu	Chandu
3	24675A0301	A. Mahesh	III/II	Mech	A. Mahesh				
4	24675A0302	K. Rakesh	III/II	Mech	Roy	Roy	Roy	Roy	Roy
5	24675A0303	B. Pushpalatha	III/II	Mech	Pu	Pu	Pu	Pu	Pu
6	24675A0304	T. Jhony	III/II	Mech	T. Jhony				
7	24675A0305	G. Abhilosh	III/II	Mech	Abhy	Abhy	Abhy	Abhy	Abhy
8	24675A0306	N. Anvesh	III/II	Mech	Anvesh	Anvesh	Anvesh	Anvesh	Anvesh
9	24675A0307	V. Vishal	III/II	Mech	V. Vishal				



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S.No.	Roll No.	Name of the Student	Year	Branch	10-02-26	11-02-26	12-02-26	13-02-26	14-02-26
01	25675A0309	B. Mahesh	2 nd	MECH	B. Mah				
02	25675A0303	S. Sai Pavan	2 nd	MECH	Sai	Sai	Sai	Sai	Sai
03	25675A0308	P. Rajashekhar	2 nd	MECH	Rajashekhar	Rajashekhar	Rajashekhar	Rajashekhar	Rajashekhar
04	25675A0302	P. Ranjith	2 nd	MECH	P. Ranjith				
05	25675A0306	K. Sri Harsh	2 nd	MECH.	K-SRI HARSH				
06	24671A0308	M. Manikanta	2 nd	mech	M. Manikanta				
07	24671A0303	B. Nihal	2 nd	Mech	Nihal	Nihal	Nihal	Nihal	Nihal
08	24671A0305	G. Chandu	2 nd	Mech	G. Chandu				
09	24671A0301	A. Ganesh	2 nd	MECH	A. Ganesh				
10	24671A0300	S. Vinay	2 nd	MECH	S. Vinay				
11	24671A0311	S. Bhargava	2 nd	MECH	S. Bhargava				
12	24671A0304	M. Venkatesh	2 nd	MECH	M. Venkatesh				

Total Number of Participants: 30 Students.