



Event Circular

22/06/2026

We are pleased to announce that the Department of Mechanical Engineering, JB Institute of Engineering and Technology is organizing a 5-Day Faculty Development Program (FDP) on “Digital Design to Smart Manufacturing”.

The objective of this FDP is to introduce faculty members, researchers, and participants to the rapidly evolving fields of advanced CAD tools, additive manufacturing, reverse engineering, automation, and simulation methodologies, aligning engineering education with smart manufacturing standards.

The sessions will focus on understanding the modern product lifecycle, mechanical design optimization, hands-on tool applications, and real-time industrial case studies.

Event Details:

- **Dates:** 23rd June 2026 to 27th June 2026
- **Time:** 10:00 AM to 4:00 PM
- **Venue:** CAD Lab, Department of Mechanical Engineering, JBIET

Resource Persons:

- Mr. P P C Prasad, Deputy Chief Engineer, SPM Design, M/s HMT Ltd., Hyderabad

HOD-ME



Event Schedule

Workshop Title: "Faculty Development Program on Digital Design to Smart Manufacturing"

Date: 23rd June 2026 to 27th June 2026

Venue: CAD Lab, Department of Mechanical Engineering, JBIET

Time: 10:00 AM – 4:00 PM

Day 1 – 10/02/2026 (Tuesday)

Time	Activity
09:30 AM – 10:00 AM	Inauguration. Address by: HOD
10:00 AM – 11:30 AM	Evolution of Manufacturing Systems: Conventional to Smart Manufacturing
11:30 AM – 11:45 AM	Tea Break
11:45 AM – 01:00 PM	Special Purpose Machines (SPMs): Design Methodology
01:00 PM – 02:00 PM	Lunch Break
02:00 PM – 03:00 PM	Case Studies from HMT: Automation Equipment, Rotary Transfer Lines
03:00 PM – 04:00 PM	Product Development: From Concept to Commercialization

Day 2 – 11/02/2026 (Wednesday)

Time	Activity
09:30 AM – 11:00 AM	Product Design and Prototyping using Advanced CAD Tools (Dr. Anoop Kumar)
11:00 AM – 11:15 AM	Tea Break
11:15 AM – 01:00 PM	Hands-on: Assembly Modeling and Design Optimization (Dr. Anoop Kumar)
01:00 PM – 02:00 PM	Lunch Break
02:00 PM – 03:00 PM	Introduction to 3D Printing and Additive Manufacturing (Mrs. Seema Rani)
03:00 PM – 04:00 PM	Hands-on: Slicing, Printer Setup and Prototype Fabrication (Mrs. Seema Rani)

Day 3 – 12/02/2026 (Thursday)

Time	Activity
09:30 AM – 11:00 AM	Reverse Engineering: Concepts and Workflow (Mr. A. Sai Kumar)
11:00 AM – 11:15 AM	Tea Break
11:15 AM – 01:00 PM	Hands-on: Reverse Engineering using CAD Tools (Mr. A. Sai Kumar)
01:00 PM – 02:00 PM	Lunch Break
02:00 PM – 03:00 PM	Laser Cutting Technology and Applications (Mr. Shaik Ashraf)
03:00 PM – 04:00 PM	Demonstration and Practice: Laser Cutting (Mr. Shaik Ashraf)

Day 4 – 13/02/2026 (Friday)

Time	Activity
09:30 AM – 11:00 AM	Simulation and Analysis of Mechanical Components (CAE/FEA) (Mr. Mahesh)
11:00 AM – 11:15 AM	Tea Break
11:15 AM – 01:00 PM	Hands-on: Structural and Thermal Analysis (Mr. Mahesh)
01:00 PM – 02:00 PM	Lunch Break
02:00 PM – 03:00 PM	Robotics and Automation in Smart Manufacturing (Mr. J. Nagaraju)
03:00 PM – 04:00 PM	Robot Programming and Automation Demonstration (Mr. J. Nagaraju)

Day 5 – 14/02/2026 (Saturday)

Time	Activity
09:30 AM – 11:00 AM	Product Design using CAD Tools (Mr. V. Srinivas Rao)
11:00 AM – 11:15 AM	Tea Break
11:15 AM – 01:00 PM	Prototype Development using 3D Printing / Laser Cutting (Mr. V. Srinivas Rao)
01:00 PM – 02:00 PM	Lunch Break
02:00 PM – 03:00 PM	Design Validation using CAE/FEA and Automation Integration (Mr. G. Gopinath)
03:00 PM – 03:45 PM	Project Presentation and Discussion (Mr. G. Gopinath)
03:45 PM – 04:00 PM	Valedictory Session & Vote of Thanks (Dr. Anoop Kumar)

Event Banner:

About JBIET

JB Institute of Engineering and Technology is one of the leading Engineering institutions in Telangana, known for quality technical education. The institute aims to develop globally competent and socially responsible professionals. With expert faculty, a modern curriculum, and industry-focused learning, JBIET promotes innovation and practical knowledge. The institution encourages research, critical thinking, and skill development. Its strong placement record reflects its commitment to academic excellence and student success.

About the Department:

The Department of Mechanical Engineering Established in 1998, it offers B.Tech and M.Tech (CAD/CAM) programs with a strong focus on academic excellence and innovation. The department is equipped with advanced laboratories and guided by experienced faculty members. Its industry-oriented curriculum is designed with inputs from academia and industry experts. The department emphasizes practical learning, research, and skill development to meet modern industrial needs. It promotes innovation and entrepreneurship among students. With a strong legacy of successful graduates, the department is committed to producing competent and industry-ready mechanical engineers.

About the Program:

The Department of Mechanical Engineering, JB Institute of Engineering & Technology, is pleased to organize a Five-Day Faculty Development Program (FDP) on "Digital Design to Smart Manufacturing." The FDP is designed to provide faculty members, researchers, and industry professionals with exposure to modern digital manufacturing technologies including CAD/CAM, Additive Manufacturing, CNC Machining, Laser Cutting, Reverse Engineering, Robotics, and Industry 5.0.

Topics covered:

- Digital Fabrication and CAD Design
- 3D Printing and Additive Manufacturing
- Reverse Engineering and Laser Cutting
- Industry 5.0 and Smart Manufacturing Technologies
- Product Design and Prototyping using Advanced CAD Tools
- Simulation and Analysis of Mechanical Components (CAE/FEA)
- Robotics and Automation

Chief Patron:

Shri J.V. Krishna Rao, MBA HRA-USA
Secretary, JBES

Patron:

Prof. Sanjay Chintakindi, Director, JBES
Dr. P. C. Krishnamachary, Principal, JBIET

Convener:

Dr. Anoop Kumar Shukla, HOD, MED

Coordinator:

Mr. Sai Kumar - Assistant Professor
Mr. G. Gopinath - Assistant Professor
Miss. G. Tanya Psalms - Assistant Professor

Organising Committee Members:

Mr. V. Srinivasa Rao – Assistant Professor
Mrs. P. Seema Rani – Assistant Professor
Mr. M. G. Mahesh – Assistant Professor
Mr. J. Narendra Kumar – Assistant Professor
Mr. J. Nagaraju – Assistant Professor
Mr. Md. Raheeq Ur Rahman – Assistant Professor
Mr. Shaik Ashraf – Assistant Professor

HOD Email: hodmechanical@jbiet.edu
Contact: 9966903701

A Faculty development program
on

Digital Design to Smart Manufacturing

ORGANISED BY

DEPARTMENT OF MECHANICAL
ENGINEERING

23.06.2026 TO 27.06.2026

JB INSTITUTE OF
ENGINEERING &
TECHNOLOGY
UGC Autonomous



Bhaskar Nagar, Moinabad Mandal, Ranga Reddy
District, Hyderabad, Telangana – 500075, India



JB INSTITUTE OF ENGINEERING & TECHNOLOGY

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Accredited by NAAC & NBA, Approved by AICTE & Permanently Affiliated to JNTUH

WELCOME

Faculty Development Program on Digital Design to Smart Manufacturing

Organized by
DEPARTMENT OF MECHANICAL
ENGINEERING

Resource Person

Mr. P P C PRASAD

Deputy Chief Engineer, SPM DESIGN

M/s HMT LTD. Hyderabad



Bhaskar Nagar, Moinabad Mandal, Ranga Reddy District, Hyderabad, Telangana – 500075, India

Resource Persons Profile:

Mr. P P C PRASAD:

Mr. P P C Prasad is currently serving as the Deputy Chief Engineer of SPM Design at M/s HMT Ltd., Hyderabad. With extensive industrial experience in design engineering, automation systems, and special-purpose industrial machinery, he has contributed significantly to modernizing manufacturing practices. His expertise includes special purpose machines (SPMs) design methodology, automation frameworks, rotary transfer lines, and bridging the gap between product conception and large-scale industrial commercialization.

Event Report: “5-Day FDP On "Digital Design To Smart Manufacturing”

Event Title: 5-Day FDP On "Digital Design To Smart Manufacturing"

Dates: 23rd June 2026 to 27th June 2026

Venue: CAD Lab, Department of Mechanical Engineering, JBIET

Organized by: Department of Mechanical Engineering

In Association with: Maker Global – Hyderabad

Resource Persons:

- Mr. P P C Prasad, Deputy Chief Engineer, SPM Design, M/s HMT Ltd., Hyderabad

Introduction:

The Department of Mechanical Engineering at JB Institute of Engineering and Technology organized a five-day Faculty Development Program (FDP) on "Digital Design to Smart Manufacturing" from 23rd June to 27th June 2026. The program aimed to enrich the knowledge of faculty members and researchers in cutting-edge engineering domains, spanning advanced CAD, additive manufacturing, reverse engineering, simulation (CAE/FEA), and robotics integration.

Objectives:

- To introduce participants to smart manufacturing paradigms and industrial transitions.
- To provide intensive hands-on experience in assembly modeling, CAD optimization, and prototype development.
- To expose participants to reverse engineering and laser cutting processes.
- To train participants in structural/thermal CAE simulations and robotic workflows.
- To promote collaborative research and development in industrial automation.

Schedule Overview:

Day 1: Evolution of Manufacturing and Special Purpose Machines:

The program commenced with a formal Inauguration Ceremony addressed by the Principal, Director, and Head of the Department (HOD). The technical sessions led by Mr. P P C Prasad walked participants through the transition from conventional manufacturing systems to smart manufacturing. Discussions featured design methodologies of Special Purpose Machines (SPMs), HMT case studies involving automation equipment, and pathways to product commercialization.

Day 2: Advanced CAD and Additive Manufacturing:

Coordinated by Dr. Anoop Kumar and Mrs. Seema Rani, the second day focused on advanced modeling techniques. The morning sessions engaged participants in hands-on assembly modeling and design optimization. The afternoon moved into the domain of additive manufacturing, introducing slicing software workflows, hardware setups, and precision prototype fabrication.

Day 3: Reverse Engineering and Laser Cutting:

Led by Mr. A. Sai Kumar and Mr. Shaik Ashraf, the third day covered digitizing parts and sub-surface fabrications. Sessions provided absolute clarity on reverse engineering concepts and CAD-based rebuilding practices. Later, the mechanics of laser cutting systems were discussed, followed by operational training and project practices.

Day 4: CAE Simulation and Robotics:

Instructed by Mr. Mahesh and Mr. J. Nagaraju, Day 4 targeted testing and automation. Participants successfully executed structural and thermal simulations on complex mechanical components using FEA software. The subsequent sessions covered robotics and automation architectures within smart factories, ending with direct robot programming demonstrations.

Day 5: Validation, Project Presentation, and Valedictory:

Conducted by Mr. V. Srinivas Rao and Mr. G. Gopinath, the concluding day consolidated all learned concepts. Faculty members performed design validations integrating CAE and automation components. Teams participated in project presentations and discussions. The event concluded with an interactive valedictory session, feedback collection, and certificate distribution.

Outcomes:

- Developed enhanced pedagogical and technical knowledge of digital designs and smart factory workflows.
- Gained direct expertise in engineering tools spanning CAD, slicing, laser processing, and simulation solvers.
- Acquired insights into industrial automation through real case studies shared by HMT experts.
- Created an active pathway for incorporating smart manufacturing practices into academic curricula.

Feedback:

Feedback from the participants highlighted:

- Extreme appreciation for the structure of sessions balancing theory with industrial exposure.
- Significant confidence gained in executing advanced tools like CAE solvers, 3D printers, and laser texturing.
- Interaction sessions provided deep clarity on practical prototyping challenges.

Vote of Thanks:

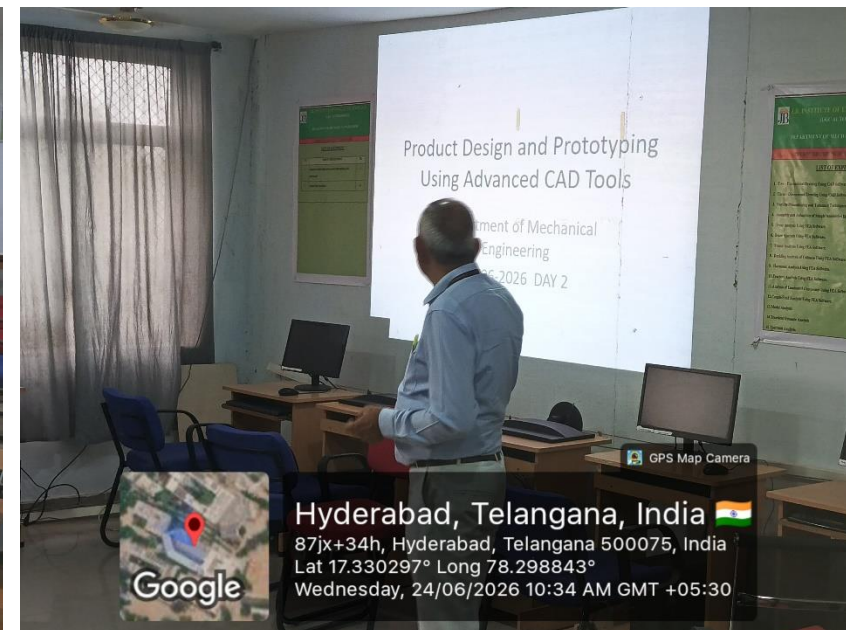
Dr. Anoop Kumar, Head of the Department of Mechanical Engineering, JBIET, extended his heartfelt gratitude to the chief resource person, Mr. P P C Prasad from HMT Ltd., for sharing his highly valuable industrial experience.

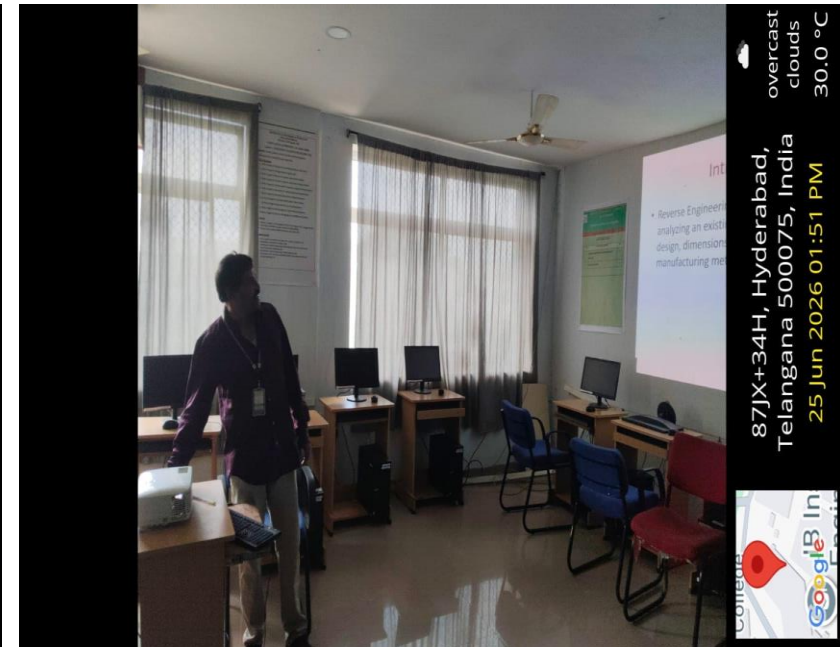
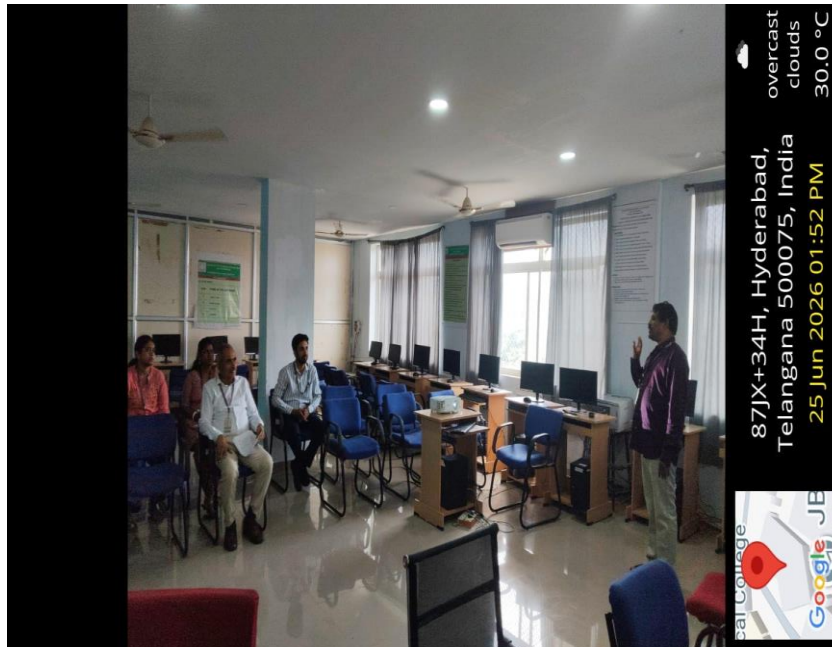
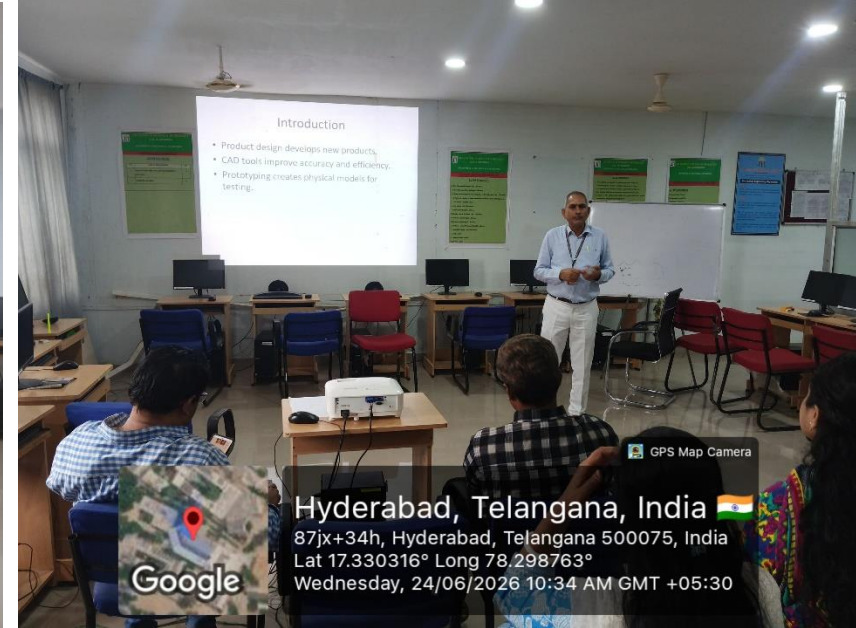
He expressed appreciation to the Chief Patron, Shri J. V. Krishna Rao, Secretary, JBES, for his constant encouragement. Deep gratitude was also expressed to Patrons, Prof. Sanjay Chintakindi (Director, JBES) and Dr. P. C. Krishnamachary (Principal, JBIET), for their visionary leadership.

Furthermore, he acknowledged the dedicated coordination of the faculty team including Dr. Anoop Kumar, Mrs. Seema Rani, Mr. A. Sai Kumar, Mr. Shaik Ashraf, Mr. Mahesh, Mr. J. Nagaraju, Mr. V. Srinivas Rao, and Mr. G. Gopinath, whose meticulous efforts made the program a grand success.

Event Photos







Attendance Sheet:



J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

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Bhaskar Nagar, Moinabad Mandal, Hyderabad, Telangana – 500075



DEPARTMENT OF MECHANICAL ENGINEERING

Faculty Development Program on

“Digital Design to Smart Manufacturing”

Attendance Sheet

S. No.	Name of the Faculty	Branch	Signature of the Faculty				
			23-06-2026	24-06-2026	25-06-2026	26-06-2026	27-06-2026
1	V. Srinivasa Rao	Mech					
2	Shantik Ashraf	Mech					
3	Mohd Rabeeq Ur Rahman	ME					
4	J. Nagar Ravi	M					
5	Miss. G. Tanya Psalms	Mech					
6	P. Sweethi	EEE					
7	A. Hima Bindu	EEE					
8	P. Seema Rani	ME					
9	J. Narendra Kumar	ME					
10	M.G. Mahesh	Mech					
11	A. Saikumar	Mech					

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