



# CSI COLLEGE OF ENGINEERING

( An Autonomous Institution )

KETTI, OOTY - THE NILGIRIS 643215

Church of South India - Coimbatore Diocese  
Approved by AICTE New Delhi - Affiliated to Anna University



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## Department of Mechanical Engineering

### 6 Days Online Faculty Development Programme (FDP) on Advanced Manufacturing & Industry 4.0

**AICTE TRAINING & LEARNING ( ATAL )  
ACADEMY SPONSORED**

**22.09.2025 to 27.09.2025**

### Organising Committee

#### CHIEF PATRON

Rt. Rev. TIMOTHY RAVINDER  
Bishop & Chairman, CSICE

#### PATRON

Mr. GODWIN R DANIEL  
Correspondent, CSICE  
Dr. P. D. ARUMAIRAJ  
Director, CSICE

#### CO-PATRON

Dr. R. MERCY SHANTHI  
Principal, CSICE

#### CONVENOR

Prof. R. PRADAB  
HoD- Mechanical Engineering

#### COORDINATOR

Dr. A. FAIZUR RAHMAN  
Associate Professor, Mech Engg.

#### CO-COORDINATOR

Dr. N. SIVAKUMAR  
Assistant Professor, Mech Engg.

#### TECHNICAL TEAM

Dr. J. JOSHUA GNANASEKARAN  
Vice Principal, CSICE  
Dr. S. RAJESH KANA  
Dean Academics, CSICE  
Dr. G. DHANRAJ, AP/ME  
Mr. D. NDESH, AP/ME  
Mr. S. RAJESH JAIPAL,  
AP/ME  
Lt. Dr. MANOJ PRABHAKAR B S  
AP/ME  
Mr. S. BENJAMIN AP/ME

#### DATE

##### Day 1

**22/9/25**  
6 pm - 9:30 pm

##### Day 2

**23/9/25**  
6 pm - 9 pm

##### Day 3

**24/9/25**  
6 pm - 9 pm

##### Day 4

**25/9/25**  
6 pm - 9 pm

##### Day 5

**26/9/25**  
6 pm - 9 pm

##### Day 6

**27/9/25**  
2 pm - 8:30 pm

#### EMINENT RESOURCE PERSON



**Dr. Basil Kuriachen**  
Assistant Professor- Grade 1  
NIT Calicut

Topic: Precision Manufacturing in the Digital  
Era-Real Time Tool wear Monitoring and Compensation



**Dr. Raju Bahubalendaruni**  
Assistant Professor NIT  
Puducherry

Topic: Recent Advancements in Human Robot  
Collaborations in the perspective of Industry 5.0



**Dr. B Balaji**  
Assistant Professor  
GLA University, UP

Topic: Advanced Sensors and Actuators in  
Modern Industry



**Dr. T. Sekar**  
HOD, PG - Manufacturing  
Engineering, Dept. of Mech Engg.  
GCT, Coimbatore

Topic: Present and Future trends of Industry 4.0



**Mr. Ashwin**  
AM, Supply Chain Management,  
Schneider Prototyping India  
Private Limited, Puducherry

Topic: Rapid Prototyping



**Dr. Santha Kumar Mohan**  
Professor, Dean ,  
Industry Collaboration &  
Sponsored Research, IIT  
Palakkad  
Topic: Challenges in Modern  
Robotics and Industry 4.0



**Mr. J. Johnson**  
Manager-Welding & Painting  
TWI India Private Limited  
Chennai

Topic: Industry 4.0 in  
NDE Applications



**Dr. Sabina Kumar**  
Specialist Engineer  
EATON, Michigan USA

Topic: Additive Manufacturing



**Dr. Priyank Hanuman Mhatre**  
Scientist, (ICAR)-Central  
Potato Research station Ooty

Topic: Advanced Automation in  
Agricultural Engineering



**Dr. Sivaramakrishnan Natesan**  
Senior Research Engineer,  
(TANCA), Chennai

Topic: Advances in Modeling and Simulation



**Mr. S. Sridhar**  
CEO, Intrino Robotics &  
Technologies Private Limited  
Thiruvallur, Chennai

Topic: Industry 4.0 and Smart Manufacturing



**Dr. Krishnaraj Ramasamy**  
Director -Centre for Excellence  
Ministry of Innovation & Tech  
Dambi Dollo University ,Ethiopia

Topic: Artificial Intelligence in Manufacturing



**Mr. Shanmuga Priyan**  
Manager, Siemens Energy  
Industrial Turbo Machinery  
India Private Limited, Pune

Topic: Industry 4.0 Augmented  
Reality & Virtual Reality





**ATAL Sponsored Online  
Six Days  
Faculty Development Programme on**

## **Advanced Manufacturing & Industry 4.0**

**22.09.2025 to 27.09.2025**



**Organized by  
Department of Mechanical Engineering**

**CSI College of Engineering (CSICE)  
Ketti, Ooty  
Autonomous (Conferred by UGC)  
The Nilgiris - 643215  
[www.csice.edu.in](http://www.csice.edu.in)**

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HoD-Mechanical Engineering

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Associate Professor, Mechanical Engineering

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Assistant Professor, Mechanical Engineering

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VICE PRINCIPAL  
**Dr. S. RAJESH KANA, DEAN ACADEMICS**  
**Dr. G. DHANRAJ AP/ME**  
**Mr. D. NIJESH AP/ME**  
**Mr. S. RAJESH JAIPPAUL AP/ME**  
**Dr. B. S. MANOJ PRABHAKAR AP/ME**  
**Mr. S. BENJAMIN AP/ME**

### **ELIGIBILITY**

Faculty members, Research Scholars, PG Scholars from AICTE approved Engineering / Polytechnic Colleges and Industry Personnel are eligible to apply.

### **GUIDELINES**

- No participant fees will be collected
- Sessions will be conducted during the evening time (Refer the schedule given with this brochure).
- Eligible participants will be selected based on first come first serve basis and will be intimated by e- mail.
- Online Link will be provided after registration.
- The certificates shall be issued to those participants who are registered on ATAL portal [www.aicte-india.org/atal](http://www.aicte-india.org/atal) and attend the program with minimum 80%attendance and score minimum 70% marks in the assessment.

### **REGISTRATION**

Registration is mandatory for attending the FDP. The participants are requested to register in the ATAL portal and send a scanned copy to [faizurmech@csice.edu.in](mailto:faizurmech@csice.edu.in)

<https://atalacademy.aicte-india.org/login>

### **CONTACT DETAILS**

**Dr. A. Faizur Rahman**  
Coordinator

Email : [faizurmech@csice.edu.in](mailto:faizurmech@csice.edu.in)  
Mobile :9500247883

**Dr. N. Sivakumar**  
Co-Coordinator

Email : [nsivamech@csice.edu.in](mailto:nsivamech@csice.edu.in)  
Mobile: 7708161575

### ABOUT THE INSTITUTION

Nestled in the picturesque town of Ketti in The Nilgiris, CSI College of Engineering (CSICE) stands as a beacon of academic excellence and innovation, since 1998. Our Institution is autonomous (Conferred by UGC) affiliated with Anna University-Chennai, approved by AICTE-New Delhi, accredited by NAAC and holds UGC 2f and 12b status. This institution was established for the upliftment of the tribal communities in the Nilgiris. We have been at the forefront of engineering education, committed to fostering talent and innovation for the past 25 years. Offering a diverse range of 7 undergraduate courses and 1 PG courses CSICE is a proud member of the Institutions Innovation Council (IIC), a registered body under the Government of India, actively engaged in cutting-edge research activities. Our academic community is a powerhouse of progress, consistently attending NPTEL courses, acquiring patents, contributing to significant publications and earning substantial research grants from DST, SERB, TNSCST and TNSDC. With a stellar track record in placements and a global network of successful alumni, CSICE continues to shape the future of engineering. Recently honored with the "ISTE Lifetime Achievement Award" 2025 by ISTE and "Trendsetters Award 2024" by the Times of India. We are marching ahead in imparting quality education to students with society responsibilities.

### ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was established in the year 1998 and offers B.E Mechanical Engineering under Anna University, Approved by AICTE, Affiliated to Anna University & Accredited by the NAAC . The department has experienced faculty members who are fully committed to teaching and research, and dedicated to impart quality education to the students. The students have access to well equipped, state-of-the- art laboratories. A wide range of research activities undertaken in the department allow the students to gain contemporary knowledge about real-life problems in the industry. The department has brought out outstanding engineers in the past and will continue its service in the years to come.

#### ABOUT THE FDP

This 6-day Faculty Development Programme focuses on Advanced Manufacturing and Industry 4.0, aiming to upgrade faculty competencies in modern manufacturing technologies and smart industrial systems. The programme will cover key areas such as automation, IoT, cyber-physical systems, AI, robotics, digital manufacturing, and data-driven decision-making. It is designed to blend theoretical knowledge with practical exposure through expert sessions, demonstrations, and hands-on activities. The FDP encourages the integration of Industry 4.0 concepts into academic practices, promotes interdisciplinary collaboration, and supports innovation-driven teaching. It will ultimately help participants align their curriculum, pedagogy, and research with the latest industrial trends and technological advancements.

### CONTENTS TO BE COVERED

- Precision Manufacturing in the Digital Era- Real Time Tool wear Monitoring and Compensation
- Additive Manufacturing
- Recent Advancements Human Robot Collaborations in the perspective of Industry 5.0
- Advanced Automation in Agricultural Engineering.
- Advanced Sensors and Actuators in Modern Industry
- Advances in Modeling and Simulation
- Present and Future trends of Industry 4.0
- Industry4.0andsmartmanufacturing
- Rapid Prototyping
- Artificial Intelligence in Manufacturing
- Challenges in Modern Robotics and Industry 4.0
- Industry4.0InNDEapplications
- Industry 4.0 – Augmented Reality & Virtual Reality

#### RESOURCE PERSONS

The sessions will be handled by experts from Academia, Research Organizations and Industry in the subject area.

# ATAL Online 6 Day Faculty Development Programmes 2025-26 Schedule

**FDP Thrust Area : Digital Manufacturing Technology      Organizing Institution: CSI College of Engineering (Autonomous – Conferred by UGC), The Nilgiris**  
**FDP Title : 6 Days Online FDP on Advanced Manufacturing & Industry 4.0**  
**Start Date : 22-09-2025      End Date: 27-09-2025**

Day 1 (22.09.2025)	Day2 (23.09.2025)	Day3 (24.09.2025)	Day 4 (25.09.2025)	Day5 (26.09.2025)	Day6 (27.09.2025)
6:00PMto6:30PM	6:00PMto7:30PM	6:00PMto7:30PM	6:00PMto7:30PM	6:00PMto7:30PM	2:00PMto3:30PM
Inaugural Session	Session3	Session5	Session7	Session9	Session11
	Recent Advancements Human Robot Collaborations in the perspectiveofIndustry5.0  Dr. Raju Bahubalendaruni Assistant Professor NIT Puducherry	Advanced Sensors and Actuators in Modern Industry  Dr. B Balaji Assistant Professor GLA University Uttar Pradesh	Present and Future trends of Industry 4.0  Dr. T. Sekar Head of the Department, PG – Manufacturing Engineering, Department of Mechanical Engineering, Government College of Technology, Cbe - 641013	Rapid Prototyping Mr. Ashwin Assistant Manager, Supply Chain Management, Schneider Prototyping India Private Limited, Puducherry	Challenges in Modern Robotics and Industry 4.0  Dr. Santha Kumar Mohan Professor, Dean , Industry Collaboration and Sponsored Research IIT Palakkad
6.30PMto8:00PM	7:30PMto9:00PM	7:30PMto9:00PM	7:30PMto9:00PM	7:30PMto9:00PM	3:30PMto5:00PM
Session1	Session4	Session6	Session8	Session10	Session12
Precision Manufacturing in the Digital Era-Real Time Tool wear Monitoring and Compensation  Dr. Basil Kuriachen Assistant Professor- Grade 1 , NIT Calicut	Advanced Automation in Agricultural Engineering  Dr. Priyank Hanuman Mhatre Scientist, Indian Council of Agricultural & Research (ICAR)-Central Potato Research station Ooty	Advances in Modeling and Simulation Dr. Sivaramakrishnan Natesan Senior Research Engineer Tamilnadu Centre of Excellence for Advanced Manufacturing(TANCAM) Chennai	Industry 4.0 and Smart Manufacturing  Mr. S. Sridhar CEO Intrino Robotics & Technologies Private Limited Thiruvallur Chennai	Artificial Intelligence in Manufacturing Dr. Krishnaraj Ramasamy Director –Centre for Excellence Ministry of Innovation & Technology Dambi Dollo University Ethiophia	Industry 4.0 In NDE Applications Mr. J. Johnson Manager–Welding & Painting TWI India Private Limited Chennai
8.00PMto9.30PM					5:00PMto6:30PM
Session2					Session13
Additive Manufacturing Dr. Sabina Kumar Specialist Engineer EATON, Michigan USA					Industry 4.0–Augmented Reality & Virtual Reality Mr. Shanmuga Priyan Manager, Siemens Energy Industrial Turbo Machinery India Private Limited, Pune
					6:30PMto7:30PM Online Test & Feed Back 7:30PMto8:30PM Valedictory Session