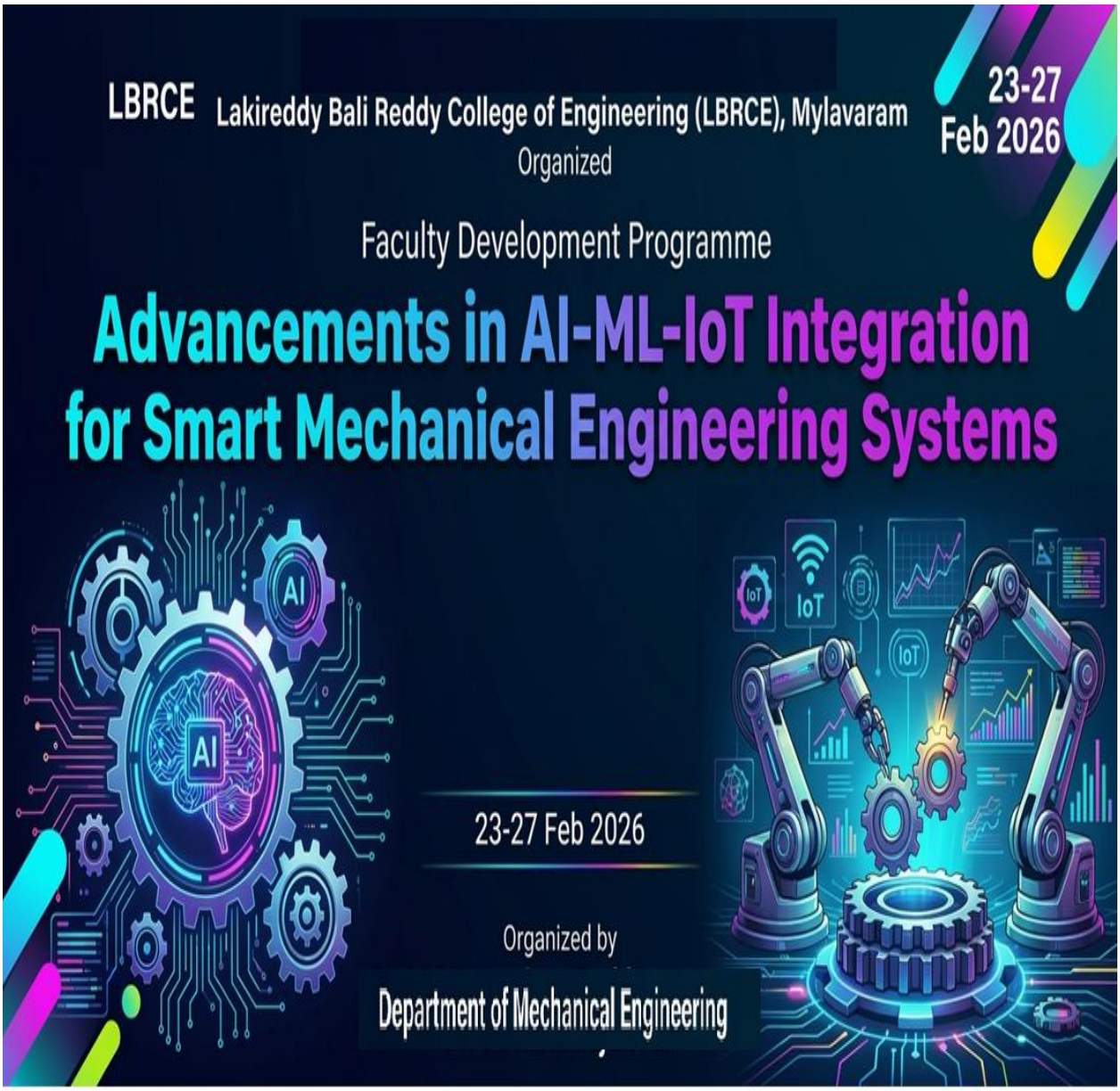
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)
Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada
L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

FDP Report



About the Department

The Department of Mechanical Engineering was started in the year 1998. The Department is accredited by NBA (Tier-I). It is recognized as a Research center by JNTUK Kakinada and has sponsored projects worth of Rs.1.5 crores. Faculty of the department are actively engaged in publishing papers in national and international journals and conferences.

Course Highlights

- This course is designed to provide detail overview of practice-oriented, research-driven programme focusing on the application of AI/ML and IoT in modern mechanical systems, aligned with Industry 4.0 and smart manufacturing trends.
- Integration of Artificial Intelligence, Machine Learning and IoT to design, monitor and optimize smart mechanical systems such as smart manufacturing cells, thermal systems and condition-based maintenance platforms.
- AI/ML for process optimization, quality prediction, tool wear monitoring, fault diagnosis and predictive maintenance of rotating machinery.
- IoT for smart mechanical systems: sensor selection, embedded systems, IoT architecture, communication protocols, cloud/edge computing and security aspects relevant to plant and lab environments.
- Exposure to current research problems, case studies, open datasets, and guidance for project formulation, publications and funding proposals in AI-ML-IoT for mechanical systems

Important Dates

Last date of online registration: **20th Feb 2026**
Intimation of participants: **21st Feb 2026**

Registration

Only online registration of participants to be done through a single webpage.
Registration link:

Signup and register for the programme through the given link.
No registration fee will be charged from the participants.

Target beneficiaries and benefits

- Designed for faculty, researchers and postgraduate students in Mechanical/Production/Automobile/Aero and allied disciplines interested in embedding AI-ML-IoT into teaching, labs and research.
- Participants gain career-enhancing competencies in emerging technologies, better preparedness for multidisciplinary research collaborations and improved capability to mentor students on cutting-edge projects.

FDP Timings: 10.00 AM to 12.30 PM
Mode: Online
Platform: Microsoft Teams
Registration link:

https://tinyurl.com/AAMISMES

WhatsApp link to join:

https://tinyurl.com/mkec95f

Faculty Development Programme (FDP)
(Online mode)
on

"Advancements in AI-ML-IoT Integration for Smart Mechanical Engineering Systems"

(23rd to 27th Feb 2026)

Chairman
Dr. K. Appa Rao,
Principal, LBRCE, Mylavaram

Convener
Dr. M.B.S.Sreekara Reddy,
HoD of Mechanical Engineering, LBRCE, Mylavaram

Coordinator
Dr. V.Dhana Raju
Mr.J.Subba Reddy
Dr.A.Dhanuniay Kumar

Organized by
Department of Mechanical Engineering
(Accredited by NBA)

Lakireddy Bali Reddy College of Engineering,
(Autonomous)
Mylavaram, Krishna (Dt), Andhra Pradesh, India

About LBRCE, Mylavaram

The Lakireddy Bali Reddy College of Engineering (LBRCE), Mylavaram was established in the year 1998 by Lakireddy Bali Reddy Charitable Trust, whose architect is Er. Lakireddy Bali Reddy garu. The institute is established with the sole aim of providing high quality educational opportunities in the field of Science, Engineering, Technology and Management. It is spread over 60 acres of sprawling lush green landscape spotted with orchids and grooves. It is approved by AICTE, affiliated to JNTUK, Kakinada and attained Autonomous status in the year 2010. It is accredited with NAAC and NBA (CSE, IT, ECE, EEE & ME) under Tier-I. A separate R&D cell is established in the college to focus on continuous sponsored research. It has various sponsored research projects funded by various funding agencies. At present, 9 B.Tech programmes are offered.

- Aerospace Engineering
- Artificial Intelligence & Data Science
- Artificial Intelligence & Machine Learning
- Civil Engineering
- Computer Science Engineering
- Electrical & Electronics Engineering
- Electronics and Communication Engineering
- Information Technology
- Mechanical Engineering

Four M.Tech programmes and M.B.A programme is offered. The M.Tech Programs are offered in

- Computer Science and Engineering
- Thermal Power Engineering
- Power Electronics and Drives
- VLSI & Embedded systems

Objective of the Course

The Faculty Development Programme on "Advancements in AI-ML-IoT Integration for Smart Mechanical Engineering Systems " aims to equip mechanical engineering faculty, researchers, and postgraduate students with cutting-edge skills to harness artificial intelligence, machine learning, and Internet of Things technologies for designing, optimizing, and maintaining intelligent mechanical systems aligned with Industry 4.0/5.0 paradigms. By bridging theoretical foundations with hands-on applications in areas such as predictive maintenance, smart manufacturing, thermal/energy systems, and cyber-physical architectures, the course fosters data-driven innovation, enhances pedagogical capabilities for curriculum integration, and promotes multidisciplinary research collaborations to address real-world challenges in smart mechanical engineering. Ultimately, participants will gain the expertise to lead transformative projects, mentor students on emerging technologies, and contribute to sustainable, efficient engineering solutions through AI-ML-IoT integration.

Resource Persons

1) Dr. B.V.Reddy, Ontario Univeristy, CANADA
2) Dr. T.Srinivas Rao, NIT Jalandhar
3) Dr. Ravi Kumar Kottala, King Fahd University of Petroleum and Minerals, Saudi Arabia.
4) Dr. Muthyam Goud, Renault Nissan India.
5) Dr. Thella Babu Rao, NIT A.P.
6) Dr. Akshay Pandey, IIIT, Jabalpur
7) Dr.R.V.S.S. Prasad, Business Head, Pavani Engineers
8) Dr. Jayakrishna, King Fahd University of Petroleum and Minerals.

General Information

- An online test shall be conducted at the end of the program.
- Certificates will be issued only to those participants who attend the program with a minimum 80% of attendance.

COMMITTEE MEMBERS

Chief Patrons

Sri L. Jaya Prakash Reddy
Co-Chairman, LBRCE

Sri L.R.N.K. Prasad Reddy
Chairman, LBRCE

Patrons

Sri G. Srinivasa Reddy,
President, LBRCE

Dr. K. Appa Rao, Ph.D
Principal, LBRCE

Dr. B. Ramesh Reddy, Ph. D.
Vice-Principal, LBRCE

Convener

Dr. M.B.S.Sreekara Reddy, Ph.D
HOD- ME, LBRCE

Coordinators

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Mr.J.Subba Reddy,
Dr.A.Dhanuniay Kumar
Department of Mechanical Engineering, LBRCE
Mobile Number: 9848363670,9985100936
E-mail: **dhanaraju.v@lbrce.ac.in,**
jonnalasu@lbrce.ac.in

Co-Coordinator

Mr.K.V.Viswanadh, Sr.Asst.Professor,
Department of Mechanical Engineering, LBRCE
Mobile Number: 7702893880
E-mail: **viswanadhmailing2u@gmail.com**

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(FDP Schedule): A.Y.2026-27

Day-1 23-02-2026	Day-2 24-02-2026	Day-3 25-02-2026	Day-4 26-02-2026	Day-5 27-02-2026
10:00AM to 10:30 AM	2:00 PM to 3:00 PM	10:00AM to 11:15 AM	10:00AM to 11:15 PM	10:00AM to 11:30 AM
Inauguration	**Session 2**	**Session 4**	**Session 6**	**Session 8**
	Dr. Akshay Pandey Indian Institute of Information Technology, Design and Manufacturing, Jabalpur.	**Dr.B.V.Reddy** Professor, Department of Mechanical Engineering, University of Ontario, Canada.	**Dr.R.V.S.S. Prasad** Business Head, Pavani Engineers private limited. Hyderabad.	**Dr.T.Srinivas** Professor & Head Mechanical Engineering, NIT Jalandhar.
	"Application of Principal Component Analysis for Understanding Mechanical Structure in Automobile Performance"	***"Advanced and Hybrid Energy Systems: Role of Second Law of Thermodynamics."***	**"Advancements in HVAC & R systems and applications"**	**"Computational Approaches to Sustainable Energy Solutions"**
	drakshay@iiitdmj.ac.in **Mobile: 9074525228**	Bale.Reddy@ontariotechu.ca **+1 (289) 685-6904**	prasadrevur@gmail.com **Mobile: 99894 77948**	srinivast@nitj.ac.in **Mobile: 8056300923**
10:30 AM to 12:30 PM	7:00 PM to 8:15PM	7: PM to 8:15 PM	11:15 AM to 12:30PM	11:30 AM to 12:30PM
Session 1	**Session 3**	**Session 5**	**Session 7**	**Feedback & Valedictory Session**
Dr. Ravi Kumar K Post Doctoral Fellow King Fahd University of Petroleum and Minerals, Saudi Arabia.	**Dr.Muthya Goud,** Senior Engineer, Nissan India, India.	**Dr. Jayakrishna** Post Doctoral Fellow King Fahd University of Petroleum and Minerals, Saudi Arabia.	**Dr.Thella Babu Rao,** Department of Mechanical Engineering, NIT Andhra Pradesh.	
"Battery thermal management using phase change materials and role of artificial intelligence in cooling strategies"	**"Battery Thermal Management systems: Overview, Case study, ML Predictions"**	**"Analysis Of Thermo-Mechanical Phenomena and Heat Transfer Characterization In Continuous Casting"**	**"Smart Manufacturing systems"**	
kottalaravikumar15@gmail.com **Mobile No:+918886369167**	Muthyamvempally123@gmail.com **+91889715527**	jaya27by4@gmail.com **Mobile No:9491997264**	thellababurao@nitandhra.ac.in **+91 9642288866**	

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one-week online FDP on

"Advancements in AI-ML-IoT Integration for Smart Mechanical Engineering Systems"

from 23rd and 27th February 2026 with timings from 10 A.M to 12.30 P.M.

INAUGURAL SESSION

The **Department of Mechanical Engineering**, Lakireddy Bali Reddy College of Engineering (Autonomous), Mylavaram, successfully organized a **one-week online Faculty Development Programme (FDP)** on **"Advancements in AI-ML-IoT Integration for Smart Mechanical Engineering Systems"** from **23rd to 27th February 2026**, conducted daily from **10:00 A.M. to 12:30 P.M.** The **inaugural session** of the FDP was held on **23rd February 2026 (Monday) at 10:00 A.M.** The session was graced by **Dr. Ravi Kumar K**, who attended as the **Chief Guest**. The **Guest of Honor** for the program was **Dr. K. Appa Rao**.

During his inaugural address, **Dr. Ravi Kumar K** highlighted the growing importance of integrating **Artificial Intelligence (AI), Machine Learning (ML), and the Internet of Things (IoT)** with traditional mechanical engineering systems. He emphasized that such technological integration plays a crucial role in **driving innovation, improving system efficiency, and supporting India's economic growth**. He also discussed how smart mechanical systems powered by AI-ML-IoT technologies can transform industries through predictive maintenance, intelligent manufacturing, and smart automation.

The **Guest of Honor, Dr. K. Appa Rao**, appreciated the initiative taken by the Mechanical Engineering Department in organizing the FDP and stressed the need for faculty members to continuously update their knowledge in emerging interdisciplinary technologies. He encouraged participants to actively engage in the sessions and make effective use of the insights shared by the experts. The program was organized under the guidance of **Convener Dr. M. B. S. Sreekar Reddy** and **Coordinator Dr. V. Dhana Raju**, who played a key role in planning and conducting the FDP. The inaugural session witnessed enthusiastic participation from faculty members and researchers from various institutions. The FDP aims to provide participants with a comprehensive understanding of **recent advancements in AI-ML-IoT technologies and their applications in smart mechanical engineering systems**, thereby enhancing research and teaching capabilities in emerging technological domains. **Total number of registrations for this FDP is 407.**

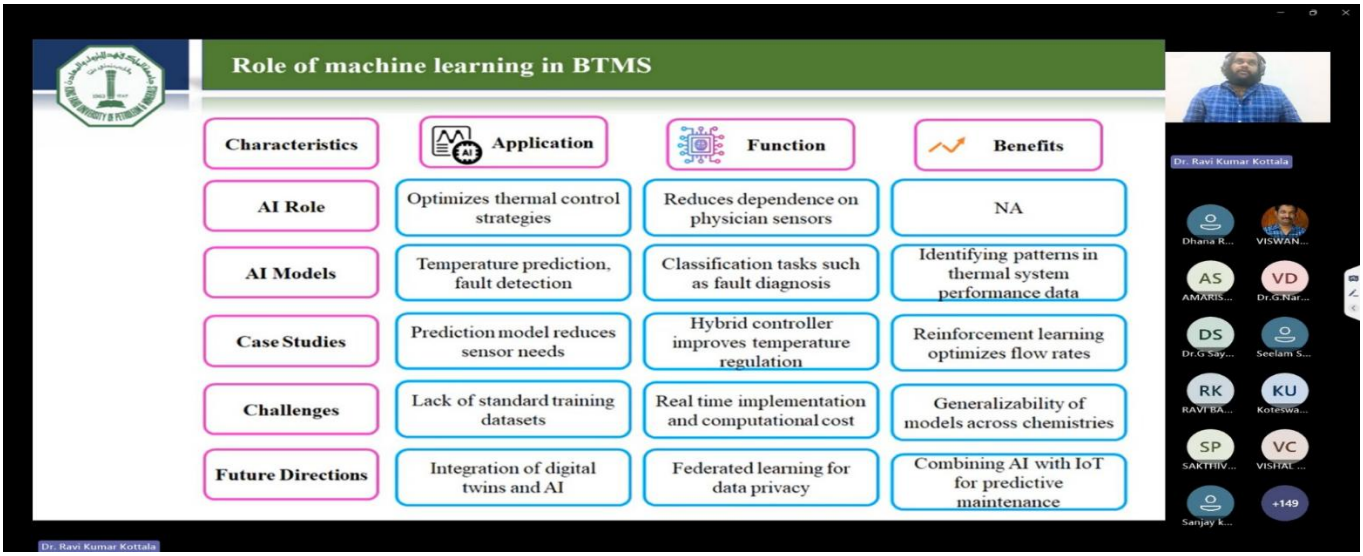
Resource persons of the FDP

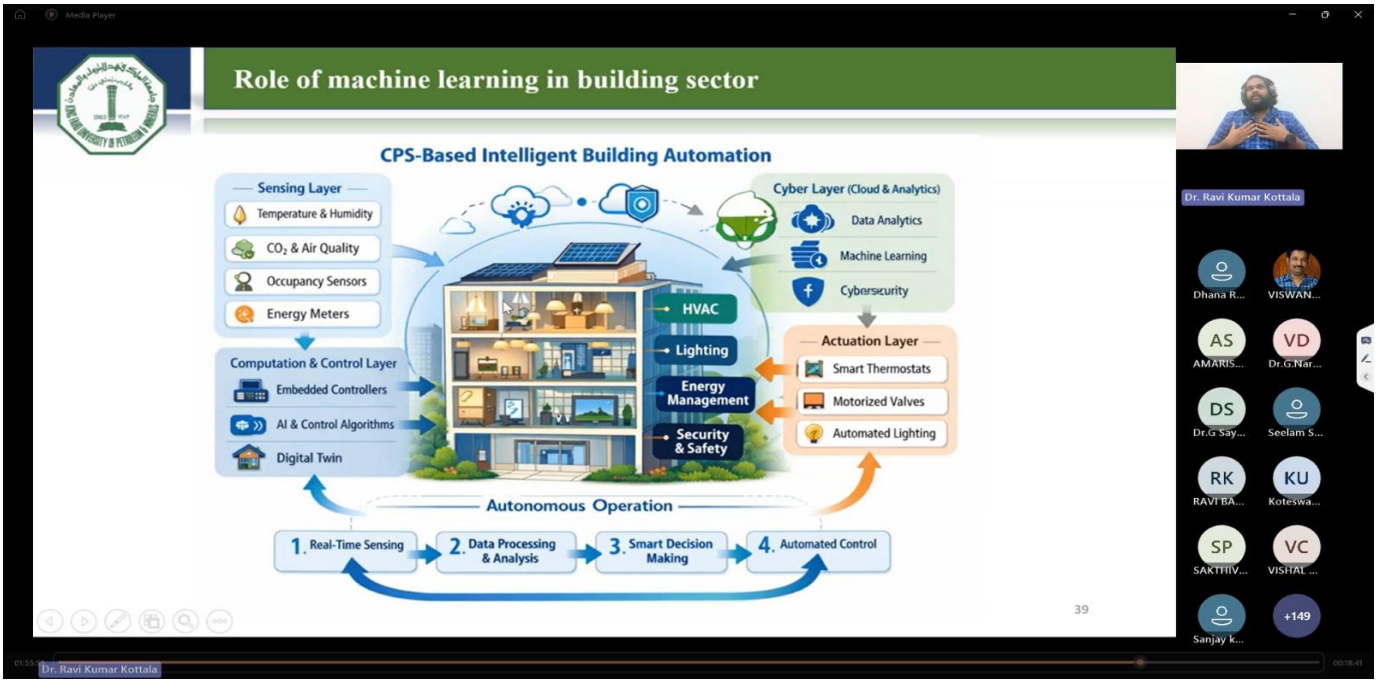
Dr.B.V.Reddy Professor, Department of Mechanical Engineering, University of Ontario, Canada.	**Dr.T.Srinivas** Professor & Head Mechanical Engineering, NIT Jalandhar	**Dr. Ravi Kumar K** Post Doctoral Fellow King Fahd University of Petroleum and Minerals, Saudi Arabia.	**Dr.Muthya Goud,** Senior Engineer, Nissan India, India.
Dr. Jayakrishna Post Doctoral Fellow King Fahd University of Petroleum and Minerals, Saudi Arabia.	**Dr.R.V.S.S. Prasad** Business Head, Pavani Engineers private limited. Hyderabad.	**Dr. Akshay Pandey** Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	**Dr.Thella Babu Rao,** Department of Mechanical Engineering, NIT Andhra Pradesh

Day-1: 24.02.2026 (Tuesday), 2:00 PM -03:00 PM (Session 1)

Topic: "Battery thermal management using phase change materials and role of artificial intelligence in cooling strategies"

Speaker: Dr. Ravi Kumar K
Post Doctoral Fellow
King Fahd University of Petroleum and Minerals, Saudi Arabia.



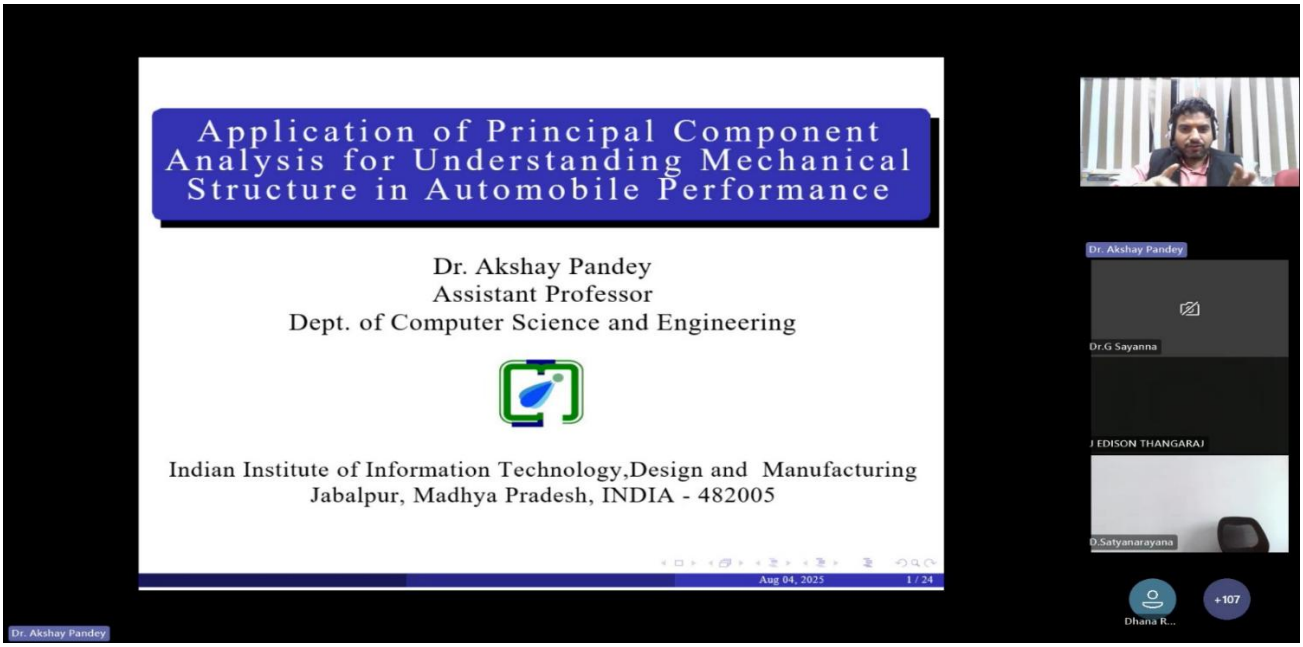


Day-2: 24.02.2026 (Tuesday), 2:00 PM -03:00 PM (Session 1)

Topic: "Application of Principal Component Analysis for Understanding Mechanical Structure in Automobile Performance"

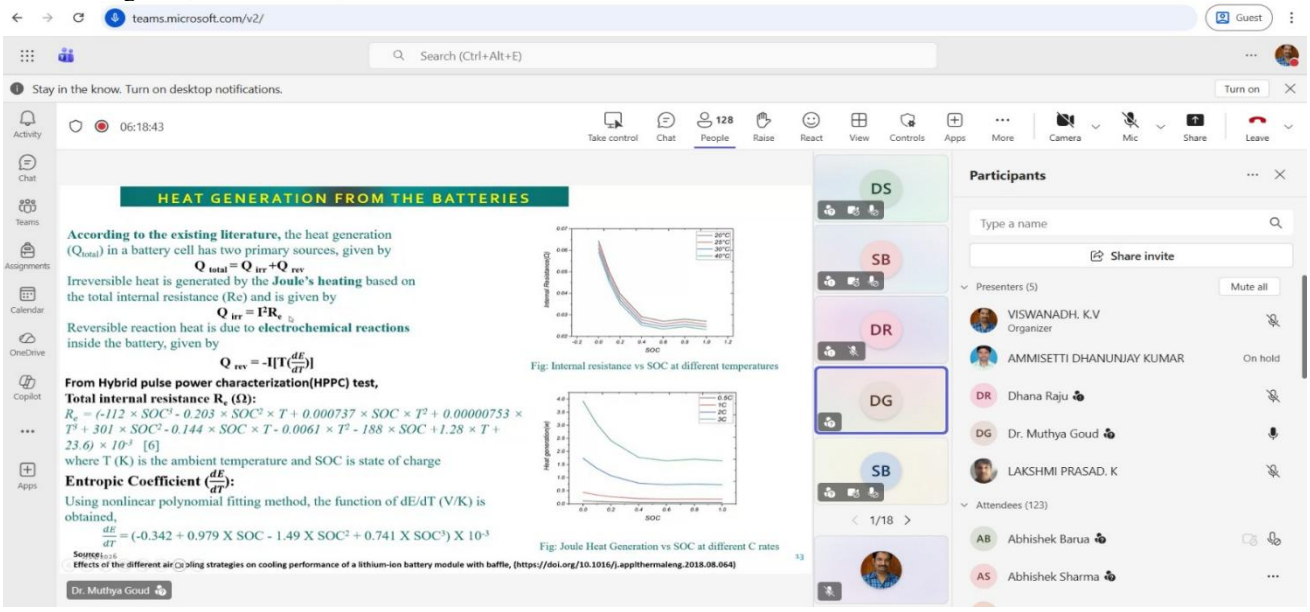
Speaker: Dr. Akshay Pandey

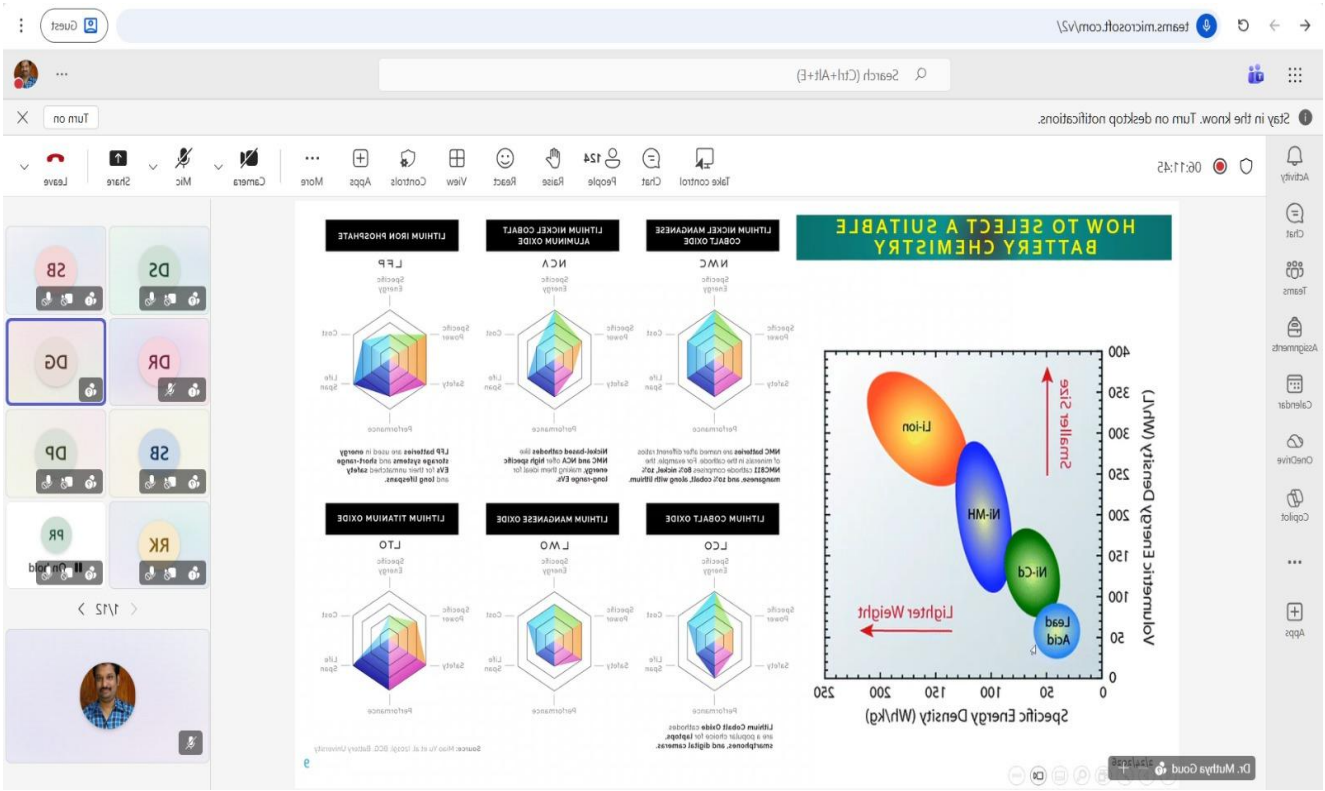
Indian Institute of Information Technology, Design and Manufacturing, Jabalpur



Day-2: 24.02.2026 (Tuesday), 7:00 PM to 8:00 PM (Session 2)

Topic: "Battery Thermal Management systems: Overview, Case study, ML Predictions"
Speaker: Dr.Muthya Goud,
Senior Engineer, Nissan India, India.

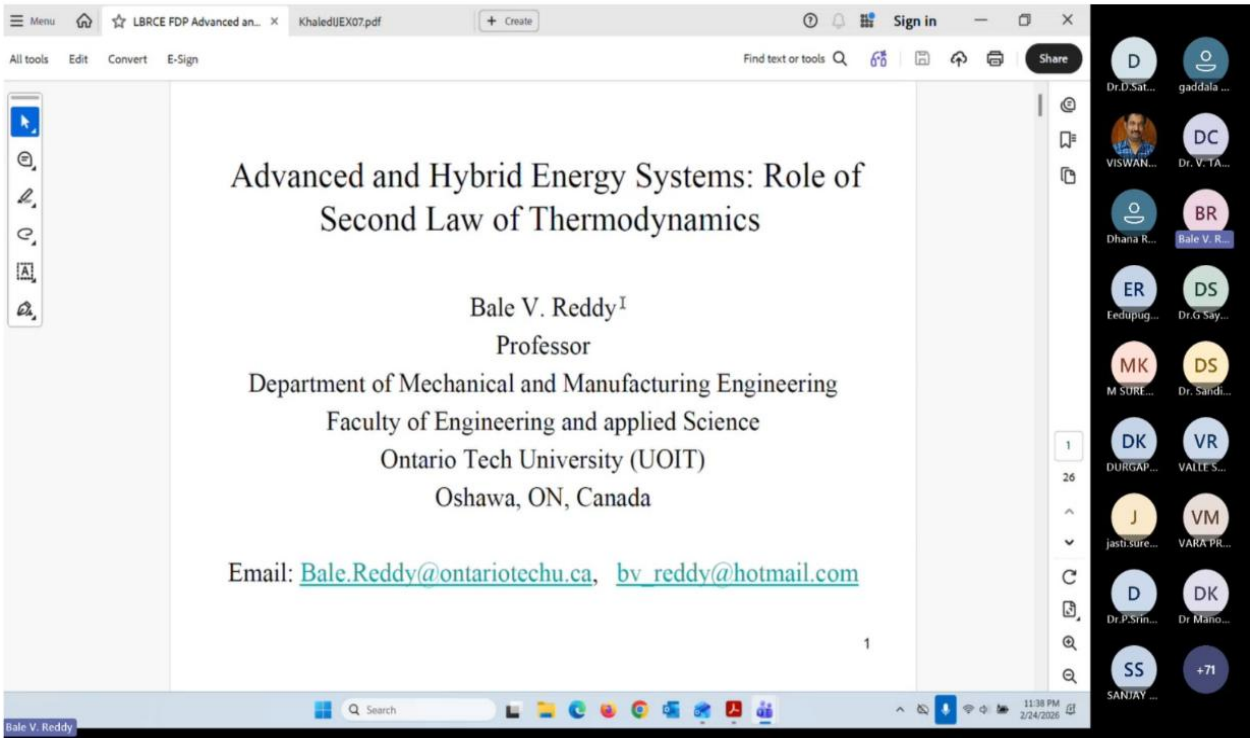




Day-3: 25.02.2026 (Wednesday), 7:00 PM to 8:00 PM (Session 1)

Topic: "*Advanced and Hybrid Energy Systems: Role of Second Law of Thermodynamics*"

Speaker: Dr.B.V.Reddy
Professor, Department of Mechanical Engineering, University of Ontario, Canada



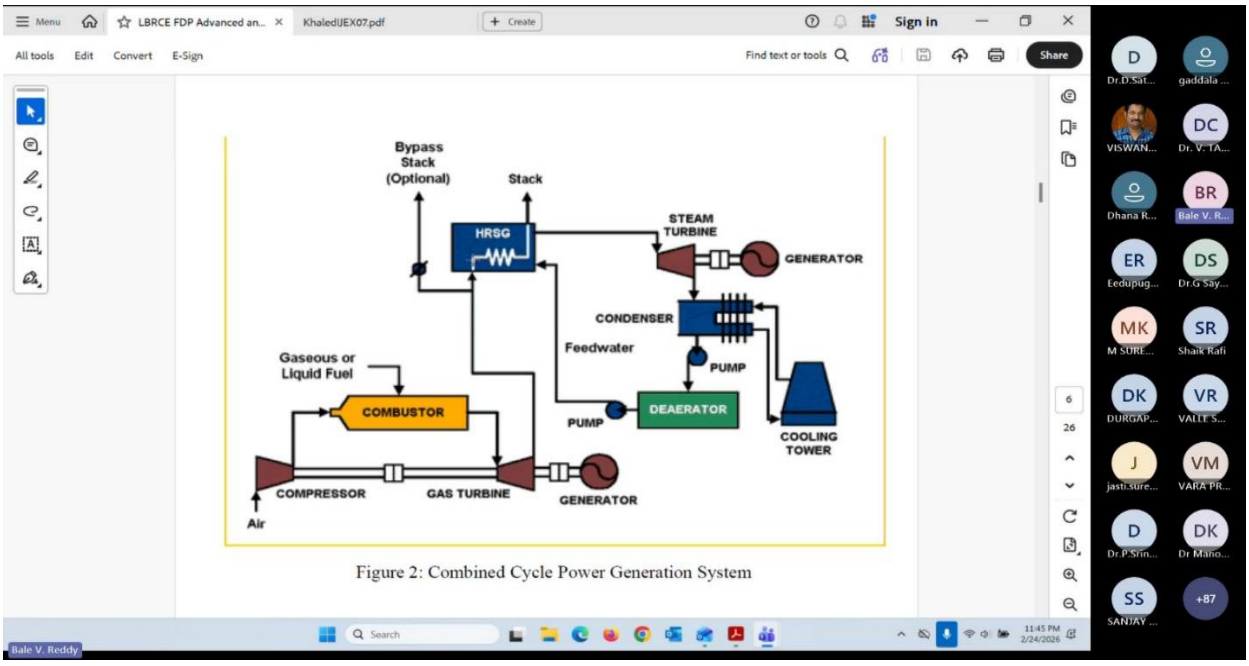
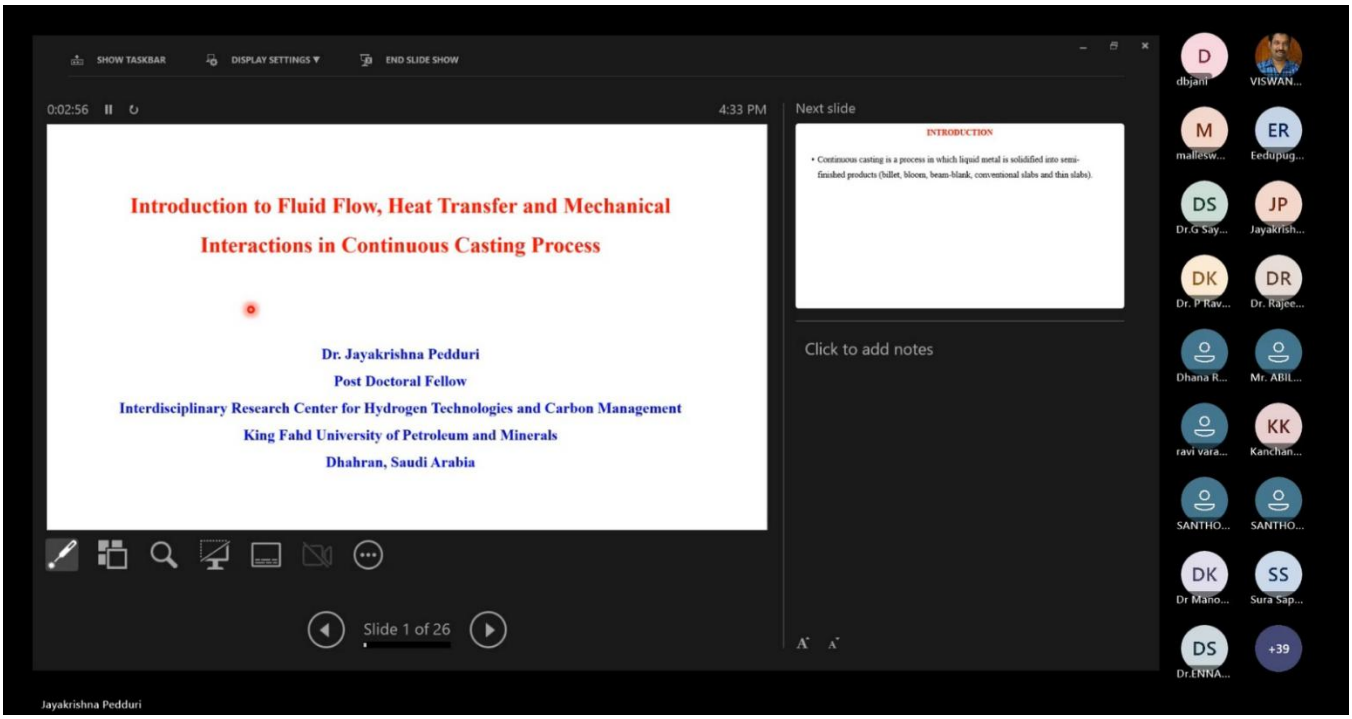


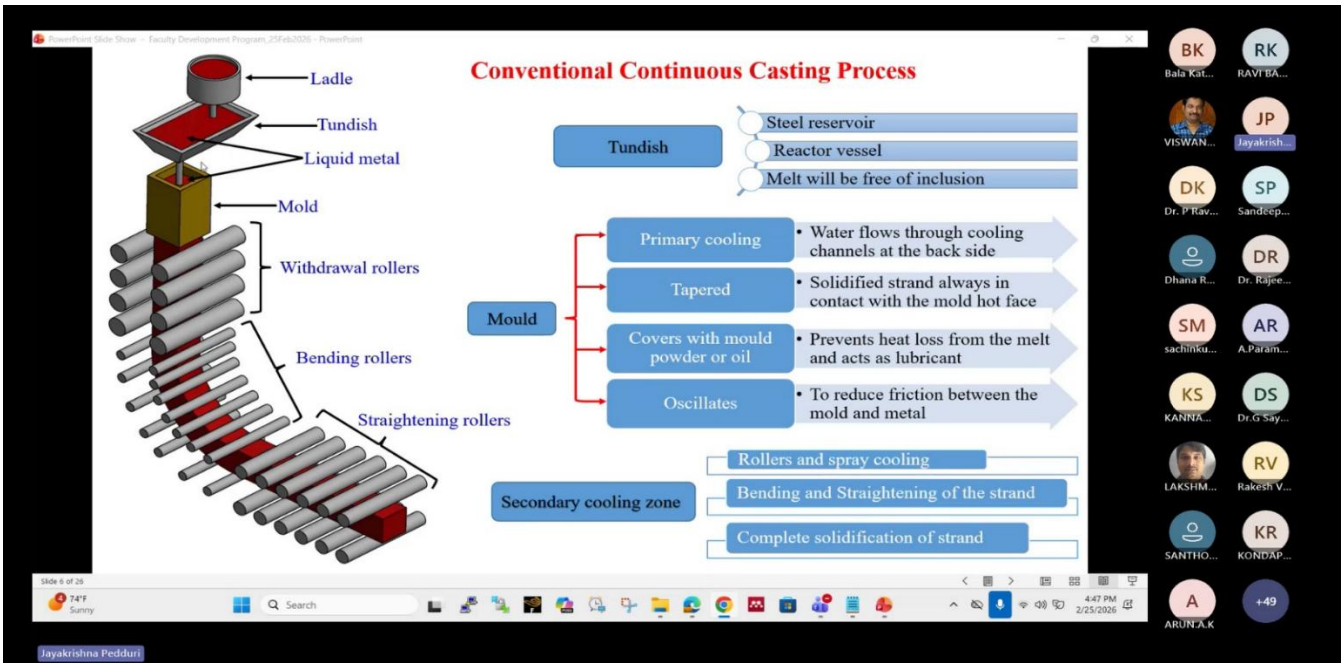
Figure 2: Combined Cycle Power Generation System

Day-3: 25.02.2026 (Wednesday), 7:00 PM to 8:00 PM (Session 2)

Topic: "Analysis of Thermo-Mechanical Phenomena and Heat Transfer Characterization In Continuous Casting"

Speaker: Dr. Jayakrishna
Post Doctoral Fellow
King Fahd University of Petroleum and Minerals, Saudi Arabia.





Day-4: 26.02.2026 (Thursday), 10:00 AM to 11:00 AM (Session 1)

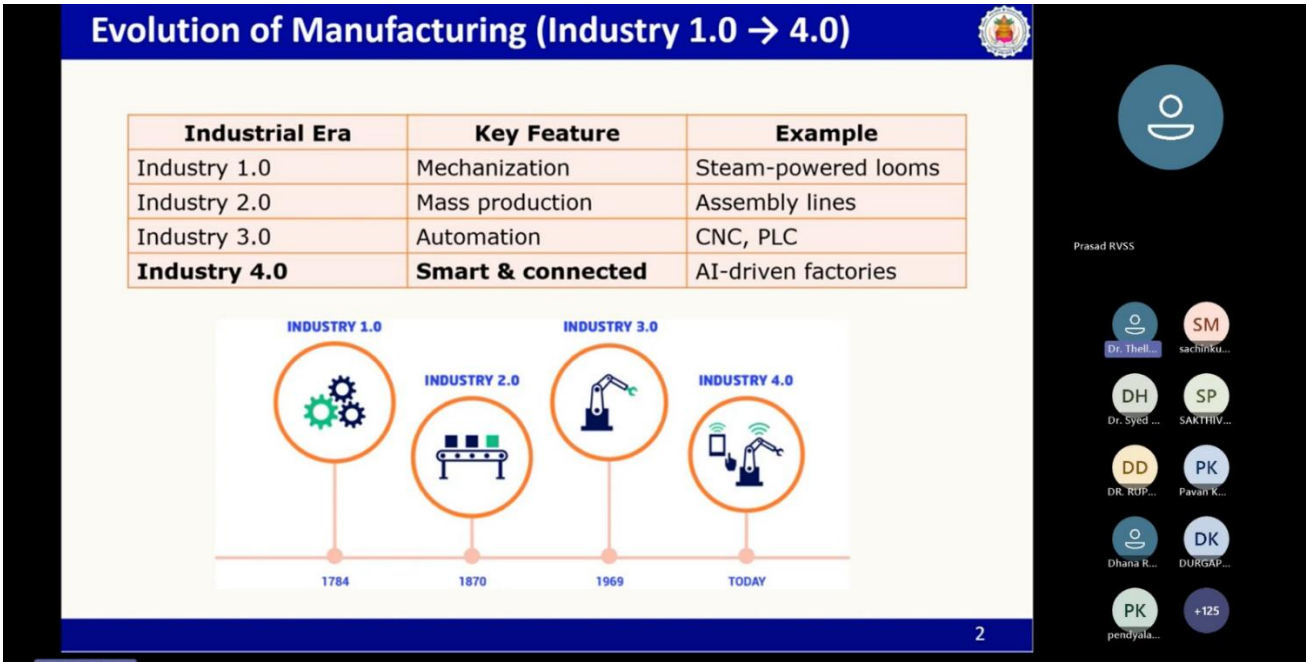
Topic: "Advancements in HVAC & R systems and applications"

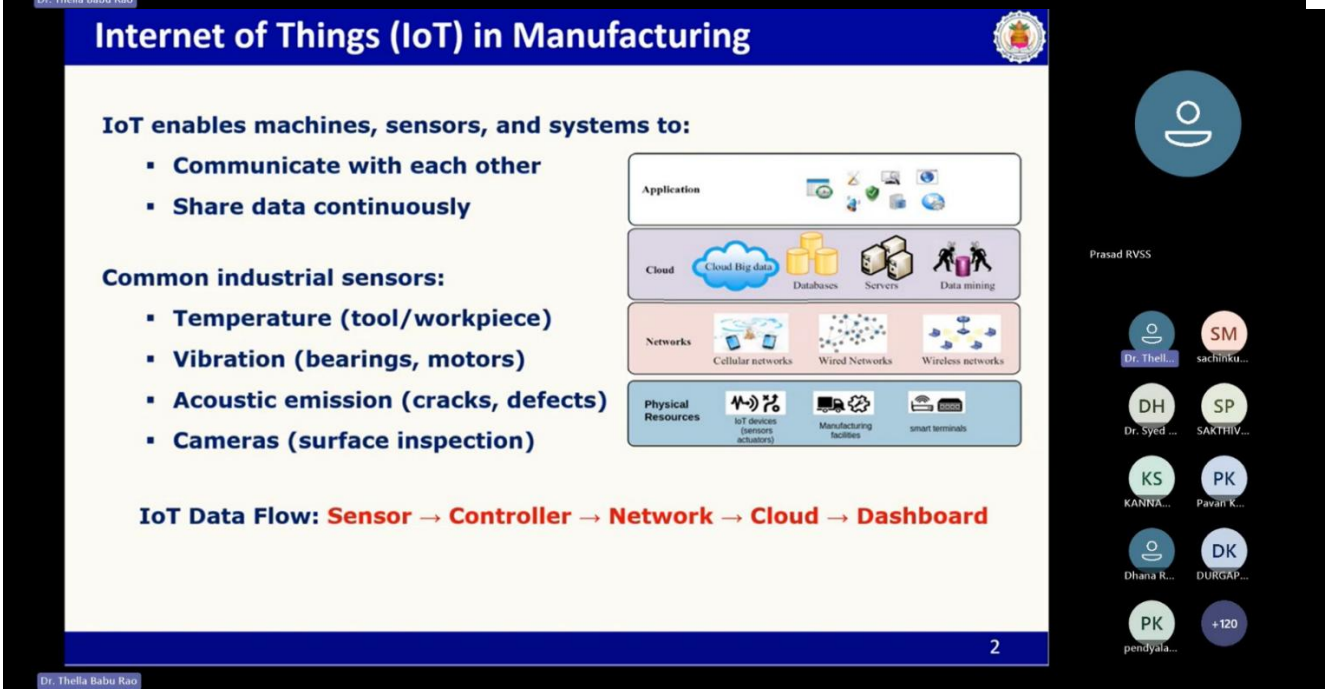
Speaker: Dr.R.V.S.S. Prasad
Business Head,
Pavani Engineers private limited. Hyderabad.

Day-4: 26.02.2026 (Thursday), 10:00 AM to 11:00 AM (Session 2)

Topic: "Smart Manufacturing systems"

Speaker: Dr.Thella Babu Rao,
Department of Mechanical Engineering,
NIT Andhra Pradesh.



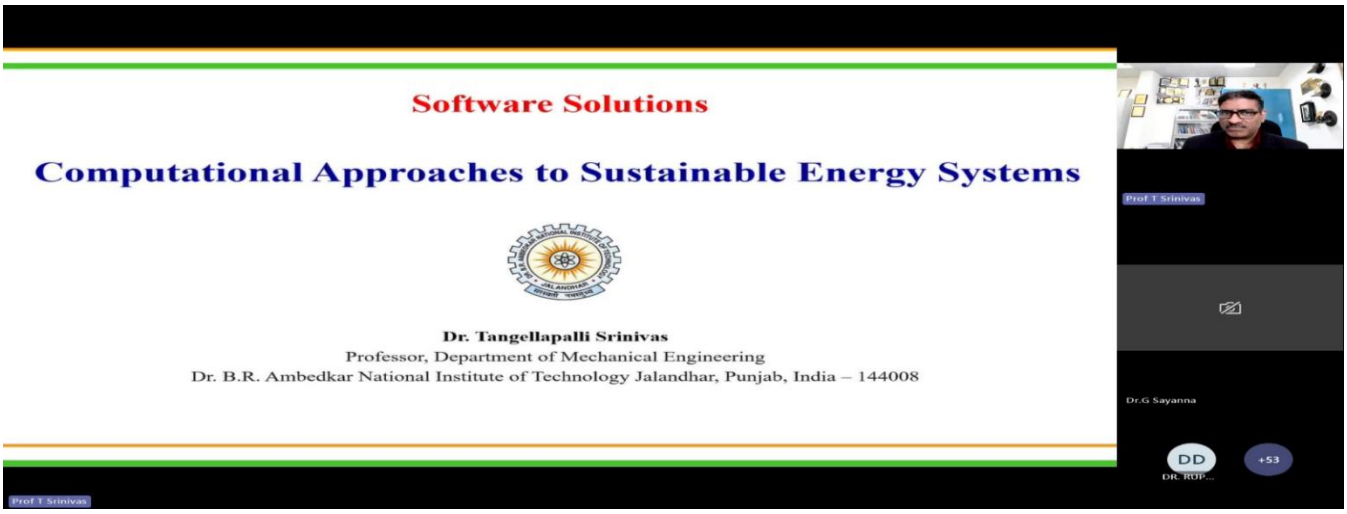


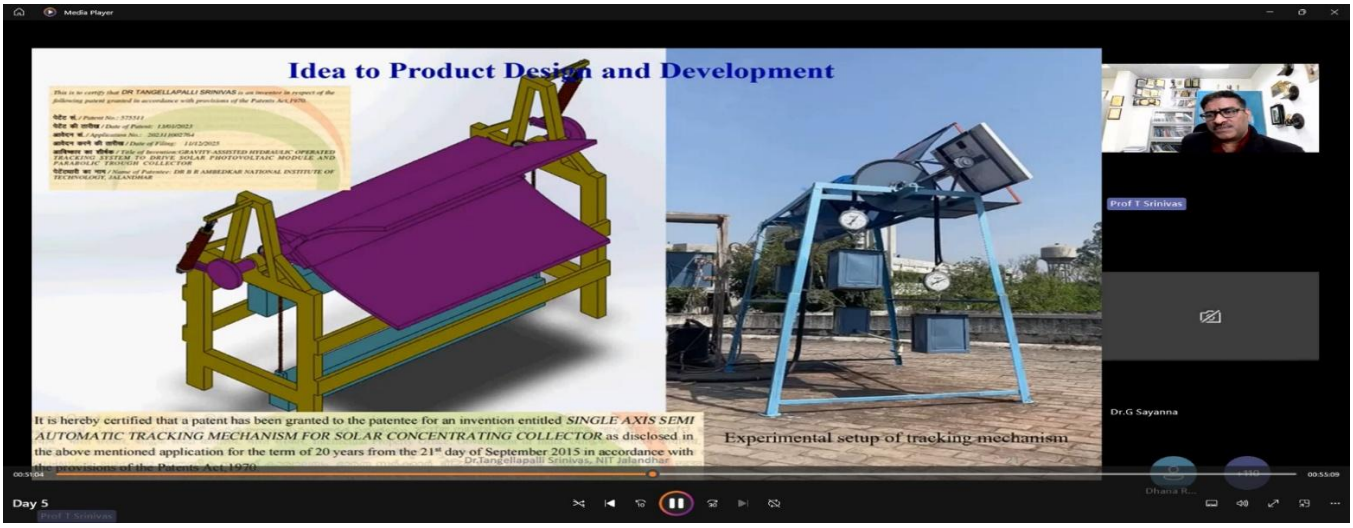
Day-5: 27.02.2026 (Friday), 10:30 AM to 12:30 PM (Session 1)

Topic: "Computational Approaches to Sustainable Energy Solutions"

Speaker: Dr.T.Srinivas

Professor & Head Mechanical Engineering, NIT Jalandhar.





VALIDICTORY

The Department of Mechanical Engineering, Lakireddy Bali Reddy College of Engineering (Autonomous), Mylavaram, successfully organized a One Week Online Faculty Development Program (FDP) on "Advancements in AI-ML-IoT Integration for Smart Mechanical Engineering Systems" from 23rd to 27th February 2026, conducted daily from 10:00 A.M. to 12:30 P.M.

The Valedictory Session of the FDP was held on 27th February 2026 (Friday) at 12:10 P.M. The program was graced by Dr. T. Srinivas as the Chief Guest, and Dr. K. Appa Rao attended the session as the Guest of Honor. Their presence added great value to the closing ceremony and inspired the participants.

The session commenced with a brief introduction to the objectives and achievements of the FDP. Dr. V. Dhana Raju, the Coordinator of the FDP, presented the overall report of the program, highlighting the successful conduct of technical sessions, expert lectures, and the active participation of faculty members from various institutions. The report emphasized how the FDP helped participants gain insights into the latest developments in Artificial Intelligence, Machine Learning, and Internet of Things applications in Mechanical Engineering systems.Following this, Dr. M. B. S. Sreekara Reddy, Head of the Department, presented the summary and objectives-met report. He elaborated on how the FDP achieved its intended goals by enhancing faculty knowledge in emerging interdisciplinary technologies and by promoting research and innovation in smart mechanical systems. He also appreciated the resource persons for delivering insightful sessions and the participants for their enthusiastic involvement throughout the program.

The Chief Guest, Dr. T. Srinivas, addressed the gathering and appreciated the department for organizing a timely and relevant FDP focusing on the integration of AI, ML, and IoT in engineering applications. He emphasized the importance of adopting advanced digital technologies in mechanical engineering education and encouraged faculty members to integrate these technologies into teaching, research, and industry collaborations.

The Guest of Honor, Dr. K. Appa Rao, also congratulated the department for the successful organization of the FDP and highlighted the growing importance of interdisciplinary knowledge for modern engineering professionals. He motivated the participants to continuously upgrade their skills and engage in innovative research activities.

The program concluded with a Vote of Thanks delivered by Mr. K. V. Swarnath, Coordinator, who expressed his sincere gratitude to the Chief Guest, Guest of Honor, resource persons, participants, college management, organizing committee members, and technical staff for their valuable support in making the FDP a grand success. The Valedictory Session marked a fitting conclusion to the FDP, leaving participants enriched with knowledge and motivated to apply the learned concepts in their academic and research activities.