

About the Institution

New Horizon College of Engineering is an Autonomous College permanently affiliated with Visvesvaraya Technological University (VTU), approved by the All India Council for Technical Education (AICTE) and the University Grants Commission (UGC). It is accredited by NAAC with 'A' Grade and by the National Board of Accreditation (NBA).

About the Department - ME

Mechanical Engineering stands as the most diverse and versatile of the engineering disciplines, seamlessly integrating fundamental physics and mathematics with the complex demands of thermal science, materials science, materials science, and advanced manufacturing. In the modern industrial landscape, the field has evolved into a powerhouse of innovation, driven by advanced automation and the Internet of Things (IoT).

About the Department - MCA

The Department of Master of Computer Applications (MCA), New Horizon College of Engineering, established in 2002, is committed to academic excellence, innovation, and industry-oriented education. The department offers MCA and Ph.D. programmes with state-of-the-art infrastructure, experienced faculty, and a strong focus on research, skill development, and emerging technologies. With an outstanding academic record, excellent placement opportunities, and a vibrant learning environment, the department strives to nurture competent professionals equipped to meet global technological challenges.

About NHCILE

NHCILE has supported over 200 startup ideas from students and staff, with more than 50 startups registered as MSME Udyam and 8 incorporated as Private Limited or LLP entities under the Ministry of Corporate Affairs. NHCILE provides assistance for innovative business ideas from students, staff, and external participants, offering support in areas such as ideation, mentorship, prototyping, collaborations, funding, testing, and access to co-working spaces or workstations at its premises, based on individual case requirements.

About the FDP

The Department of Mechanical Engineering, in collaboration with the New Horizon Council for Innovation, Incubation and Entrepreneurship (NHCIE), organises a Five-Day Faculty Development Programme (FDP) on "Emerging Digital Technologies in Manufacturing" from 3rd August 2026 to 7th August 2026. The FDP aims to provide participants with an overview of emerging digital manufacturing technologies, including Industry 4.0, Artificial Intelligence, Digital Twins, Additive Manufacturing, Industrial Internet of Things (IIoT), Smart Manufacturing, optimisation techniques, accreditation tools and processes, entrepreneurship, and an industrial visit, thereby enhancing the technical knowledge and professional competencies of faculty members, researchers, and industry

Organising Committee

Chief Patrons

Dr. Mohan Manghnani

Chairman

New Horizon Educational Institution

Mr. Dharmesh Manghani

President

New Horizon Educational Institution

Patrons

Dr. Manjunatha

Principal

Mr. H. N. Suryaprakash

Registrar - NHCE

Dr. R J Anandhi

Vice Principal - Academics

Convenors

Dr. D V Sreekanth

Professor and Head - ME

Dr. V Asha

Professor and Head - MCA

Dr. Mukul Manohar S

Professor and Associate Head - NHCILE

Coordinators

Dr. Srinath M K

Associate Professor - ME

Dr. Hemant Raju T

Associate Professor - ME

Dr. Arpana Prasad

Associate Professor - MCA



Five-Day Faculty Development Programme
(FDP)

Emerging Digital Technologies in Manufacturing

Organised by

Department of Mechanical Engineering
&

Department of Master of Computer Applications

In Collaboration with

New Horizon Council for Innovation, Incubation,
and Entrepreneurship (NHCIE)

 3rd - 7th August 2026



Objectives

- Provide an understanding of Industry 4.0 and Smart Manufacturing Technologies
- Introduce AI applications in Modern Manufacturing
- Familiarise participants with Digital Twins, IIoT, and Data Analytics
- Explore the future trends of Digital Manufacturing (2035)
- Provide industrial exposure through a visit to a Smart Manufacturing Facility
- Introduce advanced optimisation techniques for manufacturing applications
- Enhance knowledge of research and development in Digital Manufacturing
- Promote entrepreneurship and innovation in the manufacturing sector
- Provide insights into AI-Integrated Additive Manufacturing
- Facilitate knowledge sharing and professional networking among participants

Outcomes of the FDP

- Understand emerging Digital Manufacturing Technologies and Industry 4.0 concepts
- Apply AI, Digital Twins, IIoT, and Smart Manufacturing principles in Engineering applications
- Utilise advanced optimisation techniques for manufacturing and research
- Identify research, innovation, and entrepreneurship opportunities in Digital Manufacturing
- Gain practical exposure to Industrial Digital Manufacturing practices through the Industrial Visit
- Enhance teaching, research, and professional competencies in Advanced Manufacturing Technologies

Programme Schedule

Day 1

Session 1
10:00 AM - 12:30 PM

Session 2
01:30 PM - 04:00 PM

Resource Person

Industry 4.0,
Smart Manufacturing
AI in Manufacturing,
Digital Twins

Mr. Sreedharan
Director Trainer, I&T

Day 2

Session 3
10:00 AM - 12:30 PM

Session 4
01:30 PM - 04:00 PM

Resource Person

Industrial IoT (IIoT),
Data Analytics
Future of Digital
Manufacturing (2035)

Mr. Dattatreya Hampiholi
Director - Training
Product Designer, CMTI

Day 3

Session 5
10:00 AM - 12:30 PM

Industrial Visit,
Smart Manufacturing Lab,
CMTI, Bangalore

Day 4

Session 6
10:00 AM - 12:30 PM

Resource Person

Advanced AI-Integrated
Additive Manufacturing

Dr. Srinath M K
Associate Professor - ME

Session 7
01:30 PM - 04:00 PM

Research and Development
in Digital Manufacturing

Resource Person

Dr. K Gopal
Associate Professor - ME

Day 5

Session 8
10:00 AM - 12:30 PM

Resource Person

Future of Entrepreneurship
in Manufacturing Sector

Dr. Mukul Manohar S
Professor and Associate
Head - NHCIE

Session 9
01:30 PM - 03:00 PM

Optimisation in Digital
Manufacturing

Dr. D V Sreekanth
Professor and HoD - ME

Session 10
03:30 PM - 04:00 PM

Certificate Distribution,
Valedictory Function



Eligibility

Open to Research Scholars, Faculty Members and Industry Professionals.

Registration Fees

Scholars, Faculty Members and Industry Professionals:
Rs. 500/-

Note: E-Certificates will be given to the participants who have attended all sessions of the programme.

Scan to Register





**Five-Day Faculty Development Programme on
"Emerging Digital Technologies in Manufacturing"
(3rd – 7th August 2026)**

Department of Mechanical Engineering

Venue: Tejas Seminar Hall, New Horizon College of Engineering

Faculty Co-ordinators :

- **Dr. Srinath M. K.**
Associate Professor, Department of Mechanical Engineering
- **Dr. Hemanth Raju T.**
Associate Professor, Department of Mechanical Engineering

Convenors

- **Dr. D. V. Sreekanth**
Professor & Head, Department of Mechanical Engineering
- **Dr. V. Asha**
Professor & Head, Department of Master of Computer Applications
- **Dr. Mukul Manohar S**
Chief Executive Officer, New Horizon Council for Innovation, Incubation and Entrepreneurship (NHCIIE)

Participants: Faculty members of Various Institution

Objectives:

The Five-Day Faculty Development Programme on "Emerging Digital Technologies in Manufacturing" was organized to enhance the knowledge and competencies of faculty members in the latest advancements transforming the manufacturing sector. The programme aimed to provide comprehensive insights into Industry 4.0, Artificial Intelligence in Manufacturing, Digital Twins, Industrial Internet of Things (IIoT), Data Analytics, Smart Manufacturing, and Additive Manufacturing through expert lectures and interactive sessions. It also sought to promote innovation, research and development, entrepreneurship, and strengthen industry-academia collaboration by providing participants with practical exposure through an industrial visit, thereby enabling them to integrate emerging digital technologies into teaching, research, and real-world engineering applications.

Poster:

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Digital Twins

Resource Person

Mr. Sreedharan
Director Trainer, L&T

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Industrial IIoT (IIoT),
Data Analytics

Session 4
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Scan to Register



Day 1: Inaugural Session

Chief Guest: Mr. Sreedharan

Director Trainer, Larsen & Toubro (L&T)

Profile:

Mr. Sreedharan is an experienced industry professional and corporate trainer associated with **Larsen & Toubro (L&T)**. As a Director Trainer, he specializes in delivering training on advanced manufacturing technologies, Industry 4.0, Artificial Intelligence in Manufacturing, Digital Twins, and smart industrial systems. With extensive industry experience, he has been actively involved in enhancing technical competencies through industry-oriented training programmes, bridging the gap between academic learning and industrial practice. His sessions emphasize practical implementation of digital manufacturing technologies and emerging trends in smart manufacturing.

The **Five-Day Faculty Development Programme on "Emerging Digital Technologies in Manufacturing"** commenced with a grand inaugural ceremony attended by faculty members, research scholars, and invited guests. The programme was inaugurated by the **Chief Guest, Mr. Sreedharan, Director Trainer, Larsen & Toubro (L&T)**, in the esteemed presence of **Dr. Manjunatha, Principal, New Horizon College of Engineering**, and **Dr. R. J. Anandhi, Vice Principal – Academics, New Horizon College of Engineering**. The event was also

graced by the convenors and faculty coordinators from the Departments of Mechanical Engineering and Master of Computer Applications.

The programme began with a formal welcome, followed by the ceremonial lighting of the lamp. In his inaugural address, **Dr. Manjunatha** emphasized the growing significance of emerging digital technologies in transforming the manufacturing sector and highlighted the importance of continuous faculty development to meet evolving industry expectations. **Dr. R. J. Anandhi** encouraged participants to make the most of the FDP by actively engaging with the expert sessions and exploring opportunities for collaborative research and innovation.

The dignitaries appreciated the **interdisciplinary collaboration between the Department of Mechanical Engineering and the Department of Master of Computer Applications** in organizing the Faculty Development Programme. They noted that the convergence of manufacturing and computing technologies is fundamental to the realization of Industry 4.0 and commended both departments for creating a platform that promotes interdisciplinary learning, industry–academia interaction, and knowledge sharing.

The Chief Guest, **Mr. Sreedharan**, delivered the inaugural keynote address, sharing valuable insights into the rapid digital transformation taking place in the manufacturing industry. Drawing from his extensive experience at **Larsen & Toubro (L&T)**, he discussed the growing role of **Industry 4.0, Artificial Intelligence, Digital Twins, automation, and smart manufacturing** in enhancing productivity, operational efficiency, and innovation. He encouraged faculty members to continually update their technical knowledge and incorporate industry-relevant technologies into teaching, research, and student projects to better prepare graduates for the evolving industrial landscape.

The inaugural session concluded with a vote of thanks, setting a positive and inspiring tone for the five-day programme, followed by the commencement of the technical sessions on emerging digital technologies in manufacturing.



GLIMPSES OF INAGURAL CEREMONY



GLIMPSES OF INAGURAL CEREMONY

Day 1 successfully laid the theoretical foundation for the FDP, offering participants a clear understanding of the evolution and core principles of Generative AI, setting the stage for deeper hands-on learning in the upcoming sessions.

DAY 1

- ☐ **Session 1: 10:00 AM – 12:30 PM**
 - Topic: Industry 4.0, Smart Manufacturing
- ☐ **Session 2: 1:30 PM – 4:00 PM**
 - Topic: AI in Manufacturing, Digital Twins

Day 1: Resource Person

Mr. Dattatreya Hampiholi

Director – Training & Product Designer, Central Manufacturing Technology Institute (CMTI), Bengaluru

Profile:

Mr. Dattatreya Hampiholi is a manufacturing technology professional associated with the **Central Manufacturing Technology Institute (CMTI), Bengaluru**. His expertise includes **product design, advanced manufacturing processes, machine design, assembly, testing, and additive manufacturing technologies**. He has contributed to the development of machine tool systems, hydraulic test rigs, and specialized manufacturing solutions, and has been involved in research and product development activities in advanced manufacturing. His technical expertise and industry experience make him a valuable resource in the areas of Industrial IoT, data analytics, digital manufacturing, and future manufacturing technologies.

Objective of the Session

The session aimed to familiarize participants with the latest advancements in Industry 4.0 technologies, focusing on the integration of Artificial Intelligence, Industrial Internet of Things (IIoT), Digital Twins, Data Analytics, and Smart Manufacturing. It also sought to provide insights into autonomous manufacturing systems, sustainable production practices, and emerging career opportunities while preparing engineering educators to equip graduates with industry-relevant knowledge and future-ready skills.

Content Covered

The resource person commenced the session by discussing the evolution of manufacturing from conventional production systems to intelligent, connected, and autonomous factories. The concept of the Connected Factory was explained through its four core layers—Physical Assets, Connectivity, Data & Analytics, and Intelligence—which collectively enable real-time visibility, predictive maintenance, and autonomous decision-making.

The session elaborated on the role of Artificial Intelligence, Industrial IoT, and Digital Twins in transforming manufacturing operations through predictive maintenance, quality inspection, process optimization, and real-time monitoring. Participants were introduced to the concept of Digital Twins as virtual replicas of physical assets that facilitate simulation, testing, and optimization before implementation in real-world production environments.

Several industrial case studies, including Tesla Gigafactory, Siemens Amberg Smart Factory, and Bosch's AI-driven predictive manufacturing systems, demonstrated how leading organizations have successfully adopted Industry 4.0 technologies to improve operational efficiency, product quality, and productivity.

The speaker also highlighted advancements in collaborative robotics (Cobots), additive manufacturing, AR/VR applications in manufacturing, sustainability practices, and circular

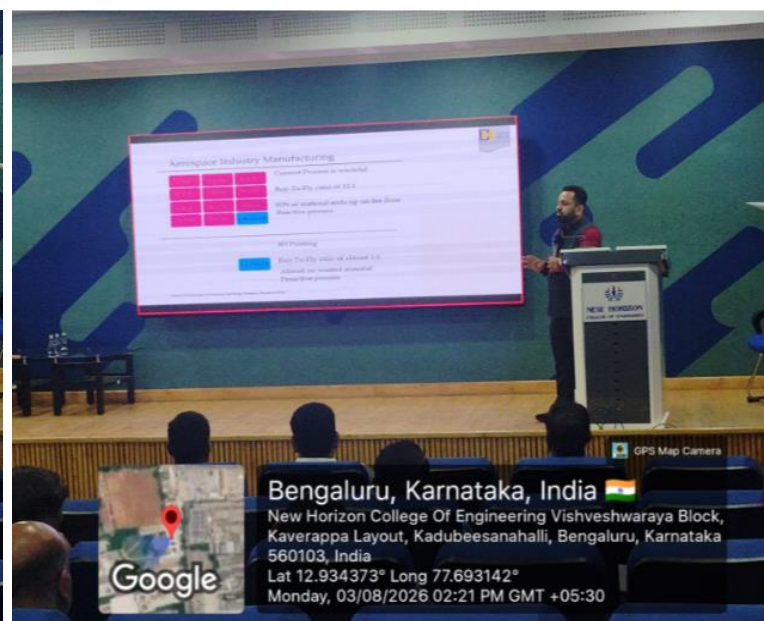
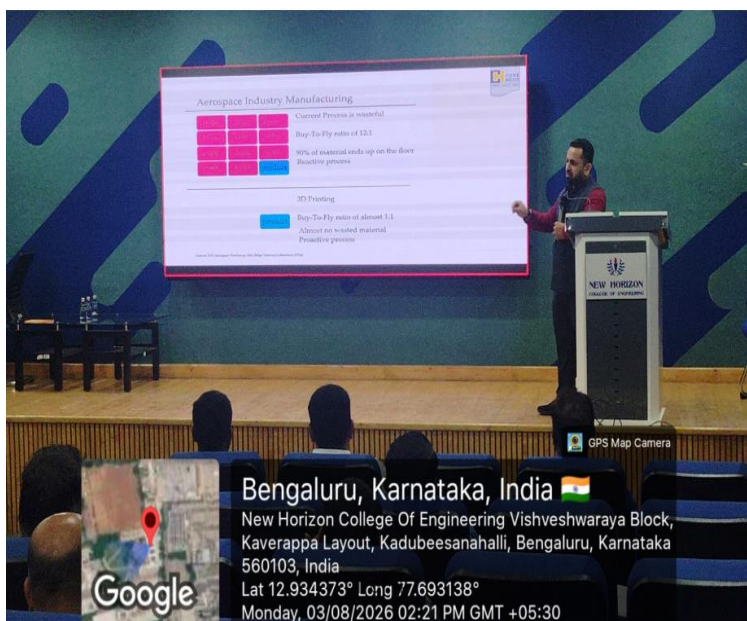
manufacturing. Examples from the aerospace sector illustrated the need for reducing material wastage through advanced manufacturing techniques and intelligent process optimization.

The session concluded with a discussion on future manufacturing job roles, including Digital Twin Engineer, AI Manufacturing Analyst, Sustainability Systems Manager, and Cobot Integration Specialist. The speaker emphasized the competencies expected from future engineers, such as AI and ML literacy, Industrial IoT, cloud technologies, data analytics, adaptability, collaboration, ethical decision-making, and lifelong learning.

Learning Outcomes

At the end of the session, participants were able to:

- Understand the principles and architecture of Industry 4.0-enabled smart manufacturing systems.
- Explain the applications of Artificial Intelligence, Industrial IoT, Data Analytics, and Digital Twin technologies in modern manufacturing.
- Appreciate the role of collaborative robotics, additive manufacturing, AR/VR, and automation in improving industrial productivity and sustainability.
- Analyse real-world industrial implementations through case studies from globally recognized manufacturing organizations.
- Identify emerging career opportunities and the competencies required for engineering graduates to succeed in the evolving manufacturing ecosystem.
- Recognize the importance of interdisciplinary learning, innovation, and industry collaboration in preparing future-ready engineers.



GLIMPSES OF SESION-DAY 1

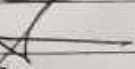
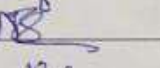
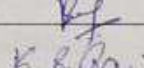
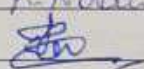
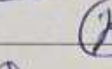
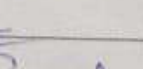
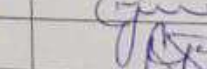
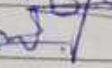
NEW HORIZON COLLEGE OF ENGINEERING

Department of Mechanical Engineering

Faculty Development Program on Emerging Digital Technologies in Manufacturing

Session 1: 01:00PM to 04:00PM

Date: 03-08-2026

SL. NO	FACULTY NAME	SIGNATURE
1	S.P. Sreaja	
2	Dr. Priya Thomas	
3	Dr. M.T. Vasumathi	
4	N. Mithuladevi	
5	Ashwatha. N	
6	SATHYA. J	
7	Ravikumar. M	
8	Dr. D.V. Sreekanth	
9	Dr. Srinath. M. K	
10	C. RAMESWART	
11	DR. SHIVA PRASAD S	
12	Mr. Nithin Kumar. NR	
13	Dr. Veeresha. G	
14	Dr. Anjane	
15	Dr. K. Gopal	
16	Dr. Nagabhushana. N	
17	Venkatesh RN	
18	Ravi Kumar K.K	
19	Kenchappa. B.	
20	Harshith. C.M (CSE-DS)	
21	Kantha Raj. V	
22	Dr. Hemant Raju-T	
23	Mohankumar AR	
24	Narasimha Murthy	
25	Dr. R. Mohan Babu	
26	G.S. Siddalingeswararao	
27	Sunil S K	
28	me gha sandesh	
29		
30		

Feedback - 5 DAYS FDP: Day - 1,"Manufacturing the Future: 2035",3-8-2026, SESSION-1 and 2- Mr.Dattatreya V.H, PRODUCT DESIGNER,CMTI, Bengaluru "

29 responses

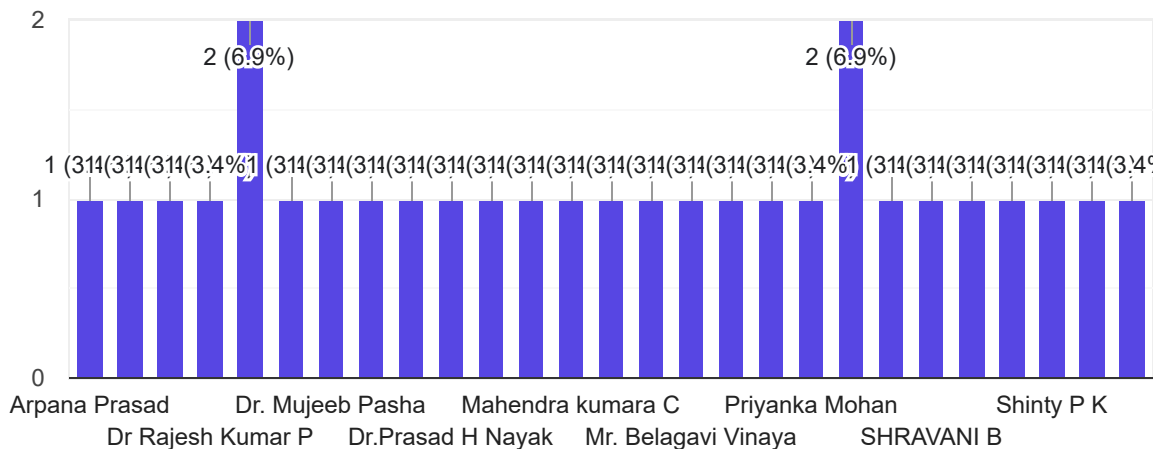
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DETAILS OF PARTICIPANTS

Participant Name

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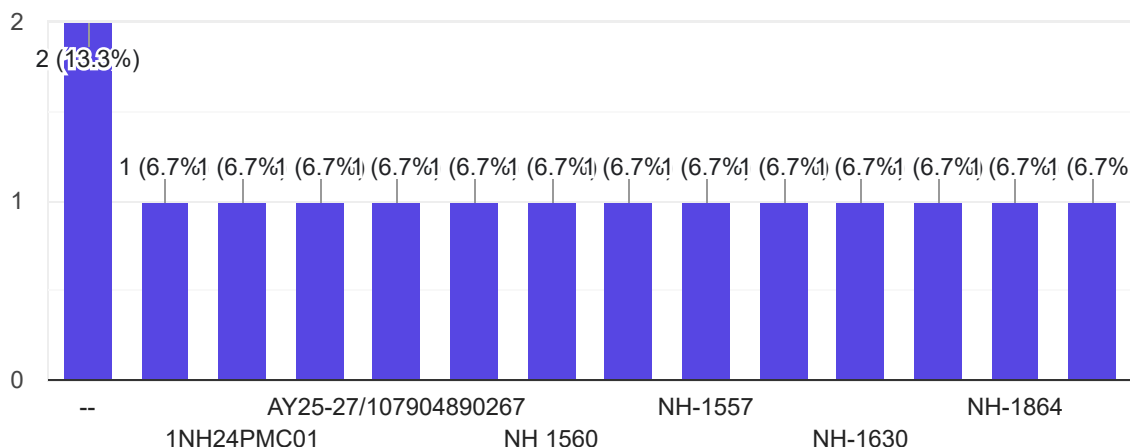
29 responses



Participant ID

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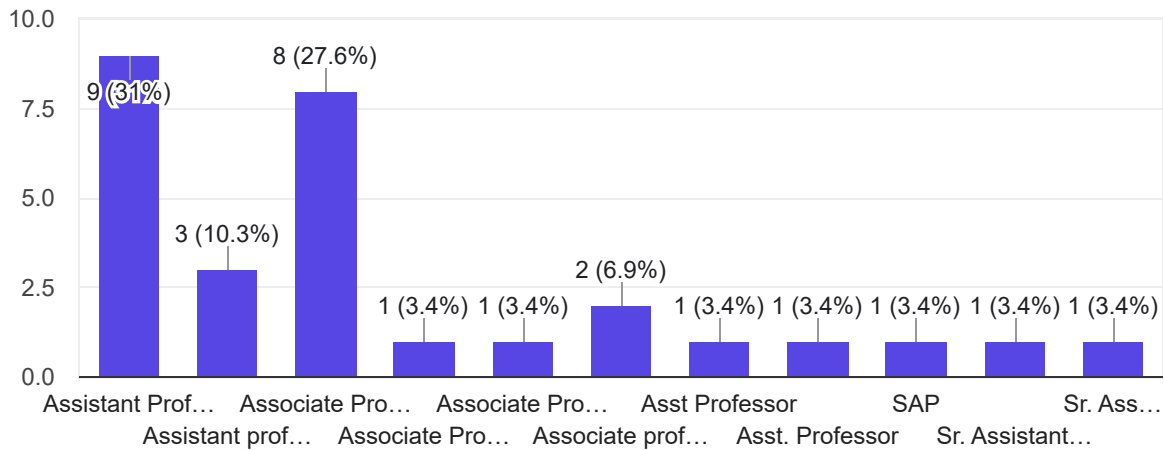
15 responses



Designation / Occupation

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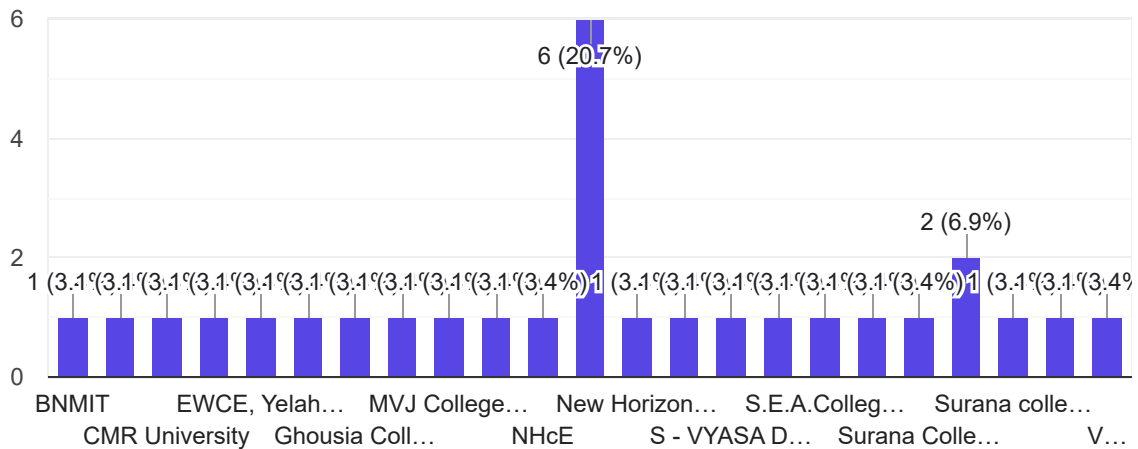
29 responses



Institute / Organization Name & Address

 Copy chart

29 responses



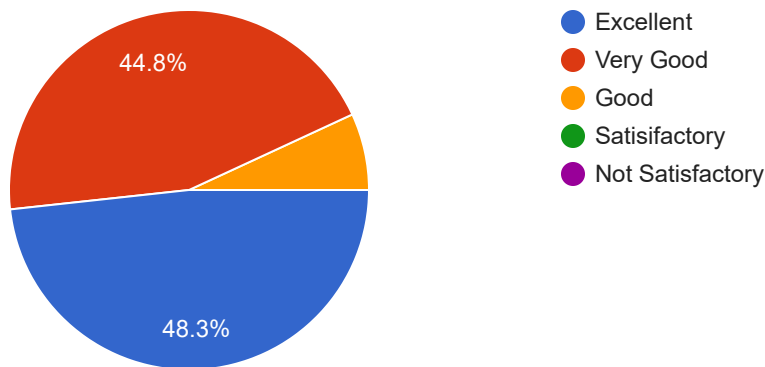
Day 1 - Session 1 -"Manufacturing the Future: 2035 , Mr.Dattatreya V.H, PRODUCT DESIGNER,CMTI, Bengaluru



What is your level of satisfaction with this speaker?

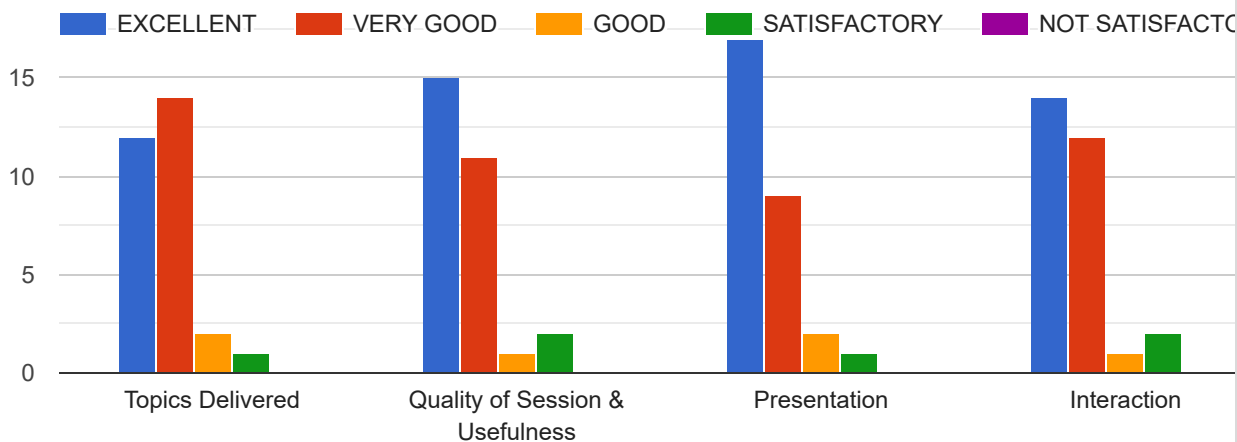
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29 responses



Please make indicative your satisfaction for the following aspects of the event

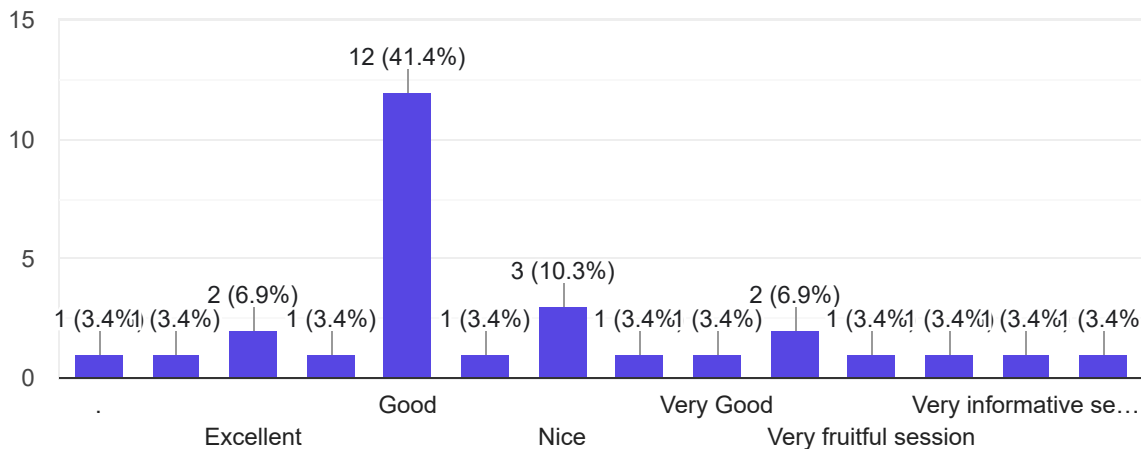
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OVERALL FEEDBACK ON DAY-1,SESSION-1

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29 responses



Day 2: Session 1: 10:00 AM – 12:30 PM

- Topic: AD/ADAS in Digital Cockpit

Resource Person

Guruprasad J.

Automotive Software Engineering Leader | Software-Defined Vehicles, ADAS & Digital Cockpit | Building Engineering Capabilities and Customer Solutions | Director of Engineering, GlobalLogic

Profile:

The technical session was delivered by **Mr. Guruprasad J, Director of Engineering at GlobalLogic**, with extensive experience in automotive software engineering and intelligent mobility solutions. He specializes in **Software-Defined Vehicles (SDVs), Advanced Driver Assistance Systems (ADAS), Automated Driving (AD), and Digital Cockpit technologies**, leading engineering teams in developing next-generation automotive software platforms. His expertise includes building engineering capabilities, delivering customer-centric solutions, and driving innovation in connected and autonomous vehicle technologies. Throughout his career, he has worked on advanced automotive software architectures, integrating Artificial Intelligence, cloud connectivity, functional safety, and digital cockpit solutions to address evolving industry requirements. During the session, he shared valuable industry insights into emerging automotive technologies, bridging theoretical concepts with real-world engineering practices and applications.

Objective of the Session

The objective of the session was to provide participants with a comprehensive understanding of the integration of **Advanced Driving (AD) and Advanced Driver Assistance Systems (ADAS)** within modern **Digital Cockpit** platforms. The session aimed to familiarize faculty members with the evolution of automotive technologies from conventional vehicles to Software-Defined Vehicles (SDVs), highlighting the role of intelligent sensing, Artificial Intelligence (AI), Human-Machine Interface (HMI), connectivity, and cloud technologies in enhancing vehicle safety, driver assistance, and user experience. It also sought to expose participants to current industry practices, development methodologies, and emerging trends in intelligent automotive systems that are transforming the manufacturing sector.

Content Covered

The session on "**AD/ADAS in Digital Cockpit**" provided a comprehensive overview of the latest advancements in intelligent automotive technologies and their role in transforming modern vehicle systems. It began with an introduction to the evolution of the automotive industry, tracing the transition from conventional mechanical vehicles to mechatronic,

connected, and Software-Defined Vehicles (SDVs). The resource person explained how Digital Cockpit technology has become the central interface for integrating vehicle controls, infotainment, connectivity, and driver assistance functions to enhance safety, comfort, and the overall driving experience.

The session extensively covered the architecture and working principles of **Advanced Driving (AD)** and **Advanced Driver Assistance Systems (ADAS)**. Various sensing technologies, including cameras, radar, LiDAR, ultrasonic sensors, and GNSS/IMU, were discussed in detail, highlighting their individual capabilities and the importance of sensor fusion in enabling accurate perception of the vehicle's surroundings. A practical explanation of **Autonomous Emergency Braking (AEB)** demonstrated how intelligent sensing, collision prediction, and automatic braking contribute to accident prevention, particularly in complex Indian traffic conditions.

Further, the resource person described the complete ADAS development lifecycle, covering requirement analysis, data collection, perception algorithms, behavior prediction, motion planning, vehicle control, software validation, and deployment through Over-the-Air (OTA) updates. The importance of functional safety, cybersecurity, simulation environments, and Digital Twin technologies in ensuring reliable automotive software development was also emphasized.

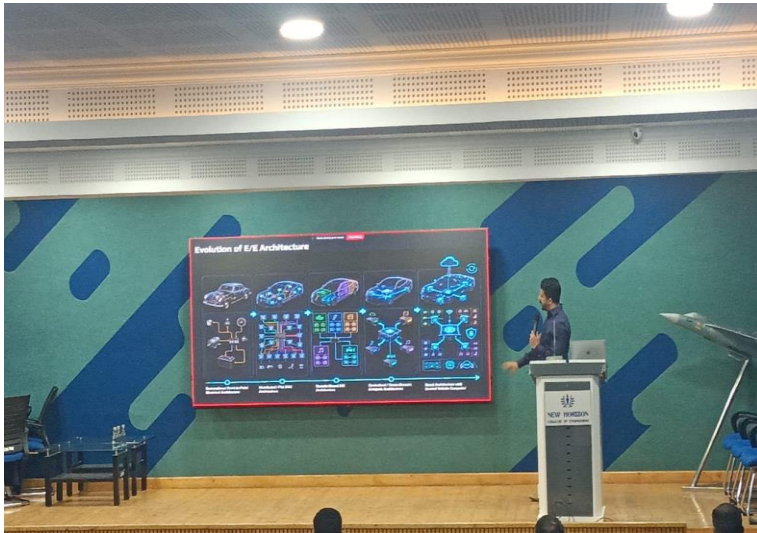
The session concluded with an overview of modern Digital Cockpit technologies, including Human-Machine Interface (HMI), digital instrument clusters, infotainment systems, voice assistants, driver monitoring systems, cloud connectivity, and personalized user experiences. Real-world case studies from leading automotive companies such as **Tesla, Waymo, BMW, and Jaguar Land Rover** were presented to illustrate the practical implementation of AD/ADAS and Digital Cockpit technologies. The discussion also highlighted emerging trends in Software-Defined Vehicles, Artificial Intelligence, connected mobility, and intelligent automotive manufacturing, providing participants with valuable insights into the future direction of the automotive industry.

Learning Outcomes

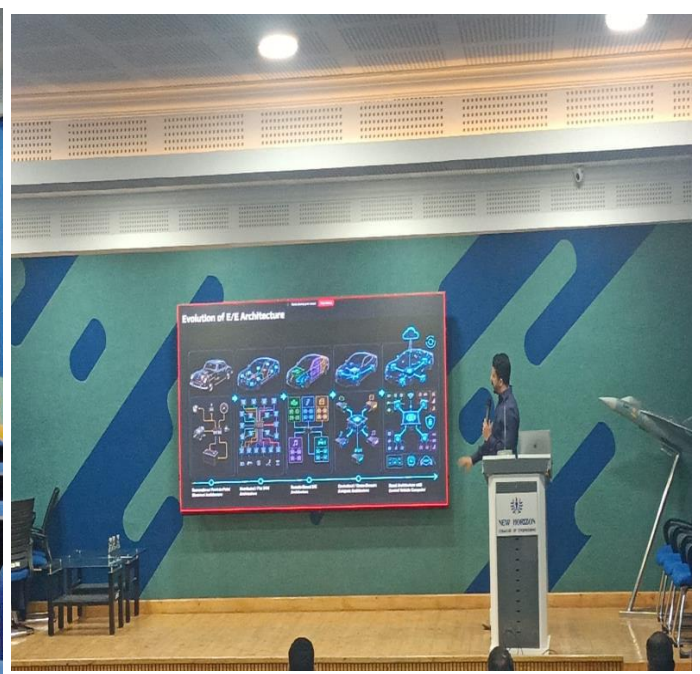
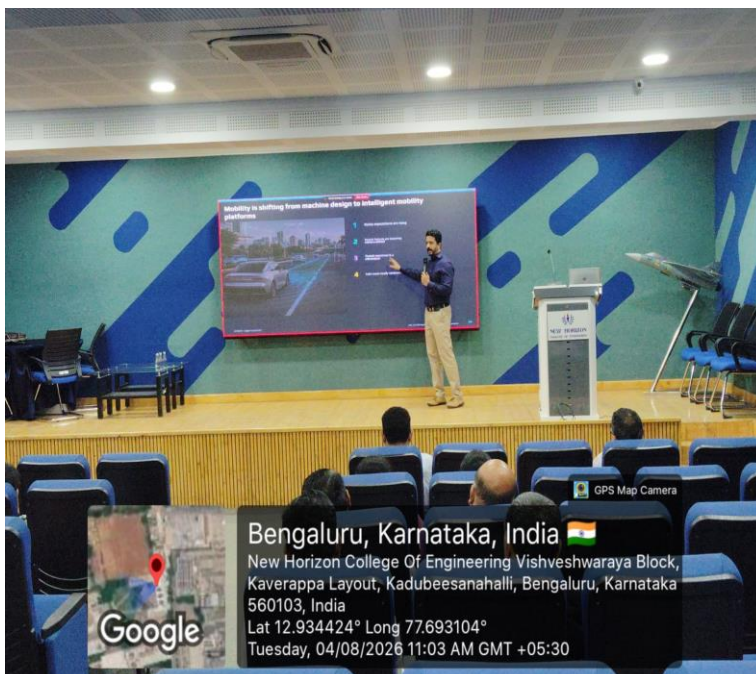
At the end of the session, participants were able to:

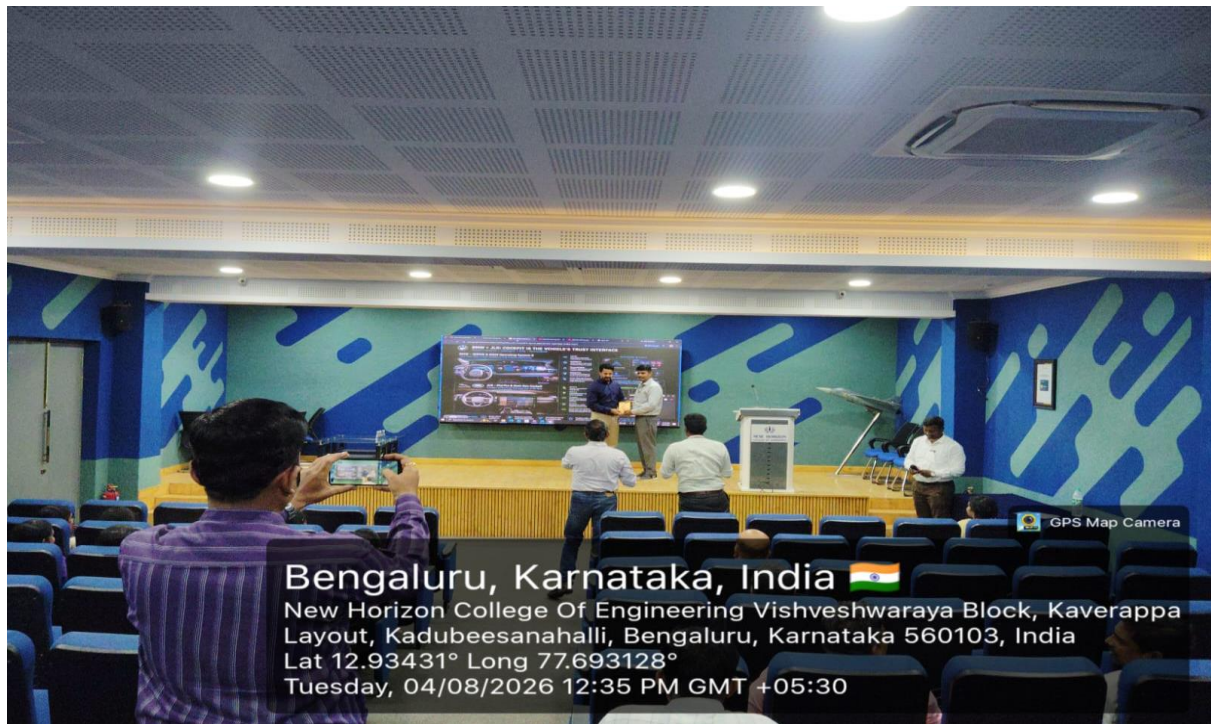
- Understand the concepts of **Advanced Driving (AD)**, **Advanced Driver Assistance Systems (ADAS)**, and **Digital Cockpit** technologies.
- Explain the evolution of vehicles from conventional mechanical systems to **Software-Defined Vehicles (SDVs)**.
- Identify the various sensors used in ADAS, including cameras, radar, LiDAR, ultrasonic sensors, and GNSS/IMU, along with their applications.
- Understand the principles of **sensor fusion** and its significance in improving the reliability and safety of autonomous driving systems.

- Describe the working of **Autonomous Emergency Braking (AEB)** and its importance in reducing road accidents.
- Gain knowledge of the complete ADAS development process, including perception, planning, control, testing, and validation.
- Appreciate the role of **Artificial Intelligence, Machine Learning, and Generative AI** in enhancing intelligent vehicle functionalities.
- Understand the architecture and features of modern **Digital Cockpit** systems and their contribution to driver safety, comfort, and user experience.
- Recognize the importance of functional safety, cybersecurity, simulation, and Digital Twin technologies in automotive software development.
- Analyze current industrial practices and future trends in intelligent mobility, connected vehicles, and emerging automotive manufacturing technologies.



GLIMPSES OF THE 2ND DAY SESSION





GLIMPSES OF SESSION-DAY 2

NEW HORIZON COLLEGE OF ENGINEERING

Department of Mechanical Engineering

Faculty Development Program on Emerging Digital Technologies in Manufacturing

Timings: 10:00AM to 05:00PM

Date: 04-08-2026

SL. NO	FACULTY NAME	BRANCH	SIGNATURE	
			Session -3	Session -4
1	C. RAMESH KARTI	ME		
2	Smitha. B. S	ME		
3	Dr. Nagabhushana. N	ME		
4	Dr. SHIVAPRAKASH	ME		
5	Mr. Nithin Kumar. N.R.	ECE		
6	Dr. K. GOPAL	ME		
7	Dr. Ishani Mishra	ECE		
8	Dr. M. J. Vasumathi	MCA		
9	Dr. Priya Thomas	MCA		
10	Dr. N. Mithili Devi	MCA		
11	A. Kalavani	MCA		
12	Dr. Srujanika N. S	MCA		
13	SATHYA J	MCA		
14	Dr. B. Nithya Ramesh	MCA		
15	Ashwatha. N	MCA		
16	Dr. D. V. Sreekanth	ME		
17	Dr. Sathya. N. K	ME		
18	Goutham Raj K	ME		
19	Dr. Anupam	MCA		
20	S. P. Sreeja	MCA		
21	Mohankumar	ME		
22	Dr. Veerasha. G	ME		
23				
24				
25				
26				
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28				

Feedback - 5 DAYS FDP: Day - 2, **AD/ADAS &Digital Cockpit"** ,4-8-2026, SESSION-1,GURU PRASAD JAGDEESH

15 responses

[Publish analytics](#)

DETAILS OF PARTICIPANTS



Participant Name

15 responses

Mr. Belagavi Vinaya

Mahendra Kumara C

Ramesh S Bujari

Priyanka Mohan

Ashwitha N

Shinty P K

N MITHILI DEVI

Dr. Mujeeb Pasha

SJ Shaheena Begum

S P Sreeja

Dr Rajesh Kumar P

Dr. M T Vasumathi

JAYASHEEL KUMAR K A

Dr. PRIYA THOMAS

Dr Vijay Kumar



Participant ID

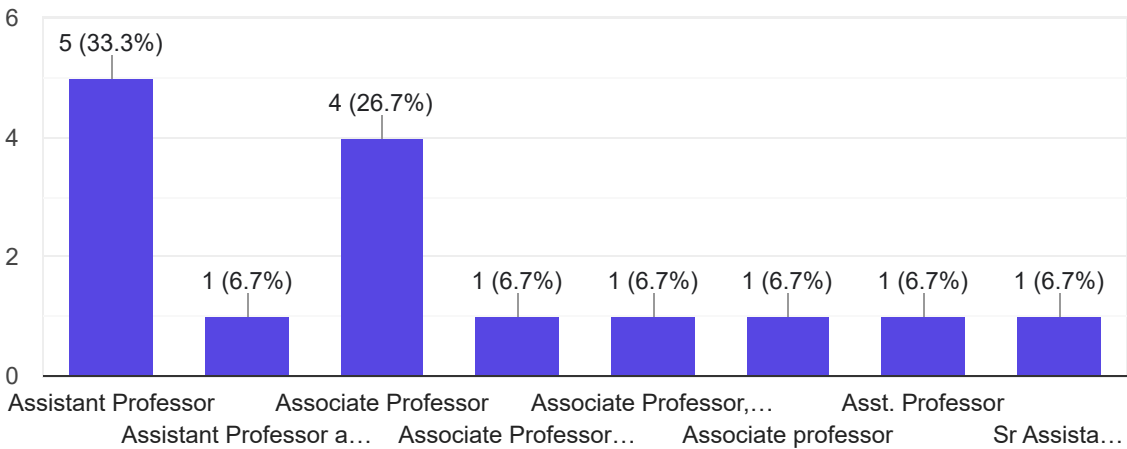
7 responses

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Nh-1565
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hren0058
NH-1557
NH-1630

Designation / Occupation

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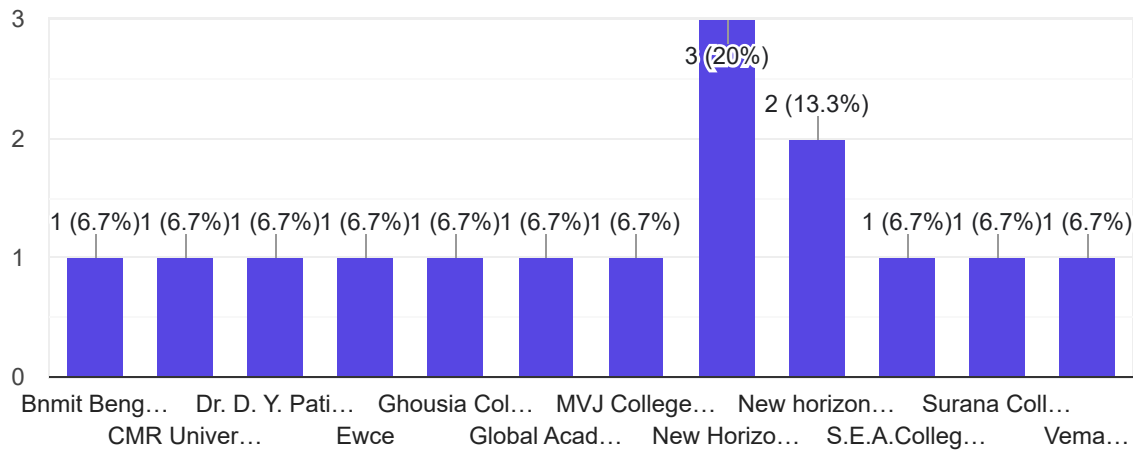
15 responses



Institute / Organization Name & Address

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15 responses

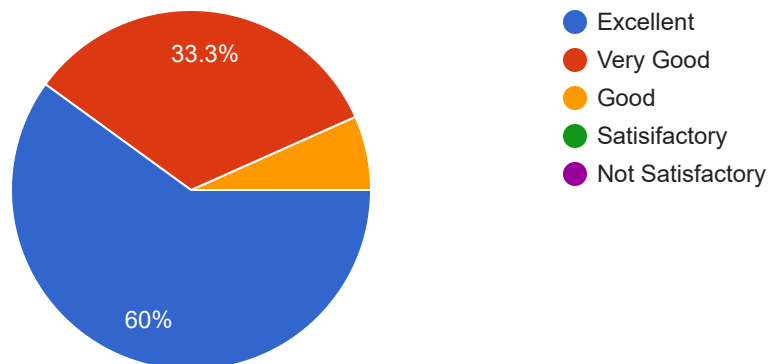


Day 1 - Session 1 - "Manufacturing the Future: 2035", Mr.Dattatreya V.H, PRODUCT DESIGNER, CMTI, Bengaluru

What is your level of satisfaction with this speaker?

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15 responses



Please make indicative your satisfaction for the following aspects of the event

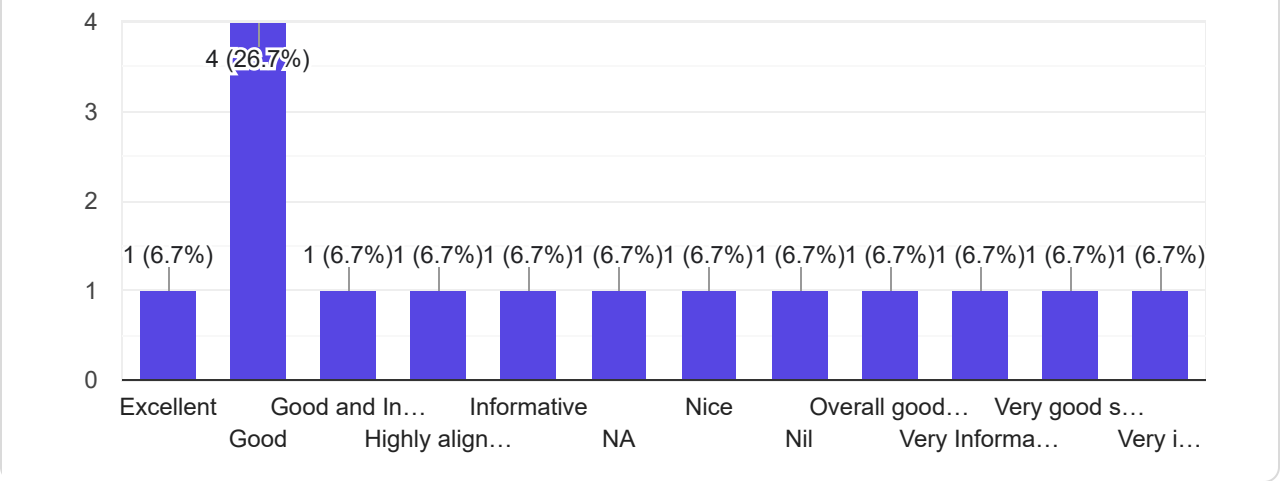
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OVERALL FEEDBACK ON DAY-1,SESSION-1

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15 responses



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Day 3: Session 1: 10:00 AM – 4:00 PM

Industrial Visit: India Nano at Lalit Hotel, Bengaluru

During the visit, the participants explored various exhibition stalls, technology demonstrations, and research showcases presented by industries, research organizations, startups, and academic institutions. The event provided valuable insights into emerging trends in nanomaterials, energy applications, healthcare technologies, electronics, sustainable manufacturing, and Industry 4.0 solutions.

Faculty members interacted with scientists, industry experts, entrepreneurs, and technology developers to understand the practical applications of nanotechnology in engineering and industrial sectors. The discussions focused on technology transfer, collaborative research opportunities, innovation-driven product development, and the integration of advanced technologies into engineering education.

The industrial visit significantly enhanced the participants' understanding of current technological developments and provided exposure to cutting-edge research activities. The knowledge gained from the visit will be beneficial in enriching classroom teaching, guiding student projects, promoting interdisciplinary research, and strengthening industry-academia collaboration.





GLIMPSES OF DAY 3

Day 4: Session 1: 10:00 AM – 12:30 PM

- **Topic: Building Skilled Workforce of the Future.**
- **Resource Person:**
Sri Kumar Maganti, Senior General Manager, EDS Technologies, Bengaluru.

Profile:

Sri Srikumar Maganti is the Senior General Manager – Technical at EDS Technologies, Bengaluru, a leading provider of Product Lifecycle Management (PLM), CAD/CAM/CAE solutions, engineering simulation, digital manufacturing, and Industry 4.0 technologies in India.

Objective of the Session:

The objectives of the session were:

1. To understand the evolving skill requirements of the modern engineering and manufacturing industries.
2. To create awareness about emerging technologies such as Industry 4.0, Artificial Intelligence, Digital Manufacturing, Automation, and Data Analytics.
3. To highlight the importance of industry-relevant competencies required for future workforce readiness.
4. To bridge the gap between academic learning and industry expectations through skill-based education and training.
5. To familiarize participants with the latest technological trends and their impact on employment opportunities.
6. To emphasize the significance of continuous learning, upskilling, and reskilling in a rapidly changing technological environment.
7. To provide insights into industry practices, professional competencies, and workplace expectations for engineering graduates.
8. To encourage the development of problem-solving, critical thinking, innovation, communication, and teamwork skills.

9. To motivate participants to prepare for future career opportunities by acquiring multidisciplinary knowledge and industry-oriented skills.

Content Covered:

Sri Kumar Maganti discussed the influence of **Industry 4.0 technologies**, including Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT), Digital Twins, Cloud Computing, Big Data Analytics, Robotics, and Automation. He explained how these technologies are transforming manufacturing, product development, and business operations, thereby creating a demand for a highly skilled and technologically proficient workforce.

A major focus of the session was on the importance of **digital engineering and simulation technologies** in modern industries. The speaker highlighted the growing use of Computer-Aided Design (CAD), Computer-Aided Engineering (CAE), Product Lifecycle Management (PLM), Finite Element Analysis (FEA), and Digital Manufacturing tools for product development and process optimization. Participants were introduced to industry practices involving virtual design, simulation-driven engineering, and data-based decision-making.

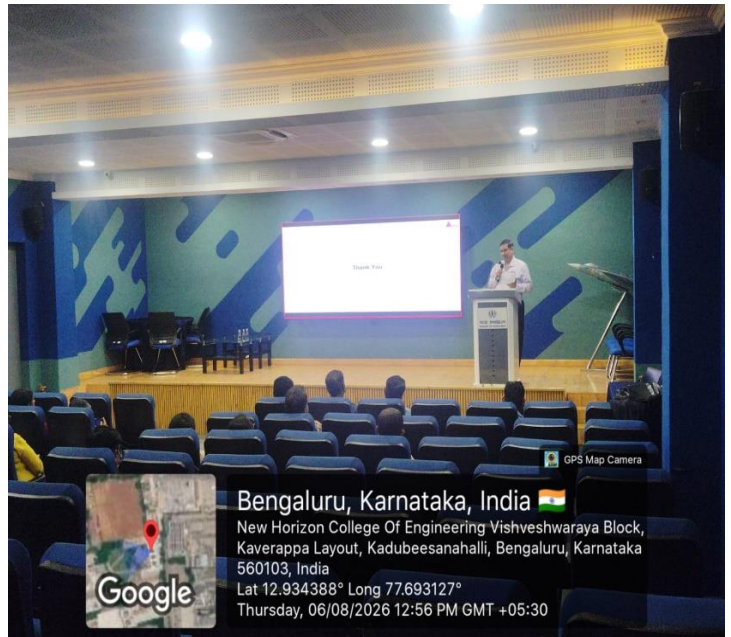
The resource person stressed the need for continuous **upskilling and reskilling** to meet future industry requirements. He explained that lifelong learning has become essential due to the rapid pace of technological innovation. The importance of acquiring certifications, participating in training programmes, engaging in industry projects, and learning emerging software tools was discussed in detail.

Learning Outcomes

At the end of the session, participants were able to:

1. Understand the evolving workforce requirements and skill demands of modern industries in the era of digital transformation.
2. Identify the impact of emerging technologies such as Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT), Digital Manufacturing, Robotics, and Automation on future job roles.
3. Recognize the importance of industry-oriented skills and competencies required for professional success in engineering and technology sectors.

4. Understand the role of digital engineering tools such as CAD, CAE, PLM, Simulation, and Finite Element Analysis (FEA) in modern product development and manufacturing.
5. Analyze the significance of continuous learning, upskilling, and reskilling to remain competitive in a rapidly changing technological environment.



GLIMPSES OF SESSION DAY 4

Day 5: Session 1: 10:00 AM – 11:00 PM

- **Topic: The Evolution of Role of Optimization in Digital Manufacturing**
- **Resource Person:**
Dr.Sreekanth D.V,Prof and Head Dept of Mechanical Engineering,NHCE,Bangalore

Profile:

Dr. D. V. Sreekanth is a distinguished academician, researcher, and administrator currently serving as Professor and Head of the Department of Mechanical Engineering at New Horizon College of Engineering (NHCE), Bengaluru. He is known for his contributions to engineering education, research, innovation, and industry-academia collaboration. As the Head of the Department at NHCE, he has been instrumental in strengthening academic quality, research culture, industry engagement, and student development initiatives. Under his leadership, the Department of Mechanical Engineering continues to focus on emerging technologies, entrepreneurship, skill development, and multidisciplinary learning.

Objectives of the Session

The primary objectives of the technical talk were:

- To understand the evolution of manufacturing technologies and digital transformation.
- To explore the role of optimization techniques in modern manufacturing systems.
- To create awareness about Industry 4.0, smart factories, and digital manufacturing.
- To familiarize participants with advanced optimization tools used in engineering applications.
- To emphasize the integration of Artificial Intelligence (AI), Machine Learning (ML), and data analytics in manufacturing optimization.

Content Covered:

Digital Manufacturing and Industry 4.0

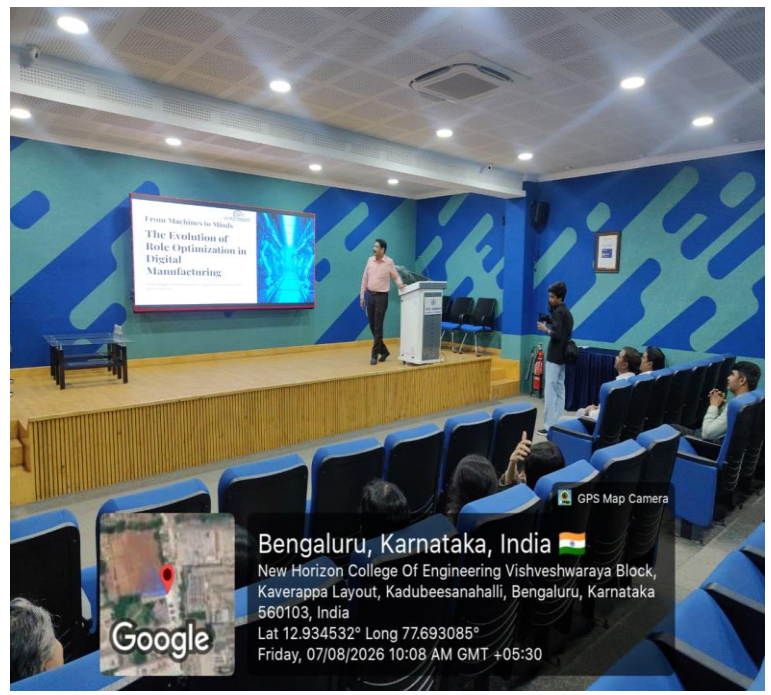
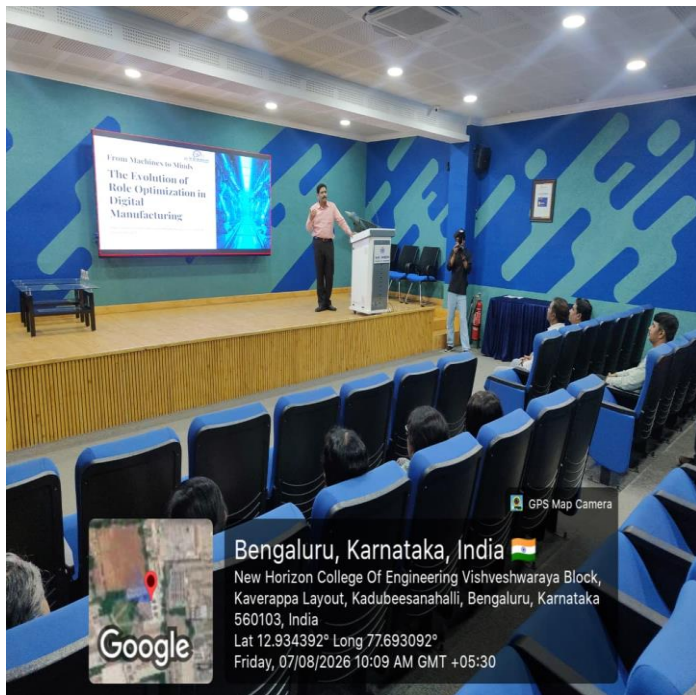
A significant portion of the talk focused on Industry 4.0 and Smart Manufacturing. The speaker discussed how digital technologies enable real-time monitoring and data-driven decision-making. He highlighted the role of sensors, connected devices, and advanced analytics in creating intelligent manufacturing systems capable of self-monitoring and self-optimization.

The concept of Digital Twins was introduced as a virtual representation of physical manufacturing systems that helps industries simulate, predict, and optimize performance before implementation. The importance of integrating optimization algorithms with digital manufacturing platforms was emphasized for achieving operational excellence.

Learning Outcomes of the Technical Talk

At the end of the session, participants were able to:

1. **Understand the evolution of optimization techniques** and their significance in transforming conventional manufacturing into digital manufacturing systems.
2. **Explain the role of optimization methods** in improving productivity, quality, cost-effectiveness, and resource utilization in manufacturing processes.
3. **Identify various optimization approaches** such as Genetic Algorithms, Particle Swarm Optimization, Ant Colony Optimization, and AI-based optimization techniques used in engineering applications.
4. **Analyze the integration of Industry 4.0 technologies** including IoT, Digital Twins, Artificial Intelligence, and Cyber-Physical Systems with manufacturing optimization.
5. **Evaluate the application of optimization tools** in process planning, production scheduling, predictive maintenance, supply chain management, and smart manufacturing.
6. **Recognize the importance of data-driven decision-making** in enhancing operational efficiency and sustainability in modern manufacturing industries.
7. **Develop awareness of emerging trends** in digital manufacturing and their impact on future industrial practices and engineering careers.
8. **Apply optimization concepts to real-world manufacturing problems** for achieving improved performance, reduced waste, and enhanced competitiveness.
9. **Understand the role of digital technologies in creating smart factories** capable of real-time monitoring, analysis, and self-optimization.
10. **Appreciate the future scope of AI and machine learning in manufacturing optimization** and their potential to revolutionize industrial operations.



GLIMPSES OF THE DAY 5 SESSION-1

Day 5: Session 2: 11:00 AM – 12:30 PM

- **Topic:**Innovation for Sustainability-R and D in Digital Manufacturing
- **Resource Person:**
Dr.Gopal K,Assoc Prof,Dept of Mechanical Engineering,NHCE,Bangalore

Profile:

Dr. Gopal K is an accomplished academician and researcher serving as **Associate Professor in the Department of Mechanical Engineering, New Horizon College of Engineering (NHCE), Bengaluru**. He has extensive experience in teaching, research, and academic administration, contributing significantly to the development of engineering education and research activities. Dr. Gopal K is widely recognized for his dedication to teaching excellence, research contributions, and continuous professional development. His efforts in integrating modern engineering practices with academic learning have made him a valuable contributor to the Department of Mechanical Engineering at New Horizon College of Engineering, Bengaluru.

Objectives of the Session

The objectives of the session were:

1. To provide an understanding of the role of innovation and research in achieving sustainable manufacturing practices.
2. To create awareness about emerging digital manufacturing technologies and their impact on industrial sustainability.
3. To explore the integration of Industry 4.0 technologies such as IoT, Artificial Intelligence, Digital Twins, and Data Analytics in manufacturing systems.
4. To highlight the significance of research and development activities in enhancing productivity, quality, and resource efficiency.
5. To familiarize participants with advanced digital tools and techniques used for process optimization and smart manufacturing.
6. To discuss sustainable manufacturing strategies aimed at reducing waste, energy consumption, and environmental impact.
7. To demonstrate the application of digital technologies in improving product design, production planning, and decision-making processes.

8. To encourage participants to undertake research and innovation activities addressing contemporary manufacturing challenges.
9. To promote awareness of industry-driven R&D opportunities in digital manufacturing and smart factory environments.
10. To inspire participants to develop innovative solutions that contribute to sustainable industrial growth and technological advancement.

Content Covered:

Dr. Gopal K began the session by introducing the concept of **Digital Manufacturing** and its role in transforming traditional production systems into intelligent, data-driven, and interconnected manufacturing environments. He explained how digital technologies enable organizations to improve productivity, quality, flexibility, and sustainability through real-time monitoring and decision-making.

The speaker emphasized the importance of collaboration among academia, industry, and research organizations to foster innovation and accelerate technological advancements. He encouraged participants to engage in interdisciplinary research and explore innovative solutions that contribute to sustainable industrial development.

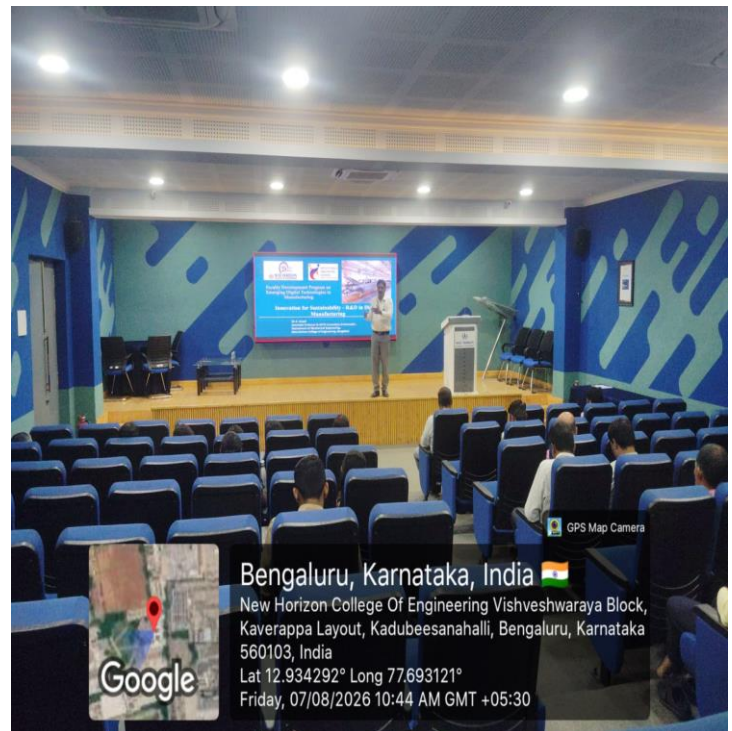
The session concluded with an interactive discussion where participants exchanged ideas on future research directions, challenges in digital transformation, and opportunities for implementing sustainable manufacturing practices. The session provided a comprehensive understanding of how innovation and R&D activities can leverage digital technologies to create efficient, intelligent, and environmentally responsible manufacturing systems.

Learning Outcomes of the Technical Talk

At the end of the session, participants were able to:

1. Understand the concepts of innovation, sustainability, and their significance in modern manufacturing industries.
2. Explain the role of research and development (R&D) in driving technological advancements and sustainable industrial growth.
3. Identify the key technologies associated with Digital Manufacturing, including IoT, Artificial Intelligence, Machine Learning, Digital Twins, and Cyber-Physical Systems.

4. Analyze the impact of Industry 4.0 technologies on manufacturing efficiency, productivity, and environmental sustainability.
5. Evaluate the application of digital tools and data-driven approaches for process optimization and intelligent decision-making.
6. Understand the importance of sustainable manufacturing practices in reducing waste, energy consumption, and environmental impact.
7. Recognize emerging research opportunities in smart manufacturing, additive manufacturing, robotics, automation, and advanced materials.
8. Apply knowledge of digital manufacturing technologies to address real-world industrial challenges and improve operational performance.



GLIMPSES OF DAY 5 SESSION 2

VALEDECTORY SESSION

Date: 7-8-2026

Timings: 12.30PM-1:00PM

The Valedictory Session of the Faculty Development Programme (FDP) was conducted on the Last day of the 5 Days FDP. The session marked the successful conclusion of the FDP and provided an opportunity to reflect on the knowledge gained, experiences shared, and outcomes achieved during the programme.

A brief report on the FDP was presented by **Dr. Srinath M.K**, highlighting the objectives, various technical sessions conducted, key topics covered, participant engagement, and the overall impact of the programme. The coordinator emphasized the valuable insights gained by the participants in the areas of emerging technologies, research, innovation, and professional development.

The external participant also appreciated the active involvement and enthusiasm of the faculty members during the sessions. The interactive discussions, knowledge-sharing activities, and practical insights provided by the experts were recognized as significant contributors to the success of the programme.

The address concluded with best wishes to all participants for their future academic and research endeavors. The speaker commended the institution for its commitment to Faculty Development and its efforts in creating a platform for continuous professional learning and skill enhancement.



GLIMPSES OF VALEDECTORY SESSION