

Guest Lecture on "Significance of MATLAB for Mechanical Engineers"

The department of **Mechanical Engineering** organised a **Guest Lecture** titled **Significance of MATLAB for Mechanical Engineers** on **09-08-2025** from **10.30 AM to 01.00 PM**, in **Seminar Hall 03**.

This guest lecture was conducted to influence students on the importance of MATLAB coding and its relevance for mechanical engineering students. 92 students from the ME, AE and AS departments had attended this event. **Dr Sanjeev Nayak, Product Manager Alstom, Pvt Ltd** was the resource person for this event.

Objectives of the Event

- To introduce students to recent developments in the field of computational techniques using MATLAB
- Bridge the gap between academic learning and industry practices
- Foster technical curiosity and self-learning among participants
- To improve communication, teamwork, and leadership abilities
- Promote critical thinking and problem solving through experiential learning

Event Overview

The guest lecture provided students with information about the use of MATLAB for system-level engineering in battery management and electric vehicle design. With insights from Dr. Sanjeev Nayak from Alstom Pvt Ltd, the event emphasised bridging the gap between theory and practice by demonstrating the relevance of system modelling in electric vehicles. The guest lecture fostered innovation, computational thinking, and collaborative learning, preparing students for advanced research and industry roles while boosting their confidence in using MATLAB for multidisciplinary problem-solving, especially in electric vehicle design and development.

Photographs from the Event

As shown in Figure 1, Dr. Santhosh N, the head of the Department of Mechanical Engineering, welcomed the chief guest and the participants to the guest lecture.

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Figure 1: HoD Welcoming the resource person and the participants

Figure 2 shows the photographs of the students eagerly listening to the resource person.



(a) Session delivery by the resource person



(b) Students keenly listening to the session

Figure 2: Photographs of the resource person and students' participation in the activity

Schedule of the Event

Table 1 gives the schedule of the event. The session began with the introduction of the resource person by the Head of the Department, followed by the overview of the guest lecture by Dr. Rajesh Kumar P, Assistant Professor, Department of Mechanical Engineering and Coordinator of the Guest Lecture.

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Day	Time	Session Details
Saturday, August 9 2025	10.30 am - 10.40 am	Welcome Address
	10.40 am - 10.50 am	Introduction about Resource Person
Saturday, August 9 2025	10.50 am - 12.50 pm	Session Delivery
	12.50 pm - 01.00 pm	Vote of Thanks

Table 1: Schedule of the Event

Outcomes and Impact

- Participants gained deeper insights into the topic beyond the regular curriculum.
- Exposure to real-world applications and current trends in the field.
- Understand the practical challenges and innovations in the industry or research domain.
- Learned about emerging technologies, tools, and methodologies.
- Opportunity to interact with and learn from experienced professionals or academics.

Conclusions

The event bridged academic concepts with industry-relevant tools, fostering computational thinking and innovation through this guest lecture. The session gave an overview of the use of MATLAB tools for battery management and electric vehicle design.

Report by: Dr. Rajesh Kumar P

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