

Report on Guest Lecture on “Drive train Design and Control”

The Department of Electrical and Electronics Engineering organized a “Guest Lecture on “Drive train Design and Control”. The session was organized on 30th November 2024, at Seminar Hall 5. The event was from 10.30 am to 12.30 pm and the students of 3rd, 5th and 7th semester (29+43+29= 101 Students) and the faculties of EEE department attended the event. The Event was presided by Dr. D. Rene Dev, AP/EEE.



Guest Lecture on “Drive train Design and Control” was arranged by EEE Department, MVJCE on 30th November 2024 at Seminar Hall 5, the session was handled by Dr. Sanjeev K Nayak, EDU manager, Alstom, Bangalore.

The event started at 9.30 am with welcome speech and guest introduction. Then the stage was handed over to Dr. Sanjeev K Nayak, EDU manager, Alstom, Bangalore. Dr. Sanjeev K Nayak started with the introduction and the lecture provided an understanding of drive train systems. Emphasized the significance of drive train systems in automotive, aerospace, and industrial machinery. Highlighted real-world challenges and considerations, such as durability, cost-effectiveness, and environmental impact.



Guest Lecture on “**Drive train Design and Control**” was arranged by **EEE Department, MVJCE** on **30th November 2024** at Seminar Hall 5, the session was handled by **Dr. Sanjeev K Nayak**, EDU manager, Alstom, Bangalore.

Introduced advanced control systems for drive trains, including electronic control units (ECUs) and software integration. Explained how sensors and actuators enhance performance, safety, and energy efficiency.



Guest Lecture on “**Drive train Design and Control**” was arranged by **EEE Department, MVJCE** on **30th November 2024** at Seminar Hall 5, the session was handled by **Dr. Sanjeev K Nayak**, EDU manager, Alstom, Bangalore.

Discussed advancements in drive train design, such as hybrid and electric vehicle (EV) drive systems. Explored the role of artificial intelligence and machine learning in predictive maintenance and autonomous driving control.



Guest Lecture on “Drive train Design and Control” was arranged by EEE Department, MVJCE on 30th November 2024 at Seminar Hall 5, the session was handled by Dr. Sanjeev K Nayak, EDU manager, Alstom, Bangalore.

OUTCOME OF THE GUEST LECTURE:

Understanding Drive Train Fundamentals

Students gained insight into the basic components of a drive train, including transmission, shafts, clutches, and gears. They learned about the functional role of each component in power transmission and efficiency.

Importance of Drive Train Design in Engineering Applications

Emphasized the significance of drive train systems in automotive, aerospace, and industrial machinery. Highlighted real-world challenges and considerations, such as durability, cost-effectiveness, and environmental impact.

Concepts in Drive Train Control

Introduced advanced control systems for drive trains, including electronic control units (ECUs) and software integration. Explained how sensors and actuators enhance performance, safety, and energy efficiency.

Emerging Trends and Technologies

Discussed advancements in drive train design, such as hybrid and electric vehicle (EV) drive systems. Explored the role of artificial intelligence and machine learning in predictive maintenance and autonomous driving control.

Collaborative Design Approach

Encouraged students to think about interdisciplinary approaches in designing and controlling drive trains.

Career Inspiration

Motivated students to pursue further studies or careers in fields like automotive engineering, robotics, and renewable energy systems.

Attachment: Students Attendance List (3rd, 5th and 7th Sem.)