#### DEPARTMENT OF MECHANICAL ENGINEERING

# **Guest Lecture Report**

**Title: Coding for Mechanical Engineers** 

Date: 04-10-2024 [3 pm to 4.30 pm] Guest Speaker: Ms. Puja Gopal Yadav

IT Technical Consultant, EduCADD Training Solutions

**Attendees: V Semester students** 

#### **Overview:**

A guest lecture titled "Coding for Mechanical Engineers" was conducted for the V semester mechanical engineering students. The session aimed to highlight the importance of coding in the mechanical engineering field and to provide insights into various programming tools and languages beneficial for engineers.

#### **Key Topics Covered**

#### 1. Importance of Coding in Mechanical Engineering

- o Overview of how coding enhances problem-solving skills.
- Discussion on the integration of coding in design, analysis, and manufacturing processes.

#### 2. Programming Languages Relevant to Mechanical Engineering

- o Introduction to commonly used languages such as Python, MATLAB, and C++.
- Examples of applications in simulation, data analysis, and automation.

#### 3. Software Tools and Applications

o Real-world examples of coding in design optimization and finite element analysis (FEA).

#### 4. Case Studies

- Presentation of case studies where coding improved efficiency and innovation in mechanical projects.
- o Discussion on collaborative projects involving cross-disciplinary teams.

#### 5. Hands-On Session

- Interactive segment where students were introduced to basic coding exercises related to mechanical problems.
- Encouragement to explore coding through platforms like GitHub and online courses.

### **Student Engagement**

The lecture saw active participation from the students, with many asking insightful questions regarding the application of coding in their future careers. The hands-on session was particularly well-received, allowing students to relate theoretical concepts to practical applications.





Fig: Glimpse of the Lecture

## **Feedback**

Post-lecture feedback indicated a strong interest among students in learning more about coding. Many expressed a desire for additional workshops or courses focusing on programming skills tailored for mechanical engineering applications.

### **Conclusion**

The guest lecture successfully emphasized the critical role of coding in modern mechanical engineering. Students left with a greater understanding of how coding can enhance their skills and improve their future employability in an increasingly tech-driven industry.