

One day Workshop

On

Product Design and Development using CATIA and GD&T



Report on one day workshop: Product Design and Development using CATIA and GD&T

Date: 16th November 2024

Venue: Seminar Hall, Mechanical Engineering Department, Sharnbasva University, Kalaburagi

Speaker: Mr. Kumar C , CADMAXX, Ed tech

Introduction

A workshop on "**Product Design and Development using CATIA and GD&T**" was conducted on 16th November 2024 at the Seminar Hall, Mechanical Engineering Department, Sharnbasva University, Kalaburagi. The session was led by Mr. Kumar C, a representative from CADMAXX, EdTech. The event aimed to enhance students' knowledge of modern design and manufacturing practices.

Objective

The workshop aimed to provide insights into the importance of Computer-Aided Design (CAD) and Geometric Dimensioning and Tolerance (GD&T) in product development. It highlighted how CATIA, a widely used CAD software, plays a crucial role in designing and analyzing engineering products with precision and efficiency.

Key Topics Covered

1. **Introduction to CATIA**
 - Overview of CATIA software and its applications
 - Importance of CATIA in various industries
 - Basics of 3D modeling and design
2. **Fundamentals of Product Design and Development**
 - Stages of product development
 - Importance of digital design and simulation
 - Role of CAD software in reducing errors and improving efficiency
3. **Geometric Dimensioning and Tolerance (GD&T)**
 - Basics of GD&T and its significance in engineering drawings
 - Types of tolerances and symbols used in GD&T
 - Application of GD&T in real-world manufacturing
4. **Case Studies and Practical Demonstrations**
 - Live demonstrations using CATIA software
 - Real-world examples of GD&T implementation in design and manufacturing
 - Interactive Q&A session with the speaker

Conclusion

The workshop provided valuable knowledge on CATIA and GD&T, emphasizing their significance in modern engineering practices. Attendees gained a better understanding of how these tools help in designing high-precision products and improving manufacturing efficiency. The interactive session allowed participants to clarify their doubts and explore the practical applications of the discussed concepts.