



BITS Pilani
K K Birla Goa Campus



Automotive Designing Workshop

This workshop mainly aims at developing interests among the budding engineers by giving them knowledge of various systems in an automobile, their design and practical overview of a car engine. Each component will be discussed elaborately and how the automotive components couple and work in unison with each other. It emphasizes on design including components used, assembly, strength and cost analysis simulation crash testing and so on. It also emphasizes on R&D growth and employment aspects in these industries.

Through this course students will gain mechanical CAD and design validation skills.

Duration: 2 Days

Cost: 1200/- Per Person

Team/Individual : Individual

Registration Link : <https://thunder6.typeform.com/to/JnHgwI>

Structure and Course:

DAY 1

Vehicle Dynamics & working principle

- | | |
|---|--|
| 1 | Inauguration |
| 2 | Introduction to Automotive systems |
| 3 | IC Engine, Vehicle Layouts and Steering |
| 4 | Brake Systems, Recent Technological advancements |
| 5 | Suspension, Turbo & Super Charging systems |

Day 2

Design & Analysis of Automobile Components using Inventor

6	CAD Designing using Solid Works - Concerns & terms
7	Sketching, Part modeling, Generating
8	Assembling -Kinematic motion methodology
9	FEA Analysis & Design optimization
10	Quiz competition

**** Time duration for each session shall be made accordingly.**