



Course Name: Short term course on Automotive Mechatronics

Overview:

This course deals with study of design and integration of various sub-systems that go into a modern contemporary automobile. Going through the course, participants will be exposed to the inner workings of a modern automobile and understand the complex interaction of various hardware systems and their control mechanisms.

Participant Profile:

- B.Tech
- Diploma

Contents:

- Module-1
 - Evolution of automobile
 - Familiarization with automotive components
 - Identification of major sub-systems
 - Sensor, Actuator and Electric Motor Technologies
- Module-2
 - Analysis of vehicle in motion
 - Forces acting on a vehicle
- Steering geometry
- Module-3
 - Engine types and characteristics
 - Transmission and drive layouts
 - Braking systems
- Module-4
 - Engine management system
 - ABS
 - Airbag and safety systems
 - Infotainment and climatronic system

Learning Target:

The Participants will be able to

- Grasp of Automotive Technology: Mechanical, Electronics, System Module.
- Form competency in handling the fast-changing technological advancements.
- Explain and compare the construction, working, feature, relative merits and application of different types of chassis, bodies, frames, clutches and brakes of automobiles and use suitable diagrams to support their description.

Prerequisites:

- Knowledge of Mathematics and physics
- Basic Fundamentals for Engineering

Teaching & Learning Media:

- Multimedia Presentation
- Simulation via trainer kits

Evaluation:

- Theory & Practical Exam

Time Duration:

- 36 Hours
- 6 Hours/ Day

Fee:

- Please contact the Centre in charge

