



## Course Name: **Basic Automotive Engineering**

### Overview:

The main objective of the course is build to a strong foundation and to acquaint the students with the

- Vehicle architecture.
- Theoretical nomenclatures of various types of vehicles.
- knowledge of basic mechanical elements of a car
- explanation of location mapping on the benchmark vehicle
- interpretation of the important tools and uses
- Modelling and Meshing basics of ANSYS software

### Participant Profile:

- ITI/ Diploma/BTech

### Contents :

- History of an Automobile
- Classification of the automobile
- Overview of the systems in an Automobile
- Description of various components in an automobile
- Chassis classification
- Electrical systems
- Suspension, braking and cooling systems
- Hands on training to use the different tools
- Introduction to ANSYS
- ANSYS interface and basic commands in Geometry Module
- Meshing concepts and Hands-on learning to mesh 2D and 3D geometries

### Learning Target:

The Participants will be able to

- Identify various components of an automobile
- Identify and use various tools for appropriate repairs
- Design and Mesh a geometry in ANSYS

### Prerequisites:

- Solid Modelling & Engineering Drawing through AUTOCAD & CATIA
- Engineering Mechanics

### Evaluation:

- Theory & Practical Exam
- Project work based on Industrial Application.

### Teaching & Learning Media:

- Theoretical and practical
- . Design and Mesh a geometry in ANSYS

**Time Duration:**

- 36 Hours
- 3Hours/ Day

**Fee:**

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- Please contact the Centre in-charge

