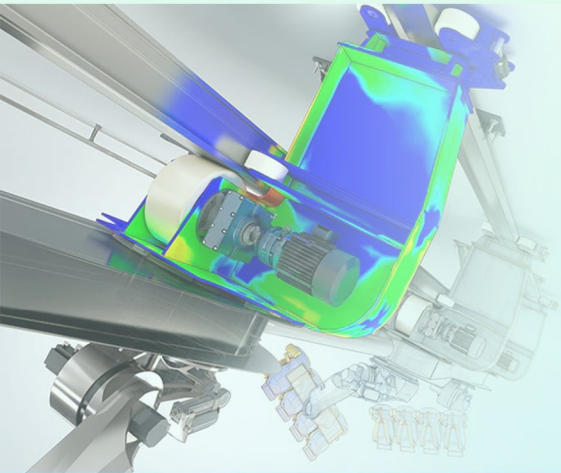




MECHANICAL AND AUTOMOBILE WORKSHOPS

AUTOMOBILE PROTOTYPING

Mechanical and Mechatronics overview
 Indian Automobile industry
 Basics of automobile
 Chassis and Suspension prototyping
 Calculations involved in actual model design
 Transmission systems prototyping
 Functions of Electronics components in Automobile



FINITE ELEMENT METHOD

Introduction to FEA - Stress analysis
 Static and Transient analysis
 Different Meshing method and mesh control
 Post processing techniques
 Case study - Analytical, Numerical and Computational approach

COMPUTATIONAL FLUID DYNAMICS

Introduction about CAE, and CAE packages used in industry
 Fluid Mechanics - Mathematical formulation -
 Governing equation - Navier stokes - PDE
 Different types of Computational methods and solvers
 Introduction to Fluent - Types of simulations
 Laminar and Turbulence models
 Control volume extraction and Internal flow simulation
 Significance and uses of CHT in industry
 Advanced Turbulence models and codings
 CFD career in industry perspective

