

Cheminformatic Institute of Science Studies Lucknow

Diploma Program in Mechanical Engineering (DPME) 1 Year Duration

Program Curriculum

Module 1: Design and Manufacture

- 1.Introduction
- 2.Tolerances, Mechanical Properties, Physical Properties A Review
- 3.Polymer Processing
- 4.Injection Molding: Relative Tooling Cost
- 5.Injection Molding: Total Relative Part Cost

Module 2: Engineering Fluid Mechanics

- 1.History Of Fluid Mechanic
- 2.Characteristics Of A Fluid
- 3.Fluid Statics
- 4.Fundamentals Of Flow
- 5.One-Dimensional Flow: Mechanism For Conservation Of Flow Properties
- 6.Flow Of Viscous Fluid
- 7.Flow In Pipes
- 8.Flow In A Water Channel
9. Drag Andlift
- 10.Dimensional Analysis And Law Of Similarity

Module 3: Heat Transfer

- 1.Overview of Heat Transfer
- 2.Cooking Methods and Materials
- 3.Steady-State Conduction
- 4.Transient Conduction
- 5.Radiation
- 6.Microwaves
- 7.Thermodynamics of Water

Module 4: Energy Conversion System

- 1.Steam Power Plant
- 2.Gas Turbines
- 3.Internal Combustion Engines
- 4.Hydraulic Turbines
- 5.Stirling Engines
- 6.Advanced Fossil Fuel Power Systems
- 7.Energy Storage
- 8.Solar Thermal Energy Conversion

Module 5 : Mechatronics

- 1.Integrated Control of Vehicle System Dynamics: Theory and Experiment
- 2.Integrating Neural Signal and Embedded System for Controlling Small Motor
- 3.Artificial Intelligent Based Friction Modelling and Compensation in Motion Control System
- 4.Mechatronic Systems for Kinetic Energy Recovery at the Braking of Motor Vehicles
- 5.Integrated Mechatronic Design for Servo Mechanical Systems
- 6.On the Design of Underactuated Finger Mechanisms for Robotic Hands
- 7.Robotic Grasping and Fine Manipulation Using Soft Fingertip
- 8.Recognition of Finger Motions for Myo electric Prosthetic Hand via Surface EMG
- 9.Self-Landmarking for Robotics Applications
- 10.Robotic Waveguide by Free Space Optics
- 11.Surface Reconstruction of Defective Point Clouds Based on Dual Off-Set Gradient Functions
- 12.Advanced NOx Sensors for Mechatronic Applications