

Module Title: Energy Systems

Elective Module

Content:

1. Electro-Mechanical Systems:

AC Motors, Generators,
Transformers,
Power Factor Correction,
EMC and EMI.

Applications: Conveyor Systems, Stepper Motors, Elevators and Lifts, Facilities.

2. Electro-Thermo-Mechanical Systems:

Compressors,
Refrigeration Systems,
Air-conditioning systems (auto and building),
Turbo-machinery (Steam & Gas Turbines, Power Plants, Turbochargers, Water Turbines).

3. Renewable Energy Delivery Systems / Renewable Energy Systems (RES):

Wind Turbines,
Hydroelectric,
Wave Power and Solar Electric;
Solar Thermal,
Ground Source Heat Pump,
Biofuels (incl. Wood);
Combined Heat and Power,
District Heating System.
Applications: Dwellings and small commercial buildings