



QEEE COURSES

APPLICATIONS, EXAMPLES AND PROBLEM SOLVING APPROACH OF THERMODYNAMICS - THERMODYNAMICS

COURSE CONTENT:

Session 1:

Vapour power cycles

- Rankine cycle.
- Superheat and reheat.

Applications to different power cycles: Fossil fuelled, Nuclear, Geothermal, Solar thermal, Ocean thermal, etc. Current status. Overview of future developments.

Session 2:

Gas power cycles

- Otto, Diesel, Brayton cycles.

Application to different types of internal combustion engines. Gas turbines for propulsion (air, land and sea) and power generation. Combined cycle power plant. Refrigeration cycles

- Rankine cycle and its modifications.

Applications to refrigeration (domestic, industrial, mobile) implications for food industry. Air-conditioner (domestic, industrial).

Session 3:

Rocket propulsion. Co-generation (textile, petrochemicals, paper, food processing, etc. industries). District heating and cooling. Fuel cells. Conclusion.