

M.Sc. in Smart Control Systems for Energy Management

Course Structure

Course Code : SM7003

Course Title : Energy Management

Credit Hours : 3

Course Description

- General requirements for an energy management system, Management responsibility, Energy policies, energy planning, Implementation and operation, Checking and monitoring performance, Management review.

Course Objectives

Improve the energy performance of any organization with the ISO 50001 energy management systems courses. The student will get an overview of the standard and the benefits of having an ISO 50001 energy management system and will learn how developing and managing policies and procedures can improve energy efficiency and reduce energy costs. The student will be equipped to pass the exam and obtain the ISO 50001 certification.

Course Topics

- General requirements for an energy management system
- Management responsibility
- Management responsibility
- Energy policies
- Energy planning
- Implementation and operation
- Implementation and operation
- Review of material and midterm exam
- Assignment of class project on energy audit of a building . class will break into teams.
- Field visits of buildings, organization implementing ISO 50001
- Case studies/field visits of buildings, organization implementing ISO 50001
- Checking and monitoring performance
- Checking and monitoring performance
- Management review
- Class presentations of their projects
- Class presentations of their projects and final exam and ISO 50001 review

References

- Charles H. Eccleston, Frederic March, Timothy Cohern, Inside Energy: Developing and Managing an ISO 50001 Energy Management System, CRC press, 2011.