

Organizing Committee

Patron:

Dr. T.Alwarsamy, Principal

Convener:

Dr. P.Thirumal

Coordinator:

Mr. S.Tamil Prabakaran

Co-Coordinator:

Mr. S.Sathish Kumar

Resource Person

The faculty for this course is Dr. J Nagesh Kumar. He is a certified and accredited energy auditor of Bureau of Energy Efficiency, Govt. of India. As a Head of Energy Management Division with National Productivity Council, Govt. of India for three decades he held the post of Director. He is now the founder-Director of Centre for Energy, Environment and Productivity (CEEP), Chennai. He is basically a mechanical engineer with a doctorate degree in Gas turbines. He has carried out several energy audit studies in the leading industries resulting in quantum reduction of energy use. His services have been extensively used for Energy Efficiency in several countries such as Vietnam, Bangladesh, Sri Lanka, Nepal and Iran.

Contact Persons

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To Register: Read Me
Limited to 25 candidates
Due date for registration: 28/01/2020



TEQIP-III

Sponsored

Two day workshop on

“Energy Audit in Motors and Mechanical Equipment”

30th Jan & 31st Jan, 2020

Venue: Seminar Hall, Mechanical Engineering



Organized by

Department of
Mechanical
Engineering

Government College of
Engineering, Bargur,
Krishnagiri Dist - 635104,
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What is Energy Audit?

An energy audit is an inspection survey and an analysis of energy flows for energy conservation in an industry or a building. It may include a process or system to reduce the amount of energy input into the system without negatively affecting the output.

Potential energy-efficiency improvements:

- Tariff optimization and billing analysis
- Power factor correction
- Motor management plan
- Rewinding and use of energy-efficient motors
- Using Adjustable speed drives (ASDs)
- Pumps and pumping systems
- Refrigeration and air conditioning systems
- Compressed air systems
- Fans and blowers
- Lighting

Objectives of Energy Audit

The Energy Audit provides the vital information base for overall energy conservation program covering essentially energy utilization analysis and evaluation of energy conservation measures.

It aims at:

- Identifying the quality and cost of various energy inputs.
- Assessing present pattern of energy consumption in different cost centers of operations.
- Relating energy inputs and production output.
- Identifying potential areas of thermal and electrical energy economy.
- Highlighting wastage's in major areas.
- Fixing of energy saving potential targets for individual cost centers.
- Implementation of measures for energy conservation & realization of savings.

Typical Scope of work for detailed Energy Audit

- Review of Electricity Bills, Contract Demand and Power Factor
- Study of Electrical System Network, Motors and Pumps Loading
- Study of Air conditioning plant w.r.t measurement of Specific Energy consumption
- Performance Evaluation of Boilers, Burners / Furnace, Condenser and Air Compressor
- Performance shall be evaluated as regards, their input power vis-a-vis TR capacity and performance will be compared to improve to the best in the category
- Study of the illumination system, LUX level in various areas, area lighting etc. and suggest measures for improvements and energy conservation opportunity wherever feasible.
- Study the operations of DG sets to evaluate their average cost of Power Generation, Specific Energy Generation and subsequently identify areas wherein energy savings could be achieved after analysing the operational practices etc. of the DG sets.

This Training Enables Learners To...

- Understand the terms, terminology, and benefits of Energy audit and conservation.
- Conduct an energy audit, make an energy balance and identify potential for energy conservation.
- Understand the typical energy losses of mechanical equipment in your facilities, including motors, chillers, cooling towers, fans and blowers, pumps and air compressors
- How to account the energy efficiency of different mechanical equipment
- Strategies and tips to improve the energy efficiency of motors and mechanical equipment

Who should attend?

- Faculty and students of engineering colleges
- Professionals from any discipline
- Facility/maintenance managers or engineers
- Industry personnel who wish to learn more on mechanical system