Power and Energy Management in Industrial Utilities

Energy Auditing, New Technologies in Power saving and AI Application.

(18-20 August 2025 at Nagpur)

Special Features:

- **Complete focus on Practical implementation and case studies.**
- **Demonstration of Energy Management tools from TESTO.**
- **AI Techniques and EMS complete software demonstration.**

Introduction:

Electrical utilities such as Pumps, Fans, Blowers, Compressors, Cooling towers, Lighting systems etc are major consumer of electrical energy in any industry .
Government of India under "Urza daksh Bharat, Unnat bharat plan" has set a 11 point action plan to reduce energy intensity between 2016 and 2019 by 7% and triple the energy savings .

As per study report by **Bureau of energy efficiency**, GOI, by there is a huge potential of saving by 20-30% energy by implementing suitable measures. For example just by maintaining a optimum L/G ratio the energy consumption in cooling tower can be reduced by 15-20% .
The aim of subject training is to provide basic hands ON training to participants on various means and measures for energy saving in various electrical utilities .

3 days duration of the training comprising of audio visual training to participants on energy efficiency of various electrical utilities eg Compressors, Cooling towers, pumping systems etc . There shall also be a group activity to carry out energy audit, with the aim to find out energy leakages, of plant equipments followed by discussions . Detailed contents to be covered are mentioned below. Where as we are always open to cover any of the relevant topic raised by participant during training program for the benefit of individual and organization There shall also be a group activity to carry out energy audit, with the aim to find out energy leakages, of plant equipments followed by discussions .

Objective:

To impart knowledge about detailed concepts and practical approach for improving energy efficiency of electrical and mechanical utilities viz compressors, cooling towers, fans, blowers, refrigeration and air conditioning systems, power distribution system etc in a plant.

Learning outcome:

Trainees would be able to identify energy wastage's occurring in electrical utilities and chalk out and implement action plans for reducing the same, thus optimizing the energy efficiency of the system.

Benefit to Organization:

3.2.1 Reduced operating cost due to improved energy efficiency.

3.2.2 Improved health of the equipments.

Deliverable s of the program:

1. To impart detailed knowledge about energy efficiency of various electrical and Mechanical utilities and methods to conduct efficiency study for various Industries.
2. To provide **hands on** case studies in conducting energy efficiency in a plant.
3. To demonstrate through actual site measurements, the saving potential and actual savings achieved by implementing suitable measures. To demonstrate various intruments for actual energy measurement.

Target participants:

Graduate Engineers , Middle and Senior level management professionals with electrical and mechanical Engineering background .

Training Contents/Delivery schedule:

1. Introduction and objective setting for 3 days program. Expectation discussion.
2. Pre-test.
3. Energy management and audit action planning- calculation and energy saving in detail.
4. Energy efficiency of electrical power distribution systems, Fans, Motors, Transformer, Cables etc.
5. Energy efficiency of Cooling towers, Pumping systems, Blowers & Compressors.
6. Energy efficiency of Air Conditioning and Refrigeration Systems, Chillers.
7. Plant Illumination or Lightening Systems.

8. Power factor Improvement Techniques and applicable approach.
9. Approach towards conducting energy efficiency study of equipment`s.
10. Many case studies and Effective report writing. Open Discussion.
11. Emerging Technologies & Hands-On Tools
12. New Technologies for Energy Savings
13. Energy Monitoring Systems & Role of AI in Energy Audits
14. Post test, feedback, assessment and certificate distribution.
15. Preparation guidance for Energy Auditor examication for success.
16. Practical demonstration of equipments and EMS.

Registration:

Dates of the program: 18-20 August 2025 **at Nagpur.**

Participation fees: INR 30000/- per delegate (Excluding GST@18%, Training program includes Training material soft/hard copies, Tea, Lunch & snack, excluding lodging and Boarding)

Payment: ECS/NEFT/DD in favor of "Centre for Industrial Solutions and Advanced Training" Payable at Nagpur, Maharashtra, India. Account No: 0509102000003353 Bank: IDBI, Wardha-442001, MS, India; IFSC Code: IBKL0000509; Swift Code IBKLINBBNGP; MICR Code 442259001.

Venue: To be confirmed by an email.

For Registration, please do contact to,

We prefer on line Registration through our web www.cisat.co.in.

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CONTACT FOR ANY IN-HOUSE TRAINING PROGRAM AT YOUR PLANT OR LOCATION.