

# **National Productivity Council**

(Under DPIIT, Ministry of Commerce & Industry, Gol) Dr. Ambedkar Institute of Productivity Chennai.

Short Term e-Learning Certificate Course

## INDUSTRIAL PRACTITIONER'S COURSE FOR ENERGY **AUDITING PROFESSIONALS**

Duration: 8 Weeks | Date: 19th October - 12th December 2020

Course ID: AIPEMSTC-01-2020

#### **BACKGROUND OF THE COURSE:**

Energy audit is an investigation of all facets of a facility's historical and current energy use with an objective of identifying and quantifying areas of energy wastage in its activities leading to identification of viable and cost effective energy saving measures to reduce specific energy consumption thereby lowering the operating costs. Energy audit also provides a 'benchmark' for managing and planning a more effective use of energy through out the facility.

In view of the above, this eight weeks assisted short term e-learning practitioner's course has been designed, which will enable working professionals or engineers to understand the concept and methodology of energy auditing.

Dr. Ambedkar Institute of Productivity (AIP), a training wing of NPC, having a qualified accredited / certified energy auditing professionals with more than 15 – 25 years of rich experience in energy auditing field in various industrial sectors will be deliberating the sessions with case exercises and CETEE facility.

#### **Course Coverage:**

GENERAL ASPECTS OF ENERGY AUDIT AND SUSTAINABLE TECHNOLOGIES (2.5 Weeks) Module-I

- 1. Energy Auditing Methodology
- 2. Energy Management System (EnMS): ISO 50001:2011
- 3. Water Audit and Conservation
- 4. Buildings 5. Monitoring & Verification
- 6. Renewable Energy Technologies

Module-II ENERGY AUDIT OF ELECTRICAL UTILITIES (3 Weeks)

- 1. Electrical Systems & Harmonics
- 4. Compressed Air System

Module-III

- 7. Industrial Air Conditioning Systems
- 2. Electrical Motors
  - 5. Fan System
- 6. Pumping System

3. Lighting System

- 8. Cooling Towers

#### ENERGY AUDIT OF THERMAL UTILITIES (2.5 Weeks)

- 1. Boiler System
- 2. Industrial Furnaces
- 3. Steam System

- 4. Waste Heat Recovery
- 5. Industrial Drying
- 6. Cogeneration

Visit us at:

Website: www.aipnpc.org
Email: npcaipchn@gmail.com \*CETEE-Centre of Excellence for Training in Energy Efficiency

- E-learning Course Materials
- ❖ Module-wise Assessment (Qualifying Criteria-50% minimum)
- 40 Hrs Online Assisted Learning
- **❖** E-Certificates on successful completion

For registration visit: www.npcindia.gov.in **NPC** e-Learning

**Coordinator** 

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### INDUSTRIAL PRACTITIONER'S COURSE FOR ENERGY AUDITING PROFESSIONALS

Duration: 8 Weeks/2 Months 19<sup>th</sup> October – 12<sup>th</sup> December 2020

### TRAINING AGENDA

Modules	Date and Time
Module-I: GENERAL ASPECTS OF ENERGY AUDIT AND SUSTAINABLE TECHNOLOGIES (2.5 Weeks)	19.10.2020 to 04.11.2020
Orientation & Introductory Session	19.10.2020 (16:00 to 17.30 hrs)
19.10.2020 to 24.10.2020	
1. Energy Auditing Methodology	Online class- 24.10.2020 (14:00 to 18:00 hrs)
2. Energy Management System (EnMS): ISO 50001:2011	
25.10.2020 to 31.10.2020	
3. Water Audit and Conservation 4. Buildings	Online class- 31.10.2020 (14.00 to 18:00 hrs)
5. Monitoring & Verification	
01.11.2020 to 04.11.2020	
6. Renewable Energy Technologies	Online class- 04.11.2020 (14:00 to 17.00 hrs)
Module - I Assessment	04.11.2020 (17.00 – 18.00 hrs)
Module-II: ENERGY AUDIT IN ELECTRICAL UTILITRIES	05.11.2020 to
(3 Weeks)	25.11.2020
05.11.2020 to 11.11.2020	
<ol> <li>Electrical Systems &amp; Harmonics</li> <li>Electric Motors</li> </ol>	Online class- 11.11.2020 (14:00 to 18:00 hrs)
3. Lighting System	

12.11.2020 to 18.11.2020	
4. Compressed Air System	Online class- 18.11.2020 (14:00 to 18:00 hrs)
5. Fan System	
6. Pumping System	
19.11.2020 to 25.11.2020	
7. Industrial Air Conditioning Systems	Online class- 25.11.2020
8. Cooling Towers	(14:00 to 17:00 hrs)
Module - II Assessment	25.11.2020 (17.00 to 18.00 hrs)
Module-III: ENERGY AUDIT IN THERMAL UTILITIES	26.11.2020 to
(2.5 Weeks)	12.12.2020
26.11.2020 to 02.12.2020	
1. Boiler System	
2. Industrial Furnaces	Online class- 02.12.2020 (14:00 to 18:00 hrs)
03.12.2020 to 09.12.2020	
3. Steam System	Online class- 09.12.2020
4. Waste Heat Recovery	(14:00 to 18:00 hrs)
5. Industrial Drying	
09.12.2020 – 12.12.2020	
6. Cogeneration	Online class- 12.12.2020
	(14:00 to 16.00 hrs)
Module - III Assessment	12.12.2020
	(16.00 to 17.00 hrs)
END OF THE TRAINING	12.12.2020 (17.00 to 18.00 hrs)