

TC5

Technical Category Training

Energy Conservation for Air-Conditioning Systems

**2 DAYS
TRAINING**

Training Summary

This course is designed to provide building operators, maintenance personnel, energy managers and executives working in commercial buildings and industries with the necessary skills to improve energy efficiency of air-conditioning systems through enhanced operations.

This course provides participants with an understanding of the fundamentals of the operation of various types of air-conditioning systems. Participants shall be able to appreciate the thermodynamic properties of moist air and its application in coil load calculation and the determination of the performance indicators of air-conditioning systems. Various strategies for energy conservation and cost-saving measures will be discussed. This training emphasizes on interactive learning.

Learning Outcomes

- 1) Describe various types of air-conditioning systems used in commercial buildings and industries.
- 2) Explain the working operations of the basic refrigeration cycle.
- 3) Analyse air properties using the psychrometric chart and how they relate to thermal comfort.
- 4) Determine performance indicators for air-conditioning systems.
- 5) Identify energy conservation measures and savings.

Learning Benefits

Participants will gain knowledge in the area of air-conditioning and be able to improve energy efficiency of air-conditioning systems in their plants or buildings.

Course Outline

- 1) Introduction to Air-Conditioning Systems.
- 2) Air-Conditioning Fundamentals.
- 3) Energy Efficiency of Air-Conditioning Systems.
- 4) Efficient operation and maintenance of air-conditioning systems.
- 5) Air-Conditioning Energy Audit.
- 6) Case Study - M&V of Air-Conditioning System.
- 7) Summary - Energy Conservation Measures.

Targeted Participants

Energy Managers, Building Operators and Facility/Maintenance Personnel.

Trainer Profile

Refer to Trainer:

- 1) Assoc. Professor Ir. Dr. Hayati Abdullah