Module Synopsis

PDC 1 Certificate in Air Conditioning and Energy Sustainability

Module 1: Air Conditioning System

This module aims to equip students with practical skills on air conditioning and mechanical ventilation (ACMV) systems for various industrial and commercial buildings. The module covers in-depth theoretical and practical skills on a complete ACMV system design including cooling load estimation, duct sizing, piping sizing, chiller system and equipment. It also includes design, operation and maintenance of air-conditioning system for manufacturing facility such as cleanroom.

Module 2: Green Mark & Energy Sustainability

This module covers the following Green Mark and energy sustainability topics.

- Energy Efficient Design
- Passive Design
- Energy Audit
- Life Cycle Analysis
- Integrated Facilities Management
- Green Data Centres
- Sustainable and Renewable Energy

PDC 2 Certificate in Energy Modeling and Management

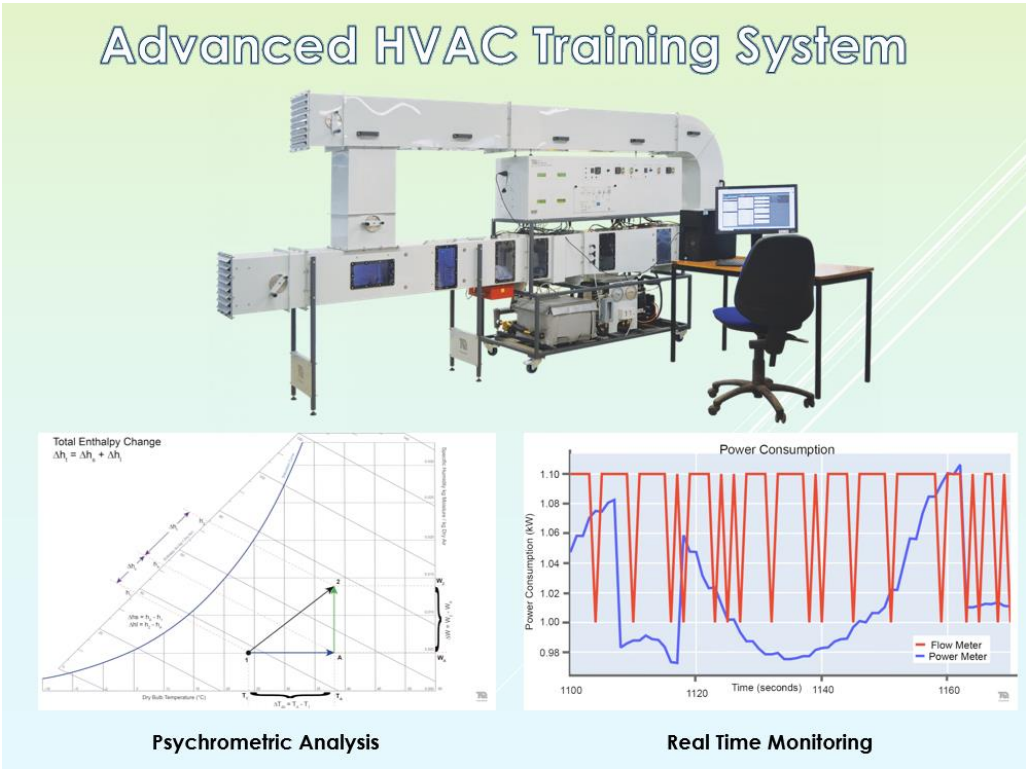
Module 3: Integrated Building Management Systems for Energy Efficiency

This module is designed to provide students with a good working knowledge of the design and applications of integrated building management system. One of the objectives is to save energy and costs by implementing it. It aims to provide participants with in-depth knowledge of the procedures involved in the specification, design, installation, commissioning, operation, and maintenance of an IBMS. Application areas will include air-conditioning systems, fire detection and alarm systems and security systems.

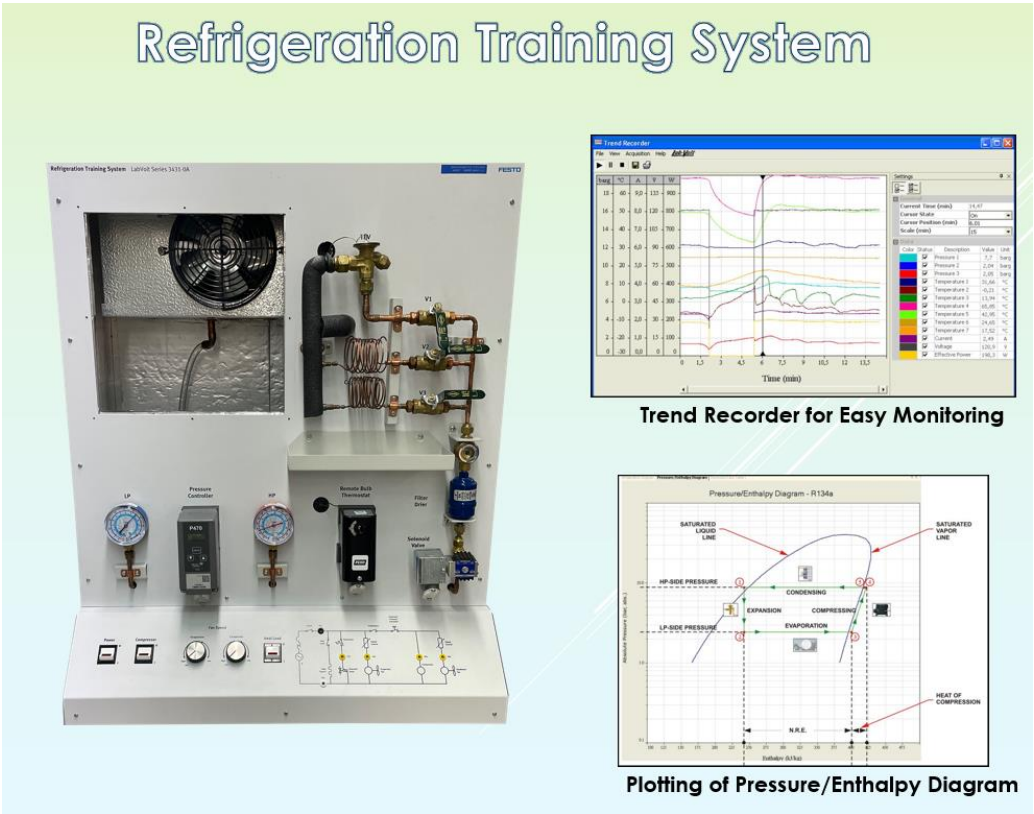
Module 4: Information & Energy Modeling of Facility

This module aims to impart students with knowledge of Green Mark, energy sustainability and building energy modelling by using IESVE simulation software. The module covers modelling of building facility systems with inputs such as building structure, equipment load, materials, weather data and occupancy schedules. The course also provides students with the skills of heat load simulation, setup of ACMV and air flow systems, and performing the resulting energy consumption analysis. This module also includes design and modelling of ACMV service by using Autodesk Revit software.

Latest Laboratory Equipment



Advanced HVAC Training System



Refrigeration Training System