REFRIGERATION & AIR CONDITIONING AND RENEWABLE LABORATORY

Laboratory Information

Lab Name: Refrigeration & Air Conditioning and Renewable Laboratory
Room No.: 008 & 010 - Colleges of Engineering and Technology
Capacity: 25 students

The focus of the refrigeration and Air conditioning lab is to conduct the Practical training on refrigeration and air conditioning systems, where the trainees could improve their experience and technical knowledge concerning various related equipment. The lab current capabilities permit a variety of technical courses for engineers working in the field of refrigeration and air conditioning industry.

Major Equipment

- Car air conditioning lab Unit
- Indirect refrigeration system exp.
- Heat pump.
- Absorption refrigeration unit.
- Lab: Test unit for refrigeration cycle with different components.
- Advanced Commercial Refrigeration Trainer.
- Building Management Trainer.
- Commercial Refrigeration Trainer.
- Recalculating Air Conditioning Demonstrator.
- Thermoelectric Pump.
- Vapor Compression Cycle Demonstrator.
- Refrigerant Recovery Units.
- Container Reefer.
- Cooling Tower
- Air conditioning cycle.
- Car Air Conditioning.
- Gas Fired Heating Control Board.
- Combination Forced Air & Hydronic Heating.
- Motors, Control and Circuits Build-up.
- Residential Wiring.
- Air-conditioning full-scale Air Handling unit.

Laboratory Serves the following courses:

Course Code	Course Title	Semester
ME 241	Experimental Methods	4th
ME 333	Thermodynamics (2)	4th
ME 434	Refrigeration & Air Conditioning	8th
ME 535	Refrigeration Equipment and Control	Elective Course (A)
ME 524	Renewable Energy Resources	9th
ME 536	AC Units & Control	Elective Course (A)

Figure 1.25 Vapor Compression Cycle Demonstrator

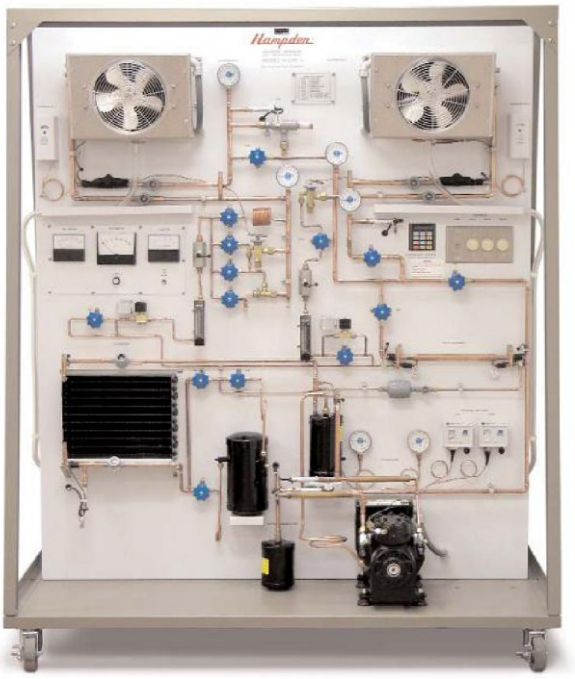

Figure 1.26 Advanced Commercial Refrigeration Trainer

Figure 1.27 Car Air Conditioning Trainer Demonstrator

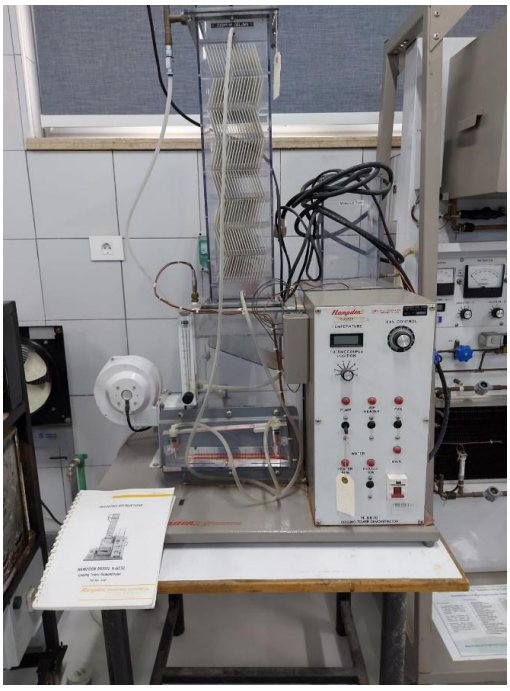

Figure 1.28 Cooling Tower

Figure 1.29 Refrigerating cycle trainer

Figure 1.30 Air Cycling Demonstrator

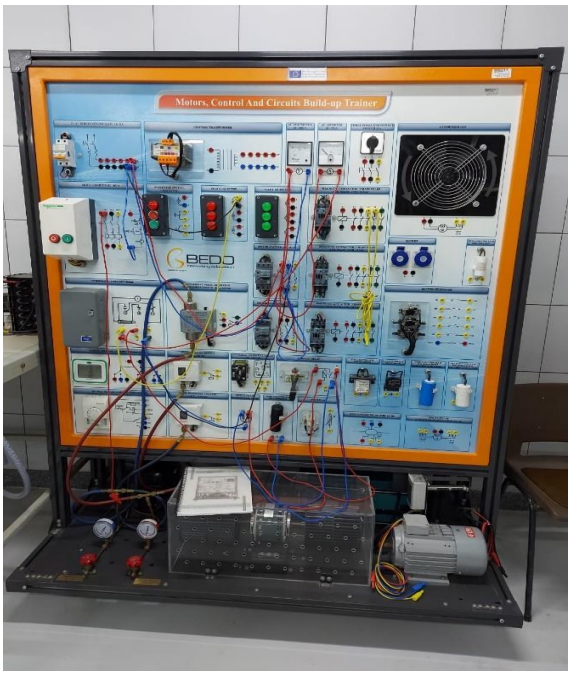

Figure 1.31 Motor control and circuits Trainer

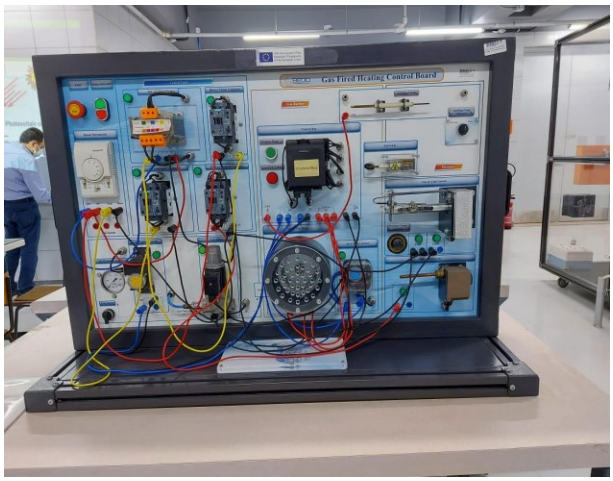

Figure 1.32 Gas Fired Heating Control Board

Figure 1.33 Air Handling unit full scale unit

Figure 1.34 Solar Photovoltaic Demonstrator