SKILL DEVELOPMENT INSTITUTE, BHUBANESWAR

Building Automation Specialist

Course Curriculum — in partnership with Schneider Electric

6 Modules • 1,200 Total Training Hours • 5 Months

Module 1: Environment, Health & Safety

200 hrs

Environmental health and safety managers inspect and evaluate the environment, equipment and processes in working areas to ensure compliance with government safety regulations and industry standards. Their chief goal is to protect the employees, customers and the environment.

TOPICS COVERED

- Understand Health and safety legislation, obligations, and documentation
- Diligently follow electrical safety procedures
- Follow the situations when personal protective equipment must be used
- Identify and use the appropriate personal protective equipment including safety footwear, ear, and eye protection
- Introduce related trades to support customer requirements
- The importance of keeping a tidy work area
- Trends and developments in the industry including new technology
- Work efficiently and check progress and outcomes regularly
- Different methods of Fire Extinguish & advance fire suppression System
- Grooming and Personal Hygiene, Soft skill & Interpersonal skill, Formal & Informal conversation

Module 2: Basic Electrical & Electrical Machine

200 hrs

Most homes require an electrical service of at least 100 amps. This is also the minimum panel amperage required by the National Electrical Code (NEC). A 100-amp service panel will typically provide enough power for a medium-sized home that includes several 240-volt appliances and central air-conditioning.

TOPICS COVERED

- Understanding about basic principles of electricity
- Operation & Maintenance of Electromechanical Equipment
- Basics on Transformer
- Basics on Motor & Drives
- Operation Maintenance of Diesel Generators
- Fundamentals of UPS
- Importance of Circuit Breaker
- Business communication, Body language & workplace readiness, Time & Stress Management

Module 3: Home Installation (Wiring) & Basic to Refrigeration Cycle

200 hrs

House wiring consists of an electrical wiring system that distributes energy to be used in equipment and appliances around the house. It also involves the proper installation and operation of the electrical outlets, switches, breakers, meter base and different electrical circuits.

TOPICS COVERED

- Activities On Residential Wiring
- Wiring Installation in Cubical
- Importance of Energy Conservation
- Principles of Heat Transfer
- Fundamentals of Refrigeration Cycle
- Refrigerants and their effect on Environment
- Oral & Written Communication, Problem solving & Decision making, Basics of computer, Ms word

Module 4: Industrial Wiring & HVAC Operation

200 hrs

Industrial wiring uses a three-phase design to create higher output to power high voltage equipment and multiple systems. Heavy-duty insulation protects industrial wiring from corrosive liquids or gasses. Sensitive and power-hungry machinery often require special, heavy-duty outlets.

TOPICS COVERED

- Introduction to Single Line Diagram
- Introduction to Contactors
- Motor protection devices
- Activities On Motor Starters
- Introduction to HVAC System & its operation, Maintenance
- Resume Building, Workplace Etiquettes, Microsoft Excel & Power Point

Module 5: Home Automation

200 hrs

A home automation system will monitor and/or control home attributes such as lighting, climate, entertainment systems, and appliances. A home automation system typically connects controlled devices to a central smart home hub.

TOPICS COVERED

- Home Automation – Installation and Programming
- Fire Alarm Systems – Installation and Configuration
- Public Address Systems – Installation
- CCTV – Installation and Configuration
- Access Control – Installation and Configuration
- Email Etiquette, Presentation skill, Interview Etiquette

Module 6: Building Management System

200 hrs

A building management system (BMS), otherwise known as a building automation system (BAS), is a computer-based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment.

TOPICS COVERED

- Overview of BMS as an operator
- Programming of EcoStruxure Expert
- Operation of HVAC through Building Management System
- Project on Automation
- Placement Activities
- Mock Interview Session, Group Discussion, Introductory module on Personality