



HSE223

Introduction to Fire Alarm & Detection System

Course Introduction:

The primary function of a fire alarm is to alert the occupants of a building to the presence of a fire. It may also perform other functions. For instance, the system can be designed to simultaneously alert the fire department by means of a direct or relayed signal where a rapid response by the fire department is essential.

This course is designed to provide the participant with the due knowledge and skills that enable them to build up and effectively manage fire alarm and detection systems based on NFPA 72

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- Understand the reasons for installing the fire alarm system
- Learn the relevant design standards
- Learn the various types of smoke and heat detectors
- Understand the type of alarm technology to be used
- Select and position relevant system components
- Understand the alarm notification arrangements such as audible alarms, visual alerts and communication systems etc.
- Understand the auxiliary and emergency control features associated with fire alarm system
- Review the design such as to minimize the potential for false alarms
- Learn few relevant definitions

Who Should Attend?

This course is intended for architects, building designers, electrical engineers, loss prevention professionals, contractors, civil estimators, HSE staff, facility managers and general audience.

Course Outline:

Day 1:

Pre-Test

- Introduction to NFPA 72
- Definitions & Terminology
- Purpose of Fire Alarm Systems
- Device and System Compatibility
- Circuits and Pathways

Day 2:

- Main components of fire alarm and detection system
- Power Sources
- System Calculations
- Initiating Devices
- Automatic Detection Methods
- Prevention of Nuisance and False Alarms
- System Notification Appliances
- Relocation and Evacuation Signals

Day 3:

- Smoke Detector Operation
- Smoke Detector Spacing
- Heat Detector Operation
- Heat Detector Spacing
- Gas Detector
- Combined Detector
- Fire alarm system layout (workshop)

Day 4:

- Logic and Control Functions
- Types of Fire Alarm Systems
- Protective Premises Systems
- Proprietary Supervising Stations
- Central Station Systems
- Remote Station Systems
- Auxiliary Systems
- Guard's Tour Service

Day 5:

- Fire Alarm System Repair and Maintenance
- Emergency Voice and Alarm Communication Systems (EVAC)
- System Integrity and Supervision
- System Periodic Test
- Fire Suppression Systems
- Fire alarm system testing (practical)

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per the course location. This rate includes participant's manual, Hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session