

Advanced Fire Alarm System Design Course- Session II

Computational Methods of Fire Alarm System Design

Course Description

This two-day course focuses on the computational methods used to implement a performance-based design approach to fire alarm design problems. It includes a review of fire dynamics, computational methods for predicting initiating device response and computational methods for predicting the efficacy of both visible and audible occupant notification. Participants will solve a number of design problems during the course.

Learning Objectives

Upon completion of this course, the participants will be able to

- Illustrate basic familiarity with the computational methods
- Understand the zone and CFD modeling approaches used to simulate fire phenomena
- Develop analytical skills for verification and validation of simulation results from fire modeling software
- Understand how to predict fire alarm system performance in the context of both prescriptive design and performance-based design
- Distinguish current technologies associated with fire alarm and detection systems
- Review engineering tools to assess the performance of smoke management systems and fire detection and alarm systems
- Know the National Fire Alarm code NFPA 72

Prerequisite

Successful completion of the SFPE Advanced Fire Alarm System Design Seminar -Session I

Who will benefit: Experience Level Advanced

FPEs, Architectural, civil, structural, mechanical and electrical engineers engaged in the design of buildings and related infrastructure.

Materials Needed

Student should bring their copies of NFPA 72- National Fire Alarm Code; NFPA 101- Life Safety Code and a scientific calculator.

Course assessment

Participants will be assessed via a written exam upon completion of the course. A passing score of 70% will be required to obtain a Certificate of Completion.

Professional Development Hours

Upon completion participants qualifies for 14 PDHs or 1.4 CEUs. A Certificate of Attendance will be awarded.