

Evacuation for Fire Safety Engineering

Course Description

This is a two-day course for fire safety consultants and people working with fire safety at companies, fire brigades, municipalities and government agencies. The aim of the course is to introduce human behavior theories that are relevant for Fire Safety Engineering (FSE). After completion of the course, the participants will also have a basic understanding of pedestrian dynamics, and understand different egress modelling approaches (network, grid and continuous models) and their limitations. The course includes a wide variety of topics, such as human behavior theories, emergency exit design, evacuation elevators, toxicology, pedestrian dynamics, egress modelling and selection of evacuation scenarios. Most of the material will be covered in lectures, but there will also be one workshop, namely one workshop about the concept of 'panic' and exercises related to the design of emergency exits and basic egress calculations.

Learning Objectives:

Upon completion participants will be able to:

- Describe human behavior theories that are relevant for FSE.
- Understand pedestrian dynamics, and different egress modelling approaches (network, grid and continuous models) and their limitations.
- Perform egress calculations, i.e., back of the envelope calculations, which are often done in the initial phase of FSE design.
- Analyze different emergency exit and building designs in order to identify points of potential improvement.
- Analyze the design of exits and building layouts in a systematic way

Pre-requisite

None

Materials Needed

Calculator or computer suggested

Who will benefit: Experience Level- Intermediate

Fire Protection Engineers, Fire Safety Consultants, Fire Marshalls Fire Brigades, Municipalities and Government Agencies.

Course Assessment

Participants will be assessed via a written test. A passing score of 70% is required to receive a Certificate of Completion.

Professional Development Hours

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