

Fire Fighting Systems Design

Introduction:

This course is dealing with the design and specification of the fire fighting systems.

Course Objective:

Being able to understand and design the fire fighting systems.

Discussion Topics:

Here below the outlines for the course chapters and contents for overview.

Chapter (1) Fundamentals and Principals.

This chapter will cover the fundamentals helps in the design of the fire fighting systems also the principles of these systems.

Chapter (2) Fire Fighting Systems.

This chapter is dealing with the various fire fighting systems design according to the NFPA and the available codes.

We will discuss the design criteria, applications, calculations, components and the system operation.

1. Automatic fire fighting systems :

1.1 Water Sprinklers systems (Dry and wet systems).

2.1 Deluge and pre-action systems.

3.1 Foam, FM200 and Co2 Systems.

2. Manual fire fighting systems:

1.1 Fire extinguisher

2.1 Fire hose cabinets

3.1 Landing valves

4.1 Fire hydrants.

Also at this chapter we will discuss the storage tanks, sprinklers distribution, fire equipments

distribution and pump room layout.

Chapter (3) Fire Fighting Relevant.

This chapter will cover some topics related to the fire fighting systems.

1. Fire fighting systems with the other mechanical systems (HVAC and plumbing systems).

2. Fire fighting systems with the electrical, architecture, structure...etc.

Chapter (4) Special Applications and Topics.

This chapter will introduce overview for some special applications and topics as:

1. Storage areas fire fighting systems.

2. High rise buildings.

Fire Fighting Systems Design Course Highlights

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Chapter (5) Fire Alarm and Control System Overview.

This chapter will show the basic types of the addressable system and the BMS system.

Appendix.

A. Units Conversions.

B. References.

C. Tables and charts.

Course Evaluation:

Applicants should perform one case study after finishing the course sessions using the studied

standard and Elite software.

• Project Using AutoCAD