



PROJACS ACADEMY
by egis



Fire Alarm and Sprinklers Inspection, Testing and Design

تصميم وتفتيش واختبار شبكات ونظم الحماية من الحرائق

08 – 12 May 2023

London / United Kingdom

Introduction

Upon completion of this course, participants will have a thorough understanding of firefighting and detection system, Signal diagram, LCN & UCN, Network and GUS administration, and Drawing/distribution/termination details of FSC & Fire Protection Panel.

Participants will have in-depth knowledge of network design, hydraulic calculations by using NFPA programs, equipment selection, proper operation, troubleshooting through presentation of actual case studies.

Participants will divide into two or three groups and each group will receive a project and at the end of this course, each group will present their project design including routing and hydraulic calculations, by using elite software program.

Who Should Attend?

The course should benefit engineering personnel working with or in fire alarm systems.

Course Outline

Day One:

1. What is the fire?
2. What is the firefighting system
3. Classification of occupancies
4. Types of sprinkler systems
5. Sequence of operations for firefighting and detection system equipped with suppression system.
6. Signal Interconnection Philosophy Diagram.
7. LCN & UCN Interconnection Diagram.

Day Two:

1. Types of sprinklers
2. Dry pipe sprinkler system
3. Deluge & Pre-action system
4. Refrigerated spaces
5. Commercial type cooking equipment

6. Wet-pipe sprinkler system
7. Single Line Diagram & Grounding Scheme
8. Network Configuration & GUS Administration.
9. Detail Drawings for FSC & Fire Protection Panel.

Day Three:

1. Basic Design of Sprinkler systems
2. How to design a project
3. Sprinkler distribution inside the places
4. Water network distribution & sizing
5. Power Distribution Details for FSC & Fire Protection Panel.
6. Termination Details for FSC & Fire Alarm Control Panel.
 - a. From field devices to Global User System at Control Room.
7. Hydraulic calculation procedures and firefighting program
8. Training on how to use hydraulic calculation program

Day Four:

1. SMM Points List-FSC.
2. Functional Logic Diagram-FSC.
3. Pumps room
4. Control Stations
5. Miscellaneous details
6. Installation
7. Testing and Commissioning
8. Communication Drawings-FSC.

Day Five:

1. Global User System shall be included as follows:
 - a. GUS operations to log on and log off.
 - b. Graphics Printouts.
 - c. Area Graphics for fire and gas system.
 - d. Alarm summary details

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- Each participant receives a binder containing a copy of the presentation. slides and handouts.
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:

- | | |
|---------------------|------------------|
| • Technical Session | 08.30-10.00 am |
| • Coffee Break | 10.00-10.15 am |
| • Technical Session | 10.15-12.15 noon |
| • Coffee Break | 12.15-12.45 pm |
| • Technical Session | 12.45-02.30 pm |
| • Course Ends | 02.30 pm |

Course Fees*

- **5,200 USD**
**VAT is Excluded If Applicable*

المقدمة

عند الانتهاء من هذه الدورة، سيكون لدى المشاركين فهم شامل لنظام مكافحة الحرائق والكشف عنها، ومخطط الإشارة، وإدارة LCN و UCN، وإدارة الشبكة و GUS، وتفاصيل الرسم / التوزيع / الإنهاء الخاصة بلوحة FSC & Fire Protection.

سيكون لدى المشاركين معرفة عميقة بتصميم الشبكة، والحسابات الهيدروليكية باستخدام برامج NFPA، واختيار المعدات، والتشغيل السليم، واستكشاف الأخطاء وإصلاحها من خلال تقديم دراسات الحالة الفعلية.

سينقسم المشاركون إلى مجموعتين أو ثلاث مجموعات وستتلقى كل مجموعة مشروعاً وفي نهاية هذه الدورة، ستقدم كل مجموعة تصميم مشروعها بما في ذلك حسابات التوجيه والحسابات الهيدروليكية، باستخدام برنامج برمجيات النخبة.

الحضور

الدورة مفيدة للعاملين في مجال الهندسة أو في أنظمة إنذار الحريق.