



PROJACS ACADEMY
by egis



Certificate in Fire Protection Preparatory Program – Advanced Workshop

برنامج التحضير للحماية من الحرائق - ورشة عمل متقدمة

10 - 14 July 2023

London / United Kingdom

Objectives

Upon completion of this course, participants will have a thorough understanding of firefighting and detection alarm 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 be divided into two or three groups and each will receive a project and at end of calculations, by using elite software program.

Who Should Attend?

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

Also intended for those who are responsible for enhancing fire safety awareness and emergency planning practices in industrial applications:

- Health safety and environment professionals and representative.
- Emergency response team members/leaders
- Fire and security officers
- Others who may find themselves in a leadership position when responding to a major emergency or involved in implementing the company's Health Safety and Environmental Safety Management Systems.

Course Outline

Day One

- What is fire?
- What is the firefighting system
- Classification of occupancies
- Types of sprinkler systems
- Sequence of operations for firefighting and detection system equipped with suppression system.
- Signal interconnection philosophy Diagram.
- LCN & UCN interconnection Diagram.
- Types of sprinklers
- Dry pipe sprinkler system
- Deluge & Per-action system
- Refrigerated spaces
- Commercial type cooking equipment
- Wet-pipe sprinkler system
- Single line diagram & Grounding Scheme
- Network Configuration & GUS Administration
- Details Drawings for FCS & Fire Protection Panel
- Firefighting systems (fixed)
- NFPA 13 Sprinkler System
- Types of sprinklers
- What is the firefighting system?
- Classification of occupancies
- Types of sprinkler system
- Dry pipe sprinkler system
- Deluge & Pre-action system
- Wet-pipe sprinkler system
- Basic Design of Sprinkler system
- Fire pumps
- Co2 firefighting system
- FM 200 and similar firefighting

Day Two

- Basic Design of Sprinkler Systems
- How to design a project
- Sprinkler distribution inside the places

- Risk Assessment, Safety & Emergency Planning
- Fire precautions regulation and legislation
 - Basic of fire Safety and the Cost of fires
 - Four steps to a successful Fires Risk Assessment
 - Methodology and checklist for carrying one out
 - Checklists – ignition and fuel sources
 - Design and construction requirements for exits; Escape
 - Firefighting equipment and fixed extinguishing systems
- Evacuation Procedures – including Bomb Threats
 - Workshop – Theory into practice – delegates to carry out an inspection and fire Risk Assessment
- Effective Safety, Fire Prevention and Emergency Planning Program, Fire Prevention policy:
 - Portable Fire Extinguishers (PFE)
 - Class of Fire
 - Class Discussion on use and limitations of PFE followed by PFE Quiz
 - Fire Protection and Fire Prevention Measures

Day Three

- Reputation Management
- Case Study-Essentials of Safety Management Systems
- European Union Directives: Control of Major Accident & Hazard Regulations
- On Site Safety Management Systems
- On and Off-site Emergency Plans
- Case Study
- Incident Command Systems
- On-Scene management. How to quickly establish a reliable information flow from the scene, co-ordination all resources, on and off site;
- Post – incident evaluations, de-briefs and reports
- Case Study
- Maintenance of equipment, plans and procedures – exercising
- Workshop and Class Exercise – "Safe operation of an industrial Site".
- Human behavior and Fire Safety
- Case Study
- Program Evaluation
- Discuss personal action plans

Day Four

- Signal Interconnection philosophy Diagram
- LCN & UGN Interconnection Diagram
- Signal Line Diagram & Grounding Scheme
- Network Configuration & GUS Administration

- Area Database and history Groups / Configuration
- General Drawings – FSC & Fire protection Panel
- Power Distribution - FSC & Protection Panel
- Power consumption Calculation – FSC & Fire Protection panel
- Termination Details – FSC & Fire Protection panel
- SMM Point List – FSC
- Functional Logics – FSC
- Communication Drawings – FSC
- General Drawings – Auxiliary Console
- General Drawings - Firefighting Panel
- Power Distribution - Firefighting Panel
- Power Consumption – Fire Fighting Panel
- Functional Logistics – Fire Fighting Panel
- Leader Diagram – Fire Fighting Panel
- Graphics Printouts

Day Five

- Fire prevention and protection
- Components of firefighting plan
- Fire hazard analysis
- Fire risk assessment
- Methods of control
- Communication of fire prevention plan
- Fire alarms and detectors system
- Introduction to NFPA 72
- Components of fire detection and alarm system
- Types of detectors
- Lay out of detectors
- Specification of alarm system
- New application of the alarm system
- Inspection and maintenance
- NFPA 101 Life Safety Code
- 21. Means of Egress Requirements
- Exit Routes Basic Requirements
- Exit door Specifications
- Exit marking
- Emergency Action Plan DAY
- Firefighting systems (manual)
- Types of portable fire extinguishers
- Using and inspecting fire extinguishers
- Rail hose cabinet
- Fire hydrants

Practical Case Studies and Exercises:

How Fire Starts

- Learning about fire Chemical reaction and flash point
 1. Pieces of paper
 2. Pieces of wood
 3. Lighters
 4. Glasses of water

Theories of Fire Fighting

- Learning how fire is suppressed
 1. Different Types of Fire Extinguisher
 2. Drum
 3. Some wood
 4. Gasoline

Rescue

- Learning how rescue is done during smoke
 2. Some ashes (Piece of cloth to bind the rescuers)

Fire Scene Size-up

- Learning how to size-up a fire and give an initial fire scene report
 3. Stimulation of having a fire scene and the first response fire officer is sizing up

Firefighting Sector (Workshop)

- Learning develop firefighting sectors

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*

الأهداف

عند الانتهاء من هذه الدورة، سوف يكون لدى المشاركين فهم شامل لنظام مكافحة الحرائق وجهاز الإنذار، ومخطط الإشارة، LCN & UCN وإدارة الشبكات، وتفاصيل رسم / وتوزيع / وإيقاف خدمات الحماية من الحرائق (FSC)

وسيكون للمشاركين معرفة متعمقة في تصميم الشبكة، والحسابات الهيدروليكية باستخدام برامج NFPA، واختيار المعدات، والتشغيل السليم، واستكشاف الأخطاء وإصلاحها من خلال تقديم دراسات الحالة الفعلية.

سيتم تقسيم المشاركين إلى مجموعتين أو ثلاث مجموعات وسيتم تلقي كل منهم مشروعاً، وذلك باستخدام برنامج من البرمجيات الأساسية.

الحضور

سيستفيد من هذه الدورة المهندسين الذين يعملون مع أو في أنظمة إنذار الحريق.

مخصص أيضاً لأولئك المسؤولين عن تعزيز الوعي بالسلامة من الحرائق وممارسات التخطيط للطوارئ في التطبيقات الصناعية:

- مهنيو وممثلو الصحة والسلامة والبيئة.
- أعضاء / قادة فريق الاستجابة للطوارئ
- رجال الإطفاء والأمن
- الآخرون الذين قد يجدون أنفسهم في موقع قيادي عند الاستجابة لحالة طوارئ كبرى أو مشاركين في تنفيذ أنظمة إدارة السلامة الصحية والسلامة البيئية للشركة.