

# 2-Days Course on “Fire Control Concepts and Design of Active Wet Systems”



## Introduction

The Uniform Building By-Law (UBBL) requires that any building erected must fulfil Part VIII Fire Detection, Fire Alarm and Fire Alarm and Fire Extinguishment and Tenth Schedule – Table of Requirements for Fire Detection, Fire Alarm and Fire Extinguishment Systems. Consultant Engineers with practicing certificate must design accordingly hence in this course it would cover the active wet systems only.

Graduate Engineers who are unfamiliar with UBBL, fire control concepts and design aspects and this course would provide the foundation of being a Professional Engineer.

## Objectives

To understand the various fire control concepts and able to design active wet systems.

## Training Methodology

Classroom presentation and case studies and practical design illustrations

## Who should attend

Engineers in particular graduates, Maintenance Technicians

Upon completion of this program, participants will:

1. Understand the Risk Management Process and Major causes of Fire Losses
2. Understand the principles of combustion, fire behavior
3. Identify the possible causes of fire and explosion (gas and dust) like static electricity
4. Minimize these causes and design of active wet systems in case to mitigate the potential losses
5. Able to design fire pumps and pipe sizing of the wet systems (jockey and duty pump for hydrant ring main, wet riser, sprinkler)
6. MS1910 Fixed Firefighting systems – Automatic Sprinkler Systems Design, Installation and Maintenance, able to design a Pre-Calculated Sprinkler system for Ordinary Hazard and selection of orifice plate
7. Understand the difference between Clean and Non-clean gaseous suppression systems and its application
8. Able to conduct a fire pump flow test using a Pitot tube and its applicable formula

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**Trainer: Ir. Gary Lim**

**Training Dates 2022:**

**Time: 9.00am – 5.00pm**

16 & 17 February 2022

**Venue: Wisma IEM**

13 & 14 July 2022

02 & 03 November 2022

Approved Duration: 30/11/2021 – 29/11/2022

## Course Outline

HRD Corp Serial No: 10001139110

| Day 1  |  | Day 2   |   |
|--|--|---|---|
| <ul style="list-style-type: none"> <li>Professional Competency Exam</li> </ul>   | <ul style="list-style-type: none"> <li>Heat Sources – Chemical, Electrical, Mechanical, Nuclear</li> </ul>         | <ul style="list-style-type: none"> <li>Understand PIAM – Persatuan Insuran Am Malaysia Discounts</li> </ul> | <ul style="list-style-type: none"> <li>Wet Riser System Design – Case Study</li> </ul>  |
| <ul style="list-style-type: none"> <li>UBBL Fire Requirements – Old &amp; Revised &amp; Fire Certificate Regulation</li> </ul> | <ul style="list-style-type: none"> <li>Explosion Hazards - Dust, Fiber, Gas</li> <li>Identify the Risk</li> </ul>  | <ul style="list-style-type: none"> <li>Fundamental of Fluid Laws</li> </ul>                                 | <ul style="list-style-type: none"> <li>Hose Reel System Design &amp; Jockey Pump</li> </ul>   |
| <ul style="list-style-type: none"> <li>Insurance Concept &amp; ISO31000 Risk Management standard</li> </ul>                    | <ul style="list-style-type: none"> <li>Insurance Survey Report – Case Study</li> </ul>                             | <ul style="list-style-type: none"> <li>Portable Fire Extinguishers</li> </ul>                               | <ul style="list-style-type: none"> <li>Sprinkler Design MS 1910                             <ul style="list-style-type: none"> <li>➤ Pre-calculated design</li> <li>➤ Effective Sprinkler Tank</li> </ul> </li> </ul> |
| <ul style="list-style-type: none"> <li>Fire Behaviour &amp; By-products</li> </ul>   | <ul style="list-style-type: none"> <li>Gaseous Suppression Systems</li> <li>Case study CO2 flood design</li> </ul> | <ul style="list-style-type: none"> <li>External Hydrant System Design</li> </ul>                            | <ul style="list-style-type: none"> <li>Pump Flow Test</li> </ul>  |
| <ul style="list-style-type: none"> <li>Fire Hazards/ Solid/ Liquid &amp; Gas</li> <li>Identify the Risk</li> </ul>             |  |   |   |

### About The Trainer

Ir. GARY LIM ENG HWA graduated as a Mechanical Engineer from University of Canterbury Christchurch New Zealand. He also holds Management Diploma from New Zealand Institute of Management Inc. He is also registered as FIEM, P.Eng, Asean Eng, APEC Eng, Int PE(My). He had over 20 years of manufacturing experience from various industries involved in these areas; Industrial Engineering (Work Study), Project Management, Maintenance, Production and Factory Management. His last 11 years of his working experience was with a multinational insurance company where he received further training in the area of Fire Engineering from an insurer perspective, started as the Risk Engineer and retired as the Risk Manager of the MNC insurer. He attended a course from HSB Industrial Risk Insurers at Hartford, United States of America on the Implementing The Concepts of Industrial Fire Control in August 1998. Gary had conducted numerous risk management surveys of various industries from wafer plant to power plants. Currently, a committee member of the Building Services Technical Division and member of the Fire Advisory Board of the Institution of Engineers, Malaysia. He has a degree in Mechanical Engineering from the University of Canterbury, New Zealand and a Management Diploma from New Zealand. He is a Professional Engineer Practicing Certificate registered with the Board of Engineers, Malaysia and a Fellow of the Institution of Engineers, Malaysia (IEM). He conducts courses regularly on the concepts and design in the area of Fire Engineering and Plumbing Engineering at all the IEM branches in Malaysia.

IEMTA IS REGISTERED WITH:



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| Tick (/)                 | Dates                 | Onsite Rate (IEM/AER Member) | Onsite Rate (Non-IEM/AER Member) |
|--------------------------|-----------------------|------------------------------|----------------------------------|
| <input type="checkbox"/> | 16 & 17 February 2022 | RM1,060.00                   | RM1,300.00                       |
| <input type="checkbox"/> | 13 & 14 July 2022     | RM1,060.00                   | RM1,300.00                       |
| <input type="checkbox"/> | 02 & 03 November 2022 | RM1,060.00                   | RM1,300.00                       |

Group Rate of 5 person will be given 10%



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| No                   | Name(s) | M'ship No. | Grade | Fee (RM)* |
|----------------------|---------|------------|-------|-----------|
|                      |         |            |       |           |
|                      |         |            |       |           |
| <b>TOTAL PAYABLE</b> |         |            |       |           |

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