



Centre for  
Management  
Technology®  
into our 26<sup>th</sup> year

*A 2-day intensive course on*

# Design, Management, Operations and Maintenance of ***FIRE PROTECTION SYSTEMS***

**30-31 March 2009** | JW Marriott Hotel Kuala Lumpur

## ***FOCUSING ON***

- Introduction
- Fire Engineering
- Active Fire Protection Systems
- Passive Fire Protection Systems
- Safety Issues
- Design Of A Pumping System For A Hose Reel System:- Classroom Exercise
- Design Of A Sprinkler Installation For A Typical Building:- Classroom Exercise
- Fire Prevention
- The Fire And Rescue Services Department
- Operations And Maintenance For Fire Protection Systems

## **COURSE INTRODUCTION**

**Fire Protection Engineering** (also known as **Fire Engineering** or **Fire Safety Engineering**) is the application of science and engineering principles to protect people and their environments from the destructive effects of fire and smoke.

The discipline of fire protection engineering includes, but is not exclusive to:

- Active fire protection - fire suppression systems, and fire alarm.
- Passive fire protection - fire and smoke barriers, space separation
- Smoke control and management
- Building design, layout, and space planning
- Fire prevention programs
- Fire dynamics and fire modeling
- Human behavior during fire events
- Risk analysis, including economic factors

In practice, fire protection engineers (FPE) typically identify risks and design safeguards that aid in preventing, controlling, and mitigating the effects of fires. Fire protection engineers assist architects in evaluating buildings life safety and property protection goals. FPEs are also employed as fire investigators, including such very large-scale cases such as the analysis of the collapse of the World Trade Center. NASA uses fire protection engineers in its space program to help improve safety.

## **COURSE OBJECTIVES**

**This course aims to introduce participants to the various aspects of Fire Protection Engineering, to improve and develop further the participants appreciation on the safety aspects and also on how to overcome problems associated with Fire Protection Engineering.**

Program topics, speakers and schedules published herein are confirmed as at printing time. Please refer to the event's timetable page at [www.cmtevents.com](http://www.cmtevents.com) for the most up-to-date information.

## *Day 1*

**Monday, 30 March 2009**

### **9.00 INTRODUCTION**

- Fire Protection Engineering
- History
- Education

### **9.45 FIRE ENGINEERING**

- Fire Prevention Programs
- Fire Dynamics And Fire Modeling
- Human Behavior During Fire Events
- Risk Analysis, Including Economic Factors

10.30 Morning Coffee

### **10.45 ACTIVE FIRE PROTECTION SYSTEMS**

- Fire Alarm Systems
- Fire Extinguishers (Portable and Fixed)
- Wet Systems (Sprinkler, Wet riser, Hose Reel, Hydrant)

1.00 Lunch & Zohor

### **2.00 PASSIVE FIRE PROTECTION SYSTEMS**

- Pressurisation Systems
- Smoke Extraction Systems
- Compartmentalisation
- Fire Doors
- Fire Stops
- Fire walls
- Fire Proofing

3.30 Afternoon Tea

### **3.45 SAFETY ISSUES**

- Policy Statement
- Safety Program Organization
- Safety Responsibilities And Accountabilities
- Work Practices
- Loss Prevention
- Accident Reporting
- Hazard Communication
- Emergency Response Plan

- OSHA Inspection
- Designing An Effective Fire Detection And Protection System For Production Facilities

5.00 End of Day 1

*Day 2*  
Tuesday, **31 March 2009**

9.00 **DESIGN OF A PUMPING SYSTEM FOR A HOSE REEL SYSTEM:- CLASSROOM EXERCISE**

10.30 Morning Coffee

10.45 **DESIGN OF A SPRINKLER INSTALLATION FOR A TYPICAL BUILDING:- CLASSROOM EXERCISE**

12.00 **FIRE PREVENTION**

- Training Of Fire Fighters
- Chemical Reaction
- Typical Temperatures Of Fires And Flames
- Controlling A Fire
- Goals Of Fire Fighting

1.00 Lunch & Zohor

2.00 **THE FIRE AND RESCUE SERVICES DEPARTMENT**

- Procedures For Rescue
- Procedures For Search
- History Of The Department
- Investigation Of A Fire
- Communication And Command Structure

3.30 Afternoon Tea

3.45 **OPERATIONS AND MAINTENANCE FOR FIRE PROTECTION SYSTEMS**

- Corrective Maintenance
- Preventive Maintenance
- Service Contracts

5.00 End of Course

***AFTER ATTENDING THIS COURSE,  
YOU WILL RETURN TO YOUR JOB...***

1. **Developing A Working Knowledge Of The Various Fire Protection Systems.**
2. **Differentiating Between The Different Classes Of Fire.**
3. **Understanding Better The Design, Construction, Operations And Maintenance Requirements Of Fire Protection Systems.**
4. **Implementing Strategies And Methodologies To Create An Effective Fire Equipment Maintenance Programme.**
5. **Increasing Your Knowledge And Skills To Identify And Address Operational Problems At All Levels.**
6. **Implementing Maintenance Plans That Are Cost Effective And Aligned To The Organisation's Strategic Goals.**
7. **Improving Performance By Developing Detailed Specifications With Service Partners.**
8. **Establishing An Effective Maintenance Team.**

***WHO SHOULD ATTEND***

Facilities Engineers, Maintenance Engineers, Design Engineers, Production And Manufacturing Engineers, Process Engineers, Process Designers, Plant Engineers, Technicians And Any One Involved In Fire Protection Systems And Would Like To Widen Their Knowledge.

***METHODOLOGY***

Lectures, Discussion, Exercises to ensure participants have a better understanding to improve their efficiency level.

Name	_____
Position	_____
Email	_____
Name	_____
Position	_____
Email	_____
Tel	_____
Fax	_____

Company	_____
Address	_____
City/Postcode	Country
Approving Manager's Name	_____
Position	_____
E-mail	_____

**Fees:** The full Registration Fee includes cost of all sessions, luncheon, coffee/tea & documentation.

	1 Person	Group fee for 3 or more* (from the same company)
<b>Regular Fee</b>	<b>RM1,995</b>	<b>RM1,695</b> (MIN SAVINGS OF RM900)

\* Terms and conditions apply.

**Cancellations, Refunds & Transfers:** A full refund will be promptly made for all written cancellations 3 weeks before the meeting. Thereafter, cancellations are not refundable. A substitute may be made at any time.

**Cheques :** Crossed & payable to  
"Centre for Management Technology Sdn Bhd"

Photocopy Registration Form to Preserve Brochure Copy. March 2009

090390      A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

## TO REGISTER

Online : [www.cmtevents.com](http://www.cmtevents.com)  
 Email : [adminkl@cmtsp.com.sg](mailto:adminkl@cmtsp.com.sg)  
 Fax : (603) 2162 6393  
 Tel : (603) 2162 7322  
 Post to : Lot 7.03, 7th Floor, North Block, The Ampwalk,  
 218 Jalan Ampang, 50450 Kuala Lumpur

### CERTIFICATE OF COMPLETION

A Certificate of Completion will be awarded upon successful completion of each program. This serves as evidence of your personal and professional commitment to you career.

#### PROGRAM TIMING

Registration: 8.30 am, Course Begins: 9.00 am,  
 Morning Coffee: 10.30 am, Lunch: 1.00 pm to 2.00 pm,  
 Tea Break: 3:30 pm, Course Ends: 5.00 pm

### TELEGRAPHIC TRANSFER

Account Name: **Centre for Management Technology Sdn Bhd**  
 A/C No: **3 - 0903390 - 12**  
 Bank: **Public Bank Berhad**  
 Branch: **Grd Floor, Menara Public Bank Jalan Ampang**  
 Swift Code: **PBBEMYKL**  
*TT must include additional RM10 for Beneficiary's Bank charges. Delegates must bear all bank charges and local taxes (if applicable). Fees must be NETT of ALL charges.*

CMT into our 26th year is a global conference organizer HQ in Singapore. CMT's dedicated team works closely with market leaders to analyze the latest industry trends and provide information supporting your decision making. Our annual 60 events encircle the globe from Asia Pacific to the Middle East to New Europe/Russia and Latin America.

*Register online ~ [www.cmtevents.com](http://www.cmtevents.com)*

### LEARN FROM THE BEST

**N. JAYASEELAN,**  
**BACHELOR OF ENGINEERING (HONS) MECHANICAL**

JAYASEELAN is a widely experienced and performance-oriented engineering Consultant-Trainer. Prior to this, Jayaseelan was the General Manager for a Facility Management Company involved in the management of various facilities, including manufacturing plants, high-rise commercial buildings, chemical plants etc.

He has 25 years hands-on industrial experience in the areas of preparing engineering reports, proposals, manuals, documentations, design briefs and training in the field of Fire Protection.

He was also a recipient of the Association of Overseas Technical Scholarships (AOTS) award on two occasions, awarded by the Ministry of Economy, Trade and Industry of Japan. Jayaseelan was also a member of the working group to draw up the energy efficiency and energy conservation guidelines for pumps and compressors for Malaysian industries organised by the Institution of Engineers, Malaysia, Pusat Tenaga Malaysia, and the Ministry of Energy, Water and Communications (KTAK).

He also actively writes technical articles for various international journals and magazines.

Professionally trained in mechanical engineering, Jayaseelan is positive and lively in his approach. He livens his audience by always providing interactive and energetic presentation of his material in a comprehensive and easy to use format of ideas that work. His participants describe him as a very creative, fun and lively trainer who sets high standards.

Jayaseelan's wide hands-on industrial experience has enabled him to design and facilitate training courses in this field. His clients include, Tenaga Nasional Bhd, Bank Pembangunan, Ranhill, Ebara Pumps, Usaha Tegas Sdn.Bhd (Maxis), Infineon (M) Sdn.Bhd, Universiti Malaya, Universiti Teknologi Malaysia, Penang Port Sdn.Bhd. etc.

He is a Graduate Member of the Board Of Engineers (BEM), Malaysia, a Corporate Member of the Institution of Engineers, Malaysia (IEM), a Member of the Institution of Mechanical Engineers, United Kingdom (IMEchE), an Associate Member of the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and a Member of the American Society of Mechanical Engineers (ASME).