1ST FAB ROADSHOW

TARGET AUDIENCE:
PRACTISING ENGINEERS, ARCHITECTS AND OTHER ALLIED PROFESSIONALS

2nd Announcement

ONE AND HALF DAY SEMINAR ON "LATEST DEVELOPMENT IN FIRE PROTECTION PRACTICES"

Event No. 1: Time: 8.30am – 5.30pm (DAY 1) /8.30am – 1.00pm (DAY 2)

NETWORKING DINNER WITH FAB

Event No. 2: Time: 7.30pm – 10.00pm

OPEN FORUM & TECHNICAL DIALOGUE

Event No. 3: Time: 2.00pm – 5.30pm (DAY 2)

HOT ISSUES TO BE DISCUSSED

- Why > 50% fire submissions are still rejected by BOMBA?
- Are you in the crossroads to decide on what standard to use in the fire design?
- What happens after you signed off the relevant form for CCC application?

ROADSHOW OBJECTIVES

- HOW TO IMPROVE SUCCESS RATE IN SUBMISSION OF FIRE PLANS
- DISCUSSION ON SMOKE CONTROL CROSSROADS
- THE WAY FORWARD ON FIRE ENGINEERING PRACTICE

BEM APPROVED
(For Seminar)
CPD/PDP Hours: 9.5
Ref: IEM14/HQ/327/S

BEM APPROVED
(For Technical Dialogue)
CPD/PDP Hours: 3.0
Ref: IEM14/HQ/328/F

Jointly Organised:

The Subcommittee on the Fire Advisory Board on Fire Protection Services, Standing Committee on Professional Practice (PPC), IEM with IEM Penang Branch & The Electrical and Electronics Association of Malaysia (TEEAM)

Venue & Date:

The Gurney Hotel, Penang
30th – 31st October 2014 (Thursday-Friday)

TENTATIVE PROGRAMME *(SUBJECT TO CHANGE*)*:

DAY 1 (30 Oct. '14)	TOPICS	PROPOSED SPEAKER
08.30 -09.00 a.m.	**Registration 1**	Secretariat
09.00 – 09.05 a.m.	**Emcee and Moderator for Day 1**	Ir. Chong Chew Fan
09.05 - 09.15 a.m.	**Welcoming Remarks**	IEM Penang Branch
09.15 – 09.35 a.m.	**Introduction** (Session 1): The Current and Future Practice of Fire Engineering in Malaysia	Ir. Thin Choon Chai
09.35 – 10.10 a.m.	Session 2: Latest Amendments and Revision on UBBL 1984	Ir. Wong See Foong
10.10 – 10.30 a.m.	**Tea Break**	
10.30 – 11.00 a.m.	Session 3: Guide to Fire Submission to Bomba	Ir. Wong See Foong
11.00 – 12.00 n.n.	Session 4: Tenable Condition in a Fire Incidents – RSET	Engr. Tay Hao-giang (Deputy President, IFE)
12.00 – 12.40 p.m.	Session 5: Certificate of Compliance and Completion (CCC) & OSC 3.0	Ir. Yim Hon Wa
12.40 – 01.00 p.m.	**Q&A**	
01.00 – 02.00 p.m.	**Lunch Break**	
02.00 – 02.40 p.m.	Session 6: Commissioning of Fire Protection Systems	Ir. Leong Siew Meng
02.40 – 03.20 p.m.	Session 7: Commissioning of Fire Pump Design and Testing	Ir. Cha Hoong Kum
03.20 – 03.45 p.m.	**Tea Break**	
03.45 – 04.20 p.m.	Session 8: System Audit and Fire Systems Record Book	Ir. Loo Chee Kin
04.20 – 05.00 p.m.	Session 9: CFD Modelling Programme: Introduction on CFD & Selected Industrial Applications on Fire Topics	Ir. Dr Kannan M. Munisamy
05.00 – 05.30 p.m.	**Q&A - End of Day 1 Seminar**	
	Free and Easy	
08.00 – 10.00 p.m.	Networking Dinner	

DAY 2 (31 Oct. '14)	TOPICS	PROPOSED SPEAKER
08.30 – 09.00 a.m.	**Registration 2**	Secretariat
09.00 – 09.05 a.m.	**Emcee and Moderator for Day 2**	Ir. Soong Peng Soon
09.05 – 10.05 a.m.	Session 10: Latest Findings and Standards on Smoke Control Management	Engr. Tay Hao-giang (Deputy President, IFE)
10.00– 10.30 a.m.	**Tea Break**	
10.30 – 11.10 a.m.	Session 11: Overview on Performance-based Fire Protection Analysis and Design of Buildings	Ir. Tan Chew
11.10 – 11.50 p.m.	Sessions 12: Recommended Smoke Control and Smoke Management Systems in Buildings with Reference to Fire Authority's Requirements and Latest Revised UBBL	Ir. Daniel Lim Kim Chuan
11.50 – 12.30 p.m.	Session 13: Smoke Management - *Jet Fan System*	Ir. Soong Peng Soon
12.30 – 12.45 p.m.	**Q&A**	
12.30 – 01.00 p.m.	**Conclusion**	-
01.00 – 02.00 p.m.	**Lunch Break, Friday Prayer**	
	End of Seminar	
DAY 2 (31 Oct. '14)	**TECHNICAL DIALOGUE**	
02.00 – 02.30 p.m.	**Registration 3**	Secretariat
02.30 – 05.30 p.m.	Session 14: Technical Dialogue with IEM members and participants	All Committee
05.00 – 05.30 p.m.	**Q&A - End of Day 2**	

ONE AND HALF DAY SEMINAR ON "LATEST DEVELOPMENT IN FIRE PROTECTION PRACTICES"

DAY 1: 30TH OCTOBER 2014 (THURSDAY)

Time: 9.00am – 5.30pm

Emcee for Day 1: Session Chairman & Moderator
By: Ir. Chong Chew Fan

Ir. Chong Chew Fan; holds a Bachelor of Engineering (Hons) in Electrical and Electronics from Universiti Kebangsaan Malaysia. He is a Professional Engineer registered with Board of Engineers, Malaysia (BEM), Qualified Person with Suruhanjaya Perkhidmatan Air Negara (SPAN), Corporate Member of The Institution of Engineers, Malaysia (IEM) and certified GBI Facilitator with Green Building Index Sdn. Bhd. Ir. Chong has more than 10 years of working experience covering design, contract administration, project management and consultancy in electrical and instrumentation services. He has vast experience in infrastructure and building works including green building and sustainable designs, housing development, mixed development, office and commercial buildings, water and wastewater, highways and roads. Ir. Chong is also an active member in various Working Group on Green Technology and Energy Efficient and Conservations in SIRIM and CIDB. He is currently the Deputy Chairman of the Fire Advisory Board (FAB), IEM.

9.15 a.m. – 9.35 a.m.
Introduction (Session 1): The Current and Future Practice of Fire Engineering in Malaysia
Presenter: Ir. Thin Choon Chai

Ir. Thin Choon Chai; graduated from Trinity College, Dublin with Bachelor of Arts, Bachelor of Engineering Science (Mechanical, in 1974). He is a Corporate Member of The Institution of Engineers, Malaysia (IEM), Professional Engineer (P.Eng.) registered with the Board of Engineers, Malaysia (BEM), Member, Institution of Fire Engineers (IFE) (Malaysia Branch), Accredited engineer with Architect Centre and Pertubuhan Akitek Malaysia (PAM) for fire safety audit. He is currently the Chairman of the Fire Advisory Board (FAB), IEM.

9.35 a.m. – 10.10 a.m.
Session 2: Latest Amendments and Revision on UBBL 1984
Presenter: Ir. Wong See Foong

Ir. Wong See Foong; graduated with a degree in Mechanical Engineering from the University of Malaya in 1974 and has been in the Engineering consultancy practice over the past 38 years. He is a professional engineer registered with the Board of Engineers, Malaysia and is presently a partner of MEP Engineering Sdn Bhd, a mechanical and electrical engineering consultancy practice. Ir. Wong is presently the President of the Association of Consulting Engineers, Malaysia (ACEM) and represents the association on issues related to building regulations, fire safety and professional practice. He is currently the Advisor of the Fire Advisory Board (FAB), IEM.

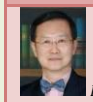
SYNOPSIS:
This presentation is to introduce the amendments to the Uniform Building By-Laws that has been enacted in the state of Selangor. A similar version has been sent by the Ministry of Housing and Local Government to all the states and local authorities for adoption with amendments to suit each local authority's requirements where necessary. The seminar will focus on the engineering aspects of the by-laws under Part 1A, Parts V to Part VIII.

10.30 a.m. – 11.00 a.m.
Session 3: Guide to Fire Submission to Bomba
Presenter: Ir. Wong See Foong

SYNOPSIS:

This presentation is to explain the requirements for submission to Jabatan Bomba, the information and documents to be included and details of the technical requirements to be complied with. The scope will include both the active and passive aspects of the submission. The common reasons for rejection will also be presented so that submitting engineers can avoid the mistakes and resubmissions minimized.

11.00 a.m. – 12.00 n.n.
Session 4: Tenable Condition in a Fire Incidents – RSET
Presenter: Engr. Tay Hao-giang



Engr. Hao-giang Tay; FIFireE, B.Sc. (Hons), M.Sc. Fire Safety Engineering, (University of Edinburgh), Deputy President of The Institution of Fire Engineers (UK) Malaysia Branch. Fire Engineer Hao-giang Tay is a qualified and experienced Fire Engineer. He is a graduate of Heriot-Watt University and a graduate of University of Edinburgh, Scotland with a Master of Science Degree in Fire Safety Engineering. As the principal fire consultant of Fire Safety Engineering Sdn Bhd, he has over 34 years of experience in fire engineering. His company provides advice, consultancy service and training to corporate clients with a holistic approach to sustainable fire safety engineering and business continuity. He is also involved in performance-based fire safety design.

His specialties lies in practical modern fire engineering concept and design in terms of fire risk assessment and management; fire protection engineering, life safety and mass evacuation design; mitigation of fire hazards and fire risks, emergency response planning and management. Fire Engineer Hao-giang Tay is the Past International President and a Trustee and Board of Directors of The Institution of Fire Engineers. He is currently serving as the Deputy President of The Institution of Fire Engineers Malaysia Branch. He is a very active member of LinkedIn Professional network promoting the Institution as well as sharing fire safety engineering knowledge and experience with all fire professionals in the world. Actively involved in Malaysian Standards development for more than two decades, his technical committee has developed series of performance-based Malaysian Standards for the fire industry. He is one of a panel author for revising the First edition of International Fire Service Training Association "Urban Search and Rescue in Collapsed Structures" book to International Standards.

This is book is published by Fire Protection Association, Oklahoma State University 2003. He co-authored the technical reference book "Guide to Fire Protection in Malaysia" which is a complimentary guide to Malaysian Uniform Building By-laws. Guide to Fire Protection in Malaysia is now an official guide for fire officers, professional engineers and architects, developers, contractors, building owners, students, etc. On the personal level, he has conducted many studies to establish the way forward for sustainable fire engineering concept and published these findings. He is one of the panel CPD lecturers for Fire and Rescue Department Malaysia, The Institution of Architects Malaysia, The Board of Architects Malaysia, The Institution of Engineers, Malaysia and the Institution of Fire Engineers Malaysia. He has been invited as a speaker at International Fire conferences in countries such as United States of America, Australia, Hong Kong, China, Singapore, Philippines, India, Taiwan, England, Scotland, Wales, South Africa, Netherlands, Republic of Ireland, U.A.E and Malaysia. His paper "Integrated Fire Safety Engineering – The Way Forward" was published at the Europe Fire Advisory Forum 2013, Prague, Republic of Czechoslovakia.

SYNOPSIS:
As part of smoke control and management design, understanding of tenable conditions for human beings during a fire incident is vital as UBBL 1984 emphasize on Life Safety. Human Behaviour is a key factor lacking in modern fire safety design. For any fire safety design, e.g. sprinkler system, fire detection and alarm system, smoke control and management systems, clean agent fire suppression system, etc., failure to understand and incorporate human reaction and sustainability to heat and smoke may not achieve the design objective of life safety. This paper will look at tenable conditions under fire condition and the impact of heat, smoke toxic gases on human. This paper will also look at lessons learnt from International fire incidents and the hazard and risks in modern fire incident compared to conventional fire incidents.

12.00 n.n. – 12.40 p.m.
Session 5: Certificate of Compliance and Completion (CCC) and OSC 3.0
Presenter: Ir. Yim Hon Wa

Ir. Yim Hon Wa, B.Sc.(Mech)(UK), P.Eng, FIEM, MACEM, MASHRAE, ASEAN Eng., CEng, FIMechE, holds a Bachelor Degree in Mechanical Engineer from the Middlesex University, United Kingdom. Ir. Yim is the founder of Perunding IBS Sdn. Bhd. specialising in air-conditioning & ventilation, indoor air quality, fire protection, hot & cold water plumbing since 1991. He has been the Principle Mechanical Engineer to design the mechanical services in one of the largest shopping Complex in Malaysia, One Utama Plus. The complex comprises of 3,000,000 sq. ft. of retail and car park area. The chilled water thermal energy storage system of 90,000 ton-hours is one of the largest in the region. He has more than 25 years of experience in the building industries. Ir. Yim has been the Past President of ASHRAE – Malaysian Chapter (1996-1997). He is an active member in establishing Region XIII of ASHRAE and Regional Vice Chair for Research Promotion. He has won various award in Research and Promotion committee inclusive of Regional Award of Merit, High Five award, New High Five award and Blue Circle award for ASHRAE. He is one of the founder member to establish ODS Centre for MASHRAE for the ODS project with Department of Environment Malaysia and the World Bank. Ir. Yim is a registered Professional Engineer. A Fellow member and Vice President of The Institution of Engineers Malaysia (IEM), he has been Council Member of IEM for term of 1996-1999 and 2000-2003 and Executive Council Member since 1996. He is actively involved in IEM activities and served in various Standing and Sub-Committees inclusive of Standing Committee of Activities, Professional Practice, Admission and Qualification, Examinations & Training and Sub-Committee of Fire, Building By-Law, Specialist Engineer, Accreditation Board, Fellow, Building and Maintenance, Accreditation Board, Fire Advisory Board. Since 2008, He is the Chairman of the Executive Board of IEM Training Centre Sdn. Bhd. and Director of IEM Academy Sdn. Bhd. He is a Chartered Engineer with the Engineering Council (UK) and a Fellow Member of Institution of Mechanical Engineers, UK. Ir. Yim has been involved in engineering accreditation for IEM and Board of Engineers Malaysia (BEM) since 1991. He served as panel member of the National Accreditation Council (EAC) 2000-2005 and the Engineer Act Committee to draft the Registration of Engineer Act, Malaysia. He is also involved in other social activities such as Association of Consulting Engineers Malaysia (ACEM), Council Member for 1997-1999, Professional Practice Committee for 1997-2002, Chairman for Investigation Panel of registered engineer for BEM, Investigation Panel member to Advocates & Solicitor's Disciplinary Board 2002-2005 and Board of Town Planners Malaysia member 2004-2005. Ir. Yim is actively involved in drafting of the Malaysian Standard such as the standard code for wet & dry firefighting system, thermal insulation and fire protection equipment and installation. He is also the Industry Standards Committee on Mechanical Engineering on Malaysia Standards and member of Nasional Steering Committee of Industrial Building System since 1998. Currently, Ir. Yim served in the BEM – Professional Practice Committee (PPC) – Sub Committee on Certificate Completion and Compliance (CCC).

SYNOPSIS:
The Seminar on OSC 3.0 dealing with improvement of the building permits application process over OSC 2.0 and the speaker will elaborate these process improvements.

The Seminar will first look at the engineer's role; its duties and responsibilities in the issuance of Certificate Of Compliance and Completion (CCC). The speaker will also cover the relevant Acts governing the CCC which replaces Certificate of Fitness Occupation CFO). He will explain how and when CCC can be issued. There are twenty one forms to be filled (G1 to G21). Practical examples of common errors in the form filling will be demonstrated and explained. Active interaction from the floor during question time will be expected.

2.00 p.m. – 2.40 p.m.
Session 6: Commissioning of Fire Protection Systems
Presenter: Ir. Leong Siew Meng

Ir. Leong Siew Meng; graduated with a Bachelor of Engineering (Mechanical) degree from Caulfield Institute of Technology (now Monash University Caulfield campus, Melbourne) and is a registered Professional Engineer with local and overseas experiences in Australia and ASEAN countries. He is a certified Energy Management Systems (EnMS) Expert by UNIDO (United Nations Industrial Development Organization) under the ISO 50001 Energy Management Systems. He has had experiences in design and contract administration in the construction of chemical, industrial, building services and power generation facilities as well as fire installation contracting, engineering and management audit of power plants, technical due diligence and fire safety audit of commercial and industrial buildings, and also green building

enhanced commissioning. Ir. Leong is a past President of ASHRAE Malaysia Chapter, past Chairman of Building Services Technical Division, IEM and past Vice President of Malaysian Fire Protection Association. He has served as a technical expert with ERIA (Economic Research Institute for ASEAN and East Asia) & IEEJ (Institute of Energy Economics, Japan) working group for the analysis of energy saving potentials in ASEAN countries.

SYNOPSIS:
Commissioning fire protection systems should be more than just testing the functionality of a specific fire protection system. This presentation will discuss how commissioning and integrated testing of fire protection systems can give overall benefits for projects. It should be conducted in a coordinated and systematic manner that will help validating the intended system design, performance criteria, proper installation and operation of these systems. A testing plan identifying comprehensive test scenarios should be developed so that all stakeholders understand what will be tested and coordination efforts can be facilitated. The various test scenarios can include an individual system test, an integrated system test verifying sequence of operation, or integrated tests between multiple systems.

2.40 p.m. – 3.20 p.m.
Session 7: Commissioning Fire Protection Systems - Fire Pump Design and Testing
Presenter Ir. Cha Hoong Kum

Ir. Cha Hoong Kum; graduated from the University of Westminster of UK with a Bachelor of Engineering (Mechanical) Second Class Honours (1st Division) in 1991. Ir. Cha then obtained his Master of Business Administration from Leicester University, UK in 1992. Upon his return he joined Fitters Engineering Services Sdn Bhd and worked his way to be the General Manager. He left and joined Mac-Tech Engineering Sdn Bhd as the General Manager. During this period he was involved in the design, tender and project management in Fire Engineering projects and is now well verse with the various NFPA and MS standards on fire. The fire pumps selection, testing and commissioning was his main focus to ensure the fire protection systems performance and functionality. Ir. Cha started his own company Versus Solutions Sdn Bhd in year 2011 and offers various specialist services, like the testing and commissioning of Fire pumps, the design of fire protection systems and supply of various firefighting equipment.

SYNOPSIS:
Fire Pump is the heart of the active fire protection systems; it delivers the water demand during the fire incident. This topic will deliver the various Fire Protection system pump selection, pump curve characteristics in accordance with MS 1910 for sprinkler system and the latest draft MS Fire Pump Standard for others system, such as Wet Riser Pump, and Hydrant pump. This topic also includes the fire pump performance test at site, test results analysis, and common problems arising, and suggested solutions for the problems being identified.

3.45 p.m. – 4.20 p.m.
Session 8: System Audit and Fire Systems Record Book
Presenter: Ir. Loo Chee Kin

Ir. Loo Chee Kin, is a Senior Consultant with Global Risk Consultants (GRC) and before that he was a Senior Engineering Specialist with FM Global. He has more than 20 years engineering experience, from design to field work, since graduating from UMIST, Manchester, UK with a B.Eng. in Electromechanical Systems Engineering. He is a P.Eng in Mechanical and Electrical Engineering and a Member of IEM. He is a Member of IMechE and IEE, and registered C.Eng. He is an active committee member in the IEM's Mechanical Engineering Technical Division and the Fire Advisory Board as well as various Sub-Committees and Boards. His areas of risk evaluation are both for existing sites as well as engineering services for new projects of clients.

SYNOPSIS:
Once a building is built and operational, the general preception is that everything is well and in place. Contrary to that, every system needs up keeping and maintenance. A fire protection system does not take care of itself. These systems are seldom appreciated until it is needed in an emergency or disaster. And when these essential systems do not work, it would not only result in property damage but possible injury and loss of life.

Fire system audit is important to ensure that such systems are always ready as these are first line of fire protection, and probably the last in some instances. A proper audit is only possible if proper inspection, maintenance and testing records are kept. This session will touch on the difference before a record book and just contractor maintenance records; the latter being the norm in most instances.

4.20 p.m. – 5.00 p.m.
Session 9: CFD Modelling Programme: Introduction on CFD –
Selected Industrial Applications on Fire Topics
Presenter: Ir. Dr Kannan M. Munisamy

Ir. Dr. Kannan M. Munisamy; graduated from UNITEN in 2000 with Bachelor of Mechanical Engineering (Hons). Then joined UNITEN as tutor. Upon completion of training with TNB as trainee engineer he pursued his Master Degree in Cranfield University, Milton Keynes, UK. He was conferred with Master of Science in (Aerodynamics) specializing in Computational Fluid Dynamics and currently serving as senior lecturer in UNITEN.

He has completed PhD in Mechanical Engineering specializing in CFD and experimental on automotive brake application from Universiti Tenaga Nasional in year 2012. With fundamental knowledge of CFD, various industrial consultancy projects were lead and contributed as team member. The consultancy projects including hydro power plant water flow problems, thermal power plant heat transfer related solutions, and air conditioning industry flow cases, high efficiency axial fan development, fire simulations and green building air change effectiveness calculations. Besides that, his expertise is in the area of automotive brake disk design and flow analysis for commercial and race car applications.

He has lead couple of Ministry of Science and Innovation (MOSTI) funded projects on the development of brake disk experimental rig in lab located at UNITEN. He is also a member of Center of Fluids Dynamics (CFD) at UNITEN, IEM Council Member, Fire Advisory board member (IEM), SIRIM work group member for a few sub-standards in MS standard, IEM, IMechE, and Engineers Australia member.

He has published in international and local journals and conferences. He is also reviewer for IMechE journals. He has vast experience operating CFD ACE+, GRIDGEN and FLUENT, commercial CFD software. Special interest is on rotating type of flow simulations. His industrial CFD and thermo-fluid engineering experiences are accredited by Board of Engineers Malaysia and Engineering Council, United Kingdom and Engineers Australia by granting him Professional and Charted Engineer status.

SYNOPSIS:
"*In the early 1970's, the CFD approach was used in aircraft industry. One of the early successes was the experimental NASA aircraft called HiMAT (Highly Maneuverable Aircraft Technology), which is a test of designing high speed fighter planes for next generations. In order to obtain useful data, the wind tunnel had to be redesigned for the testing of the wings near the speed of sound. The cost of redesigning would be hundred fifty thousand US Dollars and the project will be delayed. Whereas, the wings was redesigned with the help of computers for only six thousands US Dollars.*" (Anderson, John D., JR, 1995).

That was one of the first "click" to Computational Fluid Dynamics (CFD) area or rather discovery of a new ocean. Since then CFD has evolved tremendously in almost all areas where fluid and heat transfer is a concern. CFD is a computational art of solving control volumes of any fluid flow domain defined. In order to do that the governing equations ought to be derived which describes a fluid flow. It can be said that physical property of any fluid motion are governed by three basic principles: Conservation of mass, Newton's second law (F=ma), Conservation of energy. These three principles can be expressed in the form of basic equations, which are either integral equations or partial differential equations.

Then, the CFD would be the technique of replacing the integral and differential equations with discretized algebraic forms, which then was solved to obtain answers in the form of numbers of the flow at discrete points in time or space or both. The problem further complicated with addition of turbulent state prediction, multi-phase fluid flow, combustion, heat transfer and so on. This part of the course will start with the technical introduction of CFD in brief. Then, a few building services applications would be shared in detail. This will include the natural ventilation, fire simulation, split air-condition outdoor unit heat transfer simulation examples will be presented for the benefit of the Building services community.

ONE AND HALF DAY SEMINAR ON "LATEST DEVELOPMENT IN FIRE PROTECTION PRACTICES"

DAY 2: 31ST OCTOBER 2014 (FRIDAY)

Time: 9.00am – 1.00pm

Emcee for Day 2: Session Chairman & Moderator
By: Ir. Soong Peng Soon

Ir. Soong Peng Soon *is also an active member in IEM Mechanical Engineering Technical Division and is one of the IEM Representatives to JBPM/SIRIM and other external organization in smoke management work group.*

09.05 a.m. – 10.05 a.m.
Session 10: Latest Findings and Standards on Smoke Control Management
Presenter: Engr. Hao-giang Tay

SYNOPSIS:
Smoke Control and management has been a contentious issue for professional engineers who are involved in underground car park design. Fire and Rescue Department Malaysia has temporary stop the impulse fan design for underground car park due to repeated failures during testing and commissioning in various projects. This paper has gathered the latest findings around the world in smoke control and management design concept and will shed lights on the appropriate design taking into consideration of full scale fire investigation results in underground car park fire as well as guidelines from impulse fan manufacturer. This paper will also look at the smoke behaviour, fire behaviour and the danger of smoke particles in relation to mass egress.

10.30 a.m. – 11.10 a.m.
Session 10: Overview on Performance-based Fire Protection Analysis and Design of Buildings - *Basic Principles of Smoke Control Systems & Designs*
Presenter: Ir. Tan Chew

Ir. Tan Chew; Principal – Fire Safety Engineering Consultant, GP-Team Design Sdn Bhd. Ir. Tan Chew has more than twenty year experiences in the Fire Safety Engineering design on smoke control system for factories, industrial buildings, hypermarkets, shopping complexes, atrium, power plants, tunnel and etc. He worked very closely with CSIRO, Australia on Performance Based Designs required CFD simulations for smoke control system in car parks, power plants, shopping complexes, hypermarkets, etc. Ir Tan Chew graduated from University of London and City University, London for his Bachelor of Science in Mechanical Engineering during 1979 and Master of Science in Air Conditioning and Refrigeration the following year. After working in the air conditioning and ventilation industry for about 3 years, he pursued his MBA in London City University in 1984. He is a Member of The Institution of Engineers, Malaysia (IEM) and a Registered Professional Engineer in Board of Engineering Malaysia (BEM). He is also a member of Society of Fire Protection Engineers, USA (SFPE), a Member of The Institution Of Fire Engineers, UK (IFE) Malaysian branch and a member of International Association for Fire Safety Science (IAFSS). Ir Tan Chew is actively involved in the SIRIM Technical Committee for Smoke Control (TCS) and SIRIM Technical Committee in Passive Fire Protection (TCP) including chairing of the working group in the TCS.

SYNOPSIS:
Smoke is a major killer in almost all the fire incidents. A good smoke management design is utmost important for the life safety of the occupants during evacuation under the fire scenario. There are various means of designing a smoke Management System which is also commonly termed as smoke control, smoke spill, smoke exhaust, smoke venting system, etc. Different methods of Smoke Management System have their own principles and applications and hence may achieve different objectives.

The objectives should 1st be defined before proceeding with type of Smoke Management method and application. A public shopping complex or private office for example may have different designs in the applications of the Smoke Management System due to their different nature in the operations. The Malaysia By-Law emphasizes on the occupants' life safety even in the Smoke Management System. Hence, in complying with the By-Law, the Smoke Management System should focus on the life safety aspect as its main objective. Other objectives of smoke management system include fire fighters life safety, goods protection, and minimising of business interruptions, etc.

11.10 a.m. – 11.50 a.m.

Sessions 11: Recommended Smoke Control & Smoke Management Systems in Buildings -
Reference to Fire Authority's Requirements & Latest Revised UBBL
Presenter: Ir. Daniel Lim Kim Chuan

Ir. Daniel Lim Kim Chuan; Principal – Mechanical Engineering Consultant, AD Consultants (M) Sdn Bhd. Ir. Daniel Lim Kim Chuan has a total of 24 years working experience in prominent positions in Consultant Firms, Overseas Contracting Operations and Public Listed Contracting Companies. His exposure revolves around companies involved in Mechanical, Electrical and Intelligence Systems for various types of Buildings. His experiences include design, implementation and contracting for Mechanical and Electrical Building Services of various types of buildings from specialised buildings to high rise buildings, both locally and overseas. Ir. Daniel Lim Kim Chuan has a Bachelor of Engineering in Mechanical from University of Manchester Institute of Science and Technology (UMIST), UK, and a Diploma in Building Services from Ngee Ann Polytechnic, Singapore. He is a Member of The Institution of Engineers, Malaysia (IEM) and a Registered Professional Engineer in Board of Engineering Malaysia (BEM). He is also a Member of the Association of Consulting Engineers Malaysia (ACEM) and a Committee Member of the IEM and Fire Advisory Board, IEM. He is currently representing IEM in the SIRIM Technical Committee Working Group on Smoke Duct, Smoke Control and Pressurization, and SIRIM Working Group on Fixed Aerosol Fire Extinguishing System.

SYNOPSIS:
Smoke Management System is both a huge and controversial topic. It has been widely discussed and today, there are many studies, as well as successful application of different methodology, all with the primary if not sole aim to reduce smoke during a fire to facilitate escape, reduce probability for re-ignition as well as to improve safety for fire-fighters who are tasked with the unenviable position to enter a burning building. However, Smoke Management System has gone to a level of complexity that the basic intentions and consideration have many times been forgotten, if not overlooked. The objective of this Seminar is to identify the origination of the principles behind smoke control management, which, are the primary regulation and guidelines, as clearly depicted in our UBBL and UBBL referred regulatory documents. It will also identify basic principles such as understanding fire rating of ducts as well as correct penetrations treatments.

11.50 a.m. – 12.30 p.m.

Session 9: Smoke Management - Jet Fan System
Presenter: Ir. Soong Peng Soon

Ir. Soong Peng Soon; graduated from the University of Malaya in 1984 and has more than 30 years in the design, manufacturing, construction and testing of ventitaltion, HVAC system & components and general M&E services. He is highly regarded for his wide hands-on experience from design to start-up of many prestigious projects. He is one of the well known Commissioning Specialist for new building systems and Building Auditor for evaluation of exisitng building systems. He is the only ASHRAE certified Commissioning Process Management Professional (CPMP) in this region. As one of the IEM Representative to JBPM work group in establishing the local guideline for jet fan system, his knowledge in jet fan system was accumulated since year 2005 with his wide exposure while assisting major Malaysian contractors in successful negotiation of mega projects in Middle East, where at there we wtinessed some of world first large scale application of jet fans. His research in this field was started even before inclusion of jet fan system in standard BS7346-7. Subsequently he has witnessed the commissining and testing of many jet fan projects locally.

SYNOPSIS:
The use of jet fan system for car park ventilation has been widespread in European & Middle east countries since year 2005. Locally, designers have considered it as a good alternative to conventional car park exhaust system since year 2006 due to its many advantages. As application of jet fan system required new skills and knowledge in design / installation and thus, the British Standards Institution (BSI), the Singapore Civil Defence Force (SCDF) and Jabatan Bomba & Penyelamat Malaysia (JBPM) have separately drafted guideline for application of jet fan system in year 2006, 2008 and 2010 respectively. Initially, as most of the major manufacturers and system designers were originated from European countries, the BSI guideline, BS-7346-7:2006 was then considered to be the most comprehensive literature. It was published in October 2006 which covered not only jet fans system but also the overall car park ventilation system including conventional ducting system and the more advance smoke & heat exhaust system (SHEVS). It was revised in August 2013 that has included the many new developments of jet fan system of the past many years. This session will describe the background and development of jet fan system with reference to the various world standards and relevant comparison to Malaysian practice and authority guideline. Some of the new development of BS 7346-4:2013 will be highlighted as more robust prescription to the design philosophy of jet fan system and overall car park ventilation system. The speaker will present the pros and cons of jet fan system in real practical situation, based on his extended hands-on experience in commissioning and audit of physical systems.

Closing for registration: 25th October 2014

Ir. Thin Choon Chai,
Chairman, Sub Committee on Fire Advisory Board
of Standing Committee on Professional Practice
c/o The Institution of Engineers, Malaysia
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2nd Announcement

REGISTRATION FORM

(Note: For online registration, kindly login IEM website at www.myiem.org.my)

ONE AND HALF DAY SEMINAR ON "LATEST DEVELOPMENT IN FIRE PROTECTION PRACTICES"

Time: 8.30am – 5.30pm (DAY 1) / 8.30am – 1.00pm (DAY 2)

IEM/TEEAM Student (Below 30 years) – RM 280 **(Online: RM 250)**
IEM/TEEAM Graduate Member - RM 600 **(Online: RM 500)**
IEM/TEEAM Member - RM 900 **(Online RM 800)**
Non-IEM/TEEAM Member - RM 1,200 **(Online RM 1,100)**

Name(s)	M/ship No	Grade	Fees
		TOTAL	

NETWORKING DINNER WITH FAB

Time: 7.30pm – 10.30pm
IEM/TEEAM Member/Sponsor - RM 80 **(Online RM 60)**
Non-IEM/TEEAM Member - RM 120 **(Online RM 100)**
Table Purchase – RM 800

Name(s)	M/ship No	Grade	Fees
		TOTAL	

OPEN FORUM & TECHNICAL DIALOGUE

Time: 2.00pm – 4.30pm
IEM/TEEAM Member - RM 50 **(Online RM 30)**
Non-IEM/TEEAM Member - RM 120 **(Online RM 100)**
Note: Fees for participants to attend only the Open Forum

Name(s)	M/ship No	Grade	Fees
		TOTAL	

NOTE

All fees must be fully paid before commencement of the Seminar otherwise participants will not be allowed to enter the Lecture Hall. Reservations/Bookings by fax or email of intending participants are acceptable with payment being forwarded before the closing date. If a place is reserved and the intended participants fail to attend the course on the date of the event the fee is to be settled in full. Completed registration form accompanied by cheque/PO/MO are to be made payable to **"The Institution of Engineers, Malaysia"** should reach the IEM Secretariat not later than **25th October 2014**. The fee paid is non-refundable. However substitution of participants(s) will be permitted with approval by IEM. In view of the limited places available, intending participants are advised to send their registration as early as possible so as to avoid disappointment. The Organising Committee reserves the right to alter or change the programme due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes.

Enclosed herewith a cheque No. : _____ for the sum of RM _____ issued in favour of "***The Institution of Engineers, Malaysia***" and crossed '***A/C Payee Only***'. I/We understand that the fee is not refundable if I/we withdraw after my/our registration is accepted by the Committee but substitution of participants will be allowed. If I/we fail to attend the Seminar, the fee paid would not be refunded.

Contact Person : .....

Name of Organisation: .....

Address: .....

Contact Office / Mobile : ..... E-mail : .....

....
Signature Date