



# 攜手共創安全新世代 JOIN HANDS TOWARDS A NEW ERA OF SAFETY



**2018.05.07 – 2018.05.09**

香港消防及救護學院  
Fire and Ambulance Services Academy, Hong Kong



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# MESSAGE FROM THE DIRECTOR OF THE HONG KONG FIRE SERVICES DEPARTMENT



On behalf of the Hong Kong Fire Services Department (HKFSD), I would like to extend my warmest welcome to you.

Fire Asia 2018 is jointly organised by the HKFSD, the Institution of Fire Engineers (Hong Kong Branch), the Building Services and the Fire Divisions of the Hong Kong Institution of Engineers, the Ambulance Service Institute (Hong Kong Branch), and the China Hong Kong Fire Protection Association. This year, we are pleased to host the conference in our Fire and Ambulance Services Academy. Opened in 2016 and fully commissioned last year, the academy not only offers a wide range of specialised simulation training facilities, but also serves as a platform for sharing best practices and cross-fertilising ideas among fire and paramedic counterparts in neighboring areas.

The theme of the conference is “Join Hands Towards a New Era of Safety”. Much has been talked about the challenges from the advent of technology and new materials as well as the larger and taller buildings with fire engineering design. While firefighters are facing more complex and rapid developing fires, the series of recent notable fires in different parts of the world beg the questions on how well fire safety engineers and the building industry can help minimise fire risks; and how well fire brigades are prepared to deal with more complicated fires. The occupational safety and health of frontline firefighters as well as the community preparedness for emergency patient care also attract widespread attention. Fire Asia 2018 can certainly provide an avenue where stakeholders, including fire brigades, fire engineers, academics, professional organisations and emergency medical professionals, can gather together to exchange ideas and address these common concerns.

This year marks the 150th Anniversary of the HKFSD. We have grown from a humble beginning as a small fire brigade with only 100-odd firefighters in 1868 to today’s professional emergency services with 10,000-strong members. Throughout the one and a half century, every generation of our members has been determined to serve Hong Kong with unwavering commitment and dedication. I am most delighted to invite you to join our celebration of such an important milestone.

May I wish you all a fruitful and rewarding conference.

**Mr LI Kin-yat, FSDSM, FSMSM**

Director

Hong Kong Fire Services Department

# MESSAGE FROM THE PRESIDENT OF THE INSTITUTION OF FIRE ENGINEERS (HK BRANCH)



▶ Welcome to Fire Asia 2018! The triannual conference this year coincides with the centenary celebration of the Institution of Fire Engineers (IFE), an international organisation for fire professionals. Founded in 1918, the IFE assesses knowledge of fire and professional experience, awarding internationally recognised membership grades and fire-related qualifications. To commemorate the Institution's 100th anniversary, the IFE (Hong Kong Branch) takes great pleasure in joining the Hong Kong Fire Services Department (HKFSD) in hosting the Fire Asia 2018, together with the Building Services and the Fire Divisions of the Hong Kong Institution of Engineers, Ambulance Service Institute (Hong Kong Branch), and the China Hong Kong Fire Protection Association as co-organisers.

The conference theme of Fire Asia 2018 is "Join Hands Towards a New Era of Safety". Hong Kong as an international hub attracts both Mainland and overseas counterparts in emergency services and experts of fire engineering to achieve synergy in pursuing our common goal of enhancing public safety. In the three-day conference, well-versed speakers from different parts of the world are invited to report on the latest findings in their areas of expertise. Also, a Technical Visit will be arranged for participants to the HKFSD's state-of-the-art Fire and Ambulance Services Academy, with live demonstrations by the department's various specialised teams.

Fire Asia 2018 will be an enlightening and enrichment experience for all participants. I am looking forward to seeing you between 7th and 9th May 2018. Let's "Join Hands Towards a New Era of Safety".

**Mr WONG Chun-yip**

President

Institution of Fire Engineers (Hong Kong Branch)

# MESSAGE FROM THE PRESIDENT OF THE CHINA HONG KONG FIRE PROTECTION ASSOCIATION



It is indeed the pleasure of our Association to co-organize Fire Asia 2018 with our close partners in Hong Kong.

With its focus on prevailing challenges, Fire Asia 2018 will not only provide an international platform for our counterparts from all corners of the world to share with us their insights and explore effective forms of collaboration in the realm of fire safety for the long-term benefit of the communities in which we serve, but also give all participants a golden opportunity to reinforce old ties and establish new connections.

I earnestly hope that this year's symposium, which is built on the success of previous ones, will bear good fruit to all members of the fire safety sector, who have vowed to protect the public from fire or life hazards by keeping up their meaningful work.

On behalf of the Association, I sincerely wish all participants every success in their professional pursuit, and a joyous stay in Hong Kong, which will certainly give you some indelible memories in the years to come.

**Mr Andy CHAN**

President

China Hong Kong Fire Protection Association

# MESSAGE FROM THE CHAIRMAN OF THE HONG KONG INSTITUTION OF ENGINEERS (BUILDING SERVICES DIVISION)



On behalf of the Building Services Division of The Hong Kong Institution of Engineers, I would like to express my warmest congratulations to The Institution of Fire Engineers – Hong Kong Branch (IFE-HKB) and The Hong Kong Fire Services Department (HKFSD) on its major event - Fire Asia 2018.

The conference theme this year is “Join Hands Towards A New Era of Safety” which attracts various industrial professions and experts to share their enlightening experience and valuable expertise in the fire safety and engineering aspects in order to ultimately achieve our common goal in enhancing fire and public safety.

In the past decade, IFE-HKB and its members have been contributing in promoting the technology advancement, good practice and management of fire safety aspects to the industry and community. I trust that this bi-annual three-day Conference and technical visit will continue to steer the fire profession for further advancement with insight and commitment.

I would like to take this opportunity to sincerely congratulate the IFE’s 100th Anniversary and also wish the IFE-HKB and HKFSD every success in the Conference and future endeavours.

**Ir Calvin FU**

Chairman

Building Services Division

The Hong Kong Institution of Engineers

# MESSAGE FROM THE CHAIRMAN OF THE HONG KONG INSTITUTION OF ENGINEERS (FIRE DIVISION)



▶ I wish to extend my heartfelt congratulation to the Institution of Fire Engineers Hong Kong Branch, the Hong Kong Fire Services Department (HKFSD), the Hong Kong Institution of Engineers (Building Services Division), the Hong Kong Institution of Engineers (Fire Division), the Ambulance Service Institute (Hong Kong Branch) and the China Hong Kong Fire Protection Association to organize such a great event - Fire Asia 2018.

Under this year theme, “Join Hands Towards A New Era of Safety”, the event offers a platform for local and overseas fire experts to share their experience and knowledge with fire engineers, professionals and practitioners on the latest technology to tackle the challenges to firefighting and rescue operations in skyscrapers and intricately designed buildings to meet the high standard in safety management.

May I take this opportunity to wish this conference every success and the overseas speakers, local speakers and the participants having a fruitful and pleasant event in Hong Kong. I am confident that with the spirit of sharing experience, the industry will continue to prosper and develop for the betterment of the general public to protect their lives and properties.

**Ir Wilson TSANG Sau-kit**

Chairman

Fire Division

The Hong Kong Institution of Engineers

**HKIE** THE HONG KONG  
INSTITUTION OF ENGINEERS  
香港工程師學會

# MESSAGE FROM THE PRESIDENT OF THE AMBULANCE SERVICE INSTITUTE (HONG KONG BRANCH)



It is the honour of the Ambulance Service Institute (Hong Kong Branch) to be one of the co-organizers of Fire Asia 2018, which will be held from 7th to 9th May 2018 at Fire and Ambulance Service Academy, Hong Kong.

Alongside the thriving technology, the escalation of complexity in rescue operation is inevitable. Not to mention the coming commencement of the Guangzhou-Shenzhen-Hong Kong Express Rail Link, the densely erected skyscrapers all over Hong Kong are already huge challenges to rescuers whenever incidents occur. The rising potential in the emergence of unprecedented rescue operations involving multi-rescue parties is unavoidable thus all parties involved must give full dedication as well as demonstrate seamless collaboration with each unit. In order to perfect the rescue operation, Fire Asia 2018, themed "Join Hands Towards a New Era of Safety", has invited professionals in an array of expertise including firefighting, fire engineering, medic and paramedic to share their invaluable experience and studies selflessly for the sake that property and lives of the public can be safeguarded. Participants in Fire Asia 2018 will be immensely benefitted from the pass-on of experience from all the experts as it will continue to inherit the tradition as a platform for the competence building of experts in different disciplines and thus bringing the professionalism of all participants forward and to a next stage.

I wish you a very successful conference in which you will bring home the professional knowledge and the zeal all around the world. Welcome to Hong Kong, enjoy Fire Asia 2018 and join us to make it a memorable and meaningful event!

**Mr KWOK Kin-man**

President

Ambulance Service Institute (Hong Kong Branch)

# 程序表 PROGRAMME RUNDOWN

第一天  
Day 1

2018年5月7日 (星期一)  
7 May 2018 (Monday)

時間 Time	程序 Rundown	講者 Speaker
08:30 – 09:30	登記 Registration	
09:30 – 10:00	開幕典禮 Opening Ceremony	
<b>第一節 Session 1</b>		
10:00 – 10:30	粵港澳大灣區應急救援合作機制探討 Discussion on Guangdong-Hong Kong-Macao Bay Area Emergency Rescue Co-operation Mechanism	中華人民共和國應急管理部消防局 廣東省消防總隊總隊長曹奇 Mr CAO Qi Commander, Fire Corps of Guangdong Province, Fire Department of Ministry of Emergency Management of the People's Republic of China
10:30 – 11:00	消防員安全健康問題研究 Study on Safety and Health of Firefighters	中國人民武裝警察部隊學院首席教授及 滅火救援技術重點實驗室主任康青春教授 Professor KANG Qing Chun Chief Mentor, Director of the Key Laboratory of Firefighting and Rescue Technology, Chinese People's Armed Police Academy
11:00 – 11:10	答問環節 Q & A Session	
11:10 – 11:40	小休 Tea Break	
11:40 – 12:10	透過創新方案改革救援應變 Transforming Emergency Response Through Innovation	Mr Eric YAP Wee Teck Commissioner, Singapore Civil Defence Force
12:10 – 12:40	新西蘭：消防與應急 Fire and Emergency New Zealand	Mr Paul McGill National Commander Urban, Fire and Emergency New Zealand
12:40 – 12:50	答問環節 Q & A Session	
12:50 – 14:00	午餐 Lunch	
<b>第二節 Session 2</b>		
14:00 – 14:30	第四次工業革命：韓國消防研究與發展 Korea Fire Research and Development with a Living Lab. in the 4 <sup>th</sup> Industrial Revolution	Mr BANG Jang Won Head of Fire Research Institute, National Fire Agency of Korea
14:30 – 15:00	21世紀全球消防安全的挑戰 Global Fire Safety Challenges in the 21 <sup>st</sup> Century	Mr Donald P. Bliss Vice President for Field Operations, National Fire Protection Association
15:00 – 15:30	消防安全 — 從全球事件中吸取經驗 Fire safety – learning lessons from global events	Mr Neil Gibbins Past President, The Institution of Fire Engineers
15:30 – 15:40	答問環節 Q & A Session	
15:40 – 16:00	小休 Tea Break	
16:00 – 16:30	大眾對緊急火災事故的公共衛生和災害風險管理認知： 香港公共交通系統的個案 General Public Knowledge of Health Emergency and Disaster Risk Management in Emergency Fire Incidents: The Case of Public Transportation Systems in Hong Kong	Professor CHAN Ying Yang, Emily Professor & Assistant Dean, Faculty of Medicine, The Chinese University of Hong Kong
16:30 – 17:00	整個地區消防安全策略的規劃 Fire Safety Strategy for Whole District Planning	Ir Dr. Young WONG Director of Consulting, Ove Arup & Partners
17:00 – 17:10	答問環節 Q & A Session	
18:30 – 20:00	* 雞尾酒會 * Cocktail Reception	

\* 受邀嘉賓 / 參加者將另行獲得邀請。

\* Invited guests / participants will receive separate invitation.

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# 程序表 PROGRAMME RUNDOWN

第二天  
Day 2

2018年5月8日(星期二)  
8 May 2018 (Tuesday)

時間 Time	程序 Rundown	講者 Speaker
08:30 – 09:30	登記 Registration	
<b>第三節 Session 3</b>		
09:30 – 10:00	迎接挑戰：建立強大團隊及在不斷變化的環境中的有效領導 Meeting the challenge: Building strong teams and leading effectively in a dynamic operational environment	Mr Andy Roe Assistant Commissioner, London Fire Brigade
10:00 – 10:30	高層樓宇的消防安全標準 Fire Safety Standards for High-Rise Buildings	Mr Teruyuki Otake Counselor to Fire Chief / Chief, Fire Prevention Section, Tokyo Fire Department
10:30 – 11:00	密集城市環境中的消防安全：我們是否面臨挑戰？ Fire safety in dense urban environments, are we meeting the Challenge?	Professor Asif Sohail Usmani Professor and Head of Department of Building Services Engineering, The Hong Kong Polytechnic University
11:00 – 11:10	答問環節 Q & A Session	
11:10 – 11:40	小休 Tea Break	
11:40 – 12:10	高壓水霧滅火系統在鐵路的應用 Application of High Pressure Water Mist Fire Protection System in Metro	Dr. HAN Xin Researcher, Vice Director, Shanghai Institute of Disaster Prevention & Relief, Tongji University
12:10 – 12:40	光伏系統和火災危險 — 德國之經驗及討論議題 PV Systems and Fire Hazard – Discussion Topics in Germany	Mr Hermann Laukamp Research Engineer, Fraunhofer Institute for Solar Energy Systems ISE
12:40 – 12:50	答問環節 Q & A Session	
12:50 – 14:00	午餐 Lunch	
<b>第四節 Session 4</b>		
14:00 – 14:30	緊急醫療服務：哥本哈根新緊急病人護理EMS模式 Emergency Medical Services: The new Copenhagen EMS model for emergency patient care	Mr Freddy K. Lippert CEO, MD, Associate Professor, Emergency Medical Services, Copenhagen, University of Copenhagen, Denmark
14:30 – 15:00	香港消防處高空拯救專隊的發展 — 經驗與見解分享 The Development of HKFSD's High Angle Rescue Team – Experience and Insight Sharing	Dr. LI Ngai, Dennis Senior Station Officer, Hong Kong Fire Services Department
15:00 – 15:30	運用A類壓縮空氣泡沫系統降低消防員暴露於破基致癌物的可能性 The Potential Reduction of Firefighter Exposure to Carbon-Based Carcinogens in Structure Fires Through the Use of Class A Compressed Air Foam Systems	Mr Gary Baum Instructor, University of Illinois Fire Service Institute / Fox Valley Career Center
15:30 – 15:40	答問環節 Q & A Session	
15:40 – 16:00	小休 Tea Break	
16:00 – 16:30	廢物管理設施相關的火災風險 Fire Risks Associated with Waste Management Facilities	Ir CHOI Yuk Kuen, Annie Technical Director, WSP (Asia) Limited
16:30 – 17:00	推廣旁觀者心肺復甦法從而建立安全社區 Building a safer community by promoting bystander CPR	Dr. LEUNG Ling-pong Clinical Associate Professor, Emergency Medicine Unit, Li Ka Shing Faculty of Medicine, The University of Hong Kong
17:00 – 17:10	答問環節 Q & A Session	

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# 程序表 PROGRAMME RUNDOWN

第三天  
Day 3

2018年5月9日 (星期三)  
9 May 2018 (Wednesday)

時間 Time	程序 Rundown	講者 Speaker
08:30 – 12:20	* 香港消防處 150周年慶祝活動 * Hong Kong Fire Services Department 150 <sup>th</sup> Anniversary Celebration	
12:20 – 14:00	午餐 Lunch (僅為講者及受邀嘉賓而設 For speakers & VIP only)	
<b>第五節 Session 5</b>		
14:00 – 14:30	大中華區消防安全設計與審批 Fire Safety Design and Approval of Greater China Regions	Ir Dr. LUO Ming Chun Director of Consulting, Ove Arup & Partners
14:30 – 15:00	消防處與瑪麗醫院聯合試驗計劃： 冠狀動脈介入治療 — 院前十二導程心電圖 Joint Pilot Scheme between FSD and Queen Mary Hospital on Pre-hospital 12-lead ECG for Primary Percutaneous Coronary Intervention	Mr CHAN Wai Kuen, Eric Assistant Chief Ambulance Officer, Hong Kong Fire Services Department
15:00 – 15:10	答問環節 Q & A Session	
15:10 – 15:30	小休 Tea Break	
15:30 – 17:00	技術考察 Technical Visit	
18:30 – 22:00	* 閉幕典禮及慶祝晚宴 * Closing Ceremony & Gala Dinner	

\* 受邀嘉賓 / 參加者將另行獲得邀請。  
\* Invited guests / participants will receive separate invitation.

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# Session 1 (7 MAY 2018 AM)

## SPEAKER



### ▶ 曹奇 Mr CAO Qi

中华人民共和国应急管理部消防局  
广东省消防总队总队长

Commander, Fire Corps of Guangdong Province,  
Fire Department of Ministry of Emergency  
Management of the People's Republic of China

### 简介

曹奇，江苏南通人，1968年12月出生，南京理工大学化学工程专业在职研究生毕业，1990年7月入伍，中共党员，现任广东省公安消防总队总队长（正师职），武警大校警衔。

1990年7月至2006年2月间，任江苏省公安消防总队防火监督部助理工程师，监督管理处工程师、副处长、处长、高级工程师，副部长，2006年2月任江苏省无锡市公安消防支队支队长，2007年11月任江苏省苏州市公安消防支队支队长，2009年10月任江苏省苏州市公安消防支队支队长（副师职），2011年8月任江苏省公安消防总队防火监督部部长（副师职），2012年12月任江苏省公安消防总队副总队长（副师职），2015年3月任内蒙古自治区公安消防总队总队长（正师职），2017年4月任广东省公安消防总队总队长（正师职）。曾荣立个人三等功2次。

### 论文摘要 ABSTRACT

**粤港澳大湾区应急救援合作机制探讨**  
**Discussion on Guangdong-Hong Kong-Macao Bay**  
**Area Emergency Rescue Co-operation Mechanism**

# SPEAKER



## ► 康青春教授 Professor KANG Qing Chun

中国人民武装警察部队学院首席教授及  
灭火救援技术重点实验室主任

Chief Mentor, Director of the Key Laboratory of Firefighting and  
Rescue Technology, Chinese People's Armed Police Academy

### 简介

康青春，男，汉族，1961年10月出生，山东招远人，中共党员。1983年7月北京工业学院（现北京理工大学）本科毕业，获学士学位。1990年5月，武汉水运工程学院（现武汉理工大学工程）工程机械专业，研究生毕业，获硕士学位。1995年11月调入武警学院，历任武警学院消防指挥系讲师、副教授、教授、教研室主任。现任中国人民武装警察部队学院首席教授，灭火救援技术公安部重点实验室主任，灭火与应急救援技术硕士点首席导师，国家级精品课程《灭火战术》负责人，专业技术四级，武警专业技术大校警衔。

### 论文摘要 ABSTRACT

## 消防员安全健康问题研究 Study on Safety and Health of Firefighters

# SPEAKER



## ► Mr Eric YAP Wee Teck

Commissioner,  
Singapore Civil Defence Force

### BIOGRAPHY

Mr Eric YAP Wee Teck was appointed by the Government to be the Commissioner of the Singapore Civil Defence Force (SCDF) in February 2012. In his 24 years of service, he helmed a variety of key appointments such as SCDF's Director of Operations, Division Commander and Fire Station Commander. Prior to his present appointment, he was the Senior Director of Emergency Services in SCDF between 2010 and 2011. Eric graduated from the UK in 1993 with a BA degree (1st Class Hons) and in 2000, he was appointed as a Foreign Fellow under the US Fulbright Program and graduated with MA degree from Emerson College, Boston, USA, in 2001. He is also a graduate of the Stanford Executive Program 2009, Graduate School of Business at Stanford University. He was conferred the Republic's State honours of the Public Administration Medal (Bronze) and (Silver) by the President in 2004 and 2012 respectively.

### ABSTRACT

## Transforming Emergency Response through Innovation

In today's ever-evolving operating landscape, the life-saving community must plan ahead and stay future-ready, to better respond to the challenges ahead. Singapore is a small city-state with a densely built-up environment. Singapore is also one of the world's leading energy and chemical industry hubs, and has one of the world's busiest land checkpoints. Key factors affecting emergency response such as the threat of terrorism, increasing urbanization, emergence of new safety risks, and increasing public expectations, all have an impact on operational response.

This presentation delves into the impetus and tools underlying the transformation journey of the Singapore Civil Defence Force (SCDF), to better address the demands of current and future operating landscapes. The SCDF takes a three-pronged approach in this transformation journey – (1) leveraging technology and innovation; (2) building a robust fire safety regime; and (3) envisaging to build "A Nation of Lifesavers" by 2025. The mainstays of this journey comprises the use of technology and innovation as well as a basic paradigm shift in the relationship between the SCDF and the community. This approach positions the SCDF to better manage future challenges and is also adaptable to meet the needs of the future.

# SPEAKER



## ▶ Mr Paul McGill

National Commander Urban,  
Fire and Emergency New Zealand

### BIOGRAPHY

As National Commander Urban, Mr Paul McGill is responsible for strategic and operational service delivery on urban fire and emergency services. An experienced firefighter, officer and leader with 38 years' service, Paul joined the New Zealand Fire Service (NZFS) as a recruit in 1980. After serving 15-years as a frontline operational firefighter and officer, Paul was promoted to his first senior officer role in 1995 as an Assistant Area Manager. In 1997 Paul became Fire Region Manager/Commander for the Auckland Fire Region, a position he held for eight years. In 2005, he took up the national role of Director of Operations and Training before being appointed Deputy National Commander in 2012. In March 2017, he was appointed as Chief Executive & National Commander of the NZFS for a four-month term, prior to his appointment as National Commander Urban leading up to the establishment of Fire and Emergency NZ on 1 July 2017. Paul is a graduate of the Brigade Command Course at the UK Fire Service College. He has a Master of Arts in Management from Coventry University, is a member of City and Guilds of London Institute, and a Fellow of the Institute of Fire Engineers

### ABSTRACT

#### Fire and Emergency New Zealand

Mr Paul McGill will start by giving a general overview of New Zealand and its fire and emergency services and then focus on the major changes underway. "Fire and Emergency New Zealand" was established last year, bringing together the previous New Zealand Fire Service and 39 separate rural fire agencies. This unified organisation has a wide role and it's placing particular emphasis on:

- Involving its people in designing the new organisation
- Supporting volunteers
- Engaging with communities

Paul will explain how their people and local communities are involved in shaping the new organisation and how this will lead to safer, more resilient New Zealand communities.

## Session 2 (7 MAY 2018 PM)

### SPEAKER



### ▶ Mr BANG Jang Won

Head of Fire Research Institute,  
National Fire Agency of Korea

#### BIOGRAPHY

Mr BANG Jang Won is now the head of Fire Research Institute in the Republic of Korea and he is ranked as a Fire Chief. He graduated from Chungbuk National University, the Republic of Korea with a Bachelor's Degree in political Diplomacy. He is also a master of public administration of Hoseo University, the Republic of Korea.

In the past, he was the Manager of Fire Prevention Section in Jeju Fire Headquarters in 2005. He became the Director of Field Response at Cheonan Fire Station, Chungnam Province in 2010. At 2011, he became the Director of Training Division in Korea National Fire Service Academy. And he was the Director of General Affairs at National 119 Rescue Headquarters in 2014. Meanwhile, he received the Presidential Citation Award in 2013.

#### ABSTRACT

**Korea Fire Research and Development with a Living Lab. in the 4th Industrial Revolution**

# SPEAKER



## ▶ Mr Donald P. Bliss

Vice President for Field Operations,  
National Fire Protection Association

### BIOGRAPHY

Mr Donald P. Bliss is the vice president for field operations at the National Fire Protection Association, Quincy, MA. He oversees NFPA's global operations as well as regional operations in the U.S. and Canada. Founded in 1896, NFPA is the leading global advocate for the elimination of death, injury, property and economic loss due to fire, electrical and related hazards.

Prior to joining NFPA, Mr Bliss completed a thirty-four year career in the fire service, including serving as a firefighter, emergency medical technician, fire inspector and fire chief. Bliss served as the New Hampshire State Fire Marshal from 1992 until 2003. Following the tragic events of September 11, 2001, he took over responsibility for New Hampshire's emergency management and homeland security efforts.

Mr Bliss holds a Bachelor of Arts in Political Science and a Master of Public Administration Degree from the University of New Hampshire.

### ABSTRACT

#### Global Fire Safety Challenges in the 21st Century

In spite of the existence of robust solutions to prevent and suppress unwanted fires, we continue to see the continued loss of life and property due to increased threats and hazards throughout the world. Climate change, the rapid pace of urbanization, new design and construction methodologies, emerging technologies and a lack of effective public policy all create challenges for the fire service. Mr Bliss will discuss these challenges and will offer NFPA's framework for making the world safer from fire.

# SPEAKER



## ► Mr Neil Gibbins

Past President,  
The Institution of Fire Engineers

### BIOGRAPHY

Mr Neil Gibbins's 37 year operational fire service career spanned all roles from fire-fighter to Acting Chief Fire Officer. He has over twenty years of senior management experience and practical application of incident command, fire investigation, training and development and fire prevention/protection. He became Deputy Chief Fire Officer of Devon and Somerset Fire and Rescue Service following the successful merger of the two services. Neil was project co-director for the combination, the first voluntary fire- fire merger in the UK. As Deputy CFO, Neil had the responsibility for day to day running of one of the UK's largest fire services with specific responsibility for performance and improvement. Neil was lead officer for fire protection within the UK Chief Fire Officers Association from 2007 to 2013. Prior to that he chaired the working group that managed the implementation of the Fire Safety Order by English and Welsh fire services. These roles involved a wide range of fire protection challenges, from chairing a national timber frame building group through to designing data capture systems to aid future targeting and evaluation. He currently chairs a national working group set up to improve product safety recalls and is supporting the review of building regulations and fire safety being led by Dame Judith Hackitt. Neil is a past president of the Institution of Fire Engineers and was CEO from 2015 to 2018. Neil has been awarded the Queen's Fire Service Medal and is a Fellow of the Institution of Fire Engineers.

### ABSTRACT

#### Fire safety- learning lessons from global events

The presentation will explore various strategy or policy approaches to reducing the risk from fire, giving international examples of successes and failures. It will draw on recent challenges in the UK and other countries, related to fires involving facades. Neil will describe his view of the main changes that have occurred in the UK over the last forty years, a period when fire deaths have fallen from over 1000 per year, to less than 300, but last year the Grenfell Tower fire claimed at least 72 lives, the largest loss of life in a peace time building fire in England since 1872. Neil will showcase the Institution of Fire Engineers fire fighter safety special interest group, and links to National Operational Guidance, through National Operational Learning.

## SPEAKER



## ▶ Professor CHAN Ying Yang, Emily

Professor and Assistant Dean,  
Faculty of Medicine, The Chinese University of Hong Kong

### BIOGRAPHY

Professor CHAN Ying Yang Emily, serves as Professor and Assistant Dean, Faculty of Medicine, and Associate Director, JC School of Public Health and Primary Care, CUHK. She is Director of Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), Centre for Global Health (CGH) and Centre of Excellence (ICoE-CCOUC) of Integrated Research on Disaster Risk (IRDR), Co-chairperson of WHO Thematic Platform for Health Emergency & Disaster Risk Management Research Group, a member of the Asia Science Technology and Academia Advisory Group (ASTAAG), Visiting Professor at Oxford University Nuffield Department of Medicine, Honorary Professor at University of Hong Kong Li Ka Shing Faculty of Medicine, and Senior Fellow at Harvard Humanitarian Initiative. Her research interests include disaster and humanitarian medicine, climate change and health, global and planetary health, Human Health Security and Health Emergency and Disaster Risk Management (H-EDRM), remote rural health, ethnic minority health, injury and violence epidemiology, and primary care. Prof CHAN also had extensive experience as a frontline emergency relief practitioner across 20 countries in the mid-1990s.

### ABSTRACT

#### **General Public Knowledge of Health Emergency and Disaster Risk Management in Emergency Fire Incidents: The Case of Public Transportation Systems in Hong Kong**

Increased public transport utilization is regarded as one of the key strategies to improve urban environment and health, but critical incidents in public transportation systems might cause concern across the community. Limited literature has been published on how urban community might perceive health and accidental risks as well as community capacity to respond when crisis arises. This paper examines the public knowledge and sociodemographic association of individual attitude, knowledge and behaviour. Using data collected from population-based stratified cross-sectional survey study of 1,000 Hong Kong residents in March 2017, one month after a major emergency fire incident in the city's underground railway system (MTR), this paper also aims to explore the relationship between the prevalence of first aid training, risk perceptions and willingness to learn about community disaster response in urban context.

# SPEAKER



## ► Ir Dr. Young WONG

Director of Consulting,  
Ove Arup & Partners

### BIOGRAPHY

Ir Dr. Young WONG is a Director with Arup based in the Hong Kong. He has over 18 years of fire engineering consultancy experience, working on projects in Hong Kong, Macau, China, Middle East, India and the UK. Dr. WONG worked on a wide range of complex buildings and infrastructure projects. His responsibilities include the production of integrated fire safety strategies, provide fire safety advice for projects from conceptual through to completion. He has expert knowledge in the field of Structural Fire Engineering, which is the subject of his PhD research at the University of Sheffield in England. Dr. WONG is currently a Vice President of the Institution of Fire Engineers (Hong Kong Branch). He is a fellow of IFE and a member of HKIE, a registered professional engineer and, a chartered engineer.

### ABSTRACT

#### Fire Safety Strategy for Whole District Planning

A fire safe building environment can be achieved through careful design and implementation of a comprehensive fire strategy. The strategy shall start from the planning of a development, design and implementation throughout the life-cycle. When it comes to a new district development, the approach could be similar but with wider consideration on the fire safety relationship between buildings, district evacuation, common facilities for fire-fighting intervention, emergency responses and fire safety management. The general characteristic of a district development in a metropolitan such as Hong Kong include high population density, mixing of various functionalities with complex ownership structure, and generating a large number of credible fire scenarios. The consequence of a major fire may be more significant with larger damage or casualties, hence the need to develop a district wide fire strategy from the planning stage. The West Kowloon Cultural District (WKCD) is being developed to form an international-grade arts and culture hub in Hong Kong. The 40 hectares land was originally reclaimed in the 1990s. The development will consist of public museum, performing venues, commercial and hotel accommodation. This presentation describes the approach taken for district wide fire safety at planning stage as part of the WKCD design development.



## Session 3 (8 MAY 2018 AM)

### SPEAKER



### ▶ Mr Andy Roe

Assistant Commissioner,  
London Fire Brigade

#### BIOGRAPHY

Mr Andy Roe is an Assistant Commissioner (AC) in the London Fire Brigade, having previously served at a number of inner London Stations and boroughs as well as in HQ posts. He is currently responsible for all of London's 103 fire stations, their crews and officers as AC Fire Stations. In his capacity as a senior operational officer Andy has been the incident commander at a range of significant incidents, both fires and special services, including the Grenfell Tower Fire, the Croydon Tram Crash and the winter floodings of 2015/16 in Cumbria. Prior to joining the London Fire Brigade Andy was a British Army officer with experience across a number of operational environments.

#### ABSTRACT

### Meeting the challenge: Building strong teams and leading effectively in a dynamic operational environment

Following an operational career that has encompassed service in both the London Fire Brigade and the British Army as a command officer, often operating in complex and dynamic environments, Andy is going to use this experience to set out his perspective on what makes a strong team and how you might build one. His presentation will cover the importance of good leadership, recognizing both the value and challenge difference brings, the human needs of team members and the impact that exposure to complex and sometimes traumatic incidents can have on teams and individuals. He will illustrate his views on the subject with reference to his own personal experience at a range of incidents both major and more routine.

# SPEAKER



## ▶ Mr Teruyuki Otake

Counselor to Fire Chief /  
Chief, Fire Prevention Section,  
Tokyo Fire Department

### BIOGRAPHY

Mr Otake has served the fire service for 30 years since the start of his career in the TFD in 1985. Making advantage of his university experience in chemical safety engineering, he demonstrated his expertise outstandingly as the Hazardous Materials Section Chief, Fire Station Chief and others, and has worked so far at both fire prevention and emergency operations strategy.

After the 1995 subway sarin incident in Tokyo, he flew to England and the United States for the survey of terrorism countermeasures with the London Fire Brigade (LFB) and the New York City Fire Department (FDNY), which eventually helped the TFD enhance its NBC disaster response system.

Recently, Mr Otake has been taking the lead in the field of high-rise building fire safety amid the continuous city development in Tokyo before the Olympic and Paralympic Games Tokyo 2020.

### ABSTRACT

#### Fire Safety Standards for High-Rise Buildings

Tokyo has seen buildings newly sprouting and increasing. The number of the buildings in the TFD's service area is over 400,000. Super high-rise buildings such as office buildings, hotels and others continue to be constructed in Tokyo with densely populated areas in the process of redevelopment. This quick urban sophistication has been under way for the Olympic and Paralympic Games Tokyo 2020 with foreign tourists actually on the increase.

Sprinklers and other automatic fire extinguishing systems are required of Japanese high-rise buildings by law-stipulated fire safety standards. In such circumstances, the TFD has its own fire-safe elevator evacuation standard to lead elderly or disability citizens to safety effectively and immediately.

## SPEAKER



## ► Professor Asif Sohail Usmani

Professor and Head of Department of Building Services Engineering,  
The Hong Kong Polytechnic University

### BIOGRAPHY

Professor Asif Sohail Usmani Joined PolyU in August 2016. He obtained a Master's Degree in Structural Engineering from Stanford University and began his research career developing finite element codes for simulation of foundry casting processes at Swansea University in UK. His background in structural engineering and computational heat transfer and fluid dynamics led him to take up fire safety engineering research at the University Edinburgh (1995). Since then his main research interest has been to understand thermo-mechanical behaviour of structures in real fires using analytical and computational methods validated with experimental data. The aim of his work is to promote scientifically robust approaches of designing structural fire resistance by developing advanced computational tools and methodologies. These tools enable realistic representations of demand (realistic fire hazard) and robust estimates of structural capacity (fire resistance) in order to ensure reliable performance. His research has yielded over 200 peer reviewed publications.

### ABSTRACT

#### **Fire safety in dense urban environments, are we meeting the Challenge?**

With increasing migration to urban centres and the emergence of hyper-urban environments in many parts of the world, ideas such as smart cities are finding considerable traction. Demographic changes in terms of ageing populations mean that vulnerable citizens resident in older buildings that do not meet modern standards of fire safety may be exposed to unacceptable level of risk from fire. The proliferation of tall buildings with adventurous architecture and modern preference for large open plan internal spaces present new challenges to the long-held assumptions about the fire hazard and the consequently an increasing disconnect between the degree of safety expected against fire and the actual level of safety. The presentation will critically examine the aforementioned issues and in order to answer the question posed in the title. Potential solutions to the problems highlighted in the prevalent practice of fire safety will be presented. Open questions with uncertain answers will be posed for further discussion and deliberation among professionals and researchers.

# SPEAKER



## ▶ Dr. HAN Xin

Researcher, Vice Director,  
Shanghai Institute of Disaster Prevention & Relief, Tongji University

### BIOGRAPHY

Dr. HAN Xin is the Vice Director of Shanghai Institute of Disaster Prevention & Relief and Director of fire protection research lab in Tongji University. He now mainly works at the research on performance-based fire design, comprehensive appliance of fire control safety technique and systematic control of urban disaster theory.

In recent years, HAN has presided over China 863 Research Projects including full scale fire safety test and water mist cooling test for Shanghai Yangtze river tunnel, key technology for fire disaster prevention and control in subways and urban transport tunnels. He also completed China Natural Science Foundation Project “Performance-based full scale fire prevention test research and theoretical analysis of highway tunnel with large cross section, performance-based fire safety design of China Expo Exhibition Complex (1.47 million square meters) as well as Shanghai Center Tower (632 meter high).

### ABSTRACT

## Application of High Pressure Water Mist Fire Protection System in Metro

With the accelerated process of urbanization in the domestic, more and more urban metros continue to emerge to solve the crowded traffic problems. On the other hand, in the world metro operating history of more than 100 years fire accidents were the most frequent disaster and caused the most deaths. Hence, the fire protection of these metros brought serious challenges to the urban fire safety.

This paper introduces the establishment of high pressure water mist fire protection system in metro which were developed by Shanghai Institute of Disaster Prevention and Relief as well as Shanghai Tongji Antai Engineering Disaster Prevention Research and Development Center in the past ten years. The key protection areas of metro adopting water mist system include metro station (rail line, electrical equipment room, public area, evacuation route, escalator), main substation, control center, rolling stock base and running tunnel. Examples such as metro stations of Shanghai and Guangzhou were drawn up in details. These may be good references for future applications.

## SPEAKER



## ► Mr Hermann Laukamp

Research Engineer,  
Fraunhofer Institute for Solar Energy Systems ISE

### BIOGRAPHY

Mr Hermann Laukamp holds a Degree as “Electrical Engineer”. For about 30 years, he is working in the area of solar photovoltaic power with Fraunhofer ISE, a German research institute.

The topics he worked on include building integration of PV, requirements of grid interconnection and electrical safety issues of PV Systems.

Since many years he works with national and international standardization bodies including IEC TC 8 (system aspects of electrical energy supply), TC 64 (electrical installations) of and TC 82 (Solar photovoltaic energy systems).

During the last years, he focused on research on fire incidents of PV systems and, most recent, safety of PV-Battery – Systems to develop clues for even safer systems.

### ABSTRACT

## PV Systems and Fire Hazard – Discussion Topics in Germany

Photovoltaic power is seen as a major source for a sustainable electric power supply system. However, in densely populated areas space for ground mounted PV arrays, the cheapest way to produce PV Power, is scarce and buildings become a sort of natural mounting platform. Additionally, building attached and building integrated PV Systems are becoming an attractive market, since electric power production cost have to compete with retail prices for electric power. Thus, in many countries firefighters have an ever increasing likelihood to encounter a PV System on or at a building on fire.

On the other hand PV Systems bring about some unique risks to start a fire. PV arrays due to their physical properties can create and sustain an electrical arc much “better” than a regular AC installation. Thus they can be the cause of a fire.

This presentation gives results of an investigation of fire incidents with PV systems involved and hints to mitigate the risk of causing a fire. It also presents experiences of fire fighters with PV systems, gives measures to improve the system safety during fire fighting missions and presents adapted fire fighting procedures.

# Session 4 (8 MAY 2018 PM)

## SPEAKER



### ► Mr Freddy K. Lippert

CEO, MD, Associate Professor,  
Emergency Medical Services, Copenhagen,  
University of Copenhagen, Denmark

#### BIOGRAPHY

Mr Freddy K. Lippert is CEO of EMS in Copenhagen, Denmark. EMS Copenhagen include Emergency Medical Dispatch, Ambulance service, Out-of-Hours Services, referral of patients 24/7 to emergency departments and medical preparedness in Copenhagen. Freddy is an associate professor at the University of Copenhagen. Freddy has more than 25 years of experience in resuscitation, trauma care and emergency medicine and has published more than 100 scientific publications. Freddy was chair of the Utstein meetings 2015-2016 on Best EMS Practice and community programs: A Call-to-Establish-a-Global-Resuscitation-Alliance and is a founding member of the Global Resuscitation Alliance. Freddy is a founding member of the European EMS leadership network and has organized the European EMS congress in 2016, 2017 and 2018 in Copenhagen.

#### ABSTRACT

### Emergency Medical Services: The new Copenhagen EMS model for emergency patient care

The EMS system in Copenhagen Denmark has been recognized as one of the advanced, innovative and progressive systems in Europe. The ambition has been to establish an easy access for citizens to emergency care 24/7 and to meet the challenges for emergency patient care. This has been achieved by centralizing care and by integrating the emergency call center with emergency medical dispatch, ambulance services, mobile critical care units, mobile prehospital psychiatric care and out-of-hours services including referral of patients to emergency departments. The recent development to an integrated patient care solution will be described and three cases of innovation will be presented.

1. Tripling survival from out-of-hospital cardiac arrest through engaging the community, increasing bystander CPR rates and dissemination of automated external defibrillators (AED) for public access defibrillation.
2. Integrating out-of-hours services into the emergency medical services system, including referral of patient to emergency departments by triage in EMS. This has reduced emergency department visits by 10 % and reduced the waiting time in the emergency departments considerably.
3. To improve triage and to support decision making using artificial intelligence. This is being tested for emergency calls to recognize cardiac arrests

Finally, The Global Resuscitation Alliance will be introduced.

## SPEAKER



## ► Dr. LI Ngai, Dennis

Senior Station Officer,  
Hong Kong Fire Services Department

### BIOGRAPHY

Dr. LI Ngai Dennis, received his PhD in Information Engineering from The Chinese University of Hong Kong in 2001. He joined the Hong Kong Fire Services Department as a Station Officer in 2009. He is now posted at the Fire and Ambulance Services Academy as a member of the support team for both the High Angle Rescue Team (HART) and the Mountain Search and Rescue Team (MSRT). Dennis's main responsibilities in the department are to teach rope rescue and mountain rescue skills to recruits, firemen and members of special rescue teams, and to respond to high angle rescue and mountain rescue incidents as a member of HART or MSRT support team.

### ABSTRACT

## The Development of HKFSD's High Angle Rescue Team - Experience and Insight Sharing

High angle rescue is a highly specialized branch in the field of technical rescue. Due to its nature, rescuers often need to work at height, self-reliant in a small team of two or three, and usually under the influence of wind. It takes special breed of rescuers, who can remain calm under stress and can perform his duty with limited or no supervision, equipped with specialized equipment to carry out high angle rescue safely and effectively. 2018 marks the 7th year since the forming of the Hong Kong Fire Services Department's High Angle Rescue Team (HART) in 2011. We will take this opportunity to share with the audience some experiences and insights gained in the development of HART, particularly the values brought forth by the forming of HART support team. The HART support team is not only the engine behind the growth of HART but also has tremendous contribution in the enhancement of high angle rescue skills across the whole department. In general, a properly constructed specialized team can effectively breach the gap between training and operation and improve the overall technical competency of a fire services department.

# SPEAKER



## ► Mr Gary Baum

Instructor,  
University of Illinois Fire Service Institute / Fox Valley Career Center

### BIOGRAPHY

Mr Gary Baum is a Field Staff Instructor for the Illinois Fire Service Institute where he teaches Hazardous Materials and Cornerstone Classes including Combustible and Flammable Liquid Response Awareness, Firefighting Foam and Fire Officer Development classes. Mr Baum is also the Lead Fire Science Program Instructor at Fox Valley Career Center (FVCC) in Maple Park, Illinois, USA (metro Chicago area). Mr Baum is a graduate of the National Fire Academy's Executive Fire Officer Program in 2017. Mr. Baum received the IAFC Don Manno Award for Excellence in Research on the topic being presented at Fire Asia 2018. Mr Baum has previously served as Deputy Chief Fire Officer for the Fox River & Countryside Fire Rescue District, the New Milford Fire Protection District and Assistant Chief Officer for Sugar Grove Fire Department.

### ABSTRACT

#### **The Potential Reduction of Firefighter Exposure to Carbon-Based Carcinogens in Structure Fires Through the Use of Class A Compressed Air Foam Systems**

The purpose of investigating this subject was to determine whether a Class A Compressed Air Foam System could potentially reduce the presence of carcinogens in residential-structure fire atmospheres. Research was conducted to answer four questions: 1) what are the cancer-causing carbon-based byproducts of combustion; 2) what are the chemical and/or physical properties of Class A foam when used in conjunction with CAFS operations which could potentially reduce the presence of cancer-causing byproducts of combustion; 3) do Class A CAFS operations reduce the presence of carcinogenic byproducts of combustion; and 4) what are the results of using different brands of Class A foam through CAFS application in the reduction of the presence of cancer-causing carbon-based byproducts of combustion? Research included a review of literature, technical data, and 11 live fire tests. Five fire tests measured the effectiveness of water-only application, three fire tests measured the effectiveness of Brand A's CAFS application, and three fire tests measured the effectiveness of Brand B's application. Results found evidence that CAFS reduced the levels of benzene and formaldehyde when compared to water. Results also showed that Brand B concentrate reduced levels of benzene and formaldehyde when compared to Brand A. Based on the results, recommendations were made to perform additional tests to validate the initial findings.

## SPEAKER

**► Ir CHOI Yuk Kuen, Annie**

Technical Director,  
WSP (Asia) Limited

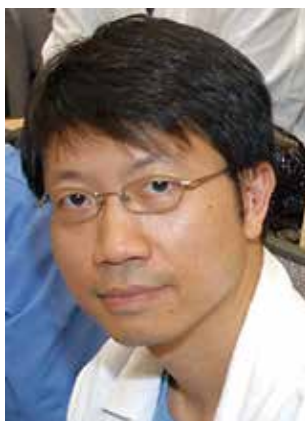
**BIOGRAPHY**

Ir CHOI Yuk Kuen Annie, has over 30 years of engineering and project management experience. She is specialized in fire engineering as well as smoke control system design. Her previous project experiences include those from commercial, industrial, institutional and government sector. Ms. CHOI has previously served for 6 years in Buildings Department Fire Safety Committee as external advisor in the capacity of fire safety practitioner. Currently, she is the Technical Director of WSP (Asia) Ltd. and is the team leader of WSP building fire engineering group handling various fire engineering studies for building, industrial and government related projects.

**ABSTRACT****Fire Risks Associated with Waste Management Facilities**

Fire is an ever-present possibility at most waste management sites. Worst fires can arise across all stages of the waste management chain, including waste collection, treatment/processing and waste storage. The source of combustible material also varies greatly and includes types, used oils, green waste, wood waste, solvents, batteries, municipal solid waste etc. Fires therefore have the potential to cause significant harm to people and the environment through the release of hazardous chemicals to the atmosphere and ground water supplies. Waste fires burn for extended periods, sometimes days and weeks, and can take significant resources to extinguish. Fire fighting personnel who are engaged in extinguishing these fires are then not available to respond to fire emergencies occurring elsewhere. Operations should therefore ensure they have adequate controls in place to prevent fires and, should a fire occur, that the risks to human health, property and the environment are minimized. The type of controls in the major waste management chains shall consist of management measures, safe storage methods and design of appropriate fire service system.

# SPEAKER



## ► Dr. LEUNG Ling-pong

Clinical Associate Professor,  
Emergency Medicine Unit, Li Ka Shing Faculty of Medicine,  
The University of Hong Kong

### BIOGRAPHY

Dr. LP Leung is the clinical associate professor in Emergency Medicine of the Li Ka Shing Faculty of Medicine of the University of Hong Kong. One of his academic interests is out-of-hospital cardiac arrest and the pedagogical methodologies in CPR instruction. He is holding a 6 million grant for teaching secondary school students and teachers CPR. He has also developed mobile applications for automated external defibrillator location and CPR learning.

### ABSTRACT

#### **Building a safer community by promoting bystander CPR**

Sudden cardiac death is a global healthcare problem. Despite advances in medicine and technology, the prognosis of sudden cardiac death remains poor. Prompt CPR by a bystander is a proven means to improve prognosis. The crucial question is how to increase the rate of bystander CPR in the community. In this presentation, the speaker's strategies in promoting bystander CPR is discussed.



## SPEAKER



### ► Ir Dr. LUO Ming Chun

Director of Consulting,  
Ove Arup & Partners

#### BIOGRAPHY

Dr. LUO Ming Chun is a Director of Consulting with Ove Arup and Partners. He has many year experiences in fire research and fire safety design. He has extensive publications in international journals and conferences and was an invited speaker in various conferences. Dr. LUO involved in the development of Australian Fire Engineering Code in 1990's. From 2002 to 2011, he led a consultancy team to develop the Hong Kong fire code, FS Code 2011. He has been the member of the advisory committee for the development of performance-based design in Shanghai and Beijing. In the past 20 years, Dr LUO has worked in the 4 Regions of the Greater China. He deeply involved in the development of fire strategy and fire safety design for rail stations, tunnels and depots, airport terminals, super high-rise buildings, entertainment / casino facilities, Beijing Olympic projects and public transport interchange centres in “两岸四地”.

#### ABSTRACT

#### Fire Safety Design and Approval of Greater China Regions

Fire safety design and approval of the design from the relevant authorities are part of the fire engineering discipline. During the past 4 decades, performance-based design (PBD) has been developed as part of the fire discipline. From 1990's, Mainland, Hong Kong, Macau, and Taiwan have experienced fast growing economy and created significant developments of infrastructure projects. In recent years, both Mainland and Hong Kong have tightened the control of the PBD approach due to various reasons, and the prescriptive codes have been changed significantly and reissued for practice. After more than 5 years trial, Taiwan authorities have taken a similar approach of the Japanese and developed guidelines, codes and regulations to regulate the areas / items that PBD solutions are acceptable. The approach seems more transparent and easier to follow than the other Regions. Since 2003, Macau has developed a large number of entertainment / casino facilities. All these mega developments are outside of the coverage of the Macau local fire codes. Macau authorities recognised the issues and instructed the developers either to follow the Macau codes with PBD approach, or to follow the Macau codes with the US IBC requirements in which the PBD approach is included. This presentation is to discuss the similarities and differences of the fire safety design and the approval procedure in the Greater China Regions. It will benefit the fire engineers who may work in 两岸四地 .

## SPEAKER



## ► Mr CHAN Wai Kuen, Eric

Assistant Chief Ambulance Officer,  
Hong Kong Fire Services Department

### BIOGRAPHY

Mr CHAN Wai Kuen Eric, joined the HKFSD in 1997 as Ambulance Officer after graduating from the HKUST with a Master Degree. He has over 20 years of service and a wealth of experience in planning and operational duties. His expertise is data analysis for strategic planning and optimizing deployment of ambulance resources. Eric worked at different operational posts and then took up different planning posts for over 10 years. In 2013, Eric was promoted to Superintendent and worked as the sub-divisional commander of Kowloon West and the head of resources management unit of ACHQ respectively. Eric was promoted to Assistant Chief Ambulance Officer in 2017 and is now the ambulance commander of Hong Kong Division. Eric has attended management courses at local universities and overseas training programmes in Australia and the Mainland. He is also an Emergency Medical Assistant II Instructor and a member of the Urban Search and Rescue Team.

### ABSTRACT

#### **Joint Pilot Scheme between FSD and Queen Mary Hospital on Pre-hospital 12-lead ECG for Primary Percutaneous Coronary Intervention**

In Hong Kong, Heart Diseases were the third commonest cause of death and accounted for 13.2% of all deaths in 2015. Since patient's condition might deteriorate swiftly and could lead to death in minutes if poorly managed, enhancing prehospital diagnostic procedures become imperative. Unlike other developed countries, the ambulance conveyance journeys to hospitals are much shorter. Therefore, early recognition of patients of heart diseases, especially those with ST Elevated Myocardial Infarction (STEMI), by the attending paramedic and prompt notification to receiving hospital are of vital importance. Indeed, a standardized diagnostic procedure can efficiently speed up identification of STEMI and reduce time to definitive care. In view of the above, in November of 2015, a Joint Pilot Scheme on Prehospital 12-Lead ECG between the HKFSD and Queen Mary Hospital for Primary Percutaneous Intervention (PPCI) was launched in an attempt to shorten "Door-to-balloon" time for suspected STEMI patients. In this presentation, details including background, timeline and statistics of the Joint Pilot Scheme will be briefly introduced. At the end, future development of the Scheme will also be discussed.



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### Image

1. Kwun Tong Line Extension
2. Vattanac Tower, Phnom Penh, Cambodia
3. Shenzhen Ping An IFC
4. Beijing New Airport
5. Hangzhou Raffles City

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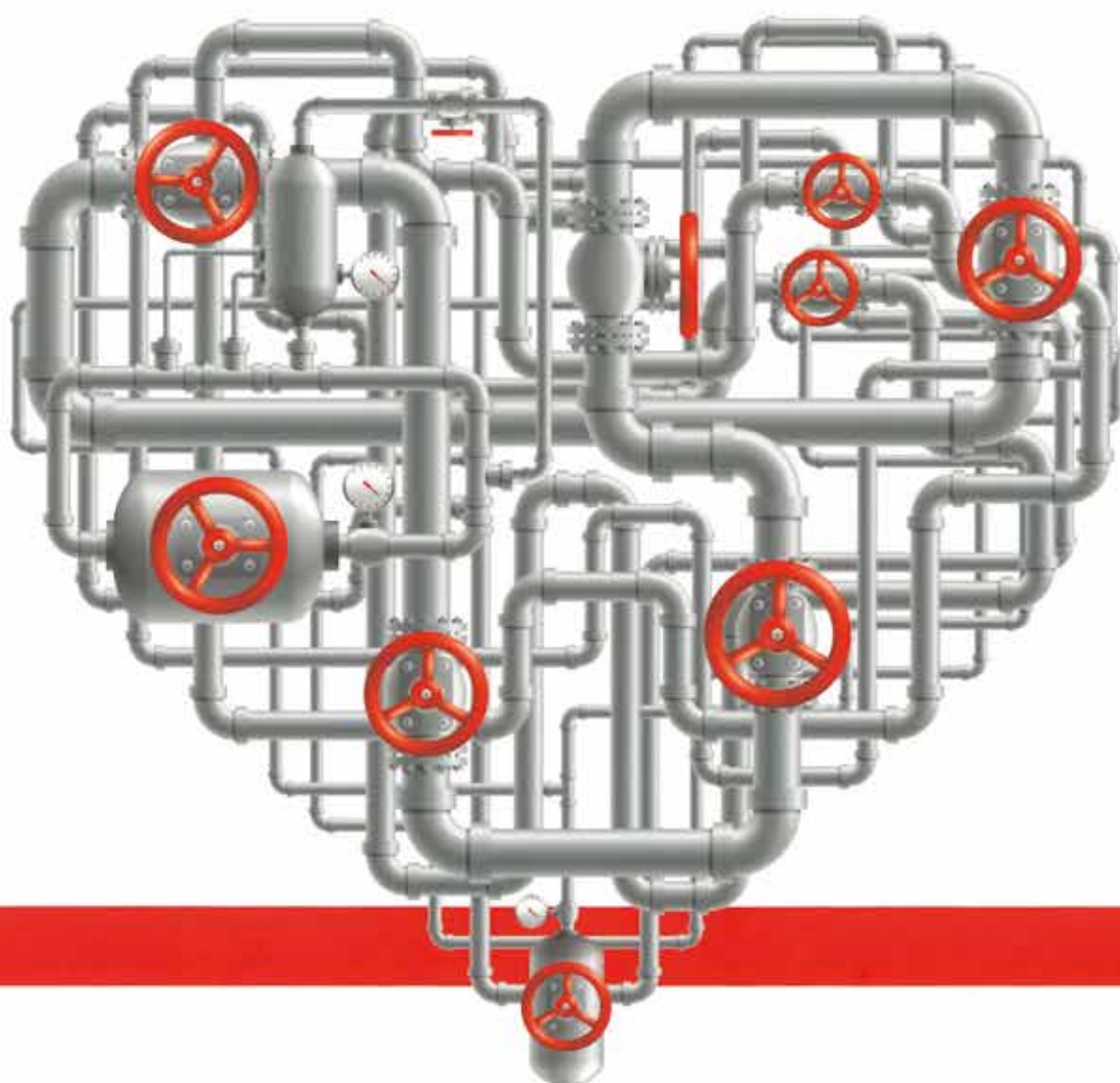
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for a greener future, for our younger generations.**

As Hong Kong's oldest energy utility, our pioneering green initiatives date as far back as the early 70s, when we began using naphtha rather than heavy oil and coal to produce town gas. In 2006, we took another significant step forward, when we introduced natural gas as a feedstock in addition to naphtha. To foster the use of renewable energy, landfill gas currently constitutes around 5 per cent of our energy mix for local gas production. Looking forward, we are committed to the ongoing exploration and supply of clean energy to ensure a green and sustainable future for our young people and the generations to come.

**Greening up your life**



**煤氣  
Towngas**

## WITH COMPLIMENTS

The contributions of the following companies, government sub-vented body and community leader are recognized and greatly appreciated. (In alphabetical order)



AFSC Operations Limited



Altrus Pte Ltd (Cristanini S.p.A.)



Arup



Cristanini S.p.A.



Everlight Engineering Company Limited



Guardian Fire Engineers & Consultants, Ltd.



Henderson Land Group



Meetings and Exhibitions Hong Kong

Mr LAU Hon-wah, Steve,  
SBS, BBS, CSTJ, JP



Shun Yick & Co. Ltd.



Suen Tat  
Metal Machine Factory Ltd.

Suen Tat Metal Machine Factory Ltd.



香港註冊消防工程公司商會有限公司  
THE ASSOCIATION OF REGISTERED FIRE SERVICE  
INSTALLATION CONTRACTORS OF HONG KONG LIMITED

The Association of Registered Fire Service  
Installation Contractors of Hong Kong Limited



The Hong Kong and China Gas Company Limited



香港賽馬會  
The Hong Kong Jockey Club

The Hong Kong Jockey Club

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