

## 818118 SAFETY IN ENGINEERING SYMPOSIUM

"NO TIME OFF FOR SAFETY"



**Opening Speech** Ir. Prof. Dr. Norlida bt Buniyamin **IEM President** 



Ir. Hj. Mohd Hatta Bin Zakaria

Director General,
Department of Occupational Safety and Health (DOSH)



Welcoming Remarks Ts. Dr. Ong Chong Yong Organising Chairman, SES 2023



Ir. Dr. Mohd Fairuz Ab Rahman Committee Member, IEM



Ir. Ts. Noor Hisham bin Yahaya Committee Member, IEM



Ir. Ts. Louis Tay Chee Siong Vice President, Technological Association Malaysia (TAM)



Ir. Ts. Hazlina Binti Yon Director, Chemical Management Division, DOSH



Major Dr. Abd Razak bin Abdul Majid ato RMAF (Retired) Honorary Secretary, **Malaysian Armed Forces Doctoral Association (MAFDA)** 



Mr. Wang Ji Deputy General Manager, **Underground Technology Engineering Construction Pte Ltd** 



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Ir. Lin Shon Nyin **Deputy Head of HSE Operational** Excellent (HSE Department), Tenaga Nasional Berhad (TNB)



Mr. Kyle Tan Founder & CEO, Airsquire Pte Ltd



Mr. Joseph Koh Founding Team, Airsquire Pte Ltd

**7 SEPTEMBER 2023** 9.00AM - 6.00PM CONFERENCE HALL 3 (KLCC)

Held Concurrently With:



CONFERENCE 2023, MALAYSIA





**DOSH Approved** 

**CEP Point: 5** 

CCD Point: 10 CIDBWP/C/CIMS/2023/11925



HRD Corp Serial No.: 10001327809

### Speaker's Profile



Ir. Dr. Mohd Fairuz Ab Rahman
Committee Member, IEM



Vice President, Technological Association Malaysia (TAM)



Major Dr. Abd Razak bin Abdul Majid ato RMAF (Retired) Honorary Secretary, Malaysian Armed Forces Doctoral Association (MAFDA)



Ir. Lin Shon Nyin

Deputy Head of HSE Operational
Excellent (HSE Department),
Tenaga Nasional Berhad (TNB)

#### **OSCHIM** - Legal perspective

Design has been recognised as a contributing factor in OSH accidents. Engineer working as designer of building and engineering works will soon be required under by the OSH law to ensure that his design can be constructed, maintained and used safely. The OSHCIM Guidelines 2017 gives general guidance to designers on how this objective can be achieved. This presentation discusses some practices used by the designers and construction industry to ensure safety by design.

Ir. Dr. Mohd Fairuz Ab Rahman is currently attached with the Construction Safety Division, Department of Occupational Safety & Health (DOSH) Headquarters in Putrajaya. He graduated from the University of Sheffield, UK in BEng. Mechanical Engineering, UiTM in MSc. Integrated Construction Project Management and the RMIT University, Australia in PhD. Mechanical Engineering. He is registered with the Board of Engineers Malaysia as a Professional Engineer with Practising Certificate. He has worked with the DOSH since 2003. He involved in development and revision of occupational safety and health act, regulations, industry code of practice and guidelines for construction.

### Challenges And Opportunities In Temporary Works And Construction Method Engineering Under The New Regulatory Framework

This paper updates the perspective of the regulatory environment and its impacts on the construction industry particularly with regards to the implementation of temporary works. It examines the challenges that the construction industry faces due to regulatory enhancement in various aspects, including the OSHA and Act 520 amendments, OSHCIM regulation, CIS updates, and MS adoptions. An industry overview and analytics are presented on the values and opportunities that are achievable to uplift the performance of the construction industry by harmonizing safety, productivity, and technology under the new regulatory frameworks. The paper concludes with recommendation for synergic industry actions to drive and realize the objectives of the new regulatory regime.

Ir. Ts. Louis Tay Chee Siong is a Civil Engineer with more than 26 years of experience that encompasses all phases of design and construction process for corporate, institutional, and governmental clients. He graduated from the Department of Civil Engineering, University of Manitoba, Canada in 1996; and began his career with Jehantech group of companies where he served for 16 years (Yr.1996-2011) under the leadership and guidance his mentor, Dr. Tay Choon Jin (CEng MICE, FIEM), the Managing Director.

#### **Traffic Safety Management At Construction Project Sites**

Public safety on road users and OSH challenges in managing project construction are some of the prevailing concerns in which these changes normal traffic flow may be hazardous for motorists, workers, and pedestrians unless protective measures are taken. Motorists may not be able to differentiate between the various types of construction sites and the unexpected dangers in the work zone areas. Hence, proper traffic control measures and safety considerations are required for all types of work both on major long-term projects or those of short duration. It is a challenging responsibility to client/project owner, designer, consultant, contractors, traffic management officer (TMO), road safety auditors (RSA) and workers, to ensure the requirements of OSH matters. The Speaker will share his past experiences, knowledge and information related to traffic safety management at construction project sites.

Major Dr. Abd Razak bin Abdul Majid *ato* RMAF (Retired) has 43 years of work experiences in defence and industrial/private sectors related to aviation, manufacturing, marine and construction (including supervising consultant) projects on OSH and traffic matters. He was trained as an Armament Engineering Officer and Ammunition Technical Officer (ATO), graduated from Universiti Teknologi Malaysia (UTM) in 1987 and served in Malaysian Army (Royal Ordnance Corp) and the Royal Malaysian Air Forces (RMAF), from year 1979 - 2000. After retirement in 2000, he was trained and certified as a Safety and Health Officer (SHO) with DOSH. He is also a certified Construction Traffic Management Officer (CTMO) Level 4. He received his Doctorate from International Business School of Scandinavia (IBSS), Skanderborg, Denmark in 2020 and writing his dissertation paper in related to safety, health and environmental engineering on "Risks Related to Safe Handling and Storage of Explosives in Malaysia".

#### **An Effective Safety and Health Program**

To achieve optimal and finest workplace, health and safety program can prevent employees from getting injured. As pointed out by OSHA, nearly all workplace incidences, injuries, and even fatalities are preventable. Safety and health programs foster a proactive approach to "finding and fixing" workplace hazards before they can caused injuries or illness. An effective health and safety program also improves employee morale and productivity by empowering employees with the tools and training they need to work in a safe environment. Employers who have implemented safety and health programs frequently discovers that by managing safety, it will results into higher-quality product or output and eventually produce higher profits. Less incident of injury will results in lower compensation claims and expenses as well. A good and effective safety & health program required the commitment and participation from both employer and employees. In line with such objectives, this talk discusses and share the objectives to have an effective safety and health program in an organization in recommending the practices for safety & health programs and methods in achieving the main goal of safety and health programs.

Ir. Lin Shon Nyin is the Deputy Head (HSE Operational Excellent) of HSE Department in Tenaga Nasional Berhad (TNB). He obtained his Bachelor of Engineering (Electrical) from University of Technology (UTM), Malaysia in the year 2006. Of his 17 years of experience in the electrical utility industry, he has vast exposure of various capacities in field of HV Substation & Underground Cable Projects. Additionally, Ir. Lin has worked and served as Project Engineer/Project Manager, Contract Management Manager, and Head - Health, Safety and Environment Management (HSE) in Transmission Division of TNB. He is an active trainer with the National Institute of Occupational Safety & Health (NIOSH). Besides, Ir. Lin has also qualified as Lead Auditor ISO 45001 – Occupational Health, Safety Management Systems (OHSMS) and ISO 14001 – Environmental Management Systems (EMS) and lead accident investigator in TNB.

### Speaker's Profile



Ir. Ts. Noor Hisham bin Yahaya Committee Member, IEM



Ir. Ts. Hazlina Binti Yon Director, Chemical Management Division, DOSH



Mr. Wang Ji Deputy General Manager, **Underground Technology Engineering Construction Pte Ltd** 



Mr. Kyle Tan Founder & CEO, Airsquire Pte Ltd



Mr. Joseph Koh Founding Team, Airsquire Pte Ltd

#### Asbestos... The Silent Killer

The presentation will highlight on why asbestos was widely being used in the past and why it is known as a "silent killer". Should anyone accidently exposed to asbestos, what are the steps to be taken to handle the situation, as not to escalate the risk boundary. The new OSH Act (Amendment) 2022 specifies the duty of employers to Conduct and Implement Risk Assessment at Workplace, such as asbestos, within the Company's premise. The employer must engaged competent asbestos surveyor to conduct risk assessment based on DOSH requirements. In the legal perspective, ignorance of such requirement is not an excuse and can be subjected to a fine of up to RM 500,000.00. What are the precautions and procedures required in handling asbestos containing materials during removal works; in line with "DOSH Asbestos Removal Guidelines 2017". The Speaker will share his past experiences, knowledge and information related to asbestos removal for outdoor and indoor

Ir. Ts. Noor Hisham started his OGE working experiences in 1985 with LLN in Pasir Gudang Power Station and Perai Power Station for a total of 5-years. Later, he worked with Shell Refinery in Port Dickson in various capacities and having extensive experiences in plant maintenance management, major project construction and turnaround management for 10-years. During in tenure in Shell Port Dickson, he was involved in maintaining and project construction works in rotating equipment, static equipment, piping and other interdisciplinary works. He started his own business in 2001 as contractor for OGE industries, undertaking project construction, maintenance and turnaround works. In 2010, he started an asbestos abatement company; being the pioneer in the industry on proving services in asbestos survey, consulting, removal and disposal. In his capacity an asbestos abatement services company, he had done many jobs at offshore and inshore, as well as onboard ship, undertaking asbestos survey and removal services. In 2020, he received his certification as a Green Project Manager (GPM-b) as well as a Registered Consultant & Assessor (RCA) in Green Project Management by GPM Global, USA.

#### Paradigm Shift in Chemical Management: OSH Perspective

A paradigm shift is a major change in how people think and get things done that upends and replaces a prior paradigm. It is also often defined as a change in the perception of how things should be thought about, done, or made. A paradigm shift can require entire departments, processes, chemicals, or even procedures to be eliminated or created. By conducting, risk assessment, the level of risk can be determined, and subsequently appropriate controls can be taken to reduce risk to workers. Statistics of occupational diseases from DOSH ending 2022 shows that 77% of the diseases contributed by manufac turing sector, followed by business services, finance and retail, plantation and transportation respectively. The need to shift from being in the comfort zone to monitoring the recommendations from the CHRA assessors are of paramount importance to all employers to reduce the risk of our Malaysian workers to be suffering from the occupational diseases or occupational poisoning at work.

Ir. Ts. Hazlina Binti Yon has wide experience in the field of Occupational Safety and Health specifically Chemical Management and Industrial Hygiene since joining the Department Occupational Safety and Health in 1994. She obtained Degree in Chemical Engineering from the University of New South Wales, Australia and Master of Science in OSH in the field of Chemical Safety from the Universiti Sains Malaysia. She has been appointed as the Chairman of Technical Committee of drafting the IAQ Guidance Note in 2021, as Subject Matter Expert by Public Service Department on OSH Policy and Strategic Planning (Occupational Health) in 2020 and as Chairman of Strategic Thrust Three under Occupational Safety and Health Master Plan (OSHMP) 2025.

#### Safely Plan and Build a TBM Tunnel

To enhance connectivity between towns in urban and reduce travelling time, MRT(Mass Rapid Transit) system is the best green solution. Additionally, nowadays most of the MRT systems are built underground to save the land acquisition, avoid diversion of traffic and utilities, and minimize the affect to the community. Therefore, TBM, Tunnel Boring Machine, is engaging for driving tunnels to form the underground network.

As a builder, safety is our first priority when we plan and drive the TBM underground. Today, I would share with you "How to plan and build a TBM tunnel safely?"

In this topic, I will elaborate the tunnelling risk we faced, and risk mitigation method in terms of the geology study and machine selection. Also, base on the LRT3 UG tunnel case, I will share the safety measures during Tunnelling Operation, which will introduce the engineering and administration control measures during the production processing.

Mr. Wang Ji, DGM of UTEC (Underground Technology Engineering Construction Pte Ltd), is a tunneller since 2008 after graduate from Tong Ji University, Shanghai. He dedicates himself in the TBM tunnelling work in Shanghai, Singapore, Chennai and KL in the past 15 years. He was the project leader of UTEC, the specialist Contractor for KL LRT3 underground tunnel work. He has been leading this team to success since the project planning, designing and then the completion of the whole tunnelling work. His diligent and reliable management make the extraordinary Zero Accident safety record, and guide his team perform efficiently during the COVID pandemic.

#### **Digitalisation In Construction Safety**

TThe generational shift from physical to virtual is happening! The way we live, work, play today has moved online (via zoom meetings for example). However, the way we build and "experience space" is still restricted by the "physicality of job sites". With the recent technological breakthrough in 360° capturing and computer vision A.I., we believe that the shift to virtual spaces in building and construction is happening! And the good news is that it is being accelerated by post global economic disruptions to increase supply chain resilience and local government mandates to digitalise the sector. The future of site progress and inspection communication will be done more immersively. Today, most site progress and inspection communication is still done on-site laboriously and documented in flat '2D" PDFs. Using these 2-dimensional PDFs to communicate 3-dimensional site situations often leads to miscommunications, aggravating disputes and delays. There is more than 30% productivity gain that can be gained by On-site and HQ Teams by adopting a simpler and faster way to capture 360° virtual sites for progress reporting and remote inspection. This seminar will present the technology 360° 360° virtual sites for progress reporting and remote inspection. This seminar will present the technology 360° virtual sites as a way to capture, visualize and share your 360° sites progress immersively. 360° virtual sites will enable project teams to gain productivity in site photo documentation, identify & communicate progress delays evidentially, and resolve variation orders amiably with objective 360° site evidence. We will also discuss the potential to virtualise site supervision for safety use cases. By enabling site supervisors to supervise more sites with more "eyes on the ground", we can improve productivity, site safety conditions, increase talent influx, and "do more with less".

Mr. Kyle Tan, as an industrial technologist for the built environment, he believes that virtualizing the physicality of construction sites will enable more evidential & effective communications. He spent the last 6 years implementing A.I. & 3D virtualization technologies (e.g. lidar, photogrammetry) for the built environment across Singapore, the Netherlands and United Kingdom.

Mr. Joseph Koh, as a Construction Management industry specialist, Joseph believes that simple technologies coupled with industry collaborations can create impactful and sustainable change in construction industry. He spent the last 6 years in commercial and solutioning roles in construction across Malaysia and Singapore.

A Safety in Engineering Symposium 7 SEPTEMBER 2023 | KLCC

### Tentative Programme

8.00am - 9.00am

Registration & Welcome Refreshment

9.00am - 9.05am

Welcoming Remarks

9.05am - 9.10am

by Organising Chairman, Ts. Dr. Ong Chong Yong

Opening Speech

9.10am - 9.25am

by Ir. Prof. Dr. Norlida bt Buniyamin, President of IEM

9.25am - 9.40am

Keynote Address by Guest of Honour by Ir. Hj. Mohd Hatta Bin Zakaria, Director General, Department of Occupational Safety and Health (DOSH)

Token Appreciation to the Guest of Honour, Speakers & Sponsors

9.40am - 9.55am

Morning Tea Break & Networking

9.55am - 10.45am

Talk on "OSCHIM – Legal perspective"

by Ir. Dr. Mohd Fairuz Ab Rahman, Committee Member (IEM)

10.45am - 11.35am

Talk on "Challenges And Opportunities In Temporary Works And Construction Method Engineering Under The New Regulatory Framework"

by Ir. Ts. Louis Tay Chee Siong, Vice President, Technological Association Malaysia (TAM)

11.35am - 12.25pm

Talk on "Traffic Safety Management At Construction Project Sites"

by Major Dr. Abd Razak bin Abdul Majid ato RMAF (Retired)

12.25am - 01.25pm

Lunch

01.25pm - 2.15pm

Talk on "An Effective Safety and Health Program"

by Ir. Lin Shon Nyin, Tenaga Nasional Berhad (TNB)

2.15pm - 3.05pm

Talk on "Asbestos... The Silent Killer"

by Ir. Ts. Noor Hisham bin Yahaya, Committee Member (IEM)

3.05pm - 3.55pm

Talk on "Paradigm Shift in Chemical Management: OSH Perspective"

by Ir. Ts. Hazlina Binti Yon, Director of Chemical Management Division (DOSH)

3.55pm - 4.10pm Afternoon Tea Break

4.10pm - 5.00pm

Talk on "Safely Plan and Build a TBM Tunnel"

by Mr. Wang Ji, Deputy General Manager, Underground Technology Engineering Construction Pte Ltd

5.00pm - 5.50pm

Talk on "Digitalisation In Construction Safety"

by Mr. Kyle Tan & Mr. Joseph Koh, Founder, CEO & Founding Team (Airsquire Pte Ltd)

5.50pm - 6.00pm Clos

**Closing Remarks** 



### Registration Form



### **GROUP REGISTRATION DISCOUNT:**

• 3 - 4 paxs: 5%

4 paxs & above: 10%

Strictly register via email to amira@iem.org.my

### SES 2023

Safety in Engineering Symposium

Theme: "No Time Off For Safety"
7 September 2023 | KLCC | 9.00AM - 6.00PM

The Institution of Engineers, Malaysia
Bangunan Ingenieur, Lot 60&62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel. No.: +(603) 7968 4026 Fax No.: +(603) 7957 7678 Email: amira@iem.org.my

Category	Registration Fee (Subject to 6% SST)				
Participants	Online Rate	Normal Fee			
	(Register via IEM website)	(Register Manual)			
Student Member	RM200.00	RM250.00			
Graduate Member	RM400.00	RM450.00			
Corporate Member	RM400.00	RM450.00			
Non-IEM Member	RM800.00	RM900.00			

AFEO members will be applicable for IEM members rate.

Registration via email to secretariat in-charge at amira@iem.org.my

No	Name of Participant(s)	Amount
	Sub Total Amount	
	Add 6% SST	
	GRAND TOTAL	

SES 2023
A Safety in Engineering Symposium

7 September 2023 | KLCC



Contact Us
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amira@iem.org.my



# Sponsorship For Exhibition And Advertisement

### SES 2023

### Safety in Engineering Symposium

Theme: "No Time Off For Safety"
7 September 2023 | KLCC | 9.00AM - 6.00PM

The Institution of Engineers, Malaysia
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Tel. No.: +(603) 7968 4026 Fax No.: +(603) 7957 7678 Email: amira@iem.org.my

A) Booth Package				
(PLEASE TICK "√")				
TYPE OF BOOTH SPONSORSHIP (Subject to 6% SST)	Platinum	Gold	Silver	Bronze
	RM25,000.00	RM20,000.00	RM15,000.00	RM10,000.00
Company corporate logo will be displayed throughout the conference & exhibition promotional flyers & advertisement	X	X	x	X
Corporate promotional material to be inserted in goodie bags	x	x	х	x
Company logo on stage backdrop	x	x	x	-
Acknowledgement of the company during conference & exhibition opening ceremony	x	x	х	X
Acknowledgement in conference booklet	x	x	x	x
Top Management for Opening Ceremony	2	1	1	-
Complimentary conference passes	3	2	1	1
Token and Certificate of Appreciation	x	x	x	x
1x Biz Talk at Meeting Space @ Main Hall (first come first serve)	x	-	-	-
1x Virtual Talk Session	х	x	x	-
Exhibition Booth				
Number of promotional exhibition booth which will be allocated (3m x 3m)				

#### 1 unit of 3m x 3m Shell Scheme Stand at ENGINEER 2023

(each stand is complete with white melamine dividing panels/ partition, 1 set of company name on fascia board, needle punch carpet, 1 information desk & 2 chairs, 2 units spot light, 1 unit 13 Amp power point, 1 unit waste paper basket)

	B) Advertisement Package					
TYPE OF CONFERENCE BOOKLET SPONSORSHIP (Subject to 6% SST)		Amount (RM)	Complimentary Seat	Acknowledgement in the Conference Booklet	Please tick "✓"	
	1	Inside front Cover	6000.00	3	✓	
	2	Outside Back Cover	6000.00	3	✓	
	3	Inside Back Cover	3500.00	2	✓	
	4	Run of Page (inside page)	3500.00	2	✓	
	5	Run of Page (inside page)	2500.00	1	✓	

By signing the contract of sponsorship, the Sponsor is deemed to have agreed / given permission to the following:

• Logo submission for the purpose of marketing and advertising of the conference & exhibition • The Organiser reserves the right to place the logo in any of the marketing collaterals across various

platforms (print, digital, outdoor)

The exhibition will be held on 6th – 9th September 2023 at Kuala Lumpur Convention Centre, Kuala Lumpur.

The Organiser reserves the right to change the date and/or venue or to postpone the convention & exhibition due to force majeure at its sole discretion.







### Sponsorship Reply Slip

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  - Logo submission for the purpose of marketing and advertising of the conference & exhibition
  - The Organiser reserves the right to place the logo in any of the marketing collaterals across various platforms (print, digital, outdoor)
  - The Sponsor will need to submit the required logo and artwork for any marketing collaterals usage not later than 31<sup>st</sup> March 2023, in which failure to do so, logo and advertisement will not be placed.
- ➤ The exhibition will be held on 6<sup>th</sup> 9<sup>th</sup> September 2023 at Kuala Lumpur Convention Centre, Kuala Lumpur.
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Logo submission for the purpose of marketing and advertising of the conference & exhibition

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