

Chairman,  
Electrical Engineering Technical Division,  
The Institution of Engineers Malaysia,  
Lots 60 & 62, Jalan 52/4, P.O. Box 223 (Jalan Sultan),  
46720 Petaling Jaya, Selangor Darul Ehsan  
Tel: 03-7968 4001/2 Fax to 03-7957 7678 (Email : valli@iem.org.my)

**REGISTRATION FORM**  
**ONE DAY SEMINAR ON**  
**HARMONIZING TODAY'S EXTRA LOW VOLTAGE SYSTEMS:**  
**SMART-CONNECTED SECURITY & SAFETY SYSTEMS**

Date : 23<sup>rd</sup> January 2018 (Tuesday)

(Closing Date: 20<sup>th</sup> January 2018)

No	Name(s)	M'ship No.	Grade	Fee (RM)*
SUB TOTAL				
ADD GST @6%				
Total Payable				

\*Fees **MUST** be fully paid **BEFORE** the **CLOSING DATE**. Seats could only be confirmed upon payment.  
Enclosed herewith a crossed 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 application is accepted by the  
Organising Committee as stated in the **cancellation term**. If I/We fail to attend the seminar, the paid  
registration fee will not be refunded.

Contact Person: \_\_\_\_\_ Designation: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

Email: \_\_\_\_\_

Signature & Stamp

Date

Photocopies are acceptable

**PERSONAL DATA PROTECTION ACT**

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at  
<http://www.myiem.org.my> and I agree to IEM's use and processing of my personal data as set out in the said notice.



**ONE DAY SEMINAR ON**  
**HARMONIZING TODAY'S EXTRA LOW**  
**VOLTAGE SYSTEMS: SMART-CONNECTED**  
**SECURITY & SAFETY SYSTEMS**

ORGANISED BY  
ELECTRICAL ENGINEERING TECHNICAL DIVISION,  
THE INSTITUTION OF ENGINEERS, MALAYSIA

Venue: Tan Sri Prof. Chin Fung Kee, 3<sup>rd</sup> Floor, Wisma IEM, PJ

Time: 8.30am – 5.30pm

Speaker: Mr. Royce Tan

BEM Approved CPD/ PDP hours: 6.5

Ref. No.: IEM17/HQ/524/S

**REGISTRATION FEES (SUBJECT TO 6% GST)**

	ONLINE	NORMAL (OFFLINE)
IEM Student Member	150.00	180.00
IEM Graduate Member	200.00	250.00
IEM Corporate Member	350.00	400.00
Non-IEM Member	800.00	900.00

*GST will be implemented with effect from 1 April 2015*

**CANCELLATION POLICY**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

## SYNOPSIS

The term *Internet of Things (IoT)* has emerged into mainstream public view as well as more and more recently. Defined loosely as the interconnection of uniquely identifiable embedded networking devices within the existing Internet infrastructure, we take a look at how IoT is rapidly influencing today & tomorrow's Engineering Disciplines, including Smart Security & Safety Technologies. Here we lay down IoT's projected trends in Engineering, the underlying technology enablers, the typical goals for IoT related projects / ventures and its impact in shaping modern Extra Low Voltage (ELV) Systems in particular. Visualizing the concept of how ELV and Energy Management contributes into Smart Cities and what they aim to achieve. Based on those goals, we dissect Smart Cities further to understand the various domains of a Smart City. Audiences will have a clear understanding of key correlations between IoT and its role into modern Engineering with the concept of Smart Cities. One of the key features of a modern ELV system is Video based artificial intelligence; where we introduce a 4-tier framework to understand the correlation of Video Analytics technologies in enabling Video Based Artificial Intelligence Analysis. Various possible architectures, the pros and cons of each, as well as examples of Video Cameras used as sensors will be discussed. With mass connectivity comes cyber-threat concerns. Here, we touch on identification, encryption and authentication from common cyber-security threats and the relevant technologies as a solution.

To complete an IoT ecosystem, it involves multiple discipline from the many aspects of Engineering. An Integration Partner Program gives possibilities to conceive solutions amongst different systems / communication protocols not only within the security and safety domain, but also possibilities for applications beyond security. The key takeaways include the understanding of key concepts, technologies & possible integrations between multiple modern Engineering Systems, especially in Video Analytics' role in the modern ELV domain. Access Control Systems have always been at the forefront of Smart ELV Security & Safety Systems. With the current availability of various options for access control systems & contactless smart card technologies, it doesn't matter whether a company is implementing an IT security solution today, or is looking downstream and planning for the future, it makes sense to put in a contactless smart card access control system, because it creates a technology base that can support IT security and physical access applications on the same credential.

The below topics shall discuss Credential Formats and more of the commonly used Smart Card Access Control Systems:

- 1) RFID
- 2) ISO Standard
- 3) What is Format?
- 4) Market Trend & Technology Trend
- 5) Recommendation
- 6) Innovation of physical access control

At the end of the session, participants should be able to understand common technology used in the current era of Security Access Control Systems and much more.

## ABOUT THE SPEAKER

**Mr. Royce Tan** has over 20 years of working experience and currently the Director of Robert Bosch Sdn Bhd. His responsibility in Robert Bosch mainly focus on Energy Management, IOT and Industry 4.0. Cross-Division Selling Country Champion within all divisions in Bosch Group, responsible for the liaison of inter-division project collaboration. He was responsible for photovoltaic solar energy (components, solutions & system), which includes the supply of software & equipment to the largest roof-integrated PV installation (2MW) in ASEAN, at Batangkali in 2013. Mr. Tan graduated from Bachelor of Electrical Engineering at Royal Melbourne Institute of Technology, Melbourne, Victoria in 1984, subsequently completed his Postgraduate Research Program with scholarship in Electrical Engineering (thesis: High Voltage) in 1986. He also holds a Master in Business Administration from Edinburgh University graduated in 1988.

## Tentative Programme

Time	Description
9.00 am	Welcome Remarks & Seminar Rundown Briefing
9.45 am	IoT and what it means for Modern ELV: Security and Safety Systems
10.15 am	Smart Connected Solutions
10.45 am	Tea Break
11.00 am	Evolving ELV Trends: Security Camera as Sensors
11.45 pm	The importance of Cyber-security in Security and Safety Systems
12.15 pm	The Evolving Ecosystem for Security and Safety Systems
1.00 pm	Lunch
2.30 pm	Current Trends in Smart Access Control Systems: Credential Formats, Recommendations and Innovations
4.00 pm	Technology Demonstrations
5.00pm	Question & Answers Session
5.30 pm	End

### Terms & Conditions:

- For **ONLINE REGISTRATIONS**, only **ONLINE PAYMENT** is applicable [via RHB and Maybank2u –Personal Saving & Personal Current; Credit Card - Visa/Master].
- Payment via **CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK-IN** will be considered as **NORMAL REGISTRATION**.
- **FULL PAYMENT** must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full.
- Fee paid is not refundable. Registration fee includes lecture notes, refreshment.
- The Organizing Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.