



An Avenue to Explore IOT & 5G

Organised by:



Advancing Technology  
for Humanity

ED/MTT/SSC Penang Chapter

9 – 10 November 2016  
PSDC, Penang

## IEEE International Microwave, Electron Devices, Solid-State Circuit Symposium (IMESS) 2016

IEEE ED/MTT/SSC Penang Chapter is proud to host its first international meeting – The IEEE International Microwave, Electron Devices, and Solid-State Circuit Symposium (IMESS) 2016 – for the benefit of technical communities and humanity. IMESS provides the forum for technical presentations on topics related to microwave, electron devices, and solid-state circuit. The symposium will have parallel tracks from IEEE ED, MTT, and SSC societies, featuring international experts, local industry leaders, academic experts, and researchers, as well as a half-day industrial visit for college/university undergraduates. The IMESS is also a platform for exhibiting product and technology solutions and networking and exchanging of ideas with peers and experts.

The IMESS 2016 is a free event that strives to resonate with technical communities on a global scale. Register today!

### Target Audience:

Engineers, Researchers,  
Scientists,  
College/University  
Undergraduates, and  
Technopreneurs

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### Objectives:

- To promote IEEE and ED/MTT/SSC chapters and increase membership
- To promote and strengthen local science and engineering advancements
- To provide networking opportunities and connect technical communities
- To address polarisation issues within the industry and academia
- To synchronise and bridge the gap between industry advancement and academic research
- To inculcate scientific culture and engineering leadership

## Keynote Speakers



**Mr Alan Seah**  
Managing Director  
Rohde & Schwarz, Malaysia



**Mr Fong Hong Kee**  
Education & Medical Technology Marketing Manager  
General Electronics Measurements Solutions  
Keysight Technologies, Malaysia

## Plenary Speakers & Topics (By Track)

### MTT Track



**Dr Milton Lien**  
AWR Group, National Instruments, Taiwan  
◀ **SI Design Flow Using AWR – A Ka-Band SiGe Receiver**



**Dr Wong Peng Wen**  
Universiti Teknologi PETRONAS, Malaysia  
◀ **Multiband Filtering for Future 5G: Design and Synthesis Techniques Based on Hybrid Polynomials**



**Mr Alan Chang**  
Richardson Electronics/Anokiwave  
◀ **Phased Array System**



**Dr BoYu Zheng**  
CAD-IT Consultants, Singapore  
◀ **System Level Simulation with ANSYS Electromagnetic Tools**



**Mr Malay Duggar**  
National Instruments, Singapore  
◀ **5G – From Theory to Practice**



**Dr Naoki Shinohara**  
Kyoto University, Japan  
◀ **Wireless Power Transfer via Radio Waves**



**Mr Fong Hong Kee**  
Keysight Technologies, Malaysia  
◀ **IoT Solution for Successful Wireless Devices**



**Bob Ng Shiong Nien**  
Rohde & Schwarz, Malaysia  
◀ **Principles of 5G Channel Sounding & Measurement Concepts**

## ED Track



**Dr Arokia Nathan**

Cambridge University, United Kingdom

- ◀ **Large Area Electronics, Transparent Electronics, Displays, Imaging, and Nano Bio-Systems**



**Dr Tan Cher Ming**

Chang Gung University, Taiwan

- ◀ **Electronic Circuits and Device Reliability**



**Mr Ho Eng Ling**

Intel PSG, Malaysia

- ◀ **DFx for SOC**



**Mr Sivaraman Rukunmangatha Rajah**

Intel PSG, Malaysia

- ◀ **Test Technology Challenges for Integrated Circuit from a High Volume Testing Perspective**



**Dr Cheong Kuan Yew**

Universiti Sains Malaysia, Malaysia

- ◀ **Aloe Vera as the Material for All-Natural Electronic Devices**



**Dr M K Radhakrishnan**

NanoRel Technical Consultants, Singapore

- ◀ **Physical Analysis Challenges and Interface Physics Studies in Silicon Nano Devices**



**Dr Varun Jeoti**

Universiti Teknologi PETRONAS, Malaysia

- ◀ **IoT of Passive Things and SAW RFID System**

## SSC Track



**Dr Shana Osama**

MediaTek, United States of America

◀ **Building SAW-less Transceivers for Cellular Systems: Challenges and Implementation**



**Dr Sudhanshu Shekhar Jamuar**

Universiti Malaysia Perlis, Malaysia

◀ **LED Lighting – Past, Present, and Future Technology**



**Dr Subhash C Rustagi**

Silterra, Malaysia

◀ **TCAD – Solid-State Design in Silicon Technology**



**Dr Arjun Kumar**

Silterra, Malaysia

◀ **RF MEMS**



**Dr Chuah Joon Huang**

Universiti Malaya Malaysia

◀ **Design, Test, and System Integration of a Multi-pixel CMOS Photon Detector**



**Dr Shanti Pavan**

Indian Institute of Technology Madras, India

◀ **Demystifying Linear Time Varying Systems**



**Dr Nor Azmi Alias**

CREST, Malaysia

◀ **Driving Innovation at the Intersection of Social Mobility, Health, and Technology**



**Mr Kalai Selvan Subramaniam**

USains InfoTech Sdn Bhd

◀ **Overview of Semiconductor and IC Design Industry in Malaysia**

8.00 am – 9.00 am	Registration @ Auditorium Foyer & Breakfast @ OMBAK Upper Deck (Sponsored by Finisar Malaysia)			
9.00 am – 10.00 am	Welcoming Remarks by Organisers & Speech by <b>YAB Tuan Lim Guan Eng</b> , Chief Minister of Penang			
10.00 am – 10.50 am	Plenary Session: <b>Mr Alan Seah</b> , Managing Director – Rohde & Schwarz, Malaysia Chair: <b>En Anwar Faizd Osman</b> , Rohde & Schwarz, Malaysia			
10.50 am – 11.00 am	Break			
11.00 am – 11.50 am	DLP/Academic Track	<b>MTT Track @ Auditorium</b> Chair <b>Dr Badrul Hisham Bin Ahmad</b> Universiti Teknikal Malaysia, Malaysia <b>Dr Milton Lien</b> AWR Group, NI, Taiwan <i>SI Design Flow Using AWR – A Ka-Band SiGe Receiver</i>	<b>ED Track @ Room 1202</b> Chair <b>Dr Cheong Kuan Yew</b> Universiti Sains Malaysia, Malaysia <b>Dr Arokia Nathan</b> Cambridge University, UK <i>Large Area Electronics, Transparent Electronics, Displays, Imaging, and Nano Bio-Systems</i>	<b>SSC Track @ EMC Mezzanine</b> Chair <b>Ir Dr Chuah Joon Huang</b> Universiti Malaya, Malaysia <b>Dr Shana Osama</b> MediaTek, USA <i>Building SAW-less Transceivers for Cellular Systems: Challenges and Implementation</i>
		<b>Dr Wong Peng Wen</b> Universiti Teknologi PETRONAS, Malaysia <i>Multiband Filtering for Future 5G: Design and Synthesis Techniques Based on Hybrid Polynomials</i>	<b>Dr Tan Cher Ming</b> Chang Gung University, Taiwan <i>Electronic Circuits and Device Reliability</i>	<b>Dr Sudhanshu Shekhar Jamuar</b> Independent <i>LED Lighting – Past, Present, and Future Technology</i>
		Lunch Break @ Waves (Sponsored by Richardson Electronics)		
12.40 pm – 2.00 pm	IEEE Industry Relation Track	Chair <b>Dr Cheab Sovuthy</b> Universiti Teknologi Petronas, Malaysia <b>Mr Alan Chang</b> Richardson Electronics/Anokiwave <i>Phased Array System</i>	Chair <b>Dr Norhayati Binti Soin</b> University Malaya, Malaysia <b>Mr Ho Eng Ling</b> Intel PSG, Malaysia <i>DFx for SOC</i>	Chair <b>Mr Lance Lai</b> Independent <b>Dr Subhash C Rustagi</b> Silterra, Malaysia <i>TCAD – Solid-State Design in Silicon Technology</i>
		<b>Mr Bob Ng Shiong Nien</b> Rohde & Schwarz, Malaysia <i>Principles of 5G Channel Sounding &amp; Measurement Concepts</i>	<b>Mr Sivaraman Rukunmangatha Rajah</b> Intel PSG, Malaysia <i>Test Technology Challenges for Integrated Circuit from a High-Volume Testing Perspective</i>	<b>Dr Arjun Kumar</b> Silterra, Malaysia <b>RF MEMS</b>
		Afternoon Tea Break @ OMBAK Upper Deck		
4.10 pm – 5.00 pm		<b>Mr Malay Duggar</b> National Instruments, Singapore <i>5G – From Theory to Practice</i>	<b>Dr Cheong Kuan Yew</b> Universiti Sains Malaysia, Malaysia <i>Aloe Vera as the Material for All-Natural Electronic Devices</i>	<b>Dr Chuah Joon Huang</b> Universiti Malaya, Malaysia <i>Design, Test, and System Integration of a Multi-pixel CMOS Photon Detector</i>

8.30 am - 9.30 am	Breakfast/Networking @ OMBAK Upper Deck (Sponsored by Genetron)			
9.30 am - 10.20 am	Keynote Session: <b>Mr Fong Hong Kee</b> , Education & Medical Technology Marketing Manager, General Electronics Measurements Solutions – Keysight Technologies, Malaysia  Chair: <b>En Anwar Faizd Osman</b> , Rohde & Schwarz, Malaysia			
10.20 am - 10.40 am	Break			
10.40 am - 11.30 am	DLP/Industry Track	<b>MTT Track @ Auditorium</b> Chair <b>Dr Jaga Rajendran</b> Universiti Sains Malaysia, Malaysia	<b>ED Track @ Room 1202</b> Chair <b>Ir Dr Lee Choo Yong</b> Robert Bosch, Malaysia	<b>SSC Track @ EMC Mezzanine</b> Chair <b>Dr Sudhanshu Shekhar Jamuar</b> Independent
		<b>Dr Naoki Shinohara</b> Kyoto University, Japan <b>Wireless Power Transfer via Radiowaves (Wave Series)</b>	<b>Dr M K Radhakrishnan</b> NanoRel Technical Consultants, Singapore <b>Physical Analysis Challenges and Interface Physics Studies in Silicon Nano Devices</b>	<b>Dr Shanti Pavan</b> Indian Institute of Technology Madras, India <b>Demystifying Linear Time Varying Systems</b>
		<b>Mr Fong Hong Kee</b> Keysight Technologies, Malaysia <b>IoT Solution for Successful Wireless Devices</b>	<b>Dr Varun Jeoti</b> Universiti Teknologi PETRONAS, Malaysia <b>IoT of Passive Things and SAW RFID System</b>	<b>Dr Nor Azmi Alias</b> CREST, Malaysia <b>Driving Innovation at the Intersection of Social Mobility, Health, and Technology</b>
		<b>Dr BoYu Zheng</b> CAD-IT Consultants, Singapore <b>System Level Simulation with ANSYS Electromagnetic Tools</b>		<b>Mr Kalai Selvan Subramaniam</b> USains InfoTech Sdn Bhd <b>Overview of Semiconductor and IC Design Industry in Malaysia</b>
11.30 am - 12.20 pm				
12.20 pm - 1.10 pm				
1.20 pm - 1.30 pm	Closing Ceremony			
1.30 pm - 2.30 pm	Lunch Break @ Waves (Sponsored by MEDs Technologies & AWR Group, NI)			
2.30 pm - 3.30 pm	Factory Visit (For College/University Undergraduates Only)  Leader: <b>Ir Bernard Lim</b>			

## Society Sponsors:



## Sponsors:

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