

Half-Day Talk on “5G Technology: State-of-the-Art”

Date : Saturday, 10th August 2019
Venue : IEM (Southern Branch) Training Centre, 24-B Jalan Abiad, Taman Tebrau Jaya, Johor Bahru
Speaker : Assoc. Prof. Dr. Leow Chee Yen (Bruce), Universiti Teknologi Malaysia (UTM)

Synopsis

This talk begins with the overview of the evolution of cellular technologies and motivation for 5G technology from technology and commercial point of views. Then, the key 5G technical requirements and key usage scenarios, namely enhanced mobile broadband, massive machine type communication and ultra-reliable and low latency communication are presented.

Next, the 5G standardization process, timeline and progress of 3GPP releases are discussed. The course then dives into the key enabling technologies for 5G which include the air interface technologies (access stratum) and networking technologies (non-access stratum). Air interface technologies cover the millimetre wave, massive MIMO, multiple access, full duplex and network densification, while the networking technologies cover the network function virtualization and software defined networking. The talk concludes with a recent update of the commercial 5G development and trials around the world, including Malaysia. The objective of the talk is also to give a better understanding for our young engineers and practicing engineers to get some insight on the above topic.

Time	Tentative Program
8.30 a.m. – 9.00 a.m.	Registration
9.00 a.m. – 9.10 a.m.	Welcome Speech by IEM Southern Branch Organizing Committee
9.10 a.m. – 10.30 a.m.	Session 1: 5G Technology – Part 1
10.30 a.m. – 10.45 a.m.	Coffee Break
10.45 a.m. – 12.00 p.m.	Session 2: 5G Technology – Part 2
12.00 p.m. – 12.30 p.m.	- Discussion - Question and Answer Session
12.30 p.m.	End of Talk

Speaker Biodata

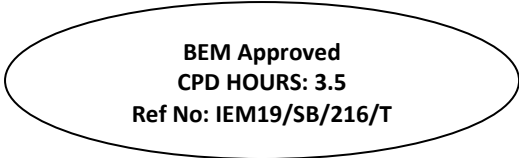
Assoc. Prof. Dr. Leow Chee Yen is currently an Associate Professor with the Faculty and a Research Fellow with the Wireless Communication Centre, the Higher Institution Centre of Excellence, UTM and the UTM-Ericsson Innovation Centre for 5G. He received the Bachelor of Engineering (B. Eng.) degree in Computer Engineering from Universiti Teknologi Malaysia (UTM) in 2007 and the Ph.D. degree from Imperial College London, United Kingdom in 2011. Since 2007, he has been an Academic Staff with the School of Electrical Engineering, Faculty of Engineering, UTM. His research interests include non-orthogonal multiple access, cooperative communication, UAV communication, MIMO, hybrid beam- forming, physical layer security, wireless power transfer, convex optimization, game theory, and prototype development using software defined radio, for 5G and IoT applications. He is actively involved in 5G initiatives in Malaysia since 2014. He is currently the Secretary for the IMT and Future Networks Working Group and active member of 5G Task Force in Malaysia.

Participant Fees:

Grade	Online	Normal
IEM Corporate Member & Graduate Members (30 years and above)	RM 110.00	RM 130.00
IEM Senior Engineers (60 years and above)	RM 90.00	RM 110.00
IEM Graduate Members (Below 30 years)	RM 90.00	RM 110.00
IEM Student Members	RM 60.00	RM 80.00
Non IEM Member	RM 180.00	RM 200.00

Closing Date: 2nd August 2019

For ONLINE REGISTRATION, payment **MUST BE MADE VIA ONLINE PAYMENT** (bank-in the participant fees into the Institution’s Maybank Current Account (No. 5-013920-15708) before the **closing date**. Registration will be on a first-come-first-serve basis. Kindly return the Reply Slip to the IEM (SB) office before **2nd August 2019** together with a non-refundable cheque for the participant fees made payable to **The Institution of Engineers, Malaysia (Southern Branch)**. Alternatively, you could bank-in the participant fees into the Institution’s Maybank Current Account (No. 5-013920-15708), and to facsimile both the Bank-in and Reply Slips to the Institution. The Institution requests all members co-operation in ensuring fees are paid in advance to the seminar. Please also be reminded that fees will not be refunded to absent participants who have paid, and to also note that all reservations must be paid despite participant cancellations. Thank you for your continuous support of the Institution.



To: Hon. Secretary, The Institution Of Engineers, Malaysia (Southern Branch) **FAX: 07 - 331 9710**

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Saturday, 10th August 2019, 9.00 a.m. – 12.30 p.m. at the IEM (Southern Branch) Training Centre, Johor Bahru

I wish to attend the above talk. I enclosed herewith a cheque No. for the amount of RM.....as payment for the seminar fee.

Name of Member:Membership No:.....

I/C No:

Address:Tel (O): Fax :.....

.....Tel (H/P):.....

.....E-mail:.....

Company's Name:

Signature: Date:

Note: For IEM members, membership cards should be presented for identification purpose. Failure to present the card, one will be declared as a non-IEM member and he/she will be required to pay the non-IEM member fee.

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