

Half-Day Workshop on “Understanding SLAM Theory and Applications”

Date : Saturday, 24 June 2023
Time : 9.00 a.m. – 1.00 p.m.
Venue : IEM (Southern Branch) Training Centre, 24B, Jalan Abiad, Taman Tebrau Jaya, 80400 Johor Bahru.
Speaker : Mr. Toh Chu Yee, ZULU Technologies PLT

Synopsis

SLAM (Simultaneous Localization and Mapping) is a vital technology that enables robots and autonomous systems to navigate and map unknown environments. This workshop offers participants an in-depth exploration of SLAM theory and its practical applications. The workshop will begin by introducing the fundamental concepts of SLAM, including sensor integration, data association, and state estimation. Participants will gain a comprehensive understanding of the challenges associated with simultaneous localization and mapping, and explore the underlying mathematical models and algorithms that address these challenges. Hands-on exercises and demonstrations will form a significant part of the workshop. Participants will have the opportunity to test with Slam lidar scanner and sample datasets, applying the acquired knowledge to develop their own SLAM Point Cloud. They will gain practical insights into implementing sensor fusion, leveraging data from cameras, lidar, and inertial sensors to generate accurate maps and estimate robot pose. Furthermore, the workshop will explore real-world applications of SLAM across various industries, such as Survey & Mapping, Quarry & Industry Plants, and Infrastructure. Participants will discover how SLAM technology enables robots to autonomously navigate complex environments, create maps, and perform tasks with precision and efficiency.

By the end of the workshop, participants will have a solid understanding of SLAM theory and its practical application. They will be equipped with the knowledge and skills to design and implement SLAM systems for their own projects, unlocking the potential for autonomous navigation and mapping capabilities in their applications.

Time	Tentative Programme
8.30 a.m. – 9.00 a.m.	Registration
9.00 a.m. – 9.10 a.m.	Welcome Speech by IEM (SB) Organising Committee
9.10 a.m. – 10.30 a.m.	Session 1
10.30 a.m. – 10.45 a.m.	Coffee Break
10.45 a.m. – 12.30 p.m.	Session 2
12.30 p.m. – 1.00 p.m.	- Case study and Discussion - Question & Answer Session
1.00 p.m.	Closing & End of Talk

About the Speaker:



Mr. TOH CHU YEE is currently the Sales & Technical Manager of Surmap Sdn. Bhd. in Subang Jaya, Selangor. He has over 15 years of experience in solutions provider in Survey and Mapping application including all Survey Equipment, underground utilities detection, Drone and others supply to government & private sector. He obtained his Diploma in Business Information System from Tunku Abd Rahman College in 2008. Throughout the years with Surmap, he has been dealing with notable government and private agencies such Jabatan Ukur Dan Pemetaan Malaysia, Jabatan Kerja Raya, Universiti Teknologi Mara, Land Surveyor (Lembaga Jurukur Tanah), Syarikat Pembinaan YTL Berhad, and Edgenta Environmental & Material Testing Sdn. Bhd.

Participant Fees:

Grade	Online
IEM Members	RM 80.00
IEM Student Members	RM 25.00
Non-IEM Member	RM 150.00

Closing Date: 20 June 2023

The seminar is strictly limited to **30 participants** only. Registration will be on a first-come-first-serve basis. Kindly return the reply slip to the IEM (SB) office before **20 June 2023** 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.

Chairman, Sub-Committee on Seminar and Technical Talk, IEM (SB)

BEM Approved
CPD/PDP Hours: **APPLYING**
Ref No:

REPLY SLIP

To: Hon. Secretary, The Institution of Engineers, Malaysia (Southern Branch) **Fax: 07 – 336 3406**

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

Name of Member: Membership No: I/C No:
Address: Tel(O):(Fax).....
..... Tel (H/P):
..... E-mail:

Company's Name:

Signature: Date:

Note : Kindly **email to iemsouthern@gmail.com the Reply Slip together with the payment slip** for confirmation.
: Attendance by representative will not be issued with the Certificate of Attendance.

PERSONAL DATA PROTECTION ACT

I have read and understood IEM's Personal Data Protection Notice published on IEM's website at www.myiem.org.my and I agree to IEM's use and processing of my personal data