


Webinar Talk on **Recent Experience on Precision Farming for Oil Palms**



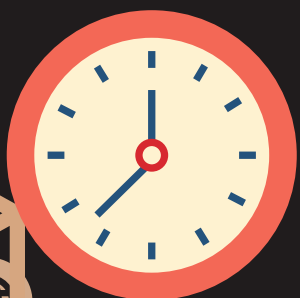
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**SPEAKER:
DR. CHEN ZI YAN**



**1st OCTOBER 2022,
SATURDAY**



9AM - 11AM

Registration Fees

Student Members : Free

IEM Members : RM 15.00

IEM Non Members : RM 70.00

Register online | www.myiem.org.my

Synopsis

Oil palm is the most efficient oil crop in the world. It is grown in the tropics, largely in Malaysia and Indonesia. Due to the global demand of palm oil, the total area planted with oil palm in Malaysia has increased rapidly from 1 million hectares (ha) in 1980 to 5.9 million ha in 2020. However, the national average yield is still stagnating at about 19 mtons/ha of fresh fruit or less than 4.0 mtons/ha of oil. As the Malaysian Government has capped the expansion of oil palm plantations in the country at the 6.5 million ha, better crop and nutrient management practices are needed to further increase the yield of the existing cultivated areas without further land expansions. The oil palm industry also needs to take serious effort in reducing its labour dependency as the pandemic has disrupted the labour availability, which is a major constraint on top of the continued labour shortages the oil palm industry currently faces.

One of the ways the plantation industry can mitigate the very tight labour situation and enhance its productivity would be to adopt advanced technologies and mechanise as many field operations as possible. In recent years, usages of tools and technologies associated with precision farming have burgeoned due to rapid development of unmanned aerial vehicles (UAVs), Internet of Things (IoT), artificial intelligence (AI), robotics, big data analytics, etc. For example, the previously time-consuming tasks of inventory mapping, generating digital elevation model, determining palm density, identifying nutrient deficient areas, assessing the extent of the damage by pests and disease infestation can be done quickly using UAVs now. The use of smart fertilizer spreaders has resulted in a significantly higher human productivity compared with the manual method of applications. This presentation will highlight some of the state-of-the-art tools and technologies that are being applied in oil palm plantations and discuss their associated challenges and limitations, and our recommendations.

Speaker's Profile

Dr. Chen graduated with a Bachelor Degree in Geoinformatics from University of Technology Malaysia (UTM) in 2010 and Doctorate in Computer Science from University of Nottingham Malaysia (UNM) in 2022. He has been working as an oil palm agronomist at AAR since 2010, where he provides agronomic advisory and fertilizer recommendation services to oil palm estates in Peninsular Malaysia, Sabah and Sarawak. Dr Chen has been assigned to head the AAR's GIS/GPS section, oversee services covering GPS/GIS mappings, land evaluation studies and UAV surveys as well as related R&D.