

WEBINAR

TALK ON CULTIVATION OF MICROALGAE FOR BIOMASS, BIOFUEL AND BIOMATERIAL PRODUCTION

Organised by:
Material Engineering Technical Division, IEM



WITH :
TS. DR. LAM MAN KEE
SPEAKER

7 FEBRUARY, 2025
AT 3 PM - 5 PM



BEM Approved CPD: 2 Hours
CPD Ref.No.: IEM25/HQ/004/T (w)

Registration fee

Student Member: Free
IEM Member: RM15.00
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SYNOPSIS

Microalgae have emerged as a transformative resource in addressing global challenges related to energy, materials, and sustainability. These microscopic photosynthetic organisms are not only known for their rapid growth rates and ability to thrive in diverse environments but also for their capacity to produce an array of valuable compounds. From renewable biofuels that reduce reliance on fossil fuels to eco-friendly biomaterials that support a circular economy, microalgae are becoming a cornerstone of innovation in green technologies. This webinar will delve into the multifaceted potential of microalgae, focusing on cutting-edge strategies for biomass production, biofuel generation, and the development of high-value biomaterials. Topics will also cover cultivation methods, downstream processing techniques, and the challenges encountered in the microalgae industry.

SPEAKER'S BIODATA

Ts. Dr. Lam Man Kee is presently a senior lecturer at Universiti Teknologi PETRONAS in Malaysia. He earned his PhD in Chemical Engineering (Renewable Energy) from Universiti Sains Malaysia in 2014. His research interests include microalgae cultivation, biomass and biodiesel production, heterogeneous catalyst development, life cycle energy assessment, and the socio-economic impact of biofuels. With over 10 years of experience in cultivating microalgae for biofuel production, he has also been involved in consultancy projects with industries related to algae research. Dr. Lam has published over 200 papers in ISI/SCOPUS-indexed journals. His work has garnered a total of 11000 citations and an H-index of 58. In the years 2021 to 2024, he was recognized as one of the global Top 2% Scientists in a study conducted by Stanford University which showcases his exceptional contributions to his field of research and the impact of his work on the scientific community. Currently, he serves as the Editor of the Energy Conversion and Management: X (Elsevier) and Deputy Editor of the International Journal of Biomass & Renewables (UTP Press). Furthermore, his research findings in microalgae cultivation for biofuel have garnered attention from the industry, leading to an industrial grant and consultancy project from PETRONAS to further develop the process on a larger scale. As of today, he has obtained 14 research grants as Principal Investigator, totalling RM1.50 million. In addition to his academic achievements, Dr. Lam has delivered several short courses to both academic and industrial audiences.