

WEBINAR TALK

NANOTECHNOLOGY FOR CIRCULAR ECONOMY: A CASE FOR HYDROGEN PRODUCTION

Organised by Material Engineering Technical Division (MaTD)

For the past two decades, the energy demands have increased tremendously with an emphasis on clean and renewable energy. This stems from the understanding to reduce the effects of pollutions and preventing irreversible damages to environment. This is the case with the current carbon-based economy embraced by the world. One such way to address the sustainability agenda is through adopting the circular economy model and transiting to hydrogen-based economy. The transition can be underpinned by nanotechnology as an enabler in realizing the vision of sustainability. In this talk, the concept of hydrogen production through water splitting using photocatalyst based on nanostructured materials will be presented. The outcomes from the simulation and experimental works will be elucidated and the way forward in realizing this concept as a viable technology will be discussed.



Ts. Dr. Mohamed Shuaib Mohamed Saheed obtained his PhD in Electrical & Electronics Engineering from Universiti Teknologi PETRONAS (UTP) in 2014. He has secured several national and international grants as the principal investigator and authored more than 80 journal articles, conference proceedings, and book chapters. His research interests are mainly on the development and study of nanomaterials and photocatalyst such as CNT, graphene, MXene, TiO₂ and hybrids for various applications in sensors (strain, gas, bio-), water remediation (oil, dye, heavy metals, organic solvents absorption/adsorption), and hydrogen production (modelling and experimental work). He is currently the head of Centre of Innovative Nanostructures and Nanodevices (COINN), UTP.

IEM STUDENT : FOC
IEM MEMBER : RM 15
NON-IEM MEMBER: RM 70



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