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WEBINAR

TALK ON RESHAPING THE WORLD AT 10^{-9}: THE NANO-MAN REVOLUTION IN EVERYDAY LIFE

Organised by:
Material Engineering Technical Division, IEM

WITH :
TS DR YEAP SWEE PIN
SPEAKER

21 FEBRUARY,2025
AT 3 PM - 5 PM

BEM Approved CPD: 2 Hours
CPD Ref.No.: IEM25/HQ/006/T (w)

Registration fee

Student Member: Free
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SYNOPSIS

How small do you need to be to be considered a nano-man? This session explores the fascinating world of nanoparticles—tiny materials ranging from 1 to 100 nanometers in size—and their remarkable properties. Participants will learn how these minuscule particles are revolutionizing industries. Topics include the magnetic responsiveness of iron nanoparticles in environmental engineering, the antibacterial capabilities of silver nanoparticles for medical applications, and the photocatalytic properties of titanium dioxide nanoparticles enabling self-cleaning windows. The talk also highlights innovative uses such as hydrophobic nanoparticles for cleaning oil spills, carbon nanotubes for lightweight and robust materials, and nanotechnology's role in enhancing solar cells and electronic devices. The session also addresses crucial concerns about nanotoxicology, exploring how nanoparticles interact with biological systems, their potential risks, and ongoing research to ensure safe applications. Packed with insights into cutting-edge innovations and practical applications, the webinar offers a comprehensive overview of how nanotechnology is reshaping our world.

SPEAKER'S BIODATA

Dr. Yeap Swee Pin is currently an Associate Professor in the Department of Chemical and Petroleum Engineering, Faculty of Engineering, Technology & Built Environment at UCSI University. He obtained both his Bachelor's and Ph.D. degrees in Chemical Engineering from Universiti Sains Malaysia in 2011 and 2016, respectively. With over 13 years of experience in nanoscience research, Yeap has established himself as an expert in the synthesis and functionalization of nanomaterials. His research interests span several critical areas of nanotechnology, including the evaluation of colloidal stability of nanomaterials and the development of flexible nanosensors using conductive nanomaterials and conductive polymeric materials. In addition to these focus areas, his research also explores the application of nanotechnology for wastewater treatment and pollutant sensing. This includes developing advanced nanomaterials that can effectively remove contaminants from water, addressing critical environmental challenges. As part of his ongoing contributions to sustainability, Yeap co-founded the UCSI-Cheras Low Carbon Innovation Hub, where he plays a key role in promoting research and initiatives aimed at reducing carbon footprints through innovative engineering solutions. In addition to the research profile, Yeap has earned the professional titles of CEng, EUR ING, and Ts., awarded by the Institution of Engineering and Technology (IET), the European Federation of National Engineering Associations (FEANI), and the Malaysia Board of Technologists (MBOT), respectively.