

WEBINAR

Talk on Advancing Barrier Performance in Cellulosic Materials: Challenges, Innovations, and Pathways to Sustainable Packaging

Organised by: Material Engineering Technical Division (MaTD), IEM

25 APRIL 2025, FRIDAY

3:00 PM - 5:00 PM

WITH

Prof. Ts. Dr. Hakimah Osman

*BEM Approved CDP: 2 Hours
Ref. No.: IEM25/HQ/064/T (w)*



Registration fee
Student Member: Free
IEM Member: RM15.00
Non-Member: RM70.00

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SYNOPSIS

The global push for sustainable packaging solutions has placed cellulosic materials at the forefront of innovation due to their renewable and biodegradable nature. However, achieving optimal barrier performance such as resistance to moisture, oxygen, and grease remains a significant challenge in replacing conventional plastics. This webinar will explore the latest advancements, challenges, and innovative strategies in enhancing the barrier properties of cellulosic materials.

The session will delve into cutting-edge research on functional polymers derived from natural resources and biomass, highlighting their potential in creating high-performance, eco-friendly packaging. Additionally, the webinar will address the pathways to commercialization, including collaborative efforts with industry partners to scale up green technologies for the food and beverage (F&B) packaging sector.

This session is a must-attend for professionals, researchers, and stakeholders in materials science, packaging, and sustainability who are keen to explore the future of eco-conscious packaging solutions

BIODATA SPEAKER

Prof. Dr. Hakimah Osman received her degrees from Bachelor Degree, Master in Science, and PhD in Polymer Technology and Polymer Engineering from Universiti Science Malaysia. After graduation, she served Universiti Malaysia Perlis (UniMAP) from 2009 until now. Her areas of expertise include utilizing natural resources and biomass for value-added products and functional polymers in elastomer, latex, thermoplastic, thermoset, and thermoplastic elastomer. She mentors and trains young lecturers in chemical and polymer engineering on how to get grants from industry, in addition to her primary responsibilities as a researcher and lecturer. She was the recipient of numerous grants for fundamental, applied, and pre-commercialization work from the university, government, international organizations, and industries. She recently collaborated with Super Silica Bangladesh to produce "Super Carbon" and use it in various rubber. Soon, a research project of hers about a green binder will be ready for large-scale manufacturing in F&B packaging industry. She was chosen to receive Malaysia Best Young Women Scientists by L'Oreal Malaysia in 2012. In 2015, she was chosen to receive a full sponsorship by NanoMalaysia – IBM Almaden Research Centre, California, USA to do research on Starpolymer for Coating Applications with 99.9% antimicrobial function.