

WEBINAR TALK

BIOMATERIALS & TISSUE ENGINEERING: THE ROLE OF MATERIALS ENGINEERS IN ADVANCING BIOMATERIALS FOR BONE TISSUE ENGINEERING

Presented by:

**Profesor Madya Ts. Dr. Yanny
Marliana Binti Baba Ismail**



6 MAY 2026, WEDNESDAY

2.30PM - 4.30PM



Registration Fees:

Student Members : Free

IEM Members : RM 15.00

IEM Non Members : RM 70.00

Click here to Register: www.myiem.org.my

**BEM Approved CPD: 2
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SYNOPSIS

Materials engineers play a pivotal role in the development of next-generation biomaterials for bone tissue engineering (BTE), bridging fundamental materials science with clinical needs in regenerative medicine. This webinar explores how materials engineers contribute to designing bioactive ceramics and hybrid biomaterials that can support bone regeneration through controlled composition, microstructure, porosity, and ion release. Drawing from recent advances in bioceramics such as akermanite and carbonated hydroxyapatite, the session will highlight how materials design principles influence biological responses including osteogenesis and immunomodulation. The talk will also discuss practical considerations in scaffold fabrication, mechanical reliability, and biological responses. Through real research examples and insights from interdisciplinary collaborations, this session aims to inspire both students and practicing engineers to appreciate the expanding role of materials engineering in shaping the future of regenerative

SPEAKER'S BIODATA

Ts. Dr. Yanny is an associate professor in Materials Engineering at the School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia (USM), where she has served for almost a decade and specializes in advanced materials, particularly biomaterials for medical and dental applications. After completing her Ph.D. in Biomedical Engineering at Keele University, United Kingdom, in 2016, she became a registered graduate engineer with the Board of Engineers Malaysia, a professional technologist (Ts) in materials science under the Malaysia Board of Technologists, and an affiliate of both the Malaysia Biomaterial Society and the Young Scientists Network under the Academy of Science Malaysia. Her career is marked by prestigious honors, including the L'Oréal-UNESCO For Women in Science 2024 and the Merdeka Award Grant for International Attachment 2019, sponsored by Petronas, Shell, and ExxonMobil. In 2022, she completed a three-month academic attachment as a visiting scholar at Newcastle University and Nottingham Trent University, United Kingdom. She was also selected as the USM representative for the DIES National Multiplication Trainings (NMT) for Early Career Academics 2023/2024 organized by DAAD, Germany.