



# IEM

The Institution of Engineers, Malaysia

## ACADEMICIAN DATO' Ir. PROF DR. CHUAH HEAN TEIK ENGINEERING EDUCATION PRESTIGE LECTURE SERIES 2024

# Engineering a Sustainable Future: Integrating UN Educational Sustainable Development Goals in Engineering Education

Organised by:

Engineering Education Technical Division, IEM

BEM Approved CPD: 2

Ref no: IEM24/HQ/517/L



**23 NOVEMBER 2024, SATURDAY**



**9.00AM - 11.00AM**



**WISMA IEM, PETALING JAYA**

**SPEAKER:**

**Ir. Prof. Dr. RAJKUMAR DURAIRAJ**



### REGISTRATION FEE :

**IEM STUDENT : FOC**

**IEM MEMBERS: RM15**

**NON IEM MEMBERS: RM70**

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## SYNOPSIS

This talk delves into the integration of UN Educational Sustainable Development Goals (ESG) within engineering education, exploring how these goals can shape sustainable and socially responsible engineering practices. The discussion will highlight the benefits of incorporating ESG principles, including the development of well-rounded graduates equipped to address environmental and societal challenges through engineering solutions. It will also examine potential drawbacks, such as the risk of reducing the focus on core technical content and the challenge of embedding complex, interdisciplinary ESG topics into an established engineering curriculum.

A key focus will be on how ESG integration can help engineering programs meet essential graduate attributes, such as ethical responsibility, sustainability awareness, and global citizenship, as well as core competencies like problem-solving, teamwork, and effective communication. The talk will address challenges, including developing effective ESG-based teaching methods, preparing faculty to deliver this content, and assessing student achievement in both technical and ESG-related outcomes.

Finally, the session will consider the future direction of engineering education, emphasizing the importance of a cohesive strategy that integrates industry collaboration, policy support, and cross-disciplinary learning. This approach aims to ensure that engineering graduates not only possess technical expertise but are also prepared to contribute meaningfully to the global Sustainable Development Goals (SDGs).

## SPEAKER'S PROFILE

Ir. Professor Dr. Rajkumar Durairaj currently serves as the Dean responsible for Academic Quality Assurance and Audit at the Division of Quality Assurance and Audit, Universiti Tunku Abdul Rahman (UTAR). Additionally, he is the Associate Director in the Engineering Accreditation Department (EAD) of the Board of Engineers Malaysia (BEM). He holds a BEng (Hons) in Manufacturing Engineering from the University of Salford, UK, and a PhD in Electronics Manufacturing from the University of Greenwich, UK.

He has served as the Head of the Department of Mechanical and Materials Engineering and as Chairman for University Accreditation Committee. Prof. Rajkumar has contributed his expertise to the academic community in various roles, including external assessor, professional mentor, external examiner, advisor, and member of engineering accreditation panels. He is currently a Visiting Professor at OTH Regensburg, Germany. Furthermore, he served as the Chairman of the Young Members Section for the Malaysian Branch of the Institution of Mechanical Engineers, UK, and held the role of Chairman for the Examination, Certification, and Accreditation Panel (ECAP) at the Institute of Materials Malaysia (IMM).

Prof. Rajkumar has been recognized for his contributions to engineering education. He has received the UTAR Research Excellence Award, the Young Members Award from the Institution of Mechanical Engineers, UK, and the Wighton Titular Fellowship of Engineering from the Association of Commonwealth Universities, United Kingdom. He is a registered Professional Engineer with the Board of Engineers Malaysia and a Corporate Member of The Institution of Engineers, Malaysia (IEM). In 2022, he was elected as a Fellow of the ASEAN Academy of Engineering and Technology (AAET).

# PROGRAMME

TIME	DESCRIPTION
08:15 – 08:45 am	Registration of Participants
08:45 am	Arrival of Prestige Speaker, Ir. Professor Dr. Rajkumar Durairaj
9.00 am	Welcome Speech by Chairman Engineering Education Technical Division, Ir. Ts. Dr. Dhakshyani Ratnadurai
09:05 am	Opening Speech by IEM President, Ir. Prof. Dr. Jeffrey Chiang Choong Luin
09:10 – 10:30 am	Prestige Lecture Series by Ir. Professor Dr. Rajkumar Durairaj
10:30 – 11:00 am	Q & A Session
11:00 am	Presentation of Token of Appreciation by the President of IEM to Ir. Professor Dr. Rajkumar Durairaj

Ir. Ts. Dr. Dhakshyani Ratnadurai  
Chairman  
Engineering Education Technical Division  
Session 2024/2025