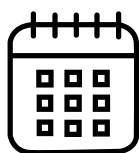


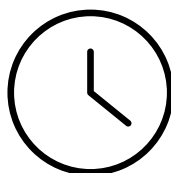
WEBINAR TALK ON **SAFETY BY DESIGN: THE EVOLUTION OF NUCLEAR SAFETY**

SPEAKER:

Dr. Azrudi Mustapha



21 November 2026



9 AM – 11 AM

Registration Fees

IEM Students : Free

IEM Members : RM 15

Non-IEM Members : RM70

BEM Approved CPD: 2

Ref. No.: IEM26/HQ/509/T(w)

SYNOPSIS

For decades, the primary hurdle for nuclear energy adoption has been the public perception of risk. However, the engineering paradigm has fundamentally shifted from reactive containment to proactive prevention. This session explores the paradigm shift from traditional, active safety systems - which rely on human intervention, external power, and complex mechanical triggers - to modern inherent and passive safety features. Using examples from Next-Generation Reactor concepts and Small Modular Reactors (SMRs), the talk will demonstrate how modern nuclear technology utilises the laws of physics (such as gravity, natural circulation, and negative feedback coefficients) to safely shut down and cool a reactor without human intervention or electrical power. Attendees will gain a comprehensive overview of how "Safety by Design" is reshaping the regulatory landscape, mitigating risks, and repositioning nuclear power as a secure, foundational pillar for a zero-carbon future.

SPEAKER'S BIODATA

Dr. Azrudi Mustapha is a clean energy strategist and nuclear engineer dedicated to advancing Malaysia's sustainable energy transition. He is the Founder and Managing Director of Clean Energy Xpeditions (CENERGY), a small modular reactor design company. He is also the Chairman of the MSB Global Group Bhd. Dr. Azrudi brings over two decades of experience in power sector, where he specialised in grid planning, engineering asset management and power generation. He also served with MyPOWER Corp, an agency of the Ministry of Energy (MESTECC, KeTSA, PETRA), playing a key role in the Malaysian Electricity Supply Industry (MESI) 2.0 market reform, and later with as a nuclear energy consultant. A recognised expert in next-generation power technologies, he holds a PhD in Nuclear Thermalhydraulics from Imperial College London. Dr. Azrudi is a frequent speaker and technical advisor on energy markets, nuclear safety, nuclear power technology & infrastructure assessment, and energy philosophy.