THINK
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INTRODUCTION TO NUCLEAR ENERGY SYSTEMS

A GLOBAL PERSPECTIVE ON STATUS, ESSENTIALS, AND OPPORTUNITIES

4 JUNE 2025 WED

9.00 AM - 6.00 PM

VENUE TBC

PEB CPD PENDING APPROVAL

S$2,000 W/GST

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ASEAN's Nuclear Energy talks — what's in it for you?

Join us for a 1-day intensive course with world-renowned MIT expert Michael Short and gain a clear picture of technical, regulatory and organisational requirements for entering the nuclear sector. Bring actionable insights and recommendations to enter the Nuclear ASEAN value chain.

Nuclear energy isn't the future — it's the now. Are you ready?

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HIGHLIGHTS

DEBUNKING MYTHS OF NUCLEAR ENERGY

Uncover the truth behind nuclear power and dispel common misconceptions about accidents like Chernobyl and Fukushima, radiation dose, and data interpretation.

LIGHT WATER REACTOR DESIGN AND OPERATION

Explore the design features and operation of the three main reactor types worldwide (PWR, BWR, VVER).

MATERIALS SCIENCE FOCUS

Discover how materials science ensures safe nuclear operation by reviewing corrosion, material properties, and life extension measurements.

SMALL MODULAR REACTORS

Get a sneak peek at the future of nuclear with small modular reactor (SMR) designs.

LIFE EXTENSION OF REACTORS

Learn how materials data, including Charpy impact tests and DBTT, is used to extend reactor life.

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SPEAKERS

MICHAEL SHORT

MIT: PROFESSOR OF NUCLEAR SCIENCE & ENGINEERING

Michael Short is an Professor of Nuclear Science and Engineering at the Massachusetts Institute of Technology (MIT) in Cambridge, MA, USA, an Adjunct Senior Principal Scientist II in IMRE at A*STAR in Singapore, and the Distinguished Professor of Fusion Technology at ST Engineering in Singapore. His group has spent over a decade investigating coupled materials effects impeding the rapid expansion of carbon-free baseload energy, with an emphasis on materials for nuclear power. Of particular interest to Prof. Short's group are the simultaneous effects of irradiation and corrosion present in nuclear plants, materials to enable the first fleet of commercial fusion reactors, and stopping corrosion in nuclear and geothermal energy systems. Prof. Short holds four degrees from MIT in Nuclear Science & Engineering and Materials Science & Engineering.

MATTHEW CHEW

DIGITAL TWIN SYSTEM ARCHITECT, HY M&E CONSULTANCY PTE LTD

Matthew Chew offers a uniquely comprehensive perspective, built upon a strong engineering bedrock from NUS (BEng and MEng) and augmented by business acumen and specialized nuclear knowledge from MIT (MBA, MSc in Nuclear Science and Engineering). His professional journey spans hands-on experience in radiation detection and imaging, and the development of enterprise systems at Singapore's Home Team Science & Technology Agency. Furthermore, he has applied his strategic thinking to the energy sector, consulting on microreactor deployment for major industry players such as Caterpillar. This diverse background, blending deep technical understanding with strategic business insights, positions him as a compelling and knowledgeable speaker.

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