



# 34th ANNUAL PROFESSOR CHIN FUNG KEE MEMORIAL LECTURE

# To be delivered by:

## Prof. Dr. Yasuo Tanaka

Adjunct Professor, Department of Civil Engineering, Faculty of Engineering and Science Sungai Long Campus, Universiti Tunku Abdul Rahman (UTAR)

on the subject of

# ENGINEERING AND SCIENCE FOR EARTHQUAKE DISASTER REDUCTION

BEM APPROVED CPD HOURS: 2 REF NO: IEM24/HQ/440/L (W)

SATURDAY, 16 NOVEMBER 2024 10.00AM - 12.00PM

**ZOOM WEBINAR** 



#### **REGISTRATION FEE**

IEM MEMBERS: RM10

**ENGINEERING GRADUATES** 

**ALUMNI ASSOCIATION, UM** 

MEMBERS: RM10

**NON IEM MEMBERS:** 

**RM25** 

# Ir. Yau Chau Fong

Organising Chairman

Academician Tan Sri Dato Seri Ir. Prof. Emeritus Dr. Chuah Hean Teik & Ir. Dr. Chan Sin Fatt

Advisors

Jointly organised by:

The Institution of Engineers, Malaysia

and

Universiti Malaya Engineering Alumni Association (2017)

### SYNOPSIS OF LECTURE

This lecture presents how experiences of earthquake events in Japan and around the world have promoted the development of engineering and social sciences to mitigate and reduce earthquake disasters. The Great Hanshin-Awaji Earthquake in Japan in 1995, the Indian Ocean Earthquake and Tsunami in Indonesia in 2004, and the Great East Japan Earthquake and Tsunami in 2011 are examples of significant earthquake events discussed in this presentation. Given the writer's background as a geological engineer and a teacher in civil engineering, this lecture aims to provide engineering students and young engineers with knowledge and inspire them to pursue further studies and skill development in their professions.

The content of this lecture is broadly divided into two parts. The first part focuses on engineering knowledge related to earthquake phenomena and the development of earthquake geotechnical engineering necessary to ensure the safety of foundations and grounds for constructing buildings and infrastructure. The second part presents a more holistic approach to earthquake disaster reduction through combined efforts among engineers and social scientists, commonly known as Disaster Risk Reduction (DRR). It also provides information on how the DRR approach has evolved globally to address various disasters worldwide.

At the end of the lecture, there will be an open discussion on the role of engineers in tackling global issues, as the world currently faces more complex and cascading disasters, including those caused by earthquakes and other factors.

# SPEAKER'S PROFILE

Prof. Dr. Yasuo Tanaka is a renowned Japanese professor and researcher specializing in geotechnical engineering and disaster risk reduction. His work primarily focuses on various geotechnical behaviours of soft ground under hazardous loadings, such as ground improvements, liquefaction, and site investigations. He is affiliated with a top university in Japan and has published numerous papers in leading scientific journals, contributing significantly to technological innovation and the practical application of advanced soil mechanics and geotechnologies.

Prof. Tanaka is recognized for his ability to bridge academia and industry, advancing research that addresses contemporary challenges in applying modern laboratory and field testings. His contributions have made him a prominent figure in his field, known for driving forward the boundaries of technology in both research and real-world contexts.