

# The Institution of Engineers, Malaysia

# (Southern Branch)

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Half-Day Talk on "Effect of Using Malaysian National Annex for Seismic Design and The Seismic Fragility of Buildings in Malaysia"

Date : Saturday, 6<sup>th</sup> April 2019

Venue : IEM (Southern Branch) Training Centre, 24-B Jalan Abiad, Taman Tebrau Jaya, Johor Bahru Speaker : Dr. Mohammadreza Vafaei, School of Civil Engineering Universiti Teknologi Malaysia

#### **Synopsis**

Malaysian National Annex to Eurocode 8 was released in the beginning of 2017 and now buildings in Malaysia are required to be designed for seismic actions. One main concern in Malaysia regarding the design for seismic forces is the increase in the quantity of reinforcement bars specially when compared with the conventional design (i.e. designing only for gravity loads). In this talk, at first, a short introduction will be given to the fundamentals of seismic design and then a critical review will be conducted on the Malaysian national annex for seismic design. Next, the results of a series of comparative studies that show the percentage increase in the quantity of reinforcement bars when designing buildings based on Malaysian national annex for seismic forces will be presented. In the second part of this talk, seismic vulnerability of existing buildings in Malaysia will be discussed through the framework of fragility curves. Finally, the available solutions for the seismic retrofit of vulnerable structures will be explained.

The objective of the talk is to give a better understanding for our young engineers and practicing engineers to get some insight on the above topic.

Time	Programme Tentative
8.30 a.m 9.00 a.m.	Registration
9.00 a.m. – 9.10 a.m.	Welcome Speech By IEM (SB) Organising Committee
9.10 a.m. – 10.30 a.m.	- Session 1: Effect of Using Malaysia National Annex for Seismic Design
10.30 a.m 10.45 a.m.	Coffee Break
10.45 a.m 12.30 p.m	- Session 2: Seismic Fragility of Buildings in Malaysia
12.30 p.m 1.00 p.m.	- Discussion
	- Questions & Answers Session
1.00 p.m.	End

#### **Speaker Biodata**

**Dr. Mohammadreza Vafaei** is currently a Senior Lecturer in the Faculty of Engineering, School of Civil Engineering, Universiti Teknologi Malaysia (UTM). He received his Bachelor and Master's degree from Iran in 2000 and 2004 and obtained his PhD from Universiti Teknologi Malaysia in 2013. Soon after his graduation he was awarded a post-doctoral fellowship from Universiti Teknologi Malaysia. Dr. Vafaei is an active member of American Society of Civil Engineering (ASCE) and Earthquake Engineering Research Institute (EERI, USA). As a professional engineer that has served several consultant companies, he has led seismic design of many structures including tall residential and office buildings, airport terminals, air traffic control towers, lattice telecommunication towers, bridges, water reservoirs and monumental structures. During past years, Dr. Vafaei has served as the scientific committee of many international conferences and has been the member of editorial boards of scientific journals like The Open Civil Engineering Journal. He has been also selected as the keynote speaker for three international conferences and has been invited as the speaker for many national seminars and workshops. Dr. Vafaei has more than 45 publications in the referred journals and conferences.

## **Participant Fees:**

Grade	Online	Normal
IEM Corporate Member &	RM 120.00	RM 140.00
Graduate Members (30 years and above)		
IEM Senior Members (60 years and above)	RM 100.00	RM 120.00
IEM Graduate Members (Below 30 years)	RM 100.00	RM 120.00
IEM Student Members	RM 60.00	RM 80.00
Non-Member	RM 200.00	RM 220.00

Closing Date: 29th March 2019

Registration will be on a first-come-first-serve basis. Kindly return the Reply Slip to the IEM (SB) office before 29th March 2019 together with a non-refundable cheque for the participant fees made payable to The Institution of Engineers, Malaysia (Southern Branch). Alternatively, you could bank-in the participant fees into the Institution's Maybank Current Account (No. 5-013920-15708), and to facsimile both the Bank-in and Reply Slips to the Institution. The Institution requests all members cooperation in ensuring fees are paid in advance to the seminar. Please also be reminded that fees will not be refunded to absent participants who have paid, and to also note that all reservations must be paid despite participant cancellations. Thank you for your continuous support of the Institution.

Chairman, Sub-Committee on Seminar and Technical Talk, IEM (SB)

#### REPLY SLIP

BEM Approved CPD/PDP HOURS: 4 Ref No: IEM19/SB/099/T

To: Hon. Secretary, The Institution Of Engineers, Malaysia (Southern Branch) FAX: 07 - 331 9710

# Half-Day Talk on "Effect of Using Malaysian National Annex for Seismic Design and The Seismic Fragility of Buildings in Malaysia"

Saturday, 6th April 2019, 9.00 a.m. – 1.00 p.m. at the IEM (Southern Branch) Training Centre, Johor Bahru

I wish to attend the above talk. I enclosed herewith a cheque payment for the seminar fee.		
Name of Member:	Membership No:	
I/C No:		
Address:	Tel (O):	Fax :
	Tel (H/P):	
	E-mail:	
Company's Name:		
Signature:	Date:	

**Note:** For IEM members, membership cards should be presented for identification purpose. Failure to present the card, one will be declared as a non-IEM member and he/she will be required to pay the non-IEM member fee.

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