

**REGISTRATION FORM****1-DAY SEMINAR ON  
"SEISMIC ASSESSMENT & RETROFITTING OF EXISTING RC  
STRUCTURES"****11<sup>TH</sup> MAY 2018**

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No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
ADD 6% GST				
<i>Total Payable</i>				

**PAYMENT DETAILS :**
 Cash RM \_\_\_\_\_

 Cheque no. \_\_\_\_\_ for the amount of RM \_\_\_\_\_ (non refundable) and made payable to "THE INSTITUTION OF ENGINEERS, MALAYSIA" and crossed 'A/C Payee Only'.

**FULL PAYMENT must be settled before commencement of the seminar**, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. The Registration Fee includes lecture notes, refreshment and lunch.

For **ONLINE REGISTRATIONS**, please note that payment **MUST** be made **BEFORE** the closing date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Contact Person: \_\_\_\_\_ Designation: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Address: \_\_\_\_\_

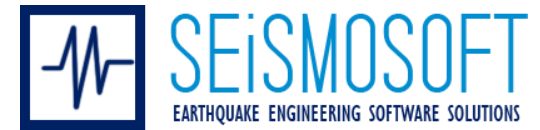
Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

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Signature & Stamp\_\_\_\_\_  
Date**For further details, kindly contact:**

The Institution of Engineers, Malaysia  
Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan)  
46720 Petaling Jaya, Selangor

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**1-DAY SEMINAR ON  
"SEISMIC ASSESSMENT & RETROFITTING OF  
EXISTING RC STRUCTURES"**
**SPEAKER ;  
Dr. Stelios T. Antoniou**
**Date : 11<sup>th</sup> MAY 2018 (Friday)**  
**Venue : ARMADA HOTEL, Petaling Jaya, Selangor**  
**Time : 8.30 a.m. – 6.00 p.m.**
**BEM Approved CPD/PDP Hours: 6.5 Ref : IEM18/HQ/134/S**

**Organised and Hosted by**  
**Civil and Structural Engineering Technical Division,**  
**The Institution of Engineers, Malaysia**  
**In Collaboration with**  
**Wallingford Consultancy Services (M) & SEISMOSOFT Ltd (Italy)**

Registration Fee (SUBJECT TO 6% GST)	
	ONLINE / NORMAL (MYR)
IEM Student Members	100.00
IEM Graduate Members	160.00
IEM Corporate Members	200.00
Non-IEM Members	300.00
<i>*GST is implemented effective from 1<sup>st</sup> April 2015</i>	

**Closing Date: 09 MAY 2018****NO online registration will be allowed after the closing date****Cancellation Policy**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund less 30% if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

**Personal Data Protection Act**

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at <http://www.myiem.org.my> and I agree to IEM's use and processing of my personal data as set out in the said notice.

## SYNOPSIS

This content-rich workshop covers the seismic assessment and retrofitting of existing reinforced concrete (RC) building structures as per the Eurocode 8: Part 3. The presentation begins with the general overview of EC 8 on seismic design and assessment. Consideration on seismic basic design and principle to EC 8 will be covered briefly in the presentation with different procedures between seismic design and assessment explained.

The different methods of analysis (linear and nonlinear), including nonlinear static pushover and dynamic analysis, commonly used for seismic design and assessment of RC structures shall be discussed along with their advantages and disadvantages. There will be a brief description on performance-based engineering with guidelines on how to select the appropriate method of analysis. In addition, the approaches of modelling on different structural elements will also be highlighted.

Actual case studies of several strengthening projects with different techniques will be presented, and the criteria for the selection of the strengthening interventions strategy will be explained. The evaluation of different seismic retrofitting solutions in terms of their structural responses shall be thoroughly explained. An example to illustrate the assessment of a RC building using SeismoBuild software will be provided at the end of the workshop.

## WHO SHOULD ATTEND

This workshop is suitable for practicing civil and structural engineers, graduate engineers, engineering students and academics who wish to enhance their knowledge and understanding on the seismic assessment and retrofitting of existing RC structures.

## ABOUT THE SPEAKER

**Dr. Stelios T. Antoniou**  
**PhD, MSc (Imperial), DIC, Dipl**

**Stelios Antoniou** is a co-founder and the Managing Director of SEISMOSOFT Ltd. ([www.seismosoft.com](http://www.seismosoft.com)), a company that specialises in the development of state-of-the-art tools for the non-linear analysis, the assessment and strengthening of structures, and the processing of strong-motion data. Simultaneously, he is the CEO and Head of the Seismic Repair and Strengthening Section of ALFAKAT S.A. ([www.alfakat.gr](http://www.alfakat.gr)), a company with significant experience in the design and construction of private and public works, with particular emphasis on strengthening and retrofitting projects against seismic loads.

He is a graduate from the Civil Engineering Department of the National Technical University of Athens (N.T.U.A.), and holds a PhD in Earthquake Engineering from Imperial College, London. He has several publications in scientific journals, European and World Conferences on various subjects related to Earthquake Engineering.

## Tentative Seminar Schedule & Outline

08:30 - 09:00	<b>Registration of Participants</b>
09:05 – 10:30	<b>Session 1: Brief Overview of EC 8 on Design and Assessment</b> <ul style="list-style-type: none"><li>❖ Overview to Seismic Design and Assessment Based on EC 8</li><li>❖ Seismic Design Consideration and Principle to EC 8</li></ul>
10:30 – 10:55	Morning Tea Break
11:00 – 12:30	<b>Session 2: Analytical Techniques &amp; Modelling of RC Structures</b> <ul style="list-style-type: none"><li>❖ Methods of analysis for the Seismic Design &amp; Assessment</li><li>❖ Modelling of RC structures</li></ul>
12:30 – 2:20	Lunch & Break for Friday Prayer (for Muslim)
2:30 – 3:30	<b>Session 3: Analytical Techniques for Seismic Assessment &amp; Retrofit of RC Structures</b> <ul style="list-style-type: none"><li>❖ Structural Analysis for the Assessment &amp; Retrofitting of RC Structures</li><li>❖ Nonlinear Static Pushover and Nonlinear Dynamic Analysis</li></ul>
3:35 – 3:50	Afternoon Tea Break
3:55 – 5:45	<b>Session 4: Strengthening &amp; Retrofitting of RC Building Structures</b> <ul style="list-style-type: none"><li>❖ Evaluation of Different Seismic Retrofitting Solutions</li><li>❖ Strengthening Interventions Strategy (with Practical Examples)</li><li>❖ Work Example with SeismoBuild</li></ul>
5.45 – 6:00	Feedback / Questionnaires End of Workshop