





## HALF-DAY SEMINAR ON "STRENGTHENING OF STRUCTURES WITH COMPOSITE MATERIALS AND HPC TECHNOLOGY"

SPEAKERS:

# **MR. GIULIO MORANDINI**



Organised and Hosted by Civil and Structural Engineering Technical Division, The Institution of Engineers, Malaysia

### In Collaboration with Mapei Malaysia Sdn Bhd

### **Cancellation Policy**

No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days prior notification and substitute will be charged according to membership status.

### Personal Data Protection Act

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"IEM reserves the right to alter or cancel the programme due to unforeseen circumstances at its discretion'. For intending participants who choose to 'walk in without prior registration', IEM SHALL NOT be responsible for any direct or consequential losses".

## **SYNOPSIS**

Externally-applied FRP reinforcement for concrete structures is widely used to upgrade structures for change of use, or to allow structural modifications, or to remedy errors in design or construction, etc. Retrofitting has also proven to be an excellent option for making existing structures safe against seismic shocks, severe weather, and other environmental attacks, and to satisfy the requirements of revised design codes. The use of composites technology is now commonplace.

The speaker will present various types of FRP systems for structural strengthening work e.g. FRP fabrics, pultruded FRP plates and rods which are available in various materials (carbon, glass & basalt) with different weights, sizes and elastic moduli to suit different applications. He will also discuss the relevant codes and industry standards for the use of composites.

Besides composites, the use of high-performance concrete technology for strengthening will also be reviewed by looking at the testing and application of fibre-reinforced, high-ductility mortars with free-flowing workability for enlarging structural members without the need to add steel reinforcement.

# **SPEAKER**



**Mr Giulio Morandini** graduated with a degree in Civil Engineering from the Polytechnic of Milan and specialized in the strengthening and reinforcement of existing buildings. He has been with Mapei for 16 years and has been the Corporate Product Manager of the company's Structural Strengthening Line since 2006.

He has collaborated in the writing of the Italian Guidelines for Structural Reinforcement of the CNR (Italian National Research Council) with composite materials (FRP) on masonry and concrete buildings (CNR DT 200/2004), steel buildings (CNR DT 201/2005) and wooden buildings (CNR DT 202/2005).

He also recently contributed to the writing of the new Italian guidelines for Structural Reinforcement of the CNR (Italian National Research Council) with fibre-reinforced cementitious matrix composite materials (FRCM) on masonry and concrete buildings (CNR DT 215/2018). Since 2008 he has been a member of the Steering Committee of Assocompositi (the Italian Industry Association for Composite Materials) which represents the Italian Division of EUCIA (European Composites Industry Association).

He is co-author of more than 15 essays and dissertations concerning the strengthening of existing masonry and concrete buildings with FRP and FRG composite materials. He has actively taken part in the study and implementation of more than 200 projects for the strengthening with composite materials of buildings damaged after earthquakes in Italy (Umbria-Marche in 2002, Salò in 2004, L'Aquila in 2009, Emilia in 2012, Marche in 2016) and abroad (New Zealand in 2011, Lorca – Spain in 2011).

Since 2018 he has been also a member of the board of American Concrete Institute – Italy Chapter.

## PROGRAMME

TIME	PROGRAMME	Presented By
0830 – 0900	<b>Registration of Participants</b> Welcome Refreshment	
0900 – 0915	Welcoming Remarks by Chairman, Civil and Structural Engineering Technical Division (CSETD), Ir. Chong Chee Meng	
0915 – 1015	<ul> <li>Session 1:</li> <li>FRP systems for structural strengthening works</li> <li>Definition of FRP Systems</li> <li>Relevant codes and industry standards for the use of composites.</li> <li>Applications of FRP systems – Case studies</li> </ul>	Mr. Giulio Morandini
1015 – 1030	Q&A Session 1	
1030 – 1100	Morning Tea Break	
1100 – 1200	<ul> <li>Session 2:</li> <li>High Performance Fiber Reinforced Cementitious Concrete</li> <li>Applications of high performance fiber reinforced cementitious concrete</li> <li>Case studies</li> </ul>	Mr. Giulio Morandini
1200 – 1215	Q&A Session 2	
1215 – 1315	Break for Lunch	
<b>1315</b>	End of Seminar	

\* IEM reserves the right to postpone, reschedule, allocate or cancel the course.

### **REGISTRATION FORMS**

#### HALF DAY SEMINAR ON

### "STRENGHTENING OF STRUCTURE WITH COMPOSITE MATERIALS AND HPC TECHNOLOGY" ORGANISED BY CIVIL AND STRUCTURAL ENGINEERING TECHNICAL DIVISION (CSETD) 08<sup>TH</sup> NOVEMBER 2019

Fax: 03 – 7957 7678 Email: shahrul@iem.org.my

**REGISTRATION FEE (Subject to 6% SST – Effective 1<sup>st</sup> March 2019)** 

	ONLINE / NORMAL FEE (RM)
IEM Members	50.00
Non Members	70.00

No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
ADD 6% SST				
Total Payable				

#### PAYMENT DETAILS :

Cash RM

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Cheque no. for the amount of RM (non refundable) and made payable to "THE INSTITUTION OF ENGINEERS, MALAYSIA" and crossed 'A/C Payee Only". Bank Account No. : 640320010020215, Bank Name: Alliance Bank Malaysia Berhad. (SHOULD PAYMENT IS MADE, KINDLY EMAIL THE 'BANK-IN-SLIP' TO IEM FOR VERIFICATION BEFORE THE EVENT FOR EASY REGISTRATION)

<u>FULL PAYMENT</u> 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 <u>ONLINE REGISTRATIONS</u>, 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. :	_(0)	Fax No : (O	)	
Handphone :	_(HP)	Email:		
Signature & Stamp		Date		
TERMS & CONDITIONS:				

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via RHB and Maybank2u Personal Saving & Personal Current ; Credit Card -Visa/Master.
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK -IN will be considered as NORMAL REGISTRATION
- The Organising Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the
  registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as
  possible so as to avoid disappointment.

For further details, kindly contact: The Institution of Engineers, Malaysia

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