

**TECHNICAL TALK ON**  
**“ELASTOMERIC POLYMERS FOR PROTECTIVE APPLICATION OF CONCRETE STRUCTURES SUBJECTED TO IMPULSIVE LOADINGS”**

Organised by the Civil and Structural Engineering Technical Division (CSETD)  
**BEM Approved CPD/PDP: 2 Hours Ref : IEM19/HQ/279/T**

**Date** : 10 October 2019 (Thursday)  
**Time** : 5.30 p.m. – 7.30 p.m.  
**Venue** : Tan Sri Prof Chin Fung Kee Auditorium  
3<sup>rd</sup> Floor, Wisma IEM,  
Petaling Jaya, Selangor  
**Speaker** : **Assoc. Prof. Dr. Sudharshan N. Raman**  
*PhD, MASCE, MACI*

**SYNOPSIS**

Infrastructures across the globe are facing increased risk of extreme impulsive loadings (of blast and impact) due to numerous accidental and man-made disasters. Capacity enhancement for a new structure to resist such loads can be achieved without much complications during the design stage.

However, for an existing structure, this may be a complex issue since most of these structures were not designed to withstand such extreme loading events. As a result, the necessity to identify feasible protective solutions becomes essential in order to protect these critical infrastructures and to mitigate the damage resulting from such human-caused or accidental disasters.

This lecture highlights on the work undertaken by the speaker, on utilizing elastomeric polymers for protective application of concrete structures subjected to impulsive loadings of blast and impact. The findings of these work indicated that polymer coatings can contribute positively towards reducing the damage of the structural elements due to these extreme dynamic effects. The talk will also include several case study examples investigated by the presenter.

**ANNOUNCEMENT TO NOTE FEES**

**(Effective 1<sup>st</sup> October 2017)**

**Members**

Registration Fee : No Charge  
Administrative Fee :  
**Online** RM15  
**Walk In** RM20

**Non-Members**

Registration Fee : RM50  
Administrative Fee : RM20

- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- **To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my)**

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For intending participants who choose to ‘walk in without prior registration’, IEM SHALL NOT be responsible for any direct or consequential losses”.**

## **SPEAKER BIODATA**



***Dr. Sudharshan N. Raman***, MASCE, MACI; is a civil engineer by training, who specializes in concrete engineering and technology, and structural resilience. At present, he is an Associate Professor in Structures and Materials in the Faculty of Engineering and Built Environment of Universiti Kebangsaan Malaysia, and the President of American Concrete Institute - Malaysia Chapter. He also serves as a Committee Member of the Civil & Structural Engineering Technical Division of the Institution of Engineers, Malaysia (IEM); and a Council Member of the Concrete Society of Malaysia (CSM).

He has recently been appointed as an Associate Member in two of American Concrete Institute's (ACI) Technical Committees, ACI Committee 239 - Ultra-High Performance Concrete and ACI Committee 549 - Thin Reinforced Cementitious Products and Ferrocement. Dr. Raman completed his PhD at The University of Melbourne, Australia in 2011 with a focus in structural engineering and infrastructure protective technologies. Over the years, he has built his reputation as a researcher in concrete structures and materials, and infrastructure protective technologies; and has taught structures and construction related courses at UKM, The University of Melbourne, University of Malaya, and Open University Malaysia since 2002. Dr. Raman has published extensively in the areas of concrete engineering and technology, and structural resilience (with a total publication count of more than 130, including 50 peer-reviewed journal publications); has served as reviewer for prestigious journals in Civil & Structural Engineering and Built Environment; and currently sits in the Editorial Boards of 4 international journals. Prior to joining the academia, he was in employment with an engineering design consultant, and a specialist prestressed concrete contractor. He has also been involved with numerous consultancy projects in the area of structural engineering and infrastructure resilience, within the public and private

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