



1-DAY SHORT COURSE ON STRUCTURAL ENGINEERING FAILURES

10TH RUN - 20 JUL 2017

Course Objectives

Collapse is every engineer's worst nightmare. Fortunately, not every engineer must go through the experience of a collapse firsthand as we can all learn from the mistakes of others. This course aims to impart knowledge by way of sharing examples of structural engineering failures so engineers can learn how not to repeat such mistakes.

Target Audience

This course will benefit civil and structural designers, builders and Resident Engineers.



“Those who cannot remember the past are condemned to repeat it”

George Santayana, the Philosopher (1863-1952)

UTAP SUPPORTED

(NTUC union members can claim up to 50% course fees)

SKILLSFUTURE CREDIT SUPPORTED

(Terms and conditions apply)

CPD PROGRAMME

7 PDU / 6 STU (TO BE CONFIRMED)

COURSE DETAILS

Fees

\$280 (IES members)
\$330 (Non-members)

Date & Time

20 July 2017
9.00am – 5.15pm

Venue

IES Academy@ Jurong East
80 Jurong East St 21 #04-10
Devan Nair Institute for
Employment and
Employability
Singapore 609607

Course Outline

Case studies are grouped into several “themes”. Lessons are drawn from each of the following themes:

Theme 1: Gravity

- Hyatt Regency Hotel Walkways, Kansas, 1981
- Hotel New World, Singapore, 1986
- Sampoong Department Store, Seoul, 1995

Theme 2: Computers and Modelling

- Hartford Civic Centre, Connecticut, 1978
- Compassvale Primary School, Singapore 1999

Theme 3: Wind

- John Hancock Tower, Boston, 1972
- Citicorp Centre, New York, 1978

Theme 4: Maintenance

- Antioch school, California, 1980
- Piper’s Row, Wolverhampton, 1997

Theme 5: Construction

- Bailey’s Crossroads Condominium, Virginia, 1973
- Cocoa Beach Condominium, Florida, 1981
- General Recommendations

Theme 6: Blast and Fire

- Ronan Point, London, 1968
- Alfred Murrah Building, Oklahoma, 1995
- World Trade Centre, New York, 2001
- The Pentagon, Virginia, 2001

Theme 7: Miscellaneous Failures

- Kemper Arena, Kansas, 1979
- Burnaby Supermarket, Burnaby, Canada, 1988



CV of Trainer

Er Dr. Niall MacAlevey

is currently an independent consultant specializing in the analysis and design of reinforced and prestressed concrete structures, forensic engineering and the strengthening of concrete structures. He is the founder of the firm “Shamrock Consultants”, is a member of the Institution of Engineers of Ireland and is a registered Professional Engineer in Singapore.

He graduated from University College Dublin, Ireland in 1987, and completed his M.Sc. degree in “Concrete Structures” at Imperial College, London. He completed his Ph.D degree at the Nanyang Technological University in 1997 on “The Strengthening of Concrete Structures” and later joined the academic staff there. He obtained a PGDipTHE (Post-Graduate Diploma in Teaching in Higher Education) from the National Institute of Education in 2001. He has worked for a number of consulting engineering firms and specialist prestressing subcontractors in London, Cambridge, Hong Kong and Singapore. He is the author of the book "Structural Engineering Failures: lessons for design".

Registration Form

1-Day Short Course on Structural Engineering Failures (10th Run)

Date : 20 July 2017 (Thursday)
Time : 9.00am – 5.15pm
Venue : IES Academy @ Jurong East,
80 Jurong East St 21 #04-10
Devan Nair Institute for Employment and Employability
Singapore 609607
Fees * : \$280.00 (IES Members) / \$330.00 (Non-Members)

Please register online/fax the completed form **by 12 July 2017, before 3 pm** to:

Ms Lee Woon

IES Academy @ Jurong East, 80 Jurong East St 21 #04-10 Devan Nair Institute for Employment and Employability Singapore 609607

Tel: 6461 1250 Fax: 6463 9468

Participant Details

Name : _____ NRIC : _____

Company : _____ Designation: _____

Address 1 : _____
(For mailing of invoice and receipt)

Address 2 : _____
(For mailing of Certificate)

Postal Code : _____ Sex : _____ Male / Female

Mobile No. : _____ Fax : _____

Email : _____
(For sending of confirmation email)

Please indicate : IES members IES M'ship No.: _____ P.E. No.: _____ (if applicable)
 Non-members Sponsored by company Vegetarian

Contact Person Details (if different from participant)

Name : _____ Designation: _____

Tel : _____ Fax: _____

Email : _____

Payment Details

Bank / Cheque No.: _____ Amount (\$): _____

* All Fees are inclusive of 7 % GST.

Cheque should be made payable to: "Engineers Singapore Pte Ltd".

Acceptance of Terms and Conditions for Registrations of IES Academy's Events

I agree to abide by the Terms and Conditions for Registration of IES Academy's Events.

Name : _____ Signature : _____

TERMS & CONDITIONS COURSE REGISTRATION

Registration

Registration can be done either online or by faxing in the registration form.

Any registration, whether on-line or fax will be on a ***first-come-first-served basis*** and will only be confirmed upon receipt of full payment by The Institution of Engineers, Singapore (IES).

Email and phone registrations will not be accepted.

Closing Date & Payment

The closing date of the event will be 7 days prior to event commencement date. Cheques should be crossed 'A/C payee only' and made payable to 'Engineers Singapore Pte Ltd', with the ***Date of event, Title of The Event and participants' name indicated clearly on the back of the cheque***, and post to:

**IES Academy @ Jurong East,
80 Jurong East St 21 #04-10
Devan Nair Institute for Employment and Employability
Singapore 609607**

Confirmation of Registration

Confirmation of registration will be given 7 days prior to the commencement date of event via email. If you do not receive the said confirmation email, you are required to contact IESA general admin immediately at 6463 9211 (office).

IESA reserves the right to allow only confirmed and paid registrants to attend the Event.

Withdrawals/Refunds of Fees

Notice of withdrawal must be given in writing to IESA. Policy on refund of course fee is as follows:

- **FULL** refund if we receive your written notice of withdrawal at least 7 days before the commencement of the Event.
- **NO** refund otherwise.

No show of participant would not be accepted as reason for withdrawal/refund.

Replacement is allowed but restricted to once only. Replacement will be allowed only if written notice is received by us at least 3 working days before the commencement of the event. However, when an IES member is replaced by a non-member, the participant has to pay the difference in the relevant fees.

Cancellation/Postponement

Changes in Venue, Dates, Time and Speakers for the Events can occur due to unforeseen circumstances. IESA reserves the full rights to cancel or postpone the Event under such circumstances without prior reasons. Every effort, however, will be made to inform the participants or contact person of any cancellation or postponement.

Fees will be refunded in FULL if any Event is cancelled by IESA.

Enquiries

For further enquiries, please contact IESA general office at Tel: 6463 9211.