



THE INSTITUTION OF FIRE ENGINEERS (UK)
SINGAPORE BRANCH

“EVACUATION FOR FIRE SAFETY ENGINEERING”

Seminar Information

The aim of the seminar is to introduce human behaviour theories that are relevant for Fire Safety Engineering (FSE). After completion of the seminar, the participants will also have a basic understanding of pedestrian dynamics, and understand different egress modelling approaches (network, grid and continuous models) and their limitations.

The seminar includes a wide variety of topics, such as human behaviour theories, emergency exit design, evacuation elevators, toxicology, pedestrian dynamics, egress modelling and selection of evacuation scenarios. Most of the material will be covered in lectures, but there will also be exercises related to the design of emergency exits and basic egress calculations.

Evacuation for Fire Safety Engineering has been developed in cooperation between the Department of Fire Safety Engineering and Systems Safety at Lund University, Sweden, and NFPA, USA. Both these organisations have a long tradition of fire investigations and research in the area of human behaviour in fire. Examples include investigations of the attacks on the World Trade Center, USA, in 1993 and 2001, and research relating to the design of evacuation alarms, emergency exits and way-finding systems for evacuation. In addition, the Department of Fire Safety Engineering has given courses in Fire Safety Engineering since 1986.

The knowledge gained at the seminar will help participants to incorporate aspects related to fire evacuation and human behaviour in their work with FSE, e.g., in the design of buildings/constructions, systematic fire prevention, review of fire safety design, fire investigations, etc. The goal is to give the participants the tools and know-how to better incorporate human behaviour aspects in FSE. After completion of the seminar, the participants will receive a certificate.

Target Audience

Fire Safety Engineers, Professional Engineers, Registered Architects, Fire Safety, Managers, Safety

Officers, Officers from Relevant Government Agencies, Suppliers of Fire Products, Building Owners, Developers, Building Contractors, Facility Management and Maintenance Personnel etc.

Date and Time

09 May 2019, Thursday, 9.00 am to 5.00 pm
10 May 2019, Friday, 9.00 am to 5.00 pm

Venue and Parking

TBA

Seminar Fee

- \$880.00 for members of IFE
- \$1,050.00 for non members
(includes student handouts, coffee breaks & lunch)

Professional Accreditations

- CPE hours accredited to FSE - TBA
- PDU points accredited by PEB - TBA
- CPD points accredited by BOA – TBA
- CPD hours accredited to FSM - TBA

Seminar Programme

Day 1	
Time	Activity
8.30am	Registration
9.00am	Introduction
9.15am	Human Behaviour Theories
10:30am	Coffee break
10.45am	Pedestrian movement (crowding and smoke)
12:30pm	Lunch
1:30pm	Basic Egress Calculations (part 1)
3:00pm	Egress Models
3:45pm	Coffee break
4:00pm	Design of Emergency Exits and Building Layouts
5.00pm	End of Day 1
Day 2	
Time	Activity
9:00am	Questions from Day 1
9:15am	Toxicity Assessment (FED & FEC)
10:30am	Panic
11.15am	Coffee break
11.30am	Basic Egress Calculations (part 2)
1:00pm	Lunch
2:00pm	Evacuation in High-rise Buildings
3:00pm	Design of Evacuation Alarms
3:45pm	Coffee break
4:00pm	Scenarios for Life Safety
4:45pm	Summary and Questions
5.00pm	End of Day 2

* Please note that the organiser reserves the right to make changes without prior notice.

Topics and Speaker's Profile

The seminar will be taught by Dr Daniel Nilsson from Division of Fire Safety Engineering, Lund University, Sweden.

Daniel is Associate Professor at the Division of Fire Safety Engineering at Lund University, Sweden, and has been involved in research about evacuation and human behavior in fire since 2002. He received his PhD in Fire Safety Engineering from Lund University in 2009 and became a Docent (Reader) in Fire Safety Engineering in 2013.

Daniel's research is focused on the use of way-finding systems for evacuation, e.g., flashing lights at emergency exits, but also on the effectiveness of different information system, e.g., voice alarms and information signs. Most of the studies have involved evacuation experiments. Examples include laboratory experiments in a smoke filled tunnel and a field experiment in the Göta road tunnel in Gothenburg, Sweden. Daniel teaches courses on evacuation and human behavior at Lund University, and also taught the course *People in Fires* at Worcester Polytechnic Institute (WPI) in 2016.

REGISTRATION INFORMATION

Enquiries

Ms. Esther Tan, IFE(S) Executive Secretary

Office Tel: 6338 9274

E-mail: ifespore@singnet.com.sg

Operating Hours: 9.00am –5.30pm

You can register by:

1. Email the completed form below to: ifespore@singnet.com.sg or
2. Post the completed form below to:
The Institution of Fire Engineers (UK), Singapore Branch
32, Ang Mo Kio Industrial Park 2,
#07-06, Sing Industrial Complex,
Singapore, 569510.

Closing Date: 21 April 2019

Payment Information

Bank transfer and cheques are accepted payment mode. For bank transfer, please email to the aforesaid address for the bank details. Cheques should be crossed and made payable to “The Institution of Fire Engineers (UK)”.

No invoice will be issued. A receipt will be issued upon successful payment. Registration is on a first-come, first-serve basis and will be confirmed upon receipt of full payment. No refund will be made for any cancellations but replacements are welcomed. The Organiser reserves the right to postpone the seminar due to unforeseen circumstances.

Registration Form

Dr / Mr / Ms / Mrs: _____

Designation: _____ Email: _____

Contact Person (if different from above): _____

Designation: _____ Email: _____

Organisation (in full): _____

Mailing Address: _____

Mobile: _____ Tel: _____ Fax: _____

Licence No: _____ Professional Engineer / Architect / FSE / FSM / Safety Officers
(please delete as appropriate)

NRIC No.: _____ (applicable to Professional Engineers / Architects/ FSE / FSM / Safety Officers only)