

NTU - Protective Technology Research Centre

Short Course: Fire Design of Steel and Composite Structures to EC3 and EC4

Date: 19 - 20 September 2016

Venue: CEE Seminar Room A, NTU (N1-B1b-06)

Course Instructors

1. Prof. Venkatesh KODUR

Professor of Structural Engineering and Director of Center on Structural Fire Engineering and Diagnostics
Department of Civil & Environmental Engineering, Michigan State University, USA

2. Prof. Kang Hai TAN

Professor of Structural Engineering, Associate Chair (Research), School of Civil and Environmental Engineering;
Co-Director of Transport Research Centre; Director of Protective Technology Research Centre;
Nanyang Technological University, Singapore

Course Schedule

Day 1: 19 September 2016 (Monday)

TIME	PROGRAMME
8:45am – 9:00am	Registration
9:00am – 10:00am	1. Introduction to Fire Safety and General Presentation of the Eurocodes
10:00am – 11:00am	2. Eurocode 1 - Actions in Case of Fire
11:00am – 11:15am	<i>Tea Break</i>
11:15am – 12:15pm	3. The Structural Eurocodes
12:15pm – 1:00pm	<i>Lunch</i>
1:00pm – 2:00pm	4. Eurocode 3 for Steel Structures: Calculation of Temperatures in Protected and Unprotected Steel Structures
2:00pm – 3:00pm	5. Fire Resistance Tests - Fire Resistance Evaluation through Testing
3:00pm – 3:30pm	<i>Tea Break</i>
3:30pm – 4:30pm	6. Eurocode 3 and 4 for Structures: Application of Computer Models (SAFIR/ANSYS)

Day 2: 20 September 2016 (Tuesday)

TIME	PROGRAMME
9:00am – 10:00am	7. Eurocode 3 for Steel Structures: Structural Analysis of Members subjected to Fire
10:00am – 11:00am	8. Eurocode 4 for Composite Steel-Concrete Structures: Composite Floors - Traditional Approach
11:00am – 11:15am	<i>Tea Break</i>
11:15am – 12:15pm	9. Eurocode 4 for Composite Steel-Concrete Structures: Composite Columns
12:15pm – 1:00pm	<i>Lunch</i>
1:00pm – 2:00pm	10. Eurocode 4 for Composite Steel-Concrete Structures: Composite Beams
2:00pm – 3:30pm	11. Design Commentary for P288 and P390 for Composite Floor Deckings under Fire (NEW)
3:30pm – 4:00pm	<i>Tea Break</i>
4:00pm – 5:00pm	12. Science behind WTC Buildings Collapse; Recent Developments in US Codes and Standards on Fire Safety Provisions (NEW)