

## PPFM

This section consists of recorded lectures derived from the FSEG five day short course, Principles and Practice of Fire Modelling (PPFM). Material consists of the theory of human behaviour associated with fire and the basics of the SMARTFIRE fire modelling software.

	Title	Speaker	Duration (hh:mm:ss)
<b>Day 1</b>	Fire Field Modelling General Introduction	Prof Ed Galea	00:36:18
	Introduction To Fire Safety Engineering - Lecture 1	Prof Ed Galea	00:29:21
	Material Properties And Fundamental Concepts - Lecture 2	Prof Ed Galea	00:07:43
	Heat Transfer - Conduction - Lecture 3a	Prof Ed Galea	00:39:50
	Heat Transfer - Radiation - Lecture 3b	Prof Ed Galea	00:16:12
	Heat Transfer - Convection - Lecture 3c	Prof Ed Galea	00:14:30
	Fire Development - Lecture 4	Prof Ed Galea	00:59:33
	Zone Modelling (closed) - Lecture 5a	Prof Ed Galea	01:04:67
<b>Day 2</b>	Zone Modelling (open) - Lecture 5b	Prof Ed Galea	00:32:29
	Field Modelling Concepts - Lecture 6a	Prof Ed Galea	00:44:44
	Solving Algebraic Equations - Lecture 6b	Prof Ed Galea	01:08:41
	Concepts Of Fire Field Modelling - Lecture 7	Prof Ed Galea	00:24:58
<b>Day 3</b>	General Equations - Lecture 8	Dr Mayur Patel	00:39:01
	Discretisation And Boundary Conditions - Lecture 9	Dr Mayur Patel	00:55:47
	Sub Models - Turbulence - Lecture 10a	Dr Mayur Patel	00:42:48
	Sub Models - Combustion - Lecture 10b	Dr Mayur Patel	00:53:09
	Sub Models - Radiation - Lecture 10c	Dr Mayur Patel	00:22:38
	Sub Models - Sprinklers - Lecture 10d	Dr Mayur Patel	00:30:41
	Introduction to SMARTFIRE environment	Dr John Ewer	00:44:36
	Introduction to Post Processing - Lecture 11	Dr John Ewer	00:24:53
<b>Day 4</b>	Fire Modelling Guidance - Lecture 12	Dr John Ewer	00:57:47
	Complex Geometry - Lecture 13	Dr John Ewer	00:31:59
	Working with CAD - Lecture 14	Dr John Ewer	00:25:13
	Guidance on correct usage of CFD based fire modelling-Errors - Lecture 15	Dr John Ewer	00:58:18
<b>Day 5</b>	Coupled Fire and Evacuation Simulations - Lecture 16	Dr John Ewer	00:20:59
	SMARTFIRE - Parallel Implementation - Lecture 17	Dr Angus Grandison	00:18:29

The recorded tutorials demonstrate how each exercise covered in the live tutorials are intended to be undertaken. Each tutorial takes you through different aspects of the software and different modelling techniques. During the live tutorials, the lecturer will also take the class through a live demonstration of the exercise and then each delegate will work through the tutorial exercise with assistance from the FSEG staff. All these tutorials are currently in production.

Title	Speaker	Duration (hh:mm:ss)
Open Zone Modelling Introduction and Open Zone Demo	TBC	TBC
Open Zone Modelling tutorial continued.	TBC	TBC
2D Field Modelling Introduction tutorial consisting of steady-state heat conduction	TBC	TBC
Introduction to CFD Code Lecture + Demo	TBC	TBC
CFD Fire Modelling Tutorial #1. Building a simple fire case from scratch.	TBC	TBC
CFD Fire Modelling Tutorials #2, #3 Walkthrough. Data analysis and post processing.	TBC	TBC
CFD Fire Modelling Tutorial #4 Walkthrough. Using combustion and triggers in two room geometry.	TBC	TBC
CFD Fire Modelling Tutorial #5 Walkthrough. Complex geometry - adding an apex roof.	TBC	TBC
CFD Fire Modelling Tutorial #6 Walkthrough. CAD import for scenario design.	TBC	TBC
CFD Fire Modelling Tutorial #7 Walkthrough. Running CFD fire model in Parallel.	TBC	TBC
Fire modelling validation tutorial.	TBC	TBC