



Italian SAFIR® Course – 1st Edition

- When: 23-25 June 2026
- Where: Castigliano Room (Building 5)
Politecnico di Milano, Piazza L. da Vinci 32, Milano
- Instructors: Prof. Jean-Marc Franssen (Liege University, Belgium)
Prof. Thomas Gernay (Johns Hopkins University, USA)
- Contact: Prof. Patrick Bamonte, Politecnico di Milano
patrick.bamonte@polimi.it
- Registration: 300 € (1 day), 550 € (2 days), 750 € (3 days)

Course description

The finite element software SAFIR is one of the most used in fire safety engineering for simulating the behaviour of structures subjected to fire. To strengthen the knowledge about the software and the associated tools, the two developers, Prof. Jean-Marc Franssen from Liège University and Prof. Thomas Gernay from Johns Hopkins University have decided to team with Prof. Patrick Bamonte and Prof. Roberto Felicetti to give a 3-day course in Italy, at Politecnico di Milano.

The course consists of three days of in-person instruction covering the theory and application of SAFIR, with worked examples on the thermal and mechanical modules for building and tunnel structures. This course may be of interest to academics, researchers, and practitioners, including current or potential future users of the software at beginner or more experienced level.

How to reach the course venue

From Milano Centrale Station: take Line 2 of the underground (M2, green line), direction Cologno Nord-Gessate. Get off at Piola station (third stop). Take the left-hand exit from Piola station; walk along Via D'Ovidio, keeping to the left and cross Via Bonardi: at this point you will have arrived in Piazza Leonardo da Vinci. Politecnico di Milano is the main building facing you. The room hosting the courses (Aula Castigliano) is located on the ground floor of Building 5.

Tentative program

| Tuesday, 23 June | | |
|-------------------------|---|----------------------|
| 8:30 – 9:00 | Registration and installation | Administrative staff |
| 9:00 – 9:15 | Welcome and practical information | Bamonte, Felicetti |
| 9:15 – 10:30 | Introduction to SAFIR® | Franssen |
| 10:30 – 10:45 | Coffee break | |
| 10:45 – 11:30 | Theory of thermal analyses | Franssen |
| 11:30 – 12:30 | 2D thermal model with GmSAFIR | Franssen |
| 12:30 – 13:30 | Lunch break | |
| 13:30 – 15:00 | Thermal analyses with local fire models | Franssen |
| 15:00 – 16:00 | Thermal analyses with HASEMI and LOCAFI | Franssen |

| Wednesday, 24 June | | |
|---------------------------|-------------------------------------|----------------------|
| 8:30 – 9:00 | Registration and installation | Administrative staff |
| 9:00 – 10:30 | Theory of structural models (beams) | Gernay |
| 10:30 – 10:45 | Coffee break | |
| 10:45 – 11:30 | 3D structural models with GmSAFIR | Gernay |
| 11:30 – 12:30 | Theory of shell elements + TMA | Gernay |
| 12:30 – 13:30 | Lunch break | |
| 13:30 – 15:00 | 3D frame with a slab with GmSAFIR | Gernay |
| 15:00 – 16:00 | 3D thermal analysis with GmSAFIR | Gernay |

| Thursday, 25 June | | |
|--------------------------|--|----------------------|
| 8:30 – 9:00 | Registration and installation | Administrative staff |
| 9:00 – 10:30 | Theory of FDS-SAFIR models | Gernay |
| 10:30 – 11:00 | Coffee break | |
| 11:00 – 12:30 | FDS-SAFIR exercise | Franssen |
| 12:30 – 13:30 | Lunch break | |
| 13:30 – 15:00 | Springs + Analysis of tunnel sections | Franssen, Bamonte |
| 15:00 – 16:00 | Common pitfalls and other special topics | Franssen |