

Video overview of course: bit.ly/3F0FN6s



Stellenbosch

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FUNDAMENTALS OF FIRE SAFETY ENGINEERING

CPD Course:
15 Aug – 19 Aug 2022
University Course:
15 Aug – 18 Nov 2022

Intensive seminar for engineers, built environment and fire safety professionals on the fundamentals of fire safety.

5 DAY CPD COURSE: Provides an understanding of the principles of fire safety, including topics such as performance-based design, smoke control, suppression systems, evacuation and risk analysis. Includes fire lab visit and workshops.

UNIVERSITY COURSE OPTION: Content of 5 day CPD course plus pre-reading, tutorials, assignments and final exam.

5 CPD CREDITS

R13500 / R14500
EARLY BIRD NORMAL

University course

R16500



CAPE TOWN – 5 days [Venue: Ignis Testing, Wijnland Park, 20 Chardonnay Road, Saxenburg Rustdal]

COURSE OBJECTIVE

This course covers the principles of fire safety engineering. Specific topics covered include:

- Introduction to fire safety
- Material characteristics in fire
- Passive protection
- Fire detection and communication systems
- Smoke management

- Suppression system
- Evacuation and human behaviour in fire
- Hazard and risk analysis
- Performance-based design (Rational design)
- Fire laboratory visit
- Workshops and discussions

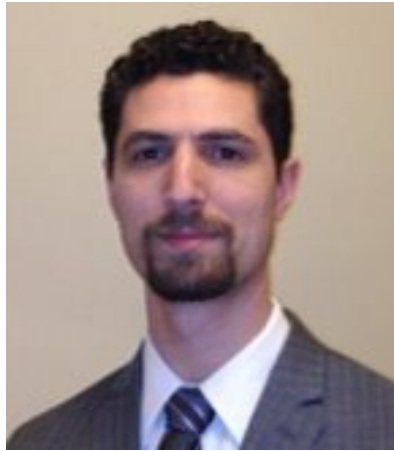
COURSE FOCAL POINTS

The seminar seek to provide an understanding of factors such as:

- How do fires behave?
- What are the types of fire protection?
- How to design fire protection systems?
- How people behave under fire conditions?
- How to design a smoke extraction system?
- How to conduct a fire risk assessment?
- How to develop performance-based designs?
- How do you quantify fire hazards?

The courses cover a variety of topics relevant for fire safety design. The content is accessible to practitioners from a variety of backgrounds, providing an understanding of fire safety principles, demonstrations and a visit to a fire testing laboratory. The course can be taken as a 5 ECSA CPD point accredited course. It can also be taken as a university course with the same content of a masters level engineering course.

PRESENTERS



1. Dr. Noah Ryder

Dr Ryder (PhD, MBA, MS, BS, PE) for 20 years has focused on understanding fire and explosion's interaction with both built and natural environments. He is a licensed professional fire protection engineer and focuses on how safety can be improved at a facility through the use of quantitative risk assessments (QRA), hazard evaluations (HAZOP), modeling (FDS, FLACS, Phast), and performance-based design. He also specializes in carrying out forensic investigations of fires and explosions to determine the source of ignition, flame spread, and thermal or blast wave conditions that led to the loss. Dr Ryder's knowledge and experience has been used globally by the world's largest and most complex oil & gas (onshore/offshore), LNG, chemical/petrochemical, nuclear, power generation, and heavy industries facilities.

Dr Ryder teaches Fire & Explosion Investigation, Firefighting Robot, and Industrial Fire Protection Engineering courses at the University of Maryland in the Fire Protection Engineering Department. He is also a qualified Subject Matter Expert for Saudi Aramco in Fire Protection, Loss Prevention, and Hazard/Risk analysis. He is actively engaged in applied research related to advanced fire detection and fire state determination, fire suppression, and battery energy storage solutions.



2. Mr. John T. Ivison

Mr Ivison (BSc(Hons), PEng, CP, FSFPE, MIFE) has 40 years experience in fire safety with experience across a wide variety of industries including sprinkler protection, forestry products, commercial buildings and industrial facilities.

In Canada he ran the Insurers' Advisory Organization training school. He also managed hospital improvement programmes for the province and gradually specialised in upgrading heritage buildings. He helped establish the Fire Protection Programme at the University of British Columbia where he was an adjunct professor for 6 years. Under his tutelage Protection Engineering pioneered several new fire modelling techniques for the analysis of fire performance and patented an important venting system for high buildings.

He is specialist in fire protection for heritage buildings and has worked on high-profile projects such as Royal Ascot, Blackdown House, Bramshill Manor, Bibury Court and Southend-on Sea historic pier. He also is called upon to assist industrial facilities with special problems as well as product development and the design of fire suppression systems.



3. Prof. Richard Walls

Richard Walls (PhD, MSc, GDE, BScEng, BTh, PrEng) is the head of the Fire Engineering Research Unit at Stellenbosch University (FireSUN). He worked as a professional structural engineer designing industrial, petrochemical and commercial buildings before joining Stellenbosch University as a lecturer and researcher. His areas of research include structural fire design, informal settlement fire safety, timber in fire (CLT), full-scale fire testing, fire modelling and bulk storage facilities.



4. Dr. Natalia Flores Quiroz

Natalia Flores (PhD, MSc, BEng) is a postdoctoral researcher at the Fire Engineering Research Unit at Stellenbosch University. She worked as a fire safety engineer designing active fire protection systems for the mining industry. She holds a M.Sc. in Fire Safety Engineering from Ghent University. Her areas of research include reconstruction of past incidents, wildland urban interface (WUI) fires.



5. Dr. Antonio Cicione

Antonio Cicione's (PhD, BEng) areas of research include full-scale fire testing numerical modelling (Computational Fluid Dynamics modelling, Zonal modelling and Finite Element modelling), and 3D printed concrete structures in Fire. He has collaborated with some of the world's leading fire experts and has published numerous journal and conference papers on various fire related topics. He now runs Cicione Fire & Structures consulting engineers in Nelspruit.

CPD CREDITS

The CPD seminar is accredited for 5 Continued Professional Development credits with ECSA.
The University Course option will also be ECSA accredited. It will be a 150 hours equivalent course to be completed.



REGISTRATION

Please register online by clicking on the link below:
CPD Course: <https://bit.ly/3xVGb4x>
University Option: Contact civilcourses@sun.ac.za
Our system will generate an email with payment details.



PAYMENT

Early Bird:	R 13500	Payment must be received by 30 June
Normal Bird:	R 14500	Payment must be received 5 days before the seminar
University course:	R 16500	Payment must be received 5 days before the seminar



PAYMENT INSTRUCTIONS

After online registration for a course you will receive an automated email with payment details. Invoices to companies will be created after successful online registration. No course access will be granted until payment has been received.

PLEASE EMAIL PROOF OF PAYMENT TO: Tsholofelo Seroalo

Stellenbosch University, Department of Civil Engineering
Email: civilcourses@sun.ac.za
Enquiries: 021 808 4131

UNIVERSITY COURSE OPTION

This course is also offered as an ECSA accredited course, with assignments, tutorials and an exam in addition to the CPD course. University admission requirements apply. For more information contact: civilcourses@sun.ac.za.

COMPANY NETWORKING / DEMONSTRATION OPPORTUNITIES AT THE EVENT:

Please contact fire@sun.ac.za for options.



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VENUE & TIMES:

Venue: Ignis Testing – Wijnland Park, 20 Chardonnay Road, Saxenburg, Rustdal, Cape Town.
Times: 08:30-17:00 Monday to Friday
Venue open from 07:30