

President's Inaugural Lecture Announcement 29 January 2024

The Institution of Civil Engineers
One Great George Street, London, SW1P 3AA



FORENSIC FIRE INVESTIGATION:
The underpinning fire science and
investigative methodology



Details of the lecture can be found overleaf. The lecture will be preceded by the Society AGM at 17:45. Tea and coffee will be served beforehand at 17:00 and a drinks reception will follow, for which there are limited spaces offered on a first come first serve basis

Registration

Please register your place by emailing either "***Inaugural-lecture only***" or "***Inaugural-lecture and wine reception***" to events@iesf.co.uk.

President's inaugural lecture and dinner
Monday 29th January 2024 at 18:00

Institution of Civil Engineers, One Great George Street, SW1P 3AA

**Forensic fire investigation:
The underpinning fire science and investigative methodology**

Dr Chris Foster

When unchecked, fire causes many fatalities, a greater number of serious injuries, and annual social and economic losses in the UK typically exceeding £10 billion. Chris will describe the stages in the growth of a fire from ignition to fully developed, and the way in which physical, chemical and dimensional factors influence each stage in its development and spread beyond the compartment of origin. Ignition criteria will be defined in terms of the properties of the material first ignited and the characteristics of the ignition source. He will use the Kings Cross Underground fire to illustrate the application of these principles to the investigation of large-scale disasters. Chris will describe the investigative methodology, referring to evidence found at scenes of accidental and deliberately started fires, and will review advances in both on-scene and laboratory analytical techniques.



After completing his PhD on the spontaneous ignition of hydrocarbons in air, Chris joined consulting scientists and engineers Dr J H Burgoyne & Partners LLP. Chris has over 50 years' experience investigating the causes and effects of land based and marine fires and explosions, and chemical and petrochemical incidents, world-wide. Incidents that Chris investigated include the Flixborough disaster (1974), the Kings Cross Underground fire (1987), the fire in the Mont Blanc vehicle tunnel (1999) and the Buncefield explosion (2005). Chris has frequently given expert evidence in court, he lectures at Edinburgh and Cranfield Universities, and has contributed a chapter entitled *The investigation of gas phase explosions in buildings* in the textbook *The Forensic Investigation of Explosions*.

