Curtain Wall Fire Design Webinar

Wednesday 14th April at 12.30pm.
Hosted by Engineering New Zealand

Join industry experts as they discuss the impact of fire on curtain walls, the relevance of the building's fire safety strategy and the importance of designing curtain walls for fire.

Programme:

12.30 Introduction – Ed Claridge, President IFE NZ Branch

12.40 Dr Cristian Maluk - University of Queensland

- Describe fundamental principles that define the structural behaviour (and mechanics) for a typical curtain wall-slab system in the event of a fire
- Present existent compliance tests (e.g. ASTM, BS) and evaluate the appropriateness for these tests replicating the conditions of a curtain wall-slab system during a real fire in a real building
- Discuss the appropriateness of sprinklers (or other measures) for justifying a trade-off in the need of fire resistance for curtain wall-slab systems

13.10 Nathan Jennings - Façade Firestopping technical Leader – Hilti USA

- Façade Firestopping Testing Standard ASTM E2307 with some examples of configurations mentioned in test standard (central mullion configuration etc)
- Design Detail – Case Studies of various type of façade designs that we obtained from NZ market
- Different Tested Systems – Wide Spandrel & Zero Spandrel
- Effect of Spandrel, safing and spray as a system for façade firestopping
- Reverse Lip arrangements of Backpan in façade firestopping
- Test Certificate: What to notice and infer in designs
- Engineering Judgements and their limitations

13.40 Q&A with the presenters

Who will benefit from this training?

This webinar is aimed at providing an introduction to the fire design of curtain wall systems and will be of relevance to Architects, Structural, Fire and Façade Engineers and Building Consent Officials.

Join the webinar here

This event has been approved by the Institution of Fire Engineers as providing 1.5 hours of Continuing Professional Development Activity.

About the speakers:

Dr Cristian Maluk is a Senior Lecturer and Director of Research and Innovation for the School of Civil Engineering at The University of Queensland, Australia. His research and teaching activities are centred in fire safety engineering, structural behaviour, and material science. For the past 5 years Dr Maluk has actively contributed to the development of new fire safety engineering and civil engineering programs at The University of Queensland. Dr Maluk investigations have placed emphasis on various and varied engineering and scientific challenges; more specifically: the use of fibre reinforced polymers (FRP) in civil engineering applications, occurrence of concrete spalling during and after fire, intumescent coatings, timber structures, timber-FRP composites, laminated bamboo structures. One key outcome of his work is related to leading the developments of new experimental test method used in structural fire safety science and engineering; for example, the Heat-Transfer Rate Inducing System (H-TRIS).

Nathan leads the Fire Protection Engineering façade team for Hilti overseeing a dynamic group of 3 Mechanical and Fire Protection Engineers who provide global perimeter firestopping designs in accordance with ASTM E2307. Nathan's team provides technical solutions to contractors, architects/engineers and facade manufacturers allowing for the achievement of truly unique applications. During Nathan's 6-year tenure at Hilti, he has been directly involved in conducting full scale ASTM testing, patented design and new product development. Prior to joining Hilti, Nathan served as the Assistant Fire Marshal for a large public Institution in the State of Texas directly managing life safety and code compliance for all construction and renovation projects. Additionally, Nathan held the role of Life Safety Code Program Manager with the State of Texas leading a team tasked with overseeing Federal and State licensure fire code and life safety surveys for Texas nursing homes and assisted living facilities."