

Barbara Lane (BAI 1992) receives Silver Medal from Royal Academy of Engineering, UK



Less is more for fire protection

Dr Barbara Lane studied engineering in the Department of Civil, Structural and Environmental Engineering at Trinity, graduating in 1992, following which she undertook a doctorate degree in Edinburgh University, specialising in Fire Engineering. Barbara, an Associate Director and Technical Leader with engineering consultancy firm Arup Fire, has won a prestigious Royal Academy of Engineering Silver Medal for her outstanding personal contribution with a commercial benefit to engineering.

The citation for the award states “Dr Barbara Lane is a young engineer who has turned on its head the conventional wisdom on how to protect buildings during fires. Her revolutionary ideas, now being used in some of the world's most iconic new structures, show that less fire protection can be more, saving time and money as well as making buildings safer in the event of a fire.”

During her PhD research at Edinburgh University and in further collaborations with the university fire research team, she has developed the application of sophisticated computer models which analyse how steel-framed structures behave during fires, to real building projects. She says “What we found was that the heat of a fire fundamentally changes and weakens the structure and you need to account for that at the design stage, as you would for the effects of snow, wind or earthquakes. By contemplating structural fire response in this way, a more robust structural design can be created.” She goes on to say “I am very honoured to be chosen for this award. It’s been fascinating applying these techniques and creating real building solutions. But most importantly I have been able to achieve this through the hard work and commitment of the structural fire engineers at Arup and our colleagues at the fire group at Edinburgh University, led by Professor Jose Torero.”

Barbara continues to have a strong affinity with Trinity, flying in regularly from the UK to deliver a series of lectures on the Department’s postgraduate Diploma course in Fire Safety Practice.

Further information on her award can be found at <http://www.raeng.org.uk/prizes/silver/default.htm>