



2020 Annual Report

Enhancing the scientific understanding of fire and its interaction with the natural and built environment

Research Highlights

Completed Research

- [Estimating Occupant Loads in Retail Buildings](#)
- [Using Biomechanical Data to Determine Evacuation Capability](#)
- [Anthropometric Data and Movement Speeds](#)
- [Modern Vehicle Hazards in Parking Garages and Vehicle Carriers](#)

New Projects

- [Design Fire & Material Database](#)
- [Development of Fire Engineering Practitioner Tools](#)

Global Student Research Grants

Forensic Investigation for Informal Settlement Fires.

Natalia Valentina Flores Quiroz, Stellenbosch University, South Africa

Fire Spread in Large Compartments. Alyssa DeSimone, University of Michigan
Façade Fires. Francesca Lucaresi, Imperial College, United Kingdom

Modeling of Tunnel Fires. Diego Alvarez Coedo, Camillas Pontifical Uni, Spain

Lithium-Ion Batteries Hazards. William F. Calcagno, WPI, USA

Structural Fire Protection in Non-standard Spaces. Deanna Craig, Clemson University, USA

Smoldering Wildfires. Shaoron Lin, Hong Kong Polytechnic University, China

Physical Response to Fire. Bronwyn Forrest, University of Waterloo, Canada

Corporate Research Planning Workshop

- 25 leading corporations in the fire protection industry
- 2 priority projects planned for 2021

Awards and Honors

Four Global Honorary Awards

- **The Arthur B. Guise Medal** - Erica Kuligowski, RMIT University, Australia
- **Dr. Guylène Proulx, OC Scholar** - Mary Langridge Button, Glasgow Caledonian University, Glasgow, Scotland
- **The Jack Bono Award for Engineering Communications** - Alastair I. Bartlett, Ph.D., et al, University of Edinburgh Scotland
- **Student Scholar Award** — Matthew Bonner, Imperial College. London, England

New Award Endowment

- **Frederick W. Mowrer Global Scholar** - students from emerging nations in fire safety science and engineering

SFPE Foundation 2020 - Realizing Our Vision

Facilitating scientific and engineering research focused on fire risk, safety, mitigation, control and human response - **through four completed research initiatives**

Facilitating the development of engineering methods to mitigate the adverse consequences of unwanted fires - **through two new research initiatives**

Providing educational and research opportunities for the next generation of fire protection engineers - **through eight global student grants**

Governance, Communications and Fundraising

New Governors:

- Erica Kuligowski, RMIT University
- Virginia Charter, Oklahoma State University
- Justin Biller, Emerson Graham, Associates

New Communications Vehicles:

- SFPE Fire Protection Engineering Magazine Column
- SFPE Update Monthly Newsletter Column
- SFPE Euro Magazine Research Updates

Fundraising Success:

- Major gifts to Fitzgerald and UL Matching Funds
- Major increase in SFPE member giving
- Initiation of planned giving program with major life insurance donation