SFPE 2021 Annual Report

Beth Tubbs, SFPE 2022 President Nicole Boston, SFPE CEO September 12, 2022





	2019	2020	2021
Membership dues	837,455	918,882	814,704
C100	167,316	162,981	172,480
Continuing Education	1,002,212	926,883	808,046
Royalties	311,617	229,251	243,933
Publications	155,034	151,597	106,673
Investment Income	70,815	56,992	488,352
Other income	11,338	10,970	200
TOTAL REVENUE	2,555,787	2,457,556	2,634,388

STATEMENT OF REVENUE

	2019	2020	2021
Grants	50,000	4,500	
Salaries & Benefits	1,057,698	1,098,477	1,319,667
Contracted Services	283,982	337,215	382,628
Advertising	43,535	41,221	-
Office Expenses	94,232	91,432	159,244
Information Technology	38,841	168,766	
Occupancy	133,955	155,718	153,544
Travel	171,071	41,811	20,956
Meetings	403,851	173,635	204,475
Honorariums	0	45,300	55,000
Business Expenses	194,534	121,677	140,105
TOTAL EXPENSES	2,605,274	2,279,752	2,435,619

STATEMENT OF FUNCTIONAL EXPENSES



Assets	2019	2020	2021
Cash and cash equivalents	83,657	181,756	68,930
Accounts receivable	225,441	110,391	81,033
Prepaid expenses	150,011	120,536	143,363
Publications Inventory	13,695	13,451	8,135
Property and equipment	47,866	89,322	88,099
Investments	2,722,062	3,000,609	3,473,100
Deposits	21,320	21,320	21,320
Due from Foundation		10,844	3,946
TOTAL ASSETS	3,264,052	3,548,229	3,887,926

Balance Sheet

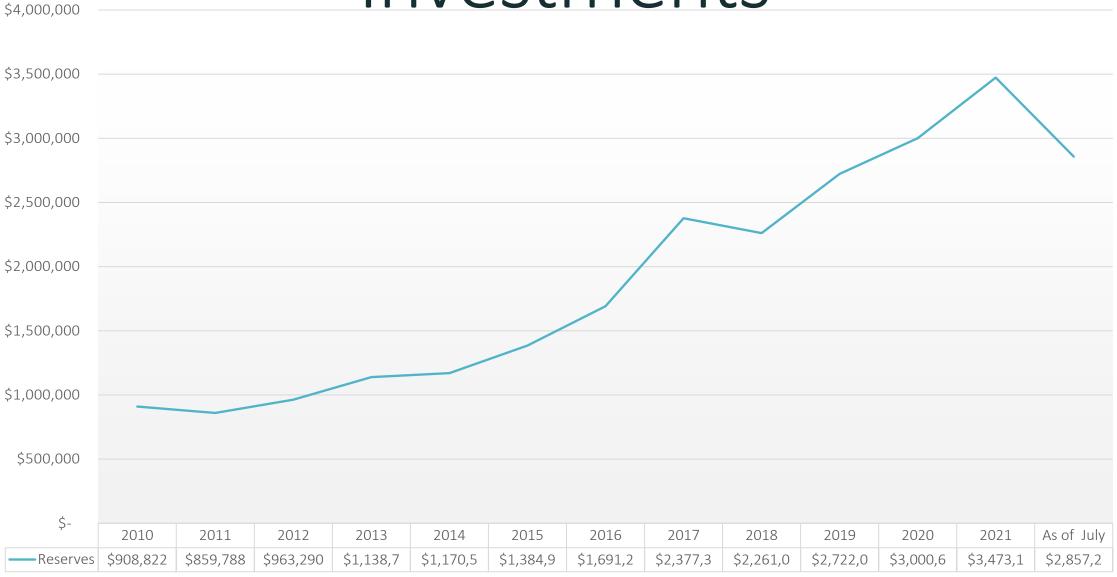


Liabilities	2019	2020	2021
Accounts payable and accrued expenses	81,491	162,124	128,514
Deferred revenue	677,566	491,525	410,996
Other liabilities	170,563		
Deferred rent		146,140	126,284
Equity (net assets)	2,334,432	2,748,440	3,053,475
TOTAL LIABILITIES AND NET ASSETS	3,264,052	3,548,229	3,719,269

Balance Sheet

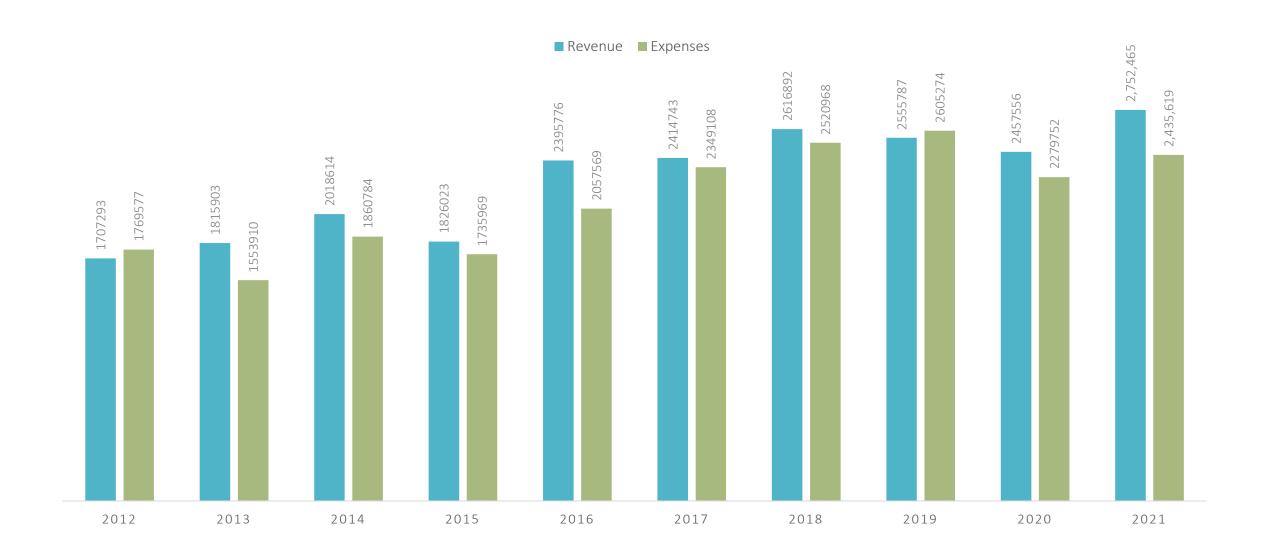


Investments





Historical Revenue and Expenses





2021/2022 BOARD OF DIRECTORS

Position	2021	2022
President	Jack Poole	Beth Tubbs
President-Elect	Beth Tubbs	Jimmy Jonsson
Secretary-Treasurer	Amanda Kimball	Amanda Kimball
Past-President	Mike Crowley	Jack Poole
CEO	Nicole Boston	Nicole Boston
	Dan Arnold	Chris butts
	John Campbell	John Campbell
	Jimmy Jonsson	John Denhardt
	Shaun Kelly	Shaun Kelly
	Bob Libby	Bob Libby
	Tony Militello	Elizabeth Pennacchio
	Armelle Muller	Shamim Rashid-Sumar
	Shamim Rashid-Sumar	Albert Simeoni
	Albert Simeoni	Michael Wojcik



SFPE Mission

To define, develop, and advance the use of engineering *best practices*; expand the scientific and *technical knowledge* base; and *educate* the global fire safety community to reduce fire risk.

SFPE Vision

The leaders in engineering a fire safe world.



2021-2023 Strategic Plan Goals

- 1. Advocate for the profession: Represent and advance the interest of professionals who apply engineering principles to the challenges of fire
- 2. Inclusive Environment: Foster a professional environment of diversity, equity and inclusion
- 3. Professional Practice: Advance the competency and promote the ethical practice of professionals who apply engineering principles to challenges of fire
- **4. Technical Leadership:** Advance research and the use of engineering principles to address the challenges of fire



Membership, Marketing, and Chapter Relations

Craig Vesely, CMC Chair

Kevin Mlutkowski, Community Engagement, Marketing, and Communications Director

Ben Fogel, Membership Manager

Kristin Griffes, Corporate Relations & Business Development Manager

Austin Guerrazzi, Marketing Manager

Eva Przygodzki, Chapter Engagement Manager

Holden Strausser, Membership and Marketing Assistant



CMC's 7 Subcommittees

Awards Subcommittee - Craig Vesely, Chair

Chapter Relations Subcommittee – William Clay, Chair

Diversity, Equity and Inclusion (DEI) Subcommittee – Jonathan Bernal, Chair

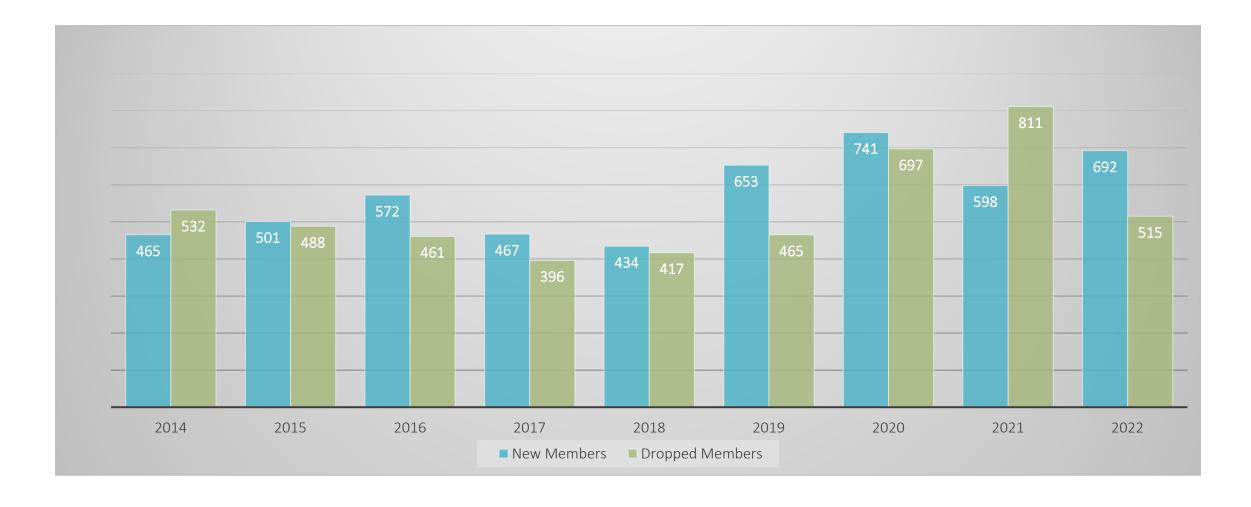
Fire Service Subcommittee – Brad Cronin, Chair

Membership Growth & Engagement Subcommittee – Sean Donohue, Chair

Qualifications Subcommittee – Sarge Slicer, Chair

Student Outreach Subcommittee – Matthew Daelhousen, Chair

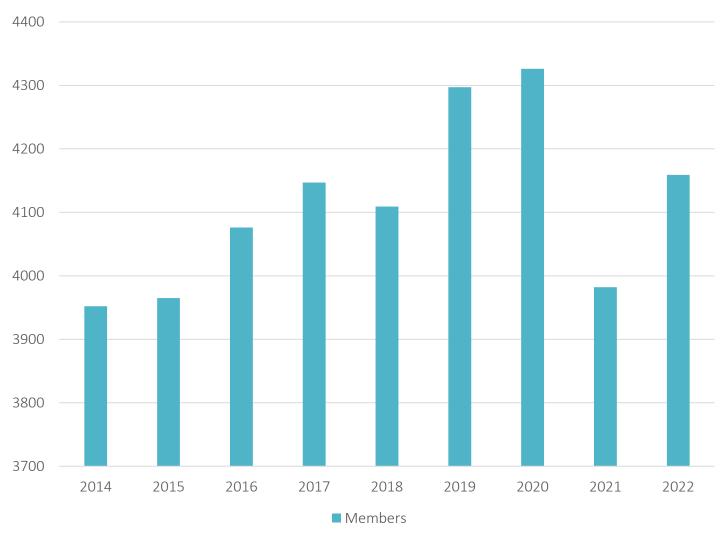




Recruitment and Attrition







Membership History



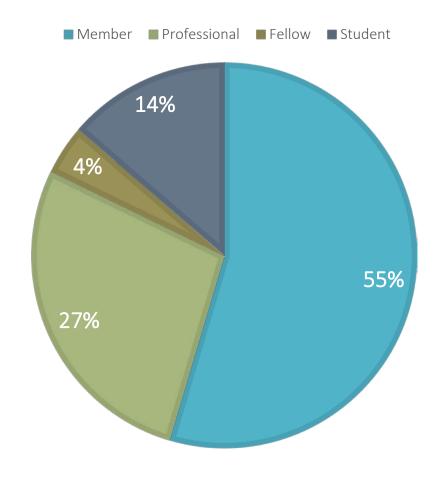
Of our 4,612 members

Member: 2,518

Professional Member: 1,272

Fellow: 192

Student: 630



Member Grades



Students and Early Career Professionals

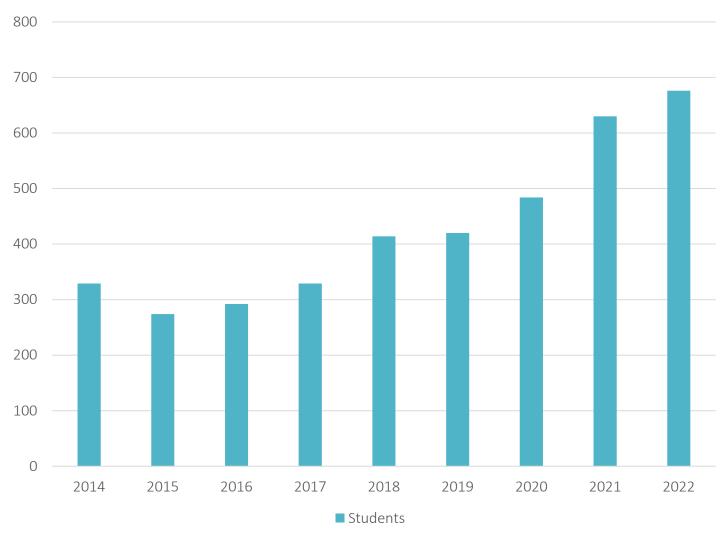
27 student chapters

630 student members

33 recent graduates







Student Member History



Regions with most members

North America – 3,135

Europe - 365

Oceania - 171

Asia - 144

Middle East – 93

Africa - 41

South America - 24



Top 10 States

Maryland - 266

California – 252

Massachusetts - 207

Texas - 168

Illinois – 163

New York -143

Georgia - 129

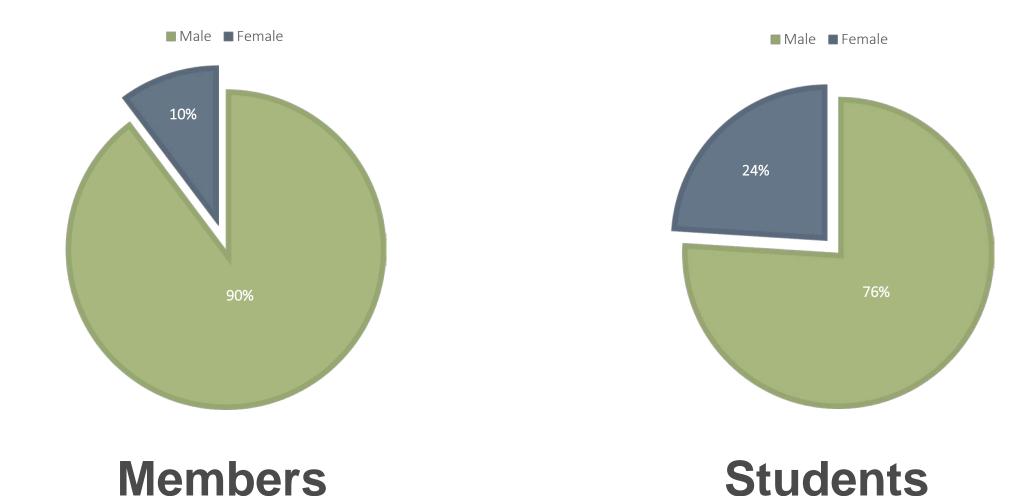
Pennsylvania – 128

Virginia – 119

Florida - 103



Number of Women in FPE







Generational Breakdown – Decade Born





2021 Awards & Honors

9 Fellows inducted

5 Under 35 recipients

41 Professional Members upgraded

14 Society award recipients

8 Foundation award recipients

Awards for Chapter Excellence (ACE) winners:

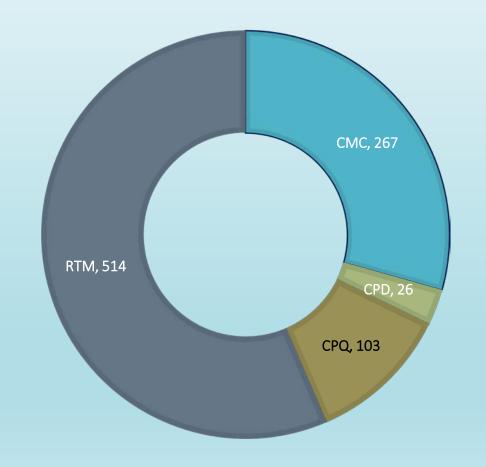
14 gold

15 silver

13 bronze



Standing Committees 910 volunteers





Women in Fire
Protection
Engineering (WiFPE)

Sponsored by FM Global

Emerging Professionals

Fire Service

Students

Developed custom programming, online events, and digital resources to meet the specific needs and interests of special interest groups within the fire protection engineering community.

Special Interest Groups (SIGs)









Corporate 100 Partners

No. of Partners: 56

Visionary: 7

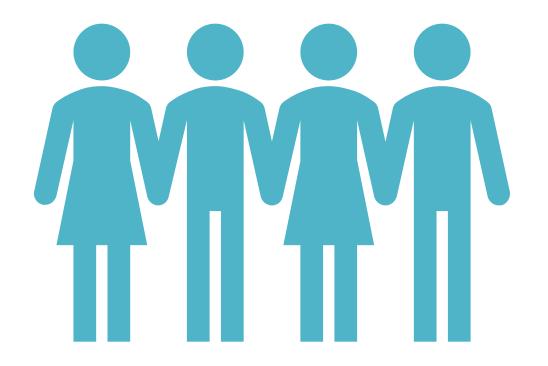
Benefactor: 10

Patron: 11

Sustainer: 28



Thank You to Our Corporate 100 Partners and Volunteers







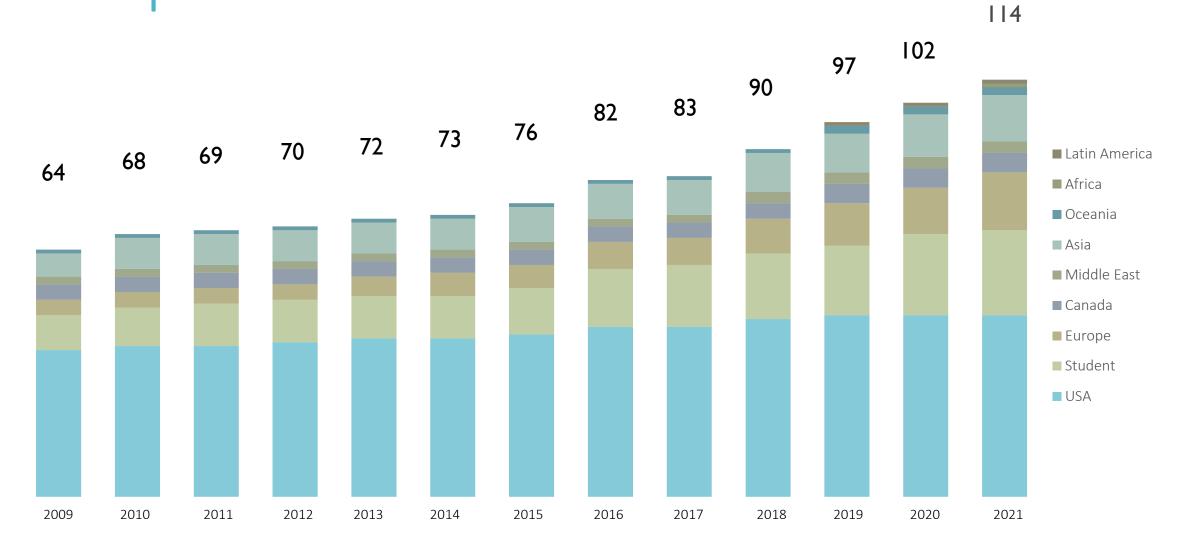


Hefei Student Chapter
Shanghai Student Chapter
Nigeria Chapter
Denmark Chapter
Finland Chapter





Chapter Growth





SFPE Europe

Incorporated as SFPE Europe on July 24, 2020, in Brussels, Belgium

Converted SFPE Europe Conference to virtual event (held March 2425, 2021)

Renegotiated contract with Marriott Berlin for March 27-30, 2023

Focus on:

European events

Participation on CEN Technical Committees

Member growth

New chapters

Addressing education needs



SFPE Europe Board of Directors

David Grossman – Chair

Kees Both -Past Chair

Wojciech Węgrzyński - Director

Robert McNamee – Director

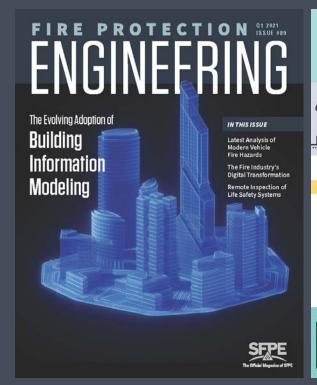
Beth Tubbs – SPFE President

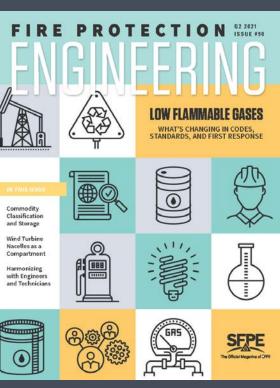


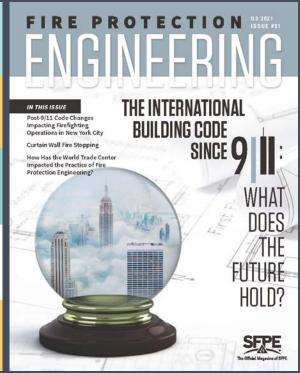
European members represent SFPE on four CEN standard committees

- 1. TC 127 Fire Safety Engineering: Axel Mosberg, Sweden
- 2. TC 156 Smoke Control: Gabriele Vigne, Spain
- 3. TC 191 Fixed Fire Suppression: James Bassett, Switzerland
- 4. TC 250 Eurocodes: Mohammad Heidari, France



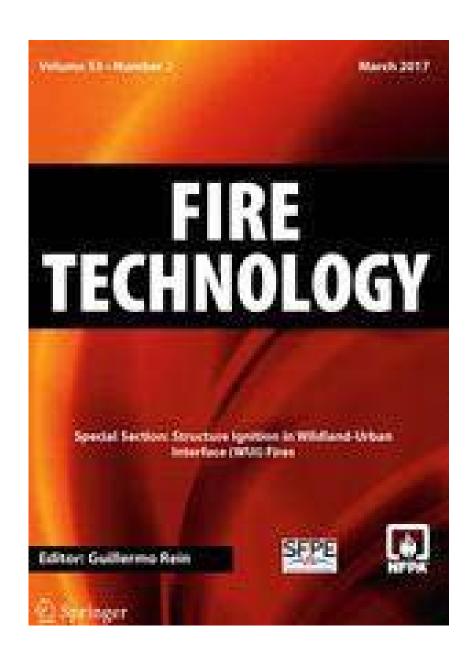








FIRE PROTECTION ENGINEERING MAGAZINE



Fire Technology Journal

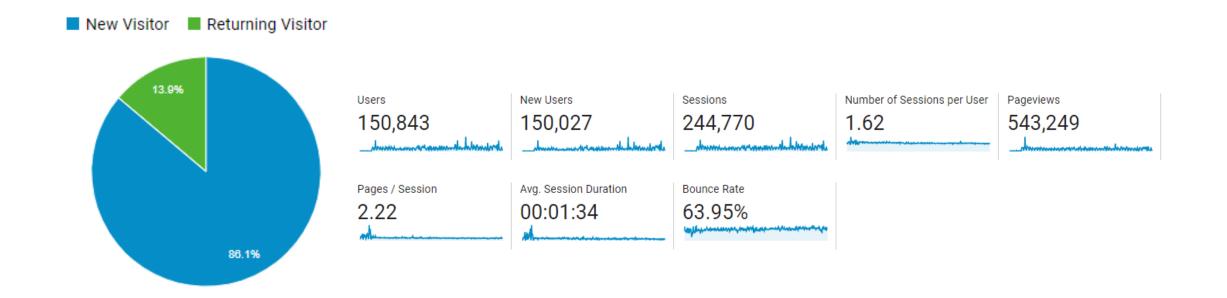
Guillermo Rein, editor-in-chief

Published by Springer

Available digitally (members get this for free) and print

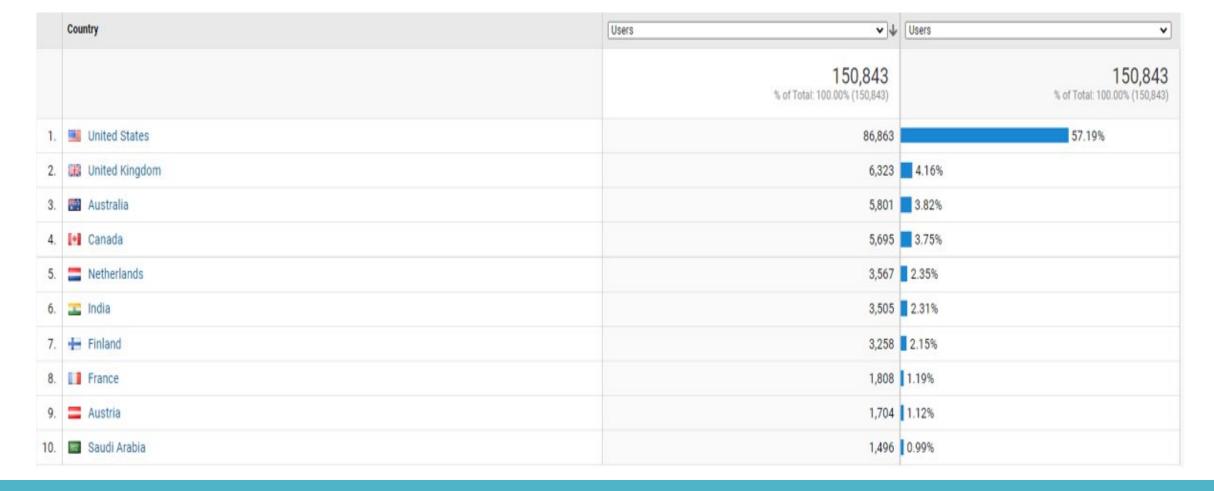
6X year





WEB TRAFFIC: JAN 2021 – DEC 2021





GLOBAL WEB TRAFFIC (JAN 2021 – DEC 2021)



SOCIAL MEDIA PRESENCE

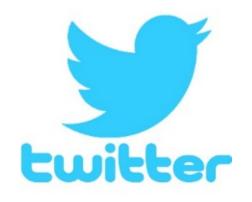
Jan 2021 – Dec 2021

Facebook page grew from 8.5k to 8.9k followers

LinkedIn page increased from 11k to 13.2k followers

Twitter has 3,650 followers, 450,200 tweet impressions and 400 mentions

217,911+ overall YouTube views











Jobs by the Numbers

- 337 FPE applicants in 2021
- 103 employer signups in 2021. 568 total employer signups
- 71 job postings in 2021. 388 total job postings
- 70,513 job views in 2021. 70% more job views in 2021 than 2020
- 840,757 impressions in 2021







SFPE WEEKLY NEWS BRIEF - 17K DISTRIBUTION LIST



FPE MAGAZINE DIGITAL 5,709 UNIQUE READERS 16,405 ARTICLE VIEWS 104,699 PAGE VIEWS





SFPE EUROPE – 20,411 DISTRIBUTION LIST



On the CMC Horizon...

- Continue soliciting nominations for Society awards and making recommends to the SFPE Board of Directors
- Continue receiving applications and elevating members to PMSFPE and FSFPE levels
- Continue efforts to make SFPE a more inclusive society
- Regularly hold free webinars of interest to the fire service community
- Launch SFPE Mentor Match program
- Recruit new chapters and strengthen existing chapters; pursue opportunities to improve chapters' digital presence and communications
- Launch a new competition for students studying fire protection engineering
- Launch communications, chapter outreach, and events to meet the needs of emerging professionals

Research, Tools, and Methods

Chair, Greg Baker

Chief Engineer – Chris Jelenewicz

Codes & Standards Administrator – Ryan Tunkel

Intern – Theo Saywell

Contractor – Gizelle Jamero

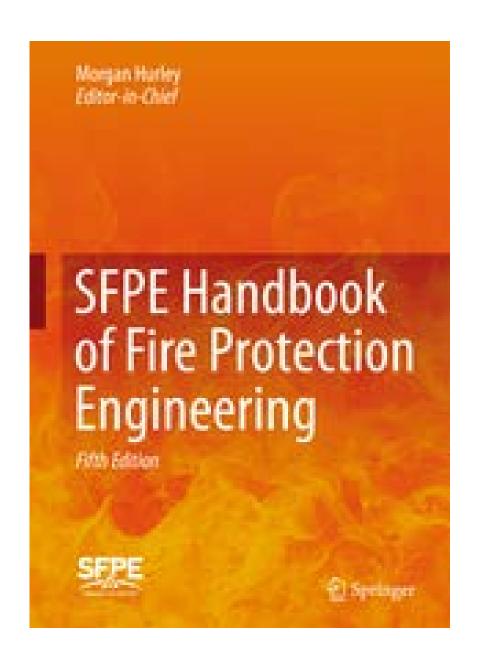
Contractor – Daniel Morassutti

RTM Subcommittees

Standards Oversight Subcommittee - Steve Wolin, Chair

Codes and Standards Subcommittee – Mat Davy, Chair

Research Roadmap Subcommittee – Bryan Hoskins, Chair



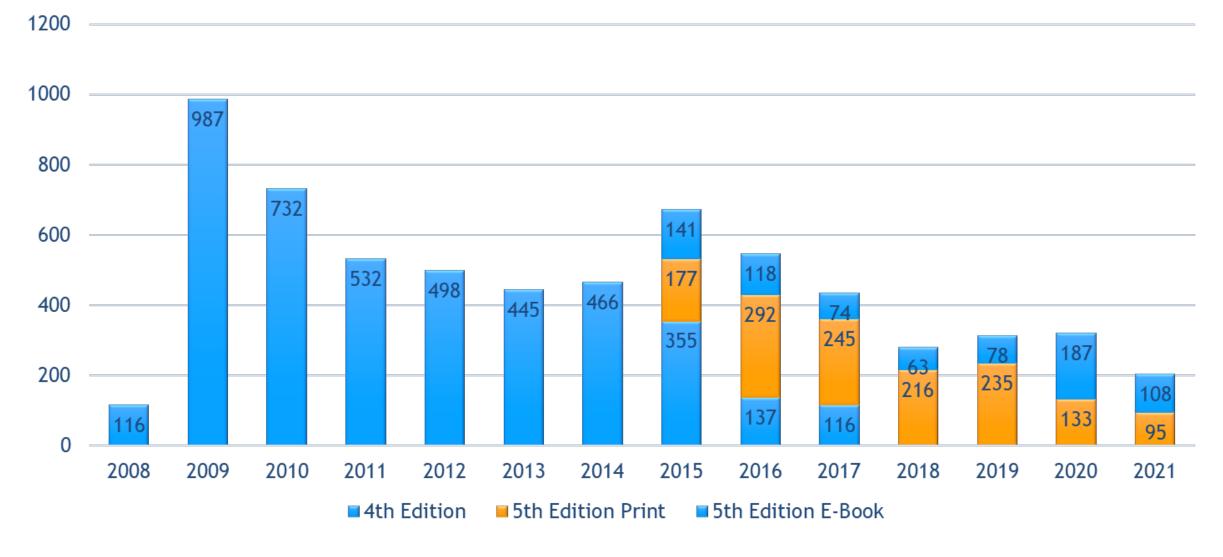
5th Edition SFPE Handbook of Fire Protection Engineering

The definitive reference on fire protection engineering, now expanded to three volumes

Available in electronic format for the first time

Work underway on 6th edition and should be published in late 2023 through Springer

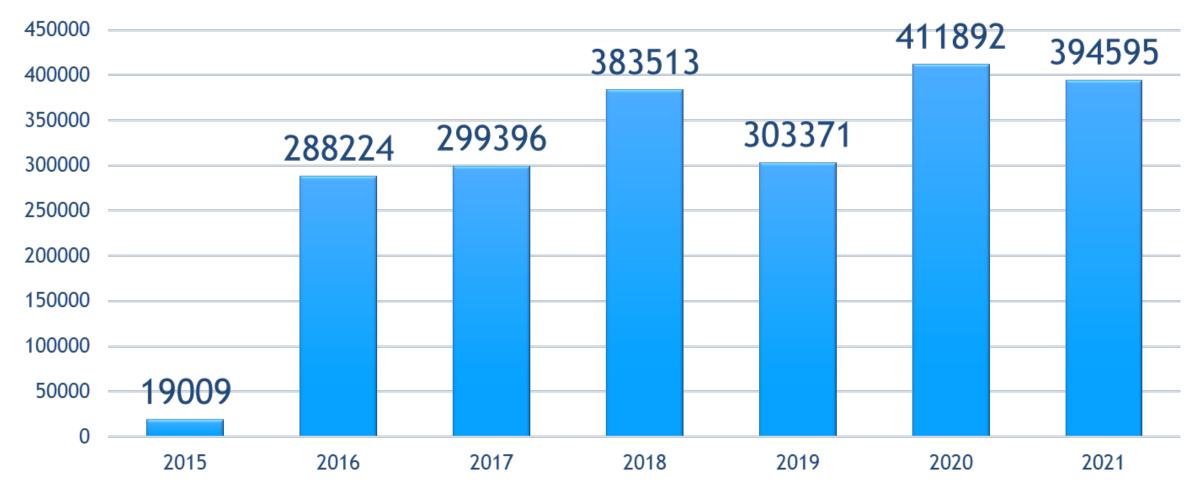




SFPE HANDBOOK PRINT SALES



5th Edition Downloads



5TH EDITION HANDBOOK DOWNLOADS





GUIDELINES FOR PEER REVIEW IN THE FIRE PROTECTION DESIGN PROCESS



Over 1,800 downloads

The 2020 edition includes:

- A listing of definitions related to peer review terminology
- More defined description of qualifications aligned with the SFPE Recommended Minimum Technical Core Competencies for Practice of Fire Protection Engineering
- Information complementing the SFPE Code of Ethics for Fire Protection Engineers
- Added details on the important components of a peer review
- Added content related to the limitations of the document

Available for free digital download.



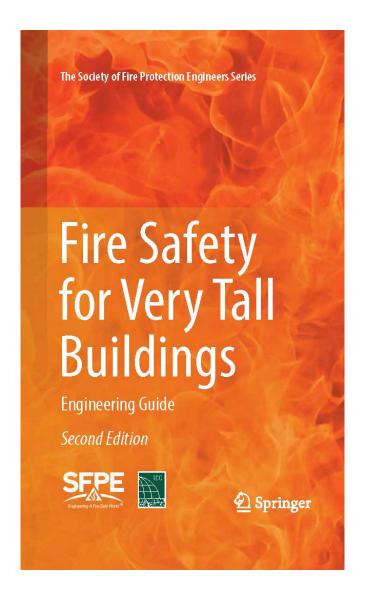
Engineering Guide on Fire Safety for Very Tall Buildings

2nd edition published in September 2021. Includes new sections:

- Existing building considerations
- Energy storage systems
- Aerial vehicle platforms
- •Unique features (i. e. observation decks, amusement rides, fireworks, etc.).

And significant updates to:

- Structural fire protection
- Facades/building envelope including information on green walls and LCD displays
- Notification including social media and other forms of electronic communication
- •Timed egress analysis and using computer models



Over 7K+ downloads!

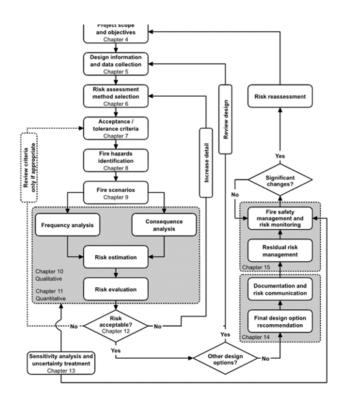


Engineering Guide on Fire Risk Assessment

To be published in Fall 2022

Includes new information on:

- New flow chart that outlines the risk assessment process
- F-N curves
- Risk Perception
- Risk communication
- Residual risk management
- Risk monitoring
- Sensitivity analysis
- It also provides clear guidance on conducting qualitative and quantitative analysis.
- Uses examples that re-enforce topics discussed in the guide





Under Development

2023

• Fire Scenarios Standard

2023

 Fire on Calculating Fire Exposures to Structures Standard 2023

Performancebased Design Standard 2024

• Design Fires Standard

2024

 Substantiating a Computer Model Guide 2024

• Existing Building Guide

2025

• Thermal Response Standard

Codes and Standards Development

Working to increase SFPE standards and guides references in all global model building / fire codes

Subcommittee established to focus on:

NFPA – over 400 public inputs

SFPE Guides & Standards currently referenced over 400 times in NFPA documents

New CEN Working Group

ICC

Submitting Code Proposal

Assisting with writing commentary

ISO – Liaison on ISO TC 92, SC04 (Fire Protection Engineering)





RESEARCH ROADMAP

Research Needs for the Fire Safety Engineering TOOL, APPLICATIONS, & METHODS Innovative Risk **Profession Technology Design Tools** /Probabilistic Data /Materials **Approaches Human Behavior Building Fires** Resilience/Sustainability **THREADS Fire Service Fire Dynamics Fire Safety Systems** Forensics/Investigations Wildland/WUI Fires

Non-Building Fires

Professional Qualifications (CPQ)

Doug Fisher, CPQ Chair

Chris Jelenewicz, Chief Engineer

Kevin Mlutkowski, Community Engagement, Marketing, and Communications Director

CPQ Subcommittees

Engineering Practice Subcommittee - Brandon Wilkerson, Chair

Higher Education Subcommittee – Beth Weckman, Chair

PE Exam Development Subcommittee – Traci Bangor, Chair

Professional Competency & Credentialing Subcommittee – James Bassett, Chair



	1010	1110	1210	1310	2014. P10	2015. P10	2016. P10	2017. P10	2018. P10	2019. P10	2020. C10*	2021
Total Number Examinees	213	201	208	210	212	203	199	234	241	299	205	258
No. of 1st Time Examinees	134	120	142	137	147	140	133	164	165	210	I	236
1st Time Pass Rate	52%	68%	60%	69%	64%	61%	68%	64%	56%	55%	88%	82%
Repeat Pass Rate	29%	44%	29%	37%	32%	25%	39%	44%	28%	29%		59%

FPE PE Exam Statistics

FPE Core Competencies

Recommended Minimum Technical Core Competencies for the Practice of Fire Protection Engineering sets a baseline for global understanding of the knowledge and skills needed to work as a fire protection/fire safety engineer. (Issued December 2018)

"A **Fire Protection Engineer** is an individual who, by formal training and professional experience, carries the necessary competency, and has the skills to provide guidance and direction to protect life, property and environment from threats posed by fire and its related mechanism."

Defining roles that FPEs perform, and the competencies needed for those jobs.

Visit: www.sfpe.org/fperoles for up-to-date information on this step.

Exploring Credentialing

Strategic Outcome – Determine metrics to measure competency.

Create competency information tied to roles FPEs perform to aid recognition of knowledge in skills in areas to ensure qualified personnel is completing the jobs.

Bring on expertise to evaluate credentialing options and resources that can move fire protection forward, especially in areas where there is no recognition.

Mickie Rops Consulting is working with the Subcommittee to explore creation of an SFPE credential



Engineering Practice

Raise awareness of the value of engineering fire safety globally.

Develop the scope of this project which includes a strategy for SFPE's advocacy, messaging, identifying audiences, and public relations.

Outward focus explaining:

What is an FPE? And how to become an FPE?

Who is qualified to be an FPE?

Fire protection professionals are part of the SFPE family.

Incorporate existing projects into the advocacy including the core competencies, career guide/career portal, and professional development opportunities.

CPQ Projects Underway...

Continue development of position statements to advance the fire protection engineering profession

Lead panel discussion on delegated design at SFPE 2022 Annual Conference & Expo

Explore opportunities to further engage with architecture and AHJ communities





Committee for Professional Development

Mark Fessenden, Chair

Hana Herron, Director, Education & Events

Erin Purdy, Manager, Education & Events

TBD, Manager, Education Development



CPD Subcommittees

Course Content Development – Warren Bonisch, Chair

Ethics Subcommittee – Carl Baldassara, Chair

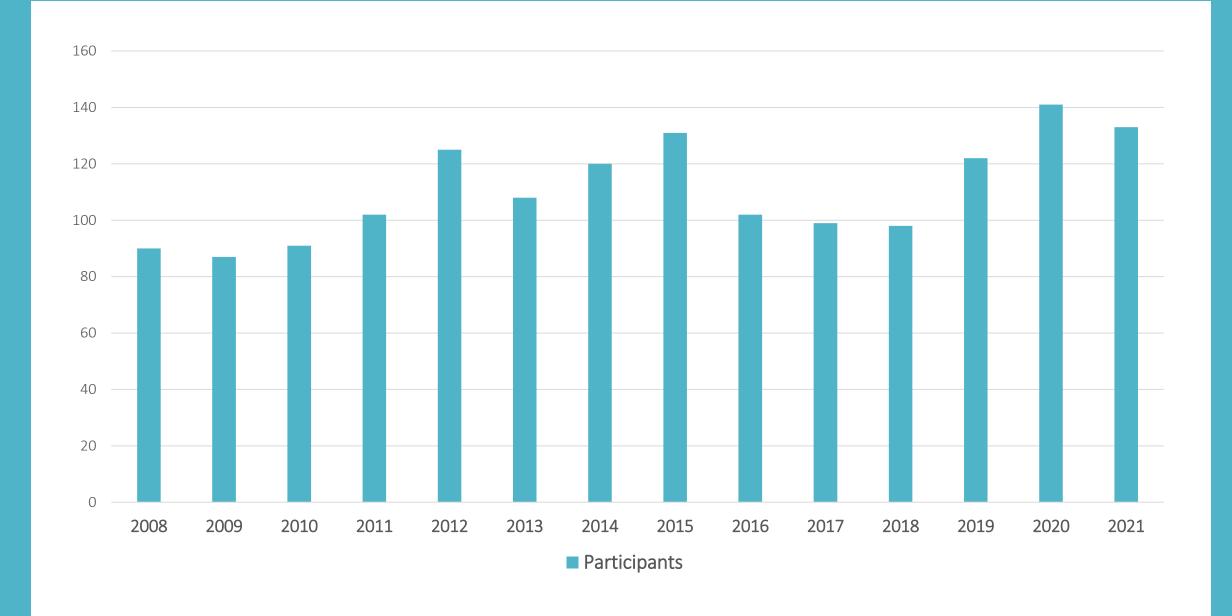
PE Exam Review Course Subcommittee – Stephen Dale, Chair

Annual Conference Program Subcommittee – Beth Tubbs and Rose West, Co-Chairs

European Conference – Udo Kirchner and Karl Wallasch, Co-Chairs

Storage Symposium – Bill Koffel, Chair





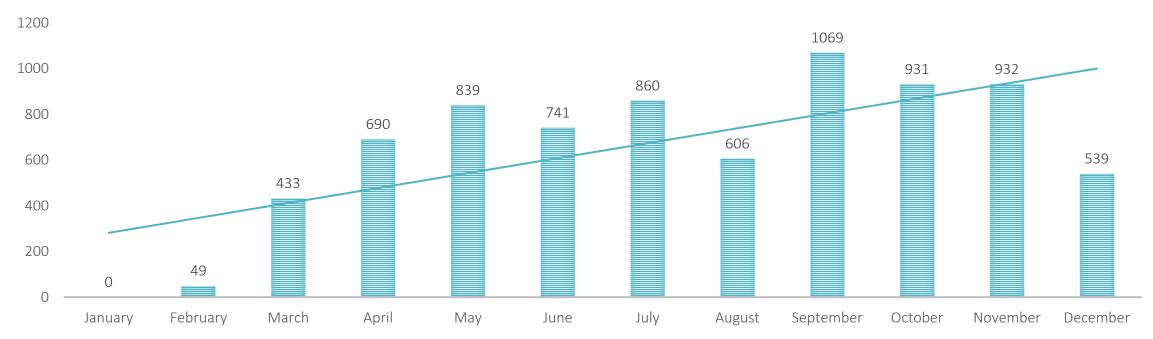


	Adv. FDS	Flam & Combust Liquids	PBD	App of Fire Risk Assess	Cause & Origin	Human Behavior in Fire	Dust Explosion	Very Tall Bldgs	Principles of FPE	Smoke Control Essentials	Adv. Fire Detect Alarm
2019	26	13	46	76	10	47	0	31	25	10	0
2020	105	0	58	35	0	55	56	25	31	0	0
2021	85	31	24	14	21	0	18	25	33	45	22

Seminars



2021 MONTHLY LMS UNIQUE USERS



New LMS







SFPE Webinar Series

MEMBER
WEBINAR SERIES

Member webinars are complimentary and exclusive to members, featuring topics to advance understanding of fire protection engineering.



Premium webinars are specially curated, extended sessions that feature leading subject matter experts. These are typically packaged as sets and explore timely topics and challenges that the industry is facing.



Fire Service webinars are sessions supported by the SFPE Fire Protection Engineering in the Fire Service Subcommittee.



Women in Fire
Protection
Engineering
webinars are specially
selected sessions that
support women who
are in the fire
protection engineering
profession to network,
learn, and share best
practices.

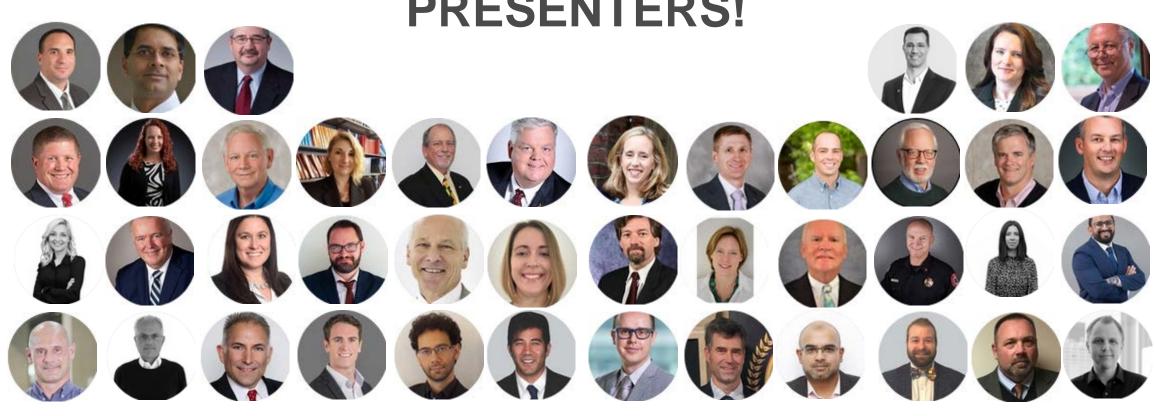


Research webinars feature presentations from leading scholars and practitioners of fire safety science and fire protection engineering around the world. PERSPECTIVE
WEBINAR SERIES

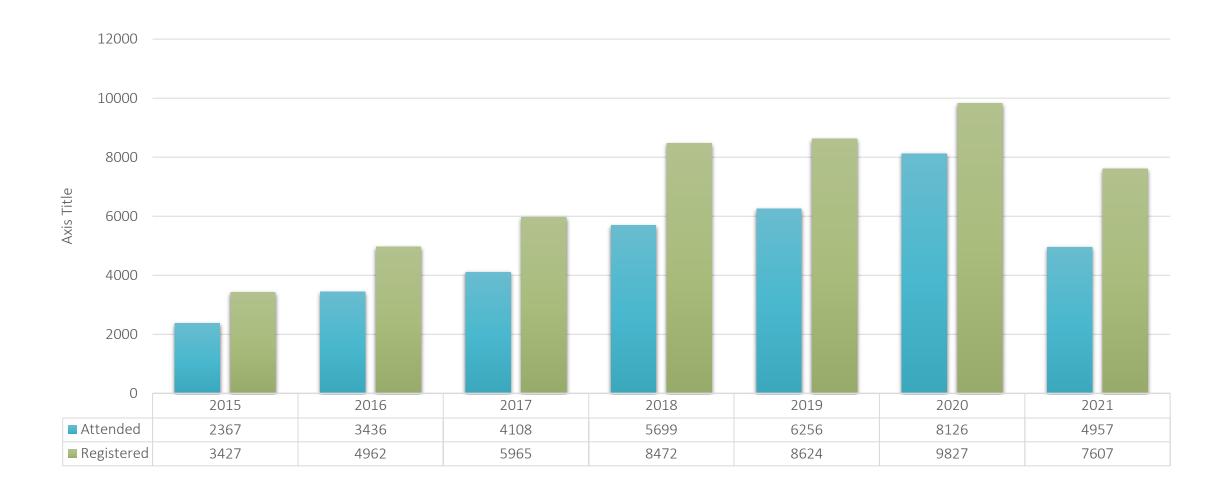
Perspective
webinars partner
with industry leaders
to keep you current
on emerging
technologies,
methods and trends.
These are available
to both members and
non-members.



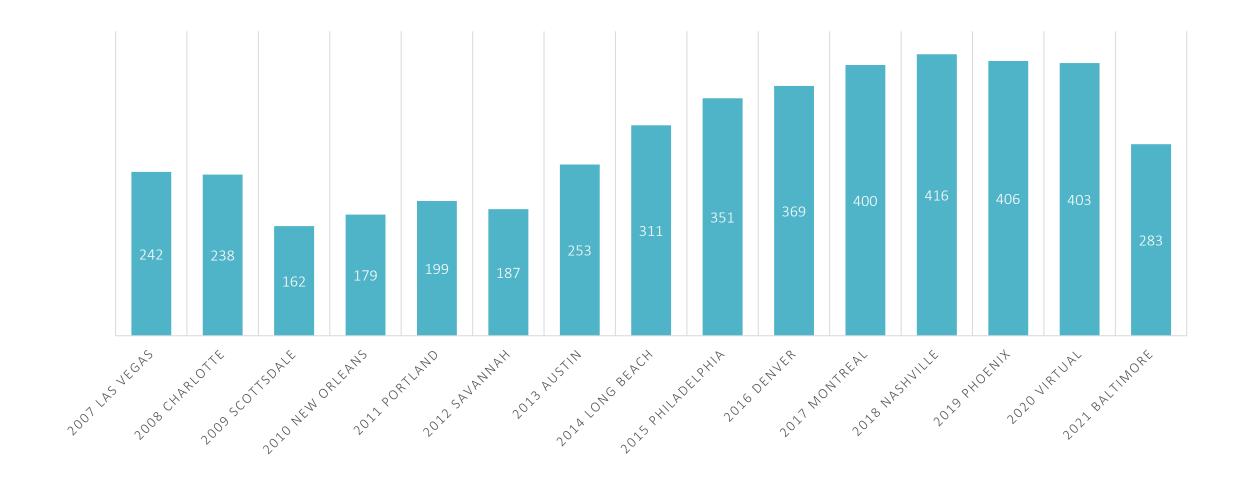
THANK YOU TO ALL 2021 VOLUNTEER WEBINAR PRESENTERS!





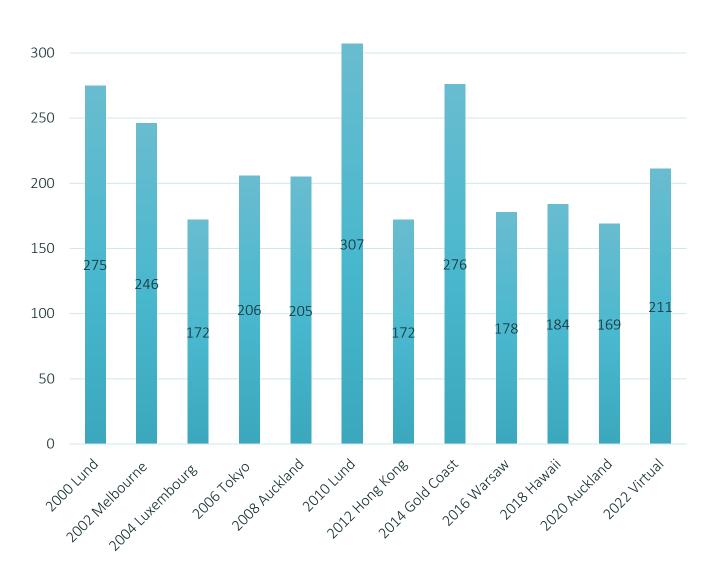


Live Webinars 2015 – 2021



Annual Conference History





PBD Conference History

Professional Development Initiatives Underway

Defining	Defining a core curriculum aligned with core competencies				
Developing	Developing courses aligned with core curriculum				
Enhancing	Enhancing PE Exam Review Course with on-demand content				
Enhancing	Enhancing virtual events to include local/regional events (Europe, Latin America, Middle East, etc.)				
Developing	Developing specialty events focused on specific topics in FPE (Storage, WUI, Healthcare, Energy, etc.)				



SFPE Foundation

Peter Senez, Chair, Board of Governors

Leslie Marshall, Foundation Director

TBD, Research Manager

Aimee Zube, Donor Relations Manager



Established by the Society of Fire Protection Engineers as the SFPE Educational and Scientific Foundation in 1979.

Mission & Vision



Mission:

Vision:

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

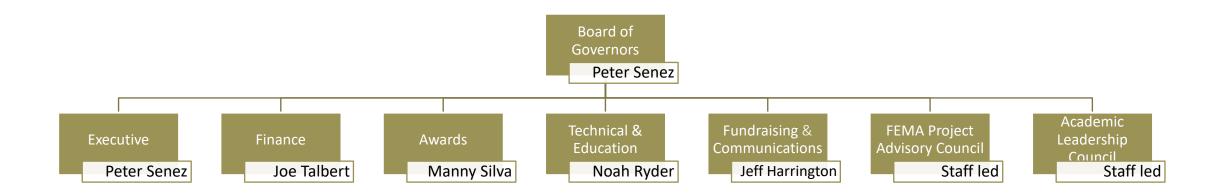


Facilitate scientific and engineering *research* focused on fire risk, safety, mitigation, control, and human response.

Facilitate the development of *engineering methods* to mitigate the adverse consequences of unwanted fires.

Provide *education* and research opportunities for the next generation of fire protection engineers.

2021 Foundation Committees & Panels



Foundation Resources

- ➤ Shared resources and support from SFPE
- Access to SFPE's network, in-house education, technical expertise, & more
- > External partnerships
- **→** Donations
- ➤ SFPE Chapter engagement

Grants

SFPE Chapters

SFPE Support

Individual members

External Partnerships & Affiliations

Corporate Donors

Planned Giving & Bequests THREADS

Research Needs for the Fire Safety Engineering

TOOL, APPLICATIONS, & METHODS

Profession	Data	Innovative Technology /Materials	Design Tools	Risk /Probabilistic Approaches
Human Behavior	\checkmark	\checkmark	\checkmark	\checkmark
Building Fires	\checkmark	\checkmark	\checkmark	\checkmark
Resilience/Sustainability	\checkmark	\checkmark	\checkmark	\checkmark
Fire Service	\checkmark	\checkmark	\checkmark	\checkmark
Fire Dynamics	\checkmark	\checkmark	\checkmark	\checkmark
Fire Safety Systems	\checkmark	\checkmark	\checkmark	\checkmark
Forensics/Investigations	\checkmark	\checkmark	\checkmark	\checkmark
Wildland/WUI Fires	\checkmark	\checkmark	\checkmark	\checkmark
Non-Building Fires	√	\checkmark	\checkmark	√

Our Work

- Research Roadmap
 Research project development
 Proposal writing & administration
 Education and outreach
- ➤ Cross-sectoral collaborations
- **→**Grantmaking
- **→** Scholarships
- **≻**Awards

2021 Fundraising



2021 Fundraising Highlights

THANK YOU TO THE INDIVIDUAL DONORS WHO HELPED MAKE 2021 A SUCCESS!

Exceeded overall fundraising goals for 2021:

- Chapter Donations = \$15,588
- Corporate Donations = \$94,950
- Individual Donations = \$57,048
 - Highest volume of individual donations ever
 - 41% of donations came from outside US

FEMA 2020 Fire Prevention & Safety Grant = \$147,619

Most activities scheduled for 2022

Gigawatt - \$25,000+







THANK YOU TO OUR 2021 CORPORATE DONORS!

Megawatt - \$10,000+





Kilowatt - \$5,000+















THANK YOU TO OUR 2021 SFPE CHAPTER DONORS!

New Zealand	
New England	
Rocky Mountain	
Southern Ontario	
New Jersey	
Chicago	
Greater St. Louis	

Central Savannah River Area Philadelphia-Delaware Valley Missouri-Kansas (Mo-Kan) Tennessee Valley Snake River Valley Portugal

With your support, the SFPE Foundation distributed

\$125,000+

in research and awards funding in 2021

Research Support

Funded Projects Completed in 2021

Anthropometric Data and Movement Speeds

- York University (Canada) and Arup (USA)
- Research Goal: to compile and organize contemporary, project specific, movement speeds from existing published and unpublished data sets from industry and academic partners globally, with special considerations for accessibility, upwards/downwards movement, etc.
- RR Threads: Human Behavior

Development of Fire Engineering Practitioner Tools

- Fire Research Group & University of Canterbury,
 New Zealand
- Research Goal: to develop a comprehensive set of practical modeling tools that may be used by engineers aligned with the state of the practice as described in the 5th edition of the SFPE Handbook of Fire Protection Engineering. Includes an international survey of current practices, an assessment of available tools, a gaps analysis, and a report summarizing the findings and priorities for industry tool development.
- RR Threads: Building Fires + Resilience/Sustainability + Fire Dynamics

Design Fire & Material Performance Database

- Poole Fire Protection, Performance Based Fire Protection Engineering, & University of Maryland, USA
- Research Goal: to understand what elements
 would be required to develop and maintain a
 "living" comprehensive dataset that could be
 used for assessing hazards and creating design
 fires. Includes a literature review that identifies
 data sources and a framework that could be used
 by engineers to standardize the approach and
 development of design fires.
- RR Threads: Building Fires + Fire Dynamics

Funded Projects Launched in 2021

Water Supply and Climate Change: The Impact of Water Stress on Fire Protection Systems

- Oklahoma State University (USA)
- Research Goal: understand how fire protection and water supply systems design should adapt to a changing climate, specifically water scarcity or stress that impacts the reliability of systems; identify whether codes, standards, or public policy changes may be needed. Publication pending.
- RR Threads: Fire Safety Systems + Resilience/Sustainability

Environmental and Health Impacts of Fire and Fire-Suppression Activities During Large-Scale Fire Events

- FireTox, LLC. (USA)
- Research Goal: characterize the environmental and health impacts following large-scale wildland and structural fire events; including a literature review, current systems for monitoring, and gaps analysis. Expected Q3 2022.
- RR Threads: Wildland/WUI Fires, Resilience/Sustainability, Innovative Tech/Materials

Student Research Grants



Any student researching fire protection or fire safety engineering topics may apply



5-8 awards per year, \$5,000 per awardee



Evaluated on technical merit, usefulness, qualifications, achievability



Applications due in May and November annually





2021 Student Research Grants Awarded

Causal Factors in the Escalation of Fire Incidents During Naval Ship Maintenance Availabilities

Cheryl A. Marek
University of Maryland
USA

Quantifying the Statistical Uncertainty of Furniture-Scale Fire Testing

David Morrisset
University of Edinburgh
UK

A Comparison of Zone and Field Model for the Probabilistic Simulation of NIST Kitchen Fire

> Iffah Umairah Zulmadji Universiti Putra Malaysia Malaysia

Deep-Learning for Flame Characterization in Compartment Fires

Juliette Franqueville
University of Texas at Austin
USA

Fire Behavior of Construction Systems Incorporating Waste Materials

Yohannes Shewalul
Stellenbosch University
South Africa

Awards & Scholarships

2021 Foundation Awards

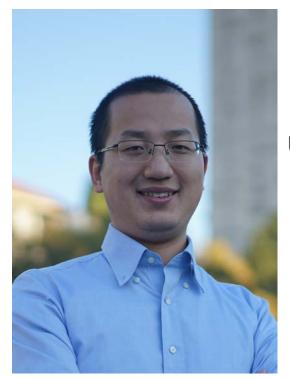
Dr. Guylène Proulx, OC Scholar - Recognizes a student researching in the field of human factors or human behavior related to fire, emergencies, or integration in fire protection engineering -- \$5,000 USD scholarship



Hossein Tavanarezaei
Ulster University
UK

For research on the microscopic characteristics of individuals in crowds

Student Scholar Award - Recognizes highperforming students who are conducting research to advance the science and practice of fire protection engineering -- \$1,000 USD scholarship



Xingyu Ren
University of Maryland
USA

For work on wildfires and fire science instrumentation

2021 Foundation Awards

The Arthur B. Guise Medal

Recognizes eminent achievement in the advancement of the science and technology of fire protection engineering -- \$2,000 USD honorarium

Dr. Pravinray D. Gandhi, UL LLC, USA (pictured)

For implementing fire modeling tools in fire safety evaluations, creating and advancing safety standards related to all aspects of fire protection, and impacting product design across a range of fire detection, suppression, and safety applications

Jack Bono Award for Engineering Communication

Recognizes the author(s) of the paper published in the SFPE Journal (*Fire Technology*) during the prior year that has most contributed to the advancement and application of professional fire protection engineering -- \$2,000 USD honorarium

Peiyi Sun, Roeland Bisschop, Huichang Niu, and Xinyan Huang For their paper: "A Review of Battery Fires in Electric Vehicles"





2021 Winner: Anene Oguaka, Stellenbosch University, South Africa
For performance-based fire engineering design with a focus on the local
wine industry

* New in 2021 *

Frederick W. Mowrer Global Scholar Award

- ► Endowed by Kathleen Almand
- Supports students from emerging nations studying fire safety science and engineering (or a related discipline) at a post-secondary institution in a developing nation
- ➤ Goal is to support students contributing to the development of FP expertise in countries with rapidly expanding infrastructure
- ➤\$1,000 USD scholarship

New Initiatives

SFPE Awarded FEMA FPS Grant!

Beyond the Checklist - A Virtual
Handbook for WUI Property Fire Risk
Assessment and Mitigation





FEMA FP&S Grant

➤ "Beyond the Checklist: A Virtual Handbook for WUI Property Fire Risk Assessment and Mitigation"

(August 2021 – December 2022)

➤ Putting engineering-based resources into the hands of fire departments operating in the WUI



FEMA FP&S Grant

- > Foundation managing the project
- ➤ Project Advisory Panel includes reps from SFPE Fire Service Subcommittee
- ➤ Virtual workshop Dec. 2021 with 20+ fire department representatives
- ➤ Piloting and tool development in 2022; designed for depts with more and less experience
- ➤ Tool dissemination via the SFPE and Foundation websites, webinars, publications, and presentations at the WUI Symposium and SFPE Conferences
- Launching with live demonstration at SFPE Annual Conference at Expo, October 14, in Detroit, MI

Academic Leadership Council



Members include 30+ dept reps globally



Meets 2 times per year; email comms monthly



Enhancing visibility for academic partners and programs



Sharing grant and funding opportunities, building relationships, advertising awards and scholarships

- ➤ Engaging faculty in research and education partnership discussions
- ➤ Identifying speakers and subject matter experts; highlighting programmatic strengths
- Featuring academic research through the Research in Fire Engineering Webinar Series
- Collecting data on program graduates to support the field with recruitment, retention, development, etc.



New Webinar Series: Research in Fire Engineering

- ➤ Open access no fee to view (free PDH credits!)
- ➤ Widely disseminate new, innovative research
- ➤ Presentations feature projects funded by the SFPE Foundation or completed by Academic Leadership Council (ALC) members

Examples:

➤ "Design Fire and Materials Database Project"

SFPE Foundation-funded research project

200+ registrants; recording now available



➤ "Experimental and Numerical Investigation of Gypsum Calcination under Fire Exposure"

ALC Member Presentation: Eastern Kentucky University

2021 SFPE Chapter Engagement

Presentations to SFPE Chapters

- 2021: Greater Atlanta, Snake River Valley, Chicago, Southern California, & British Columbia
- Raising awareness of SFPE & SFPE Foundation programs
- Includes technical content from SFPE Foundation-funded research projects

Chapter Outreach through SFPE

- SFPE Foundation included in SFPE Chapter Leadership Manual
- SFPE Foundation funding opportunities included in Student Chapter Flyer
- Presentation at annual SFPE Chapter Leadership Forum
- Posting in SFPE Communities



2021 Summary

- Another year of disruption and uncertainty as result of global COVID pandemic
- Managed and navigated successfully finding alternative sources of revenue to sustain operations
- Virtual PBD conference with higher attendance, but lower revenue
- Annual Conference w/ lower attendance and revenue
- Enhanced LMS and virtual education offerings
- Completion of Peer Review and Tall Buildings Guide
- Significant investment in the Foundation
- Launched new Grand Challenges Initiative tying global challenges to fire
- Developed Academic Research Council bringing together over 30 university programs to share knowledge and strengthen our ties
- Launched WUI Initiative to contribute engineering knowledge to the global wildfire crisis

BETH TUBBS, PE, FSFPE
2022 SFPE PRESIDENT

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