Building a Stronger Foundation

With new leadership in place, the SFPE E & S Foundation prioritizes research, sustainable funding and student engagement.
by Jeff L. Harrington, P.E., FSFPE

It’s been 40 years since the SFPE established the Educational and Scientific Foundation, and the volunteer-run nonprofit organization is undergoing a revitalization that will sustainably support the fire protection engineering profession and the society through robustly funded research and enhanced student engagement.

For years, the Foundation has been known for the scholarships, awards and other honors it bestows upon students and professionals in the field of fire protection engineering. Now, to align the organization’s priorities with the SFPE’s mission and the profession’s overall needs, an influx of new leadership is energizing the Foundation’s research and fundraising efforts and embarking on new strategic directions that will advance and evolve the field of fire protection engineering.

Mission and Goals

The mission of the SFPE is to reduce fire risk by defining, developing and advancing the use of engineering best practices, expanding the scientific and technical knowledge base and educating the global fire safety community.

In 2017, members of the Foundation’s board of governors and other stakeholders took a hard look at the Foundation to discuss the future strategic direction of the organization. They recognized the gap in research dedicated specifically to the profession and the need for better tools, means and methods. The Foundation then established its own set of goals and guidelines to align with the society’s priorities:

- Build a long-term sustainable research program
- Establish sustainable funding sources to support research
- Engage student participation in research and outreach
- Proactively communicate the Foundation’s vision
After presenting a comprehensive plan to the SFPE Board of Directors at the 2018 SFPE Annual Conference and Expo, the Foundation’s leaders began putting funds in place and setting plans in motion. Now that it’s been about a year since getting the go-ahead from the society, former Foundation Chair Fred Mowrer said the effort is in good hands, and he’s passing the baton.

“We have pointed the Foundation in a good direction over the past three years, and I look forward to further advancement,” said Mowrer, a university professor at Cal Poly with more than 40 years of fire protection engineering experience. “The Foundation needs to keep up its momentum, and under the new leadership, I'm confident that it will.”

Peter Senez, who joined the Foundation in 2016 as “a way of trying to give back” is taking over Mowrer’s role as chair and has been a big part of the recent transformation. He noted that while the Foundation involvement is on a volunteer basis, it’s crucial for fire protection engineers to invest time and energy into the profession because “if we don’t want to make time for our collective future then who will?”

“It’s our responsibility, as we become leaders in the field, to ensure continuity of the profession going forward,” Senez said. “There’s so much positive energy and momentum right now, I want to keep it going.”

Kathleen Almand, who recently retired as the National Fire Protection Association’s vice president of research, data and analytics, is lending her expertise to the Foundation as a consultant through this transition. “In order to advance the practice and the science, you need research that is closely tied to the needs of the profession,” Almand said.

**Research Roadmap**

In 2016, the SFPE released an extensive roadmap identifying future research needs for the profession of fire protection engineering. This living document, a long-term outline of priorities based on International Association for Fire Safety Science workshops and a survey completed by more than 300 fire safety engineers, includes nine research areas:

- Human behavior
- Building fires
- Resilience and sustainability
- Fire service
- Fire dynamics
- Fire safety systems
- Forensics and investigations
- Wildland and wildland urban interface (WUI) fires
- Non-building fires

Within the realm of human behavior, for example, an ongoing project recently funded by the Foundation involves taking a comprehensive look at people movement data, reflecting the real (anthropomorphic)
behavior of humans. This project is a unique collaboration, of York University in Canada, the consulting firm Arup and Lund University in Sweden, truly an alignment and collaboration of international experts committed to supporting the future of the profession.

“We’re really excited with the commitment of this group to bring their high-caliber practical knowledge to the industry,” Senez noted. “It doesn’t really get better than seeing multiple entities internationally coming together for the greater benefit of the profession.”

Also, there are multiple other projects in various stages of development and the Foundation intends to push hard over the next few years to really move the needle on resources for fire protection engineers. This makes it imperative that the international community helps to drive the research needs through the SFPE Research Roadmap Working Group.

**Student Engagement**

As the Foundation moves in the direction of funding more research projects, leaders are also considering how best to engage students, beyond its traditional scholarship model.

Almand asks “How can we engage students in other ways? We’re thinking about this holistically, advancing the profession while also advancing the future members of the profession.”

Mowrer, who’s been teaching undergraduate- and graduate-level fire protection engineering classes for more than 30 years at the University of Maryland and at Cal Poly, echoes that sentiment, and is optimistic about what current and future students will bring to the field.

“The students I have had, by and large, are much more dedicated and focused than when I was a student in the 1970s,” he said. “You don’t find people just wandering into fire protection education. If you’re in a graduate program in fire protection engineering, you’re there for a reason. You’re motivated and dedicated, and it shows.”

**Building on the Past and Looking Ahead**

As the new wave of leadership takes the reins, Mowrer is excited to stay involved with a new focus. One of the Foundation’s long-term goals is to proactively and effectively communicate its priorities, which will involve measuring its impact. Mowrer plans to look back at the individuals who have received grants and other awards from the Foundation over the years and evaluate the impact of those funds. “I want to look at who the Foundation has given grants to over the past five or 10 years and see what came of that in terms of benefiting those careers and the profession,” Mowrer said. “What did they add to the knowledge base with that support from the Foundation?”

The Foundation’s ambitious plan can’t be implemented without a substantial growth in its resources. New funding sources, and new collaborations with other organizations are being sought. SFPE Chapters have also increased their support of the Foundation, recognizing the value of the new initiatives. And SFPE itself, recognizing the role of the Foundation in implementing the Society’s technical vision, has
substantially increased its support. And, as Mowrer says “we need every practicing fire protection and safety engineer to make an investment in the future of our profession.”

To learn more about the Foundation and to contribute to its mission, visit www.sfpe.org/foundation.