



RESEARCH FOUNDATION

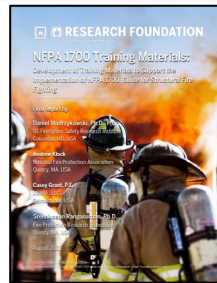
RESEARCH FOR THE NFPA MISSION

FPRF Quarterly Newsletter: 2021 Q3

Q3: Completed Projects and Featured Publications

Completed Projects

- [Static Electricity Incident Review](#)
- [Development of Training Materials to Support the Implementation of NFPA 1700. Guide for Structural Fire Fighting](#)
- [Alarm Technologies for Deaf and Hard of Hearing Populations](#)
- [Cybersecurity for Fire Protection Systems](#)



Featured Publications

- NFPA Journal – Older, Alone and At Risk on FPRF/NFPA “[Fire Safety in the US Since 1980: Through the lens of the Fire & Life Safety Ecosystem](#)” report.
- NFPA Journal – [Story in Progress](#) on FPRF/NFPA “[Fire Safety in the US Since 1980: Through the lens of the Fire & Life Safety Ecosystem](#)”.
- NFPA Journal – [Drone Smarts](#) on FPRF “[Public Safety Small Unmanned Aerial Systems \(sUAS\) Compliance Training: Literature Review & Case Study](#)” research project.
- NFPA Journal – [Air Supply](#) on the FPRF “Analysis of Firefighter Breathing Air Replenishment Systems” [report](#).
- NFPA Journal – [Protecting Pets](#) highlights the FPRF “[Fires in Animal Housing Facilities](#)” project.
- NFPA Journal – [Chirps & Beeps](#) highlights FPRF “Review of Alarm Technologies for Deaf and Hard of Hearing Populations” report in support of Fire Prevention Week.
- NFPA Journal – [How much protection is enough?](#) Highlights FPRF energy storage research and our Energy Storage Research Consortium.

Q3: Projects Initiated

Grant Projects

- 1) Direct R&D Grant from DHS FEMA – Assistance to Firefighters Grant Program: Expanding Firefighting PPE Cleaning Validation Procedures by Improving Best Practices and Exposure Assessment Methods | Partners – NIOSH NPPTL and International Personnel Protection, Inc.
- 2) Direct Grant (DHS FEMA - AFG) – Application of immersive learning on firefighter skills, health, and safety during training | Partners – NATFD and DSRAE, LLC.
- 3) Advisory Service (DHS FEMA - AFG) - Assessing Firefighters' Exposures to Thermal Decomposition Products of AFFF Replacement Alternatives | Project Lead - UMass Lowell
- 4) Advisory Service (DHS FEMA - AFG) - Development of Contamination Resistance as a Measure for Firefighter Protective Clothing and Its Impact on Other Performance Properties | Project Lead – North Carolina State University
- 5) Advisory Service (DHS FEMA - AFG) – Fire as a Weapon Integrated Response: Research-Based Training for Fire and Law Enforcement Personnel | Project Lead – ALERRT
- 6) Advisory Service (DHS FEMA - AFG) – Improving Firefighter Safety on Firegrounds Involving Li-Ion Batteries | Project Lead – University of Texas at Austin
- 7) Direct Grant from NIST - WUI-NITY – Phase III – Platform for simulation of WUI fire evacuation | Partners: Lund University, Movement Strategies, NRC Canada, and Imperial College London
- 8) Direct Grant from NIST – Survey on Usage and Functionality of smoke alarms and CO alarms in Households (additional funding) | Partners: CPSC

Consortia Funded Projects

- 9) [Evaluating Data and Voice Signals in Pathway Survivable Cables for Life Safety Systems](#)
- 10) Landscape of Battery Energy Storage System Hazards and Mitigation Strategies



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Q3: Multi-media

- [Podcast – 40 years of Fire Data](#) - Interview with Birgitte Messerschmidt, NFPA Research, on the Fire Safety in the US study.
- [Podcast – What if you can't 'Hear the Sounds of Fire Safety'?](#) - Interview with Mark Larson from Mark Larson & Associates, representative of National Disability Rights Network (FPRF Project Technical Panel representative).
- Video – Learn Something New “[Smoke alarm technologies for people who are deaf or hard of hearing](#)” on FPRF report

Q3: Past/Upcoming Events

Past Workshops

- Virtual Workshop on [Firefighting Foams: Fire Service Roadmap](#), October 12 – 14th, 2021, consisted of a series of 28 presentations followed by group discussion.
 - 480 registrants from 49 countries
- Virtual Workshop on Fire Safety in the US since 1980, October 15, 2021, | 12:00 – 2:00 pm.

Upcoming Workshops

- Virtual Workshop: Life Safety Challenges in K-12 spaces
 - Date: November 9 and 10, 2021 | 1:00 – 3:00 pm
 - Register for Day 1 [here](#) | Register for Day 2 [here](#)
- Research Planning Workshop for Detection & Alarm Industry, in collaboration with AFAA
 - Date: November 11, 2021 | 1:00 – 2:30 pm ET
 - Register [here](#)

Q3: Other FPRF News

- **[2021 Student Project Notification](#): 2021 student project requests are now open.** Find more details on the [Request for Qualification announcement](#) (PDF). To request a project, academic advisors should [send an email](#) no later than **5 p.m. ET on October 29, 2021** with the following information: (a) Project name; (b) Faculty advisor; (c) Student name(s) (if already identified); (d) Statement to demonstrate Qualification as an attachment in the email.

Q3: Past and Upcoming Webinars

Past Webinars

- FPRF Webinar: Traditional and Particulate-Blocking Hoods: Pros, Cons, and Trade-Offs, on **August 4th, 2021**. Access the webinar [here](#).
- FPRF Webinar: Cybersecurity for Fire Protection Systems: A Panel Discussion, on **Sept 13, 2021**. Access the webinar recording [here](#).
- FPRF Webinar: Fire Safety in the US since 1980, on **October 20th**, 12:30-2pm ET. Recording will be made available [here](#).

Upcoming Webinars

- FPRF Webinar: WUI-NITY: Platform for simulation of WUI fire evacuation II (Date/Time TBD). Registration will soon be available at www.nfpa.org/webinars

Q3: SUPDET/AUBE Highlights

- The Foundation's annual conference, Suppression, Detection and Signaling Research and Applications Conference (SUPDET 2021) and the 17th International Conference on Automatic Fire Detection (AUBE '21) were held on September 21 – 23, 2021 in Mulheim an der Ruhr, Germany. FPRF co-hosted this conference with the University of Duisburg-Essen.
- To accommodate the on-going Covid-19 crisis, this conference was held as a hybrid event. In-person and virtual attendance options were available, where virtual attendees were able to live stream into the live in-person sessions and engage with the in-person speakers and attendees.
- This conference consisted of 76 presentations covering the latest developments in research, technology, and applications for the fire protection community. See the program [here](#).
- If you missed this years' program, you can still purchase on-demand tickets [here](#) and have access to all the resources and content from SUPDET/AUBE 2021 until 22/September/2022!
- Special thanks to Jacqueline Wilmot, Amanda Kimball, Megan Sahillioglu and Eric Llamas for all the hard work behind the scenes to make this event a success!