SFPE21 Annual Conference & Expo
Baltimore, Maryland
Conference: Oct 17-19 | Seminars: Oct 20-22

Speaker Bios

Keynote & Featured Speakers

Stephen Kerber (Steve) is the Vice President of Research for Underwriters Laboratories and Director of UL's Fire Safety Research Institute. He leads a fire safety research team dedicated to addressing the world's unresolved fire safety risks and emerging dangers to reduce death, injury, and loss from fire. Steve has led research in the areas of fire safety engineering, firefighter safety, fire forensics, and fire science. He received his bachelor's and master's degrees in fire protection engineering from the University of Maryland and Ph.D. from Lund University in Sweden. Steve is also a 13-year veteran of the fire service, with most of his service at the College Park Fire Department in Prince George's County Maryland where he served at ranks up through Deputy Chief. Steve has also been appointed to the rank of Honorary Battalion Chief by the Fire Department of New York, was named the 2014 International Society of Fire Service Instructors and Fire Engineering George D. Post Instructor of the Year, was awarded the 2019 Metropolitan Fire Chiefs President's Award of Distinction and is a Fellow of the Society of Fire Protection Engineers.

Jason D. Averill is Chief of the Materials and Structural Systems Division (MSSD) of the Engineering Laboratory (EL) at the National Institute of Standards and Technology (NIST). The Materials and Structural Systems Division includes four groups: the Infrastructure Materials Group, Structures Group, Earthquake Engineering Group, and the Community Resilience Group. The division is also responsible for managing three statutory programs, including the National Earthquake Hazard Reduction Program (for which NIST is the lead agency), the National Windstorm Impact Reduction Program (for which NIST is the lead agency), and the National Construction Safety Team Program.

Since joining the Engineering Laboratory in 1997, Mr. Averill has focused his research on assessment of hazards to building occupants. Key research areas include movement of people, emergency preparedness, effectiveness of building systems and technologies, and emergency response. Mr. Averill has assessed fire safety for passenger rail cars, characterized material toxicity in large and bench scale experiments, characterized the effect of firefighting resources, and evaluated smoke detection technologies in residential housing.

Mr. Averill is currently an advisor to the Natural Hazards Center at the University of Colorado, Boulder. He is a member of the American Society of Civil Engineers, was appointed to two terms on the International Code Council's Means of Egress Committee, has served on the NFPA Life Safety Code Committee (Means of Egress), and was a member of the ASME A17 Task Group developing guidelines for Occupant and Firefighter Use of Elevators During Fire Emergencies.

General Sessions & Breakouts

Wayne Aho, Senior Product Manager at Siemens Industry, Inc., is a strategic 30-year veteran of Fire Protection Industry with extensive product management and product growth experience. Focused on creating new smoke / fire detection technologies & associated products to increase business revenue. Targeted exclusive, high-performing / high-quality products enabling global enterprise customers increased levels of protection for their unique facilities and high value processes while delivering robust margins and profitability. Expert in building consensus and impacting high-level decision-making in global working environments. Also enjoys driving strategic relationships, business development and participation in National level Industry and Technical forums.

Dr. Ali Ashrafi received his Ph.D. in Civil Engineering and Engineering Mechanics from Columbia University and is currently a Principal at Thornton Tomasetti. He is the Vice-chair of the ASCE Fire Protection Committee, and a member of the ACEC Metro Region Fire Codes Committee. Ali has extensive experience investigation damages to buildings, including as a result of fires. He also has overseen numerous projects including performance based structural fire engineering at several iconic structures throughout the US such as the Shed in New York City, Seaport World Trade Center in Boston, Pittsburgh International Airport, and Kravis Center in Florida. Dr. Ashrafi is also an Adjunct Professor at Columbia University, having taught both Structural Fire Engineering and Earthquake and Wind Engineering.

Aric Aumond is the Principal Fire Protection Engineer & Vice President at Performance Based Fire Protection Engineering, PLLC (PBFPE). He has technical experience which encompasses many aspects of fire protection engineering, with an emphasis on performance-based design and alternative means & methods, hazard analysis, and design of fire protection systems. Through his early career he has had the experience of working with diverse companies ranging in size from 2 to 100,000 employees. He has a Bachelor of Science degree in Mechanical Engineering from University of South Florida, and a Masters degree in Fire Protection Engineering from University of Maryland. Not only is he a licensed Fire Protection Engineer (P.E.) in multiple states, he also holds a NICET II certification in Water Based Systems Layout, Certified Fire Protection Specialist (CFPS), and shares affiliation with the National Fire Protection Association and the Society of Fire Protection Engineers.

Jesse Baker lives in Harmony, NJ with his wife and two daughters. Jesse is the National Sales Manager for Fire Products at Armstrong Fluid Technology and has worked in the Fire Protection industry since 2001. He holds a NICET IV certification in Fire Alarm Systems as well as a Master's Degree in Project Management from Drexel University.

Adam Barowy is a Research Engineer in Fire Research and Development group at UL. Adam develops and implements UL Standards and Test Methods and frequently tests new and innovative fire protection products. Adam advances UL's capabilities for characterizing the thermal, fire and explosion hazards of energy storage technologies and led the technical development of UL 9540A and UL's large scale ESS fire testing program. Prior to UL, Adam worked at NIST where he conducted full-scale structure fire field experiments to enable improved firefighting tactics, reconstructed LODD/injury fire incidents and evaluated firefighting equipment. Adam graduated from WPI with a MS FPE degree and volunteered at Amherst Fire Department while pursuing his B.S. in Mechanical Engineering at UMass.

Roeland Bisschop is a project manager and researcher at the Research Institutes of Sweden (RISE), one of the largest fire labs in Europe. He is one of the RISE's project managers for lithium-ion battery abuse tests, ad-hoc or according to standards such as UL9540a. In addition, he manages RISE research projects on safety aspects, such as fire, explosion and toxic hazards, related to energy storage systems.

Apart from working with hazards related to energy storage systems, Roeland is responsible for one of RISE's unique test methods, i.e. SP Method 2369. This method evaluates fire safety cabinets for storage of inflammable goods in retail environments.

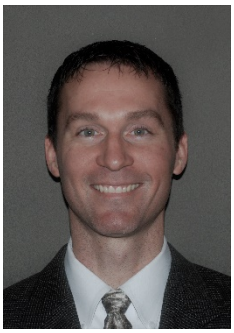
Roeland is one of the 2021 award recipients of the Jack Bono Award for Engineering Communication. The award recognizes author(s) who have most contributed to the advancement and application of professional fire protection engineering in the prior year.

Warren Bonisch is a nationally known expert in fire protection engineering, including fire and life safety analysis, egress design, performance-based design and analysis, code consultation, fire protection design and analysis and related services for a wide range of structures and projects. His experience has included participation in numerous design and consulting projects, leading project teams and managing projects. Mr. Bonisch is also recognized for his development of innovative solutions to code compliance issues. His experience includes both existing and new projects, nationwide and globally.

Mr. Bonisch is Associate Principal at Wiss, Janney, Elstner Associates (WJE). Prior to joining WJE, Mr. Bonisch was vice president at Jensen Hughes, where he led project teams in various large-scale projects located nationwide. His experience spans thirty-four years in fire protection engineering, management, and operations—including thirty-one years with Schirmer Engineering/Aon Fire Protection Engineering, where he served in various roles including senior vice president of the southwestern United States.

Ben Cooper, Sr. Electrical Engineer, has an extensive acoustic background and leads the Electrical Design team for the Hyperspike® product line at Ultra. Ben's expertise has helped form the architecture of Hyperspike® industry-leading systems that provide maximum intelligibility and coverage in acoustically challenging environments. He has developed several acoustic hailing devices and mass notification systems, and advised leading fire alarm equipment manufacturers on the commission and installation of these systems. Ben's current focus is the integration of mass notification with fire systems in global

applications. He earned his bachelor's degree in Electrical Engineering from the highly acclaimed engineering program at Trine University in 2005.



Andrew Cox is currently a Special Agent (SA) with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), where he has been employed for approximately 20 years. Andrew is a graduate of Worcester Polytechnic Institute (WPI) with a Bachelor of Science Degree in Mechanical Engineering and a Master of Science Degree in Fire Protection Engineering. Andrew is a Licensed Professional Engineer (PE) and Certified as a Fire Investigator (CFI) with ATF and the International Association of Arson Investigators (IAAI). Andrew is also a member of the NFPA 921 Guide for Fire and Explosion Investigations Technical Committee and has lectured extensively throughout the United States in topics related to fire investigation.

Steven E. Dannaway, P.E. is the operations manager for the Downtown LA office of Coffman Engineers and a fire protection engineer. He provides local leadership to manage daily operations, maintain responsive service, and implement the broader business strategy for the entire metropolitan area. He has more than a decade of experience in the fire protection industry, working with design and construction teams to achieve compliance with California Building and Fire Codes, International Building and Fire Codes, National Fire Protection Association (NFPA) codes and standards, and Federal Unified Facilities Criteria (UFC).

His experience includes work on hospitals and healthcare facilities, detention/correctional facilities, higher education campuses, mixed used high rise developments, corporate office campuses, transportation infrastructure, courthouses, industrial facilities, and entertainment/public assembly venues. Steven has performed smoke control computer modeling and smoke control engineering analysis, fire protection system design, hazardous materials analysis, analysis of passive fire resistance rated construction, means of egress analysis, building and fire code consulting, and performance based design in order to assist design teams, construction teams, owners, and end users with developing fire protection engineering solutions to satisfy applicable code requirements as well as owner driven goals.

John August Denhardt, FPE, FSFPE, is Vice President of Engineering and Technical Services at the American Fire Sprinkler Association. He is responsible for strengthening AFSA's engineering and technical approaches to meeting member, industry, and operational priorities, with an emphasis on service, quality, and integrity. Denhardt is a Professional Engineer (P.E.) registered in the District of Columbia as well as the states of Delaware, Maryland, Pennsylvania, and Virginia. He is a NICET Level III in Automatic Sprinkler System Layout and Inspection and Testing of Water-Based Systems and an NFPA Certified Water-Based Systems Professional (CWBSP). A native of Maryland, Denhardt holds a Bachelor of Science degree in Fire Protection Engineering from the University of Maryland, College Park. He is a member of the NFPA 13 Sprinkler Discharge Committee, a Fellow in the Society of Fire Protection Engineers, and sits on the University of Maryland Department of Fire Protection Engineering's Board of Visitors.

Prior to his current role, Denhardt was employed by Strickland Fire Protection in Forestville, Maryland since 1994, overseeing large-scale projects and assisting with design and installation technical issues. He has served as an AFSA instructor, volunteered as a subject matter expert assisting with AFSA training

updates, represented the Association on various technical committees, and authored numerous articles in the Association's flagship publication *Sprinkler Age*.

Gary Dominguez, Manager – Senior Fire Protection Engineer at JENSEN HUGHES, has been recognized by the Society of Fire Protection Engineers (SFPE) for the 2021 5 Under 35 Award. Recipients are selected based on their contribution back to the fire protection profession and volunteerism in the community.

Gary's professional fortitude has allowed him to advance his technical knowledge by leading large, complex projects while also maintaining his contributions to industry groups such as SFPE's Committee on Outreach and Advocacy (appointed to the group in 2017). Gary also has an aptitude for teaching and mentoring, which has enabled him to give back to the FPE community by volunteering as a guest lecturer at Cal Poly San Luis Obispo and Santa Ana College.

Frank Ellis has been a volunteer firefighter for over 28 years spending 7 of those years as Battalion Chief of the Deptford Fire Department. Frank was employed fulltime as a Lieutenant of the Emergency Services Department of Rutgers University for over 11 years serving the 5 New Brunswick campuses. He is currently employed fulltime as New Jersey State Coordinator of the National Fire Sprinkler Association. Frank holds an Associate in Applied Science in Fire Science and holds multiple New Jersey certifications including Fire Official, Fire Officer II, and Fire Instructor II. He is an active member of the Society of Fire Protection Engineers (SFPE) serving locally on the Board of Directors of the Philadelphia Chapter as Fire Service Liaison and serves nationally on the Fire Service Subcommittee of the Committee on Outreach and Advocacy (COA). Frank is also a per diem fire instructor for both the Gloucester County Fire Academy and Burlington County Emergency Services Training Center.

Richard Emberley, Ph.D. is the Constant J. and Dorothy F. Chrones Professor of Mechanical Engineering within the Mechanical Engineering Department at California Polytechnic State University (Cal Poly) in San Luis Obispo, California. Concurrently, he is jointly appointed in the Fire Protection Engineering Program within the College of Engineering. His teaching focuses on the areas of thermal-fluids and fire protection engineering in all aspects and covers both undergraduate and graduate-level courses. His research encompasses a broad range of topics included but not limited to, self-extinction of timber, compartment fire dynamics of exposed and protection timber structures, debonding of engineered timber, debonding of steel and fiber-reinforced plastics, visibility in smoke filled environments, and novel fire testing methodologies.

Mark Fessenden, has worked in Fire Protection Equipment Manufacturing for more than 20 years. His focus has been in the development of new technologies, codes & standards, technical services, and training. He holds 3 U.S. patents in automatic sprinkler technology. Mark is NICET certified in Automatic Sprinkler System Layout and Special Hazard Suppression Systems. He is a member of the Society of Fire Protection Engineers, National Fire Sprinkler Association, and American Fire Sprinkler Association, active nationally and locally. Mark is a member of numerous NFPA Technical Committees and has been a member of the NFPA Technical Committee on Residential Sprinkler Systems (AUT-RSS) since 2005. Mark has a B.S. Degree in

Mechanical Engineering Technology from New England Institute of Technology and an MBA from Corban University.

Erica Fischer, PhD, PE is an Assistant Professor of Civil and Construction Engineering at Oregon State University. Dr. Fischer's research interests revolve around innovative approaches to improve the resilience and robustness of structural systems affected by natural and man-made hazards. Dr. Fischer performs research on a variety of different structural systems including steel, timber (CLT), composites (concrete-CLT and steel-concrete), and thin shells subjected to hazards such as earthquakes and fires. She has led a team of multi-disciplinary scientists in post-wildfire reconnaissance in Paradise, California. Dr. Fischer sits on the Board of Directors of the Earthquake Engineering Research Institute and is an active member of the American Society of Civil Engineers (ASCE) Fire Protection Committee and the American Institute of Steel Construction (AISC) Task Committee 8 (Fire). She is also a member of the Earthquake Engineering Research Institute Board of Directors and the Structural Stability Research Council Executive Committee.

Douglas W. Fisher, P.E., FSFPE, LEED® AP BD+C is a licensed fire protection engineer, a Fellow in the Society of Fire Protection Engineers and LEED® Accredited Professional in Building Design and Construction with over 26 years of experience in the field. He is a professional fire protection engineer, by exam, and currently licensed in 26 states. Doug is a principal member of the NFPA Technical Committees on Space Ports, Commissioning and Integrated Testing, and Flammable and Combustible Liquids (Correlating Committee and Operations) as well as the Chair of the NFPA Technical Committee on Water Tanks. He is an active member of the Society of Fire Protection Engineers (SFPE) and the Chair of the SFPE Committee on Professional Qualifications. He is also a Past President of the SFPE Greater Atlanta Chapter and Governor of the SFPE Greater Atlanta Chapter Foundation.

Mr. Fisher is currently a Principal Fire Protection Engineer in the Georgia office of Fisher Engineering, Inc. His experience includes design, review, commissioning and retro-commissioning of active and passive fire protection systems, fire protection system failure analysis, life safety/building code review and analysis, fire hazard analysis and fire modeling. He holds a Bachelor of Science degree in Fire Protection Engineering from the University of Maryland and Master of Business Administration degree from Emory University.

Charles “Charley” Fleischmann is an Associate Professor at the University of Canterbury where he has been a major contributor to the Graduate Fire Engineering Program since it’s inception in 1994. Charley received his Bachelors degree in Fire Protection Engineering from the University of Maryland and his Masters and PhD from the University of California at Berkeley. Much of his research focuses on fire modelling both experimentally and numerically with particular interest in compartment fire phenomena including backdraft and flashover. Charley has over 30 years of experience in fire engineering research and practice. His consulting work includes fire cause, origin, and development as well as specialist consulting on fire design issues. He has given expert witness testimony in civil, criminal, and family court. Since 2004, he has served on the Fire Advisory Panel for the New Zealand Department of Building and Housing. In 2006 he was engaged as a consultant to work on developing a Verification Method for performance-based design for fire safety in New Zealand. He is a Fellow of SFPE and in 2011 he received the Arthur B Guise Medal for eminent achievement in the advancement of the science and technology

of fire protection engineering. He has over 100 academic and professional publications and has presented many invited and keynote presentations around the world.

Christina F. Francis, PE, FSFPE currently serves as Senior Staff Regulatory Specialist for Tesla, Inc. Her previous roles include Global Fire Protection Engineer for The Procter & Gamble Co. (P&G), loss control associate with Industrial Risk Insurers and design engineer with Bechtel. With almost 30 years in the fire protection industry her experience includes design, construction management, loss prevention, risk management and code consulting on a variety of industrial projects throughout the world.

Ms. Francis has a Bachelors Degree in Mechanical Engineering from Auburn University, is a registered professional engineer in Fire Protection and is a Certified Fire Protection Specialist (CFPS). She is a member of the Society of Fire Protection Engineers (SFPE), National Fire Protection Association (NFPA), Industrial Fire Protection Section (past chair) and previous Board Member of Fire Protection Research Foundation.

Dr. Pravinray Gandhi is Director of Research at Underwriters Laboratories Inc. with focus on fire safety. He has worked on research on a number of areas including smoke detection, fire growth and fire suppression. He has also contributed to the development of new fire performance test standards, fire hazard assessment methods, and has served on ASTM, NFPA, and IEC standards bodies as a subject matter expert.

Dr. Gandhi is the 2021 recipient of the Arthur B. Guise Medal recognizing eminent achievement in the advancement of the science and technology of fire protection engineering. The achievement may be in research, development, design, innovation, management, education or literature.

Robert Gerard, MSc., P.E., is a licensed FPE based in San Diego, CA. He has more than a decade of experience working in countries around the world for Arup, Holmes Fire, Katerra, and Coffman Engineers, where he is currently a Senior Fire Protection Engineer. He brings an international perspective focused on performance-based design to the US regulatory environment. His work includes major mixed-use buildings, hotels, resort casinos, transportation centers, museums, high-rises and office buildings, as well as numerous publications and educational seminars, workshops and conferences.

Robert's expertise with fire performance and safety in mass timber structures has made him an authority on fire safety in mass timber buildings. Robert holds a BS in Architectural Engineering from CalPoly SLO and a Masters in Fire Engineering from the University of Canterbury in New Zealand.

Casey Grant is Executive Director of DSRAE, LLC, an independent professional consulting firm with a focus on the design and implementation of research for the fire protection and emergency response communities. Casey occupies the position of the current Executive Director Emeritus of National Fire Protection Association (NFPA). He has held the position for nearly 13 years.

Raymond A. Grill, P.E., FSFPE, LEED AP is the founding Principal of Ray Grill Consulting PLLC which he formed to provide fire / life safety / code consulting services. He is licensed as a fire protection and mechanical engineer in several states and has over forty years' experience in fire protection engineering. Ray is a past president of the Society of Fire Protection Engineers and is a Fellow of the Society.

Ray serves on a number of NFPA technical committees and has served as chair of the Fundamentals and the Notification Appliances Technical Committees (TC) of the National Fire Alarm Code Project (NFPA 72). He is currently a member of the following NFPA Technical Committees (TC):

- NFPA 72 - Notification Appliances TC, Emergency Communications TC and serves on the Technical Correlating Committee of NFPA 72.
- NFPA 13 - Technical Correlating Committee member and Chair of the NFPA 13 Installation TC.
- NFPA 101/5000 – Chair, Technical Committee on Building Services and Fire Protection Equipment.

Ray also served on the General Code Development committee for the 2018 and 2021 ICC Code Development Cycle and is a member of the Fire Safety Code Development Committee for the Development of the 2024 IBC.

Philip Gunning, P.E. has over 26 years of experience in the fire protection industry. In 2019, Phil joined Victaulic as an Engineering Business Development Specialist. Previously, Phil was part of Aon's Property Risk Control team in 2017 after spending 10 years at Tyco Fire Protection Products as the Senior Manager of Technical Services and Training. Prior to Tyco, Phil spent 9 years as a fire protection consultant with two firms and conducted full-scale fire protection research for the U.S. Naval Research Laboratory for 4 years prior to consulting. Phil also held a position on the Board of Directors for the National Fire Sprinkler Association, is a "Member" of Society of Fire Protection Engineers and the National Fire Protection Association and was a NFPA 14 and 101 technical committee member on the NFPA Industrial Fire Protection Sections.

In his various roles, Phil has gained strong knowledge in water-based system design and inspection services, water supply/distribution, automatic sprinkler, fire pump, fire alarm/detection systems, high-pile storage, and special hazard analyses. Phil also assisted local AHJ's, consultants, risk engineers, contractors, architects, distributors, and students with code/standard interpretations and fire protection product support.

Kevin Hall, M.Eng, P.E., ET, CWBSP, PMSFPE, joined AFSA in 2020 as the Coordinator of Engineering and Technical Services. He has been in the fire protection industry for nearly 10 years. He is a registered professional engineer in Delaware and Maryland and has his bachelor's and master's degrees in fire protection engineering from the University of Maryland, College Park. Hall is a member of several NFPA technical committees, including NFPA 1 Fire Code Correlating Committee; NFPA 1 Building Systems and Special Occupancies; NFPA 1 Special Equipment, Processes, and Hazardous Materials; NFPA 3/4 Commissioning and Integrated Testing; NFPA 13 Residential Sprinkler Systems; NFPA 15 Water Spray Fixed Systems; NFPA 20 Fire Pumps; NFPA 909/914 Cultural Resources; and NFPA 915 Remote Inspections. He also represents AFSA on many UL standard technical panels (STP) involving the sprinkler industry, including STP 199 Sprinkler Equipment for Fire Protection.

Prior to his association and committee work, Kevin worked for Reliance Fire Protection in Baltimore, Maryland as a project manager for seven years overseeing projects of various sizes and complexity for the Contracts Division.

Jonathan Hodges, Ph.D. is the Service Line Leader in Advanced Modeling in Research, Development, Testing, and Evaluation at Jensen Hughes. He has 8 years of experience in fire dynamics, computational modeling, and machine learning. His current research interests are in using machine learning and statistics to improve our understand of fire dynamics, wildland fires, and atmospheric phenomena.

His experiences developing artificial intelligence technologies extends into other industries, such as automating processes in the nuclear industry with natural language processing, designing operation of autonomous robotic systems, and developing a novel methodology for simultaneous localization, mapping, and target detection for robotics.

Dr. Hodges earned his Ph.D. in mechanical engineering from Virginia Tech in 2018, where his doctoral work focused on developing machine learning solutions to predict fire behavior across large domains, including applications in wildland fires and coal mines.

Xinyan Huang, Ph.D. is the Deputy Director of the Research Centre for Fire Safety Engineering. He received his PhD from Imperial College London in 2016, MSc from University of California, San Diego, and BEng from Southeast University. Before joining PolyU, Dr. Huang was a Postdoc and Lecturer at the University of California, Berkeley, where he conducted research with NASA on the Microgravity Combustion and Fire Safety for the International Space Station. Dr Huang is a Combustion Scientist and a Fire Protection Engineer who has co-authored 80+ journal papers and reviewed for 40+ journals. Dr Huang is an Associate Editor of *Fire Technology* and *International Journal of Wildland Fire*, an editorial member of *Fire Safety Journal*, a committee member for HK Fire Safety Code, and a Fire Expert for HK High Court. He is also a winner of Bernard Lewis Fellowship and Sugden Best Paper Award from Combustion Institute, IAFSS Proulx Early Career Award, Ricardo Award from Institute of Physics, Fire Engineering Grand Award from HKIE, "5 under 35" and Bono Award from SFPE.

Kenneth E. Isman (Ken) graduated from the University of Maryland in 1986 with a BS in Fire Protection Engineering and later received an MS in Business Management. His first job out of school was with the National Fire Sprinkler Association (NFSA) where he worked for 28 years, the last eight of which as the Vice President of Engineering.

Ken left the NFSA in 2014 to take a position as a Clinical Professor at the University of Maryland in the Department of Fire Protection Engineering. He teaches classes in systems design, performance-based analysis, and life safety analysis.

A noted author and lecturer, Ken has been a speaker at hundreds of seminars, workshops and conferences and written a number of books on the design of fire protection systems including co-authoring the first edition of the NFPA Fire Pump Handbook. He has also authored chapters of a number of industry texts for the SFPE and NFPA. His latest book, Standpipe Systems for Fire Protection, was recently published by Springer Press.

Ken has been a member of more than 20 different committees of the SFPE, NFPA and AWWA including the committees responsible for producing NFPA 13 and NFPA 101 since 1987.

Kyle Johnson is a licensed professional engineer working at Coffman Engineers in structural engineering, based out of Seattle, WA. His experience includes new construction, tenant improvements, and seismic evaluations/retrofits of timber, reinforced concrete, and steel structures. Kyle has work in a variety of market sectors including office and medical office buildings, retail, commercial, industrial and hospitality. He has a focus in retail and hospitality and has worked on 75+ retail and hospitality projects around the US and Canada.

Moriel Kaplan, P.E., has over 20 years of experience in the fire protection engineering, building code consulting, property risk consulting, and life safety systems design fields. Ms. Kaplan currently serves as a Senior Vice President at Jensen Hughes, Inc. In this role she partners with clients in the commercial office, hospitality, public venue, education, and industrial vertical markets to solve unique, complex risk-based fire protection and life safety challenges that arise in the built environment.

Prior roles with Jensen Hughes, Inc. include Vice President of Business Development, VP of Business Support, Director of the Greenbelt, MD office, and various engineering consulting positions globally. Her specialties include the unique challenges posed by new technology; high-rise mixed-use construction; complex retail commodities; automated warehousing; and energy storage. She has also lead projects required to me United States government regulations worldwide.

Ms. Kaplan serves as Chair of NFPA's committee on Structures, Construction, and Materials for the Building Construction and Safety Code (NFPA 5000). She is a past president of the SFPE Chesapeake Chapter and a SFPE Hats Off Award recipient. She holds a professional engineering license in the State of Maryland.

Brad Kappeler, CET, started with Johnson Controls in 2019 as a regional sales engineer and has over 23 years of fire protection and life safety experience. Through the years, he's championed the fire industry in almost every role, as an estimator, project manager, team leader, business development manager, and sales manager. Brad's expertise covers a wide array of products and manufacturers, including networked voice fire alarm systems and mass notification systems, air sampling detection systems, gaseous clean agent systems, and CO^2/inert suppression systems.

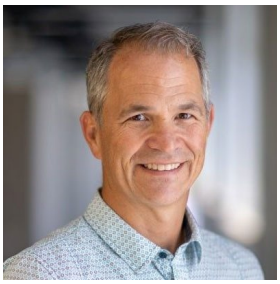
Dr. Michael Klassen is Vice President and Principal Research Engineer at CSE and has over 25 years of experience in fire protection and combustion engineering. He is responsible for the design and execution of numerous experimental and analytical projects in fire protection engineering involving fire dynamics, computer modeling, detection and suppression. He also conducts studies in fundamental and applied combustion research. He holds several patents in the areas of life safety and combustion.

Bryan Klein is the Product Manager at Thunderhead Engineering. He is also an instructor and content developer for SPFE courses and serves on the Board of Governors for the SFPE Foundation.

William "Bill" Koffel, P.E., FSFPE is President and founder of Koffel Associates, Inc. He is recognized as an expert in the fire protection and life safety aspects of codes and standards.

Mr. Koffel graduated in 1979 with a Bachelor of Science in Fire Protection Engineering from the University of Maryland; earned his Professional Engineering license in the specialty of fire protection engineering in 1983; and worked in private industry as well as in the Maryland State Fire Marshall's office. Totally committed to the fire protection and life safety industry with its governing codes, standards and design guidelines, he is Past President of the Society of Fire Protection Engineers, serves on numerous National Fire Protection Association (NFPA) Technical Committees, past member of the Department of Veterans' Affairs Advisory Committee on Structural Safety Issues, and is one of a handful of approved NFPA instructors teaching various code-related seminars, nationally and internationally. He has co-authored manuals, including the "Fire Warning and Safety Systems" American Hospital Association manual which is the industry's guide to selecting, testing, and maintaining fire suppression, fire alarm, and smoke control systems; and has contributed to, or currently serves on, various panels and committees including those for Underwriters Laboratory and the International Code Council (ICC).

In 1986, he founded Koffel Associates and has presided over its national and international growth to its current staff of 40 people with offices in Maryland, Connecticut, and Massachusetts.



Brian Lattimer, Ph.D. is a Professor in Mechanical Engineering at Virginia Tech where he performs experimental and computational research on fire safety and disaster resilience. His research areas include material behavior in fires, fire dynamics, heat transfer from fires to surfaces, structural response during fire, and firefighting technology.

Jamie McAllister, Ph.D., P.E., C.F.I., C.S.P is the Founder and Technical Director of FireTox, LLC. FireTox service areas include code consulting, due diligence and risk assessment, fire suppression, detection, and life safety system design, fire modeling, occupant tenability analysis, plan review, construction inspection, system commissioning, fire safety research, and fire and toxicological incident investigation. Dr. McAllister is a licensed fire protection engineer, a toxicologist, a certified fire investigator (CFI), and a certified safety professional (CSP).

Dr. McAllister obtained her Bachelor and Master degrees in Fire Protection Engineering from the University of Maryland, College Park, and her PhD in Toxicology from the University of Maryland, Baltimore. Her PhD research focused on combustion toxicity and fire related injuries and deaths. She is the co-author of the SFPE Handbook Chapter on *Assessment of Hazards to Occupants from Smoke, Toxic Gases, and Heat.* Dr. McAllister is also an adjunct professor in the Fire Protection Engineering Graduate Program at the University of Maryland, College Park where she teaches students about combustion toxicity and human behavior in fire.

Mark McKinnon has an M.S. in Fire Protection Engineering and a Ph.D. in Mechanical Engineering from the University of Maryland. His research at the University of Maryland focused on the development of a generalized methodology to characterize composite materials for pyrolysis models as well as the development and instrumentation of a bench-scale gasification apparatus to study pyrolysis with well-defined boundary conditions. Mark joined UL's Fire Safety Research Institute (FSRI) from the consulting world, where his work involved fire modeling, performance-based design, fire-related litigation, environmental regulation consulting, material flammability testing, and experimental design.

Jeff Merwin is the Director of Business Development for Potter Electric Signal Company. In 26 years at Potter and 6 years with an electronics development engineering firm, he has developed and applied products in fire protection, security, HVAC, and industrial control applications. He has been responsible for ensuring that the products meet end users' needs as well as meeting all technical requirements for listings and approvals domestically and globally. His diverse technical background and experience with the end users' applications and businesses offer a unique look into applying technologies prudently to make businesses run smoothly and more cost effectively. Jeff has served as an instructor for numerous SFPE chapters, Sprinkler Fitters Locals, fire protection associations and chapters, and facility / building management associations.

Jeff is an active member in the NFPA, NACE, and sits on safety standards committees for ASME and AHRI. He holds a Bachelor of Science in electrical engineering from Washington University in Saint Louis and is a named inventor on seven US patents.

Birgitte Messerschmidt is Director, Applied Research, National Fire Protection Association. She is responsible for NFPA's Research Strategy including global research outreach and manages research on fire problems and other safety issues (e.g. electrical deaths and injuries, CO incidents) using statistical data, detailed incident information, and reviews of relevant literature/research. She has a M. Sc. In Civil Engineering from the Technical University of Denmark and has spent her entire career working on fire safety issues. Making our built environment more resilient to fire through better understanding of the impact of construction products and methods, as well as testing procedures and policy has been a career long passion. She has been involved in testing and research as well as standardization and advocacy. She has published and presented numerous papers on fire safety issues.

David Morrisset graduated from the California Polytechnic State University (Cal Poly) with a BS in Mechanical Engineering in December 2018, and an MS in Fire Protection Engineering in June 2020. He has interned with a variety of fire protection engineering organizations over the duration of his studies including Jensen Hughes (Los Angeles), Arup (Los Angeles), and RED Fire Engineers (Melbourne, Australia). While at Cal Poly, David was involved in various on-campus research projects and also spent a total of 6 months working as a visiting researcher at the University of Edinburgh, UK. He is currently a PhD candidate at the University of Edinburgh pursuing a degree in Fire Safety Engineering. David is a member of SFPE, NFPA, Engineers Without Borders – USA, and the International Association for Fire Safety Science (IAFSS).

Lee Mullin, P.E. is a Fire Protection and Plumbing Engineer at Elara Engineering with a focus on fire protection systems design, code compliance, high-rise plumbing riser studies and riser replacement, material compatibility, and condition assessments. Prior to their role at Elara Engineering, Mx. Mullin served as an Associate II at Wiss, Janney, Elstner Associates in their fire protection consulting group. They are experienced with multiple computer modeling programs including Revit, AutoCAD, computational fluid dynamics programs such as Fire Dynamics Simulator (FDS) and timed egress analysis programs such as Pathfinder. They also have applied building enclosure modeling programs such as

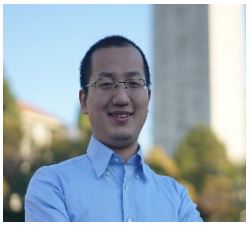
WUFI, THERM, and CONTAM to fire protection design challenges. Mx. Mullin has participated in multiple firestopping and fire rated joint system analyses, fireproofing analyses, fire-resistance rated construction analysis, fire and life safety analyses, and enclosure related surveys. They have conducted statistical analyses to determine the acceptability of these rated components. They also have experience reviewing and consulting on material compatibility of metallic pipes, CPVC pipes, and sealants.
Mx. Mullin currently serves as the Treasurer for the Chicago SFPE chapter and as the head of the Diversity, Equity and Inclusion Subcommittee for the international SFPE organization. Lee Mullin is a licensed engineer in Illinois.

Brian O'Connor is an Engineer in the Technical Services department at the National Fire Protection Association and Past President for the New England Chapter of the Society of Fire Protection Engineers. Brian is a professional engineer registered in the states of Texas and Massachusetts. He earned his Bachelor's Degree in Mechanical Engineering from Rowan University and a Master's Degree in Fire Protection Engineering from the University of Maryland. At NFPA he focuses on topics such as aviation, portable extinguishers, water-based fire protection, energy storage systems and health care facilities.

Anene Oguaka, MSc, CEng, MCIBSE Anene Oguaka is a mechanical building services engineer. Early career was as an academic in the university. However, he has since 2007 been practicing as a consulting mechanical engineer in the built environment, first in the UK and lastly in Nigeria. Project experience has ranged from hospitality to health care, recreational facilities to offices and factories. While in the industry, he developed interest in fire protection engineering. This led to his decision to take on his current PhD research study in fire engineering at Stellenbosch University, South Africa.

Mr. Stephen Olenick is a Principal Engineer at Combustion Science & Engineering, Inc. (CSE) with over 20 years of experience in fire protection engineering. He is a Principal member of the NFPA Technical Committee on Single- and Multiple-Station Alarms and Household Fire Alarm Systems (for NFPA 72) and is Chair of the newly formed Fuel Gases Warning Equipment Technical Committee responsible for the new Standard for the Installation of Fuel Gases Detection and Warning Equipment (NFPA 715). He is a frequent contributor to the fire science literature and is a member of the editorial board of *Fire Technology*. He is a past winner of the Bigglestone and Carey awards. His professional interests include forensic fire investigation, fire and gas detection, and fire protection analysis.

Jack Regan is a Research Engineer with UL's Fire Safety Research Institute (FSRI). He began working with the FSRI Team as an intern in 2013, and became a Research Engineer in 2017. Jack obtained his Bachelor's Degree in Civil Engineering from the University of Illinois at Urbana-Champaign, where he also worked as an Undergraduate Research Assistant at the Illinois Fire Service Institute (IFSI). His work there included a study evaluating the performance of SCBA facepieces when subjected to repeated thermal exposures. Jack went on to complete his M.S. in Fire Protection Engineering at the University of Maryland, where he graduated in 2017. He has worked on projects examining occupant tenability and firefighter training. He is currently a volunteer Firefighter/EMT with the College Park Volunteer Fire Department in Prince George's County, MD.



Xingyu Ren is a Ph.D. candidate in Fire Protection Engineering at the University of Maryland, College Park. He is also a visiting student in Prof. Gollner's Fire Research Lab at the University of California, Berkeley. His research interest is wildland fires with a focus on wind-driven flames and inclined flames. He also works on fuel particle ignition and smoldering problems of wildland fires.

Professor Albert Simeoni is the Department Head of Fire Protection Engineering at Worcester Polytechnic Institute in Worcester, Massachusetts. His research covers the development of experimental, analytical, and numerical techniques to better understand fire dynamics, as well as to predict fire and wildland fire behavior and impact. Beyond WPI, he has held academic leadership positions in teaching and research for fire at the University of Edinburgh (UK) and at the University of Corsica (France). He has also experience as a consultant in the US and he has spent over 10 years volunteering as a firefighter in France.

Holland Smith is a Business Development Director with Viking Integrated Safety, specializing in flame & gas detection and suppression technologies. He brings broad applications and fire protection expertise, with 23+ years in a variety of managerial, engineering & technical, sales, and marketing roles at leading life safety companies like Spectrex (Emerson), Consilium Safety, and The Hiller Companies. Holland is based in Houston and has extensive knowledge of oil & gas, aviation, marine, offshore energy, industrial and power generation industries.

Beth Tubbs, P.E., FSFPE, SFPE's President-Elect, has been with the ICC since 1995. During her time at ICC she has been involved in a variety of different activities including code development and support. Participation in various committees, both on a national and international level, has also been an important activity for her. Within the ICC framework, Beth has had a staff role in many different activities over the years. In particular, she was the lead staff during the initial development of the ICC Performance Code. This led to extensive involvement on a national and international level on the issues of performance building regulations. In addition to her involvement with performance-based regulatory issues, she has been active with prescriptive building and fire code development and application her entire career. Beth has and will continue to assist jurisdictions in applying building and fire codes through code opinions, presentations and development of support products such as commentaries and handbooks. She is currently the secretariat to the International Existing Building Code, ICC Performance Code and the International Fire Code.

Professor Richard Walls is the head of the Fire Engineering Research Unit at Stellenbosch University, Africa's first research team with a focus on fire engineering and structural fire design. Various fire related topics are currently being investigated, such as the design of steel structures in fire, analysis of structures in fire, forensic fire investigations, 3D printed concrete in fire, materials behaviour and informal settlement fire behaviour. Full-scale fire tests on shacks have been conducted on around seventy homes to understand fire behaviour, spread and how to reduce the impact of such fires. Consulting work has been done for companies developing rational structural fire design systems, and ascertaining the fire resistance of products. He was part of the team analysing the Knysna fire disaster, sponsored by Santam, and specifically considered why almost 1000 homes were lost in South Africa's largest wildland fire disaster. He has contributed to publications by the United Nations and World Bank on developing world fire safety issues.

Professor of structural and fire engineering, and head of the Fire Engineering Research Unit at Stellenbosch University (FireSUN). Various fire related topics are currently being investigated, such as the design of steel structures in fire, analysis of structures in fire, forensic fire investigations, 3D printed concrete in fire, materials behaviour and informal settlement fire behaviour.