GOTTUK ENGINEERING

# Daniel Gottuk PhD, PE

## Bio

Dr. Gottuk is President of Gottuk Engineering. He is a recognized expert in fire detection, fire dynamics, forensics, and is well published in the technical literature. He draws on his extensive experimental background and his long involvement in national codes and standards to provide clients practical and technically sound solutions to their problems. Daniel has evaluated fire development and fire protection systems in shipboard, residential and industrial applications. He has forensically analyzed a wide range of cases and assisted clients in product development and litigation matters. His research includes both basic and applied forensic studies to develop fundamental understandings of fire dynamics, pattern formation and damage assessment as well as to develop practical forensic tools for fire scene investigations and analyses.

Dr. Gottuk has been active in and a member of the NFPA 921 Fire Investigations Technical Committee for over 20 years. He is a contributing author and editor of the SFPE Handbook of Fire Protection Engineering and an author of chapters in the NFPA Fire Protection Handbook, and the National Fire Alarm and Signaling Code Handbook. Topics of Dr. Gottuk's research include compartment fires; liquid fuel fires; flammable gas fires; electrical fire analysis (beading and other signatures); tools and methods for calcination measurements and analysis; the development and analysis of clean burn; ignitable liquid residue sampling; and effects of accelerants on fire development.

## Professional Highlights

**Vice President RDT+E, Jensen Hughes, Baltimore, MD, 2021-2023**
Responsible for global coordination of research, development, testing and evaluation services that includes laboratory testing, analytical research, and advanced modeling.

**Chief Technical Officer, Jensen Hughes, Baltimore, MD 2018-2021**
Responsible for advancing the science of safety and promoting technical excellence. This includes overseeing the technical development of staff, the quality management system, technical knowledge management, and directing research and industry involvement. General manager for Software Solutions, QA and Project Management Office.

## Contact


- Annapolis, MD
- 443.310.5558
- dgottuk@gottukeng.com
- www.GottukEngineering.com


## Education

PhD, Mechanical Engineering,
Virginia Polytechnic Institute, 1992

BS, Mechanical Engineering,
Virginia Polytechnic Institute, 1989

## Registrations

PE: AL, MD, RI

## Associations

Member, National Fire Protection Association (NFPA)

Member, The International Association for Fire Safety Science (IAFSS)

Member, Society of Fire Protection Engineers (SFPE)

## Security Clearance

DoD, Secret

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## Professional Highlights (continued)

**Senior Vice President of Advanced Solutions, Technical Director, Jensen Hughes, Baltimore, MD, 2014 - 2018**
General manager for the Research, Development, Testing & Evaluation (RDT&E), Environmental, and Software development services. As Technical Director, responsible for establishing overall technical direction and initiatives for the company and maintaining technical excellence. Responsible for organizational structure, goals, processes, and meeting performance objectives. Also involved with strategic planning for the company.

**Director of Forensics and R&D, Jensen Hughes, Baltimore, MD 2012-2014**
Responsible for forensic and R&D services, including the supervision and management of senior and staff engineers. Primary lead in the acquisition and integration of a forensic firm into Jensen Hughes. Project management for a variety of fire related forensic, research, testing, and development programs.

**Senior Engineer, Jensen Hughes, Baltimore, MD 1992 - 2012**
Project manager for a variety of fire related research, testing, and development programs. Responsible for the planning, execution and analysis of experimental fire research and development studies in the areas of fire dynamics, fire detection and suppression, instrument development, and material performance. Projects also included the use of fire dynamics principles and models in applications of fire hazard analyses, fire investigations, and fire protection code equivalency assessments. Managed experimental and analytical work in support of litigation. Responsible for the determination of origin and cause, and the analysis of fire growth and the response of fire protection systems.

## Professional Standing

COMITTEES, BOARDS, AND PANELS
Member/Past-Chair, Technical Committee on Single- and Multiple-Station Alarms and Household Fire Alarm Systems (SIG-HOU), NFPA72 (1999-present)
Member/Past-Chair, Technical Committee on Carbon Monoxide Detection (SIG-CAR), NFPA 720 (1996-2018)
Member, Technical Committee on Fire Investigation (FIA-AAA), NFPA 921 (2003-present)
Member, Technical Committee on Fire Investigator Professional Qualifications (PQU-FIV), NFPA 1033
Member/Past-Chair, Fire Detection & Alarm Research Council
Member, UL Standards Technical Panel 217 for Smoke Detectors and Alarms
Member, UL Standards Technical Panel 20134 for Carbon Monoxide Alarms and Gas Detectors
Member, The Organization of Scientific Area Committees for Forensic Science (OSAC), Fire & Explosion

COMITTEES, BOARDS, AND PANELS
Editor, SFPE Fire Protection Engineering Handbook
Editor of the 8$^{th}$ Symposium of the International Association of Fire Safety Science
Editorial Board, Fire Technology (past)
Editorial Boards, Fire Science Reviews (past)
Reviewer, International Symposium on Fire Safety Science
Reviewer, Fire and Materials

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## Professional Standing (continued)

TECHNICAL JOURNALS AND BOOKS
Reviewer, Journal of Fire Sciences
Reviewer, Fire Safety Journal

AWARDS
Foundation Medal for the best and most noteworthy research project, “Development of Standardized Cooking Fires for Evaluation of Prevention Technologies: Data Analysis”, 2015
Hats Off Award from the Society of Fire Protection Engineers, 2015
Ronald K. Mengel Award for the most outstanding detection presentation at Suppression, Detection and Signaling Research and Application Symposium, SUPDET 2010
Jack Bono Engineering Communications Award for the Journal of Fire Protection Engineering paper that most contributed to the achievement and application of professional fire protection in 2006, 2007
Harry C. Bigglestone Award, Excellence in Communication of Fire Protection Concepts, 2004
Royal Institute of Naval Architects/Lloyds Register, Safer Ship Award, Advanced Damage Control Technology, 2003
Alan Berman Research Publication Award, Naval Research Laboratory, 2003
Alan Berman Research Publication Award, Naval Research Laboratory, 2000

PATENTS
Roby, R.J., Gottuk, D.T., and Beyler, C.L., “Multi-signature Fire Detector,” U.S. Patent No. 5,691,703, November 25, 1997