



JONATHAN G. JORDAN, P.E., CFEI
PRINCIPAL & DIRECTOR - ELECTRICAL

jjordan@engsys.com

Mr. Jonathan Jordan specializes in electrical engineering issues, and has performed numerous investigations into fires caused, or allegedly caused, by electrical issues. His experience includes evaluation of electronic products and their failure modes to determine whether they adhered to relevant safety standards, including those established by Underwriters Laboratories (UL) and the Canadian Standards Association (CSA). Mr. Jordan has also evaluated products and components for structural wiring compliance with the National Electric Code (NEC).

Mr. Jordan also has extensive experience in product safety failure analysis, resulting in design changes, ODM changes, and recalls. His projects have included a wide array of products and components, including but not limited to, electronics, printed circuit boards, appliances, HVAC/R, residential and commercial wiring, motors, power supplies, and battery failure analysis, with an emphasis on lithium-ion battery chemistry.

Mr. Jordan is a licensed Professional Engineer (P.E.) in multiple states, and holds a Certified Fire and Explosion Investigator (CFEI) Certification.

Areas of Specialization

- Failure Analysis of Electrical and Electronic Equipment
- Fire/Explosion Investigation
- Lithium-Ion Battery Failure Analysis and Fire Causation
- Event Reconstruction
- Failure Testing
- Failure Mode Compliance to Safety Standards

Education

- B.S., Electrical Engineering, University of Texas at Austin, TX, 2001
- A.S., Engineering, Paris Junior College, Paris, TX, 1998
- A.A.S., HVAC/R, Paris Junior College, Paris, TX, 1996

Licensed Professional Engineer (P.E.) and Other Certifications

- State of Texas.....License No. 112986
- State of Arizona.....License No. 55218
- State of New Mexico.....License No. 21805
- Certified Fire and Explosion Investigator (CFEI).....License No. 9136-4060

April 2024

Professional Affiliations/Honors

Underwriters Laboratory Inc. (UL)

Member, Standards Technical Panel 8139, Electrical Systems of Electronic Cigarettes and Vaping Devices (2017-2018)

Institute of Electrical and Electronic Engineers (IEEE)

IEEE PSES Chair – Dallas Chapter, 2015 – 2016

IEEE PSES Vice Chair – Forensic and Failure Analysis Technical Committee, 2008 – 2012

Charter Member, IEEE Product Safety Engineering Society (PSES)

International Association of Arson Investigators, Inc. (IAAI)

Member

National Fire Protection Association (NFPA), Electrical Section Member

NFPA Fire Risk Assessment Methods Technical Committee, 2009 – 2010

National Association of Fire Investigators (NAFI)

Member

Central Texas Fire Investigators Association (CTFIA)

CTFIA Communications Committee, 2009 – 2011

American Society for Testing and Materials (ASTM)

ASTM E30 Forensic Sciences Technical Committee, 2008 – 2016

ASTM E58 Forensic Engineering Technical Committee, 2008 – 2016

Positions Held

Engineering Systems Inc., Dallas, Texas

Principal & Director – Electrical, 2024 – Present

Senior Managing Consultant & Director – Electrical, 2023 - Present

Senior Managing Consultant, 2021 - 2023

Senior Consultant, 2017 - 2020

Senior Staff Consultant, 2013 – 2016

Goodson Engineering, Denton, Texas

Consulting Engineer, 2010 – 2013

Dell, Inc., Round Rock, Texas

Forensic Electrical Engineer, 2002- 2010

Sun Microsystems, Austin, Texas

Electrical Engineering Intern, 1999-2002

Davis Aire, Paris, Texas

HVAC/R Technician, 1997

Paris Junior College, Paris, Texas

HVAC/R Laboratory Instructor, 1996-1997

Patents

- U.S. Patent No. 7,851,077, Issued December 14, 2010
System and Method for Enhanced Information Handling System Battery Safety
- U.S. Patent No. 8,017,258, Issued September 13, 2011
System and Method for Enhanced Information Handling System Battery Safety

Publications/Presentations

- “Power Play: A Closer Look at Battery System Losses and Emerging Exposures.” **J.G. Jordan**, R.Grundy, C.Yearout; Presentation with panel discussion, *2024 Annual Conference, CLM – Claims and Litigation Management Alliance, San Francisco, CA. April 2-4, 2024*
- “Electrical Losses Involving Batteries.” **J.G. Jordan**, H. Estes, T. Shook; Presentations with panel discussion, *2023 Spring Meeting & Educational Conference, LEA – Loss Executives Association, Newport, RI. June 14-15, 2023*
- “Lithium-ion Battery Supply Chain: Product Safety Concerns and Quality Battery Procurement.” **J.G. Jordan**, G. Tataraka, K. Boyce; Presentation with panel discussion, *2023 Annual Meeting and Training Symposium, ICPHSO – International Consumer Products Health and Safety Organization, Orlando, Florida. February 21, 2023.*
- “The Implications of Post-Fire Physical Features of Cylindrical 18650 Lithium-Ion Battery Cells.”, **J.G. Jordan**, Video Presentation, *TTI Education Summit, One World Technologies, Inc., October 20, 2021.*
- “The Implications of Post-Fire Physical Features of Cylindrical 18650 Lithium-Ion Battery Cells.”, Nagourney, T., **Jordan, J.**, Marsh, L., Scardino, D., May, B. *Fire Technology. January 20, 2021.*
<https://doi.org/10.1007/s10694-020-01077-8>
- “Lithium Battery Hazards”, **J.G. Jordan** - Guest Lecturer at *Oklahoma State University, College of Engineering, Architecture, and Technology, Fire Protection and Safety Engineering Technology Program, Stillwater, OK. October 21, 2019; May 2, 2019; October 18, 2018; March 1, 2018; November 14, 2017; March 23, 2017; November 10, 2016.*
- “‘Assault’ with a Battery? Defending Claims Involving Lithium-Ion Batteries”, **J.G. Jordan**, G. Tataraka, presented at the *DRI Fire Science and Litigation Seminar, Washington, DC, September 13, 2018*
- “Standard for Electrical Systems of Electronic Cigarettes and Vaping Devices, ANSI/CAN/UL-8139: 2018”, **Jordan, J.**, Alaron R, Bellinger J, Brueckner S, Burton D, Cheng J, Chiang F, Corkill D, Davis B, Doughty D, et al; *Underwriters Laboratory (UL). First Edition, Dated April 27, 2018; Northbrook, IL., www.ul.com.*

- “Lithium Ion Battery Technology in The Advanced Age” Panel, “Forensic Investigation: Determining a Battery’s Role in an Incident”, **J.G. Jordan**; other segments: R. Grimes; K. Greenwood, T. Mullins, Esq., M.P. Miller, Esq.; presented at the *International Consumer Product Health and Safety Organization (ICPHSO) 25th Annual Symposium and Training Conference, Orlando, FL, February 20, 2018.*
- “Claims and Litigation Involving Lithium Ion Batteries”, **J.G. Jordan**, G. Tatarka, D. Valinoti; presented at *The CLM 2017 Midwest Products Liability Conference, Chicago, IL, June 15, 2017.*
- “Claims and Litigation Involving Lithium Secondary Batteries”, **J.G. Jordan**, G. Tatarka; presented at *The Battery Power 2017 Conference, Dallas, TX, May 18, 2017.*
- “26.5.2.3 Batteries.”, *NFPA® 921 - Guide for Fire and Explosion Investigations, 2017 Ed.*; **Jordan, J.** National Fire Protection Association (NFPA). Quincy, MA; December 16, 2016: 921-283.
- “Defense of Lithium Secondary Batteries Involved in Fire Losses”, **J.G. Jordan**, D. VanPuymbrouck, *For the Defense, magazine of DRI, Vol. 58, No. 12, Chicago, IL, December 2016.*
- “Defense of Lithium Secondary Batteries Involved in Fire Losses”, **J.G. Jordan**, D. VanPuymbrouck, presented at the *DRI Fire Science and Litigation Seminar, Scottsdale, AZ, November 17, 2016.*
- “Forensic Investigation of Lithium Secondary Batteries”, **J.G. Jordan**, presented at the *Institute of Electrical and Electronic Engineers (IEEE) / Product Safety Engineering Society (PSES) Meeting, Dallas, TX, April 2015.*
- “Uses and Capabilities of Computed Tomography in Forensic Engineering and Science”, **J.G. Jordan**, presented at *Materials Science and Technology (MS&T) 2014 Conference, Pittsburg, PA, October 2014.*
- “Computed Tomography: The New State of the Art in Evidence Preservation and Interrogation”, **J.G. Jordan**, A.E. Richards, *For The Defense, magazine of DRI, November 2013.*
- “Lithium Secondary Batteries and Hobbies”, **J.G. Jordan**, *Fire and Arson Investigator – Journal of the International Association of Arson Investigators, October 2013.*
- “Computed Tomography – The Next Generation Forensic Analysis Technology”, **J.G. Jordan**, *Georgia Defense Lawyers Association, July 2013.*
- “Forensic Usage of Computed Tomography (CT)”, **J.G. Jordan**, *Fire and Arson Investigator – Journal of the International Association of Arson Investigators, April 2013.*
- “So You’ve Been Put on Notice...Now What?”, **J.G. Jordan**, *Battery Power Magazine, January 2013.*
- “Batteries Under Fire”, **J.G. Jordan**, *Fire and Arson Investigator – Journal of the International Association of Arson Investigators, October 2012.*