

Eric Schultz is a Staff Consultant for Engineering Systems Inc. (ESi) in the Electrical practice group. Prior to joining ESi, he worked as an Electrical Engineer at Parker Aerospace and Lockheed Martin. Mr. Schultz specializes in electrical engineering issues involving electrical failure analysis, PCBs, electrical components, electrical and battery fires, and aerospace requirements. He has extensive experience in risk reduction testing and analysis. Mr. Schultz also has experience with DO-160 and DO-254.

Licenses & Certifications

- State of Texas – Fundamentals of Engineering (F.E.), License No. 24-171-75
- Transportation Worker Identification Credential (TWIC®)
- NAFI Certified Fire and Explosion Investigator (CFEI)

Positions Held

Engineering Systems Inc., Houston, Texas

Staff Consultant, 2023 – Present

Parker Aerospace, Fort Worth, Texas

Electrical Engineer – Circuit Design, 2022 – 2023

Lockheed Martin, Arlington, Texas

Electrical Engineer - Components, 2020 – 2022

Raytheon Missile System, Tucson, AZ

EE Intern, 2019

Publications

Metal Oxide Varistors in Fires – Cause v Fire Victim

Bilancia, P. R. Ritchie, E. M. Schultz and K. G. Cline, 2025 IEEE International Symposium on Product Compliance Engineering (ISPCE), San Francisco, CA, USA, 2025, pp. 1-7, doi: 10.1109/ISPCE64260.2025.11044895

Design, Risk, and Efficacy While Testing to Standards – Tradeoffs for Surge Protective Devices

Schultz, E.M., Bilancia, L.F., and Bajzek, T.J, 2024 IEEE International Symposium on Product Compliance Engineering (ISPCE), Chicago, IL, USA, 2024, pp. 1-6, doi: 10.1109/ISPCE61193.2024.1054114

Eric M. Schultz

Staff Consultant

Email: emschultz@engsys.com

Phone: 832-403-2052

ESi – Houston, Texas

18500 Trails End Rd.

Conroe, TX 77385

Education

B.S., Electrical Engineering

Brigham Young University

Provo, UT, 2020

A.S., Utah Valley University

Orem, UT, 2014

Areas of Specialization

Electrical Devices

Electrical Power Systems

Controls & Software



Presentations

Metal Oxide Varistors in Fires – Cause v Fire Victim

Schultz, E.M., Bilancia, L.F. presented at the International Symposium on Product Compliance Engineering (ISPCE) San Francisco, CA, May 2025

Design, Risk, and Efficacy While Testing to Standards – Tradeoffs for Surge Protective Devices

Schultz, E. M., Bilancia, L. F., and Bajzek, T.J., presented at the International Symposium on Product Compliance Engineering (ISPCE) Chicago, April 2024

Professional Affiliations/Honors

- **Institute of Electrical and Electronics Engineers (IEEE)**
Member since 2024
- **National Association of Fire Investigators (NAFI)**
Member since 2024

Project Experience

Investigations

Fire Investigations – Electrical Systems & Battery Technologies

Conducted forensic investigations of residential, commercial, and utility-scale fires involving electrical systems, consumer devices, and battery energy storage systems (BESS). Casework includes incidents with losses ranging from \$50,000 to over \$10 billion.

Transformers

Investigated transformer damages at manufacturing facilities.

Electric Shock

Investigated electric shock events related to utility power distribution, commercial electrical repairs, and system installations. Evaluated compliance with electrical safety standards and fault conditions.

Design and Operational Experience

PCBA Analysis – Root Cause

Diagnosed root causes of recurrent PCB failures in consumer electronics and medical devices. Developed engineering solutions and design modifications to mitigate future failures and enhance product safety and reliability.