

# TRANSIENT OVERVOLTAGE 101 TRAINING

## WHO SHOULD ATTEND THIS TRAINING

- Electrical engineers
- Electrical formen
- I & E supervisors
- I & E technicians
- Reliability engineers
- Plant managers
- Maintenance personnel
- Anyone interested in asset reliability

### TRAINING DETAILS

- 60-minute Training
- 30-minute Q&A
- On-site or virtual

## WHAT THE TRAINING COVERS

- 1. The Digital Shift and Modern Vulnerabilities:** Understand how the transition from electromechanical systems to digital technology increases equipment susceptibility to transient overvoltage-related malfunctions and failures.
- 2. Debunking Common Misconceptions:** Explore widely held beliefs about transient overvoltage, such as the idea that most transient overvoltage events come from the grid, and learn why they don't hold up under scrutiny.
- 3. Mitigation and Best Practices:** Discover why a single SPD at the service entrance is often insufficient and why IEEE considers implementing a robust, system-wide application a "conservative engineering approach."
- 4. Standards and Practical Guidance:** Gain insights from IEEE standards, industry research, and real-world examples to support informed decision-making in transient overvoltage mitigation.

## WHY YOU SHOULD ATTEND THIS TRAINING

Our interactive training session educates teams on the causes, vulnerabilities, and mitigation of transient overvoltage. Properly mitigating these events provide users with difference-making improvements in equipment reliability and lifespan.

**"CURRENT SURGE PROTECTION SYSTEMS ARE BUILT AROUND LARGER EVENTS, MEANING THAT SEVERAL SMALLER EVENTS OR TRANSITIONS CAN GET THROUGH SURGE PROTECTION SYSTEMS, AND THESE LOAD TRANSITIONS CAUSE FIELD FAILURES WHEN THE POWER QUALITY IS POOR."**  
— U.S. DEPARTMENT OF ENERGY REPORT



Contact your project manager or our training coordinator  
Karen Matheny to schedule your training  
at 806.705.8791.

## MEET YOUR TRAINER



**Jack Klaus**  
*Vice President*

Jack Klaus is a Vice President at Maxivolt, a 37-year-old manufacturer specializing in transient overvoltage mitigation technology and solutions. With over a decade of specialized experience, Jack has contributed extensively to the development of industry standards and educational initiatives through IEEE, UL, NEMA, and NFPA in the surge protection and transient overvoltage community.

Jack's professional journey began in Washington, D.C. on Capitol Hill, where he served in many roles, including as an advisor on science and technology legislation. This early career experience laid the foundation for his expertise in policy, technology, industry collaboration, and proficiency in teaching technical topics.

Jack holds leadership roles in multiple prestigious organizations, including serving as Vice Chair (and former Chair) of the NEMA ICS-Voltage Surge IDC and Chair of the UL 1449 Standards Technical Panel Task Group on Multi-Pulse Lightning. As Chair of the IDC, Jack was tasked with educating many organizations on the topic of transient overvoltage and surge protection devices, including the Independent Alliance of the Electrical Industry (IAEI), the National Electrical Contractors Association (NECA), and others. He is also an active member and officer of the IEEE Surge Protection Device Committee, various IEEE working groups (3.6.15 and 3.6.4), and the NEMA Industrial Core Leadership Committee. His dedication to advancing the field extends to the NEMA Ad Hoc Steering Committee for Small Business, where he is a Charter Member.

In his current role at Maxivolt, Jack leverages his technical expertise, leadership, and proficiency in teaching technical topics to provide educational training sessions on surge protection technologies.