

Monday, March 13

8:00-9:00am	Electrical Safety Risk Management: Study Group Meeting for Project Authorization Request
8:00-10:00am	P1683: IEEE Guide for Motor Control Centers Rated up to and including 600 V AC or 1000 V DC with Recommendations Intended to Help Reduce Electrical Hazards
8:00-12:00n	P2969 IEEE Guide for Continuous Thermal Monitoring of Switchgear and Motor Control Centers up to 52kV
9:00-11:00	IEEE P1814 Electrical System Design Techniques to Improve Electrical Safety
11:00-12:00n	P1584.2 Guide and Checklists for the Data Collection for Performing an Arc-Flash Hazard Calculation Study
1:00-3:00	Electrical Safety Committee Meeting Tuscany 9/10
3:00-6:00	Various Subcommittee Meetings

Hospitality Suites

Monday

6:00 PM

SIEMENS ELECTRIC

Tuesday

8:00 PM

EXERTHERM

Wednesday

6:00 PM

ROXTEC

Please check for up to date information on the EventMobi app or the notice board at registration.

IEEE IAS Electrical Safety Workshop

Organized by the
IEEE IAS Electrical Safety Committee

Sponsored by the Industrial Application Society of the Institute of Electrical and Electronic Engineers, Inc. the IEEE Electrical Safety Workshop is a transnational technical forum organized by the IEEE IAS Electrical Safety Committee. Since its founding in 1991, it has served to accelerate the dispersion of information and knowledge impacting electrical safety.

MISSION

- To accelerate application of breakthrough improvements in human factors, technology and managing systems that reduce risk of electrical injuries;
- Stimulate innovation in overcoming barriers; and
- Change and advance the electrical safety culture to enable sustainable improvement in prevention of electrical incidents and injuries

Advancing the Electrical Safety Culture

Mark your calendars

ESW 2024

March 4-8

El Conquistador Tucson

Tucson, Arizona, USA

2023 IEEE IAS Electrical Safety Workshop



Advancing the Electrical Safety
Culture

1992-2023

March 13-17, 2023

Pepper Mill Hotel

Reno, Nevada

Download the ESW App
www.eventmobi.com/esw2023

Tuesday March 14

8:00–12:00n	Tutorial 1 Capacitors – Principles and application of NFPA 70E-2021 Annex R: Mark Scott
8:00–12:00n	Tutorial 2 Electrical Safety: Diffusing the Cultural Warriors: T. Perilloux
8:00–12:00n	Tutorial 3 NFPA 70B: A Review of the New Maintenance Standard: K. Cunningham
8:00–12:00n	Tutorial 4 Electrical Safety Management Best Practices: M. Doherty, L. Floyd, N. EL-Sherif, R. Graves
11:00-1:30	Companion Luncheon: (by invitation)
11:30-12:30	Authors’ & Student Luncheon (by invitation)
12:00-1:00 PM	Tutorial Lunch – (for Tutorials 1,2,3 & 4 registrants only)

ESW 2023 Opening Session

1:00-1:30 PM	ESW2023-01: Welcome to ESW 2023: Mark Scott, Chair ESW
1:30-2:00	ESW2023-02: Shock Culture: M. Scott
2:00-2:45	ESW2023-03: Methods for Evaluating DC Arc Flash IE in Battery Energy Storage: A. Marroquin; T. McKinch
2:45-3:15	Break
3:15-3:30	ESW2023-04: Did you Test Really Test That Interlock? P. Sullivan
3:30-4:15	ESW2023-05: Through the Lens of Systems Safety: The Limitations of a Compliance- Based Safety Culture and Opportunities to Reduce Electrical Injuries: L. Floyd
4:15-4:30	ESW2023-06: Sustainability of An Electric Arc Flash at a Voltage of 240 VAC and 150 VDC: K. Gray, S. Robert, R. Halle
4:30-4:45	ESW2023-07 Student Focus Session Introduction: D. Hill

Student Poster Session

“Safety Prevention through Design Student Engineering Education Initiative” (4:45 – 7:00)

-	An Analysis of Accidents Leading to Electrical Shocks in Brazilian Electric Power Distribution Between 2013 and 2021, D. Souza.
-	Electrical safety increased in MV-LV substation: BIM, SCADA and Digital Twin integration, R. Loggia
-	Transitions Toward Green Hydrogen and Implications for Electrical Safety, J. Su
-	Electrical Safety Incentive Mechanism based on Blockchain-Enabled Tokens, H. Naderi
-	Comprehensive Analysis of Data-Driven Arc Flash Hazard Calculation, P. Su
-	Fire Hazard Mitigation in Distribution Feeders via Short-time Analysis of Waveform Measurements and Grid-aware Graph Neural Network, M. Lakouraj
5:30-6:00 PM	First Time Attendee Get Together
6:00-8:00 PM	Welcome Reception

Wednesday March 15

7:00-8:00 AM	Breakfast
7:45-8:00	Early Bird
8:00–8:45	ESW2023-08: A Scientist’s Perspective on Electrical Safety: E. Esch, R. Joggerst
8:45-9:00	ESW2023-09 Why Can't A Person Use A Proximity Sensor To Verify A Zero Voltage State For Low Voltage Systems? J. Rachford
9:00-9:45	ESW2023-10: Increasing Safety Through Effective Asset Reliability Programs: M. Robinson
9:45-10:15	Break
10:15-11:00	ESW2023-11: Arc Rating Variability and Repeatability: Why Does Fabric Arc Rating Vary and Which Value Is Correct? A. Atiq, E. Ramirez, B. Shiels, C. Maurice, H. Hoagland
11:00-11:45	ESW2023-12 Why Do Electrical Fatalities Occur on The Job? Understanding The Human Factor of a Fatality: D. Majano, B. Brenner
11:45-12:00n	ESW2023-13: Looking forward to ESW2024: J. Prigmore
12:00-1:00	Lunch
1:00-1:45	ESW2023-14: Doors Wide Open: Safety Beyond The Standards: J. Kay, J. Arvola, M. Manninen
1:45-2:00	ESW2023-15: Best Practices For Non-Nationally Recognized Testing Laboratory Utilization Equipment Inspection Processes: M. Anderson, D. Thomas
2:00-2:45	ESW2023-16: 347/600 Volt Arc Flash Mitigation At British Columbia Hydro: A. Gamage, S. Jackson, P. Therrien
2:45-2:50	ESW2023-17: Introduction to ESW 2023 Electrical Exposition: K. Warren

Product and Services Expo and Social The Latest in Technology and Services (3:00 – 6:00)

Thursday March 16

7:00-8:00 AM	Breakfast
7:45-8:00	Early Bird
8:00-8:45	ESW2023-18: The New NFPA 70B Standard For Electrical Maintenance: M. Valdes, K. Cunningham
8:45-9:00	ESW2023-19 The Impact of Abrasion and Cut Resistance On Rubber Insulating Gloves From Aramid Lined and Unlined Leather Protector Gloves: E. Ramirez-Bettoni, A. Atiq, M. Hackett, E. Key
9:00-9:45	ESW2023-20: Modeling DC Arc Physics and Applications for DC Arc Flash Risk Assessment: L. Gordon
9:45-10:15	Break
10:15-11:00	ESW2023-21: A Deeper Dive Into Leading / Lagging Indicators For Electrical Safety Is Required: M. Doherty
11:00-12:00	ESW2023-22: Award and Recognition: S. Seaver
12:00-1:00	Lunch
1:00-1:45	ESW2023-23: Reducing Risk When Performing Energized Work on Batteries: D. Rosewater

1:45-2:00	ESW2023-24: Surprising Ratings of Arc-Rated Clothing Obtained From a Major Online Vendor: T. Short, M. Eblen
2:00-2:45	ESW2023-25: Arc-Resistant Equipment- A Risk Control Perspective: H. Karandikar, M. Valdes, M. Lafond, J. Webb
2:45-3:15	Break
3:15-4:00	ESW2023-26: Demystification Of Arc-Fault Circuit-Interrupters (AFCIs) – Part II: Technology and Applications: N. EL-Sherif, T. Domitrovich
4:00-4:45	ESW2023-27: NFPA 70E 2024 Proposed Changes: P. Dobrowsky
4:45-5:00	ESW2023-28: Focus Session Poster Preview: E. Clark

Focus Session Presentations (5:00-6:30)

- ESW2023-37: **Sensitivities and Issues with Arc Rating and ASTM F1959 Clothing Testing:** T. Short, M. Eblen
- ESW2023-38: **Development of a DC Arc Generator Testbed for Data-Driven Fault Analysis:** K. Jensen, L. Zhao
- ESW2023-39: **Demystification of Arc-Fault Circuit- Interrupters (AFCIs) – Part 1 Beginning of the Odyssey:** N. EL-Sherif, T. Domitrovich
- ESW2023-40: **Arc Quenching Technology in Switchgear – Surpassing IEEE C37.20.7:** R. Burns, D. Hrnčir, A. Johnson
- ESW2023-41: **Safety for the Non-Electrical Worker: Special Purpose GFCIs Are a Step Closer in Prevention Through Design:** T. Piemonte, M. Pollock
- ESW2023-42: **Safety Related Concerns with Installation and Use of Switch-Rated Plug/Receptacle Combinations in Lieu of Metal-Enclosed Disconnect Switches:** J. Whipple, R. Waters

Networking Social (5:30-7:30)

Friday March 17

7:00-8:00	Breakfast
8:00-8:15	Early Bird
8:15–9:00	ESW2023-29: Normalization of Deviance: Why Accidents are Not Always Accidental: S. Hester
9:00-9:45	ESW2023-30: Irregular Low-Voltage Electrical Cables: E. Martinho, D. Ferreria de Souza, W. Aguiar Martins Jr.
9:45-10:00	Break
10:00-10:15	ESW2023-31: Learning From a 480V Arc-Flash Event: M. Scarborough, P. Sullivan
10:15-11:00	ESW2023-32: Is Absence of Voltage “Live-Dead- Live” Testing According to NFPA70E Adequate? G. Cole
11:00-11:45	ESW2023-33: Advancing Electrical Safety Towards a Global Electrical Work Safety Standard: V. Linja-Aho
11:45-12:00n	ESW2023-34 ESW Wrap-up: M. Scott
12:00 - 1:00	Tutorial Lunch (for Tutorials 5,6,7,8 registrants only)
1:00 – 5:00	Tutorials 5 Working Safely with Battery Banks: Energy Storage and Electrical Vehicles, L. Gordon
1:00 – 5:00	Tutorial 6 Assessing and Improving Effectiveness of Electrical Incident Investigations, L. Floyd
1:00 – 5:00	Tutorial 7 OSHA Regulations and 70E Standard Q&A A. Havens, D. Pace, D. Wallis, P Dorbrowsky
1:00 – 5:00	Tutorial 8 Changes to the 2023 NEC and NESC, C. DeWaal