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IEEE EIC 2025

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The 43rd Electrical Insulation Conference (EIC)
South Padre Island, Tx, USA,
June 8th - 12th of 2025.

Conference Location - South Padre Island, Texas

Nestled along the southern coast of Texas, **South Padre Island** offers attendees not only a world-class academic and networking experience but also the opportunity to relax and explore one of the most scenic beach destinations in the United States. Known for its tranquil beaches, warm climate, and vibrant wildlife, South Padre Island provides an ideal environment for both work and leisure.

Located near **Brownsville**, a city rich in American history, attendees can visit the **Palo Alto Battlefield National Historical Park**, a key site of the U.S.-Mexican War, and the **Battle of Palmito Ranch**, the final battle of the American Civil War. Additionally, the **Laguna Atascosa National Wildlife Refuge** nearby offers spectacular opportunities for hiking and wildlife watching.

A major highlight for tech enthusiasts is **SpaceX**, with its launch site near Brownsville. Visitors can catch a glimpse of the groundbreaking advancements in space exploration happening just a short drive from South Padre Island. This unique opportunity allows attendees to witness history in the making as SpaceX continues its pioneering work in space travel and technology.

For those seeking more adventure, the **Mexican border** is just a **30-minute drive** away, offering a chance to experience a different culture, food, and entertainment. Whether you want to visit historic Mexican towns, shop, or enjoy authentic cuisine, the proximity adds another dimension to your visit.

This location is also ideal for a family visit. **For children of all ages**, there is an array of exciting activities. Younger kids will love the **Gladys Porter Zoo** in Brownsville, while older kids can enjoy **surfing, fishing, hiking**, and other outdoor adventures. Adults can unwind at the island's numerous **bars, beachside lounges**, and restaurants, providing plenty of options for fun and relaxation after a busy conference day.

Whether you're interested in space exploration, historical landmarks, or just want to enjoy nature and the beach, South Padre Island offers a vibrant and diverse experience for everyone.

We look forward to welcoming you to an engaging and enriching experience at EIC 2025. Please mark your calendars and prepare for a conference filled with valuable insights and networking opportunities.

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Program and Main topics:

The conference program features relevant keynote speakers, technical and poster sessions, short courses, and more. NEMA will be leading a discussion panel and a technical session the electrification of transportation. Submitted papers should be related to one of the main application topics and the applicable sub-category.

- **Electrical Rotating Machines and Power Generation**
- **Manufacturing:** Advances in design, construction, manufacturing, and on-site testing of large power machines.
- **Machine Efficiency and Losses**: Analysis of energy losses, heating, shaft currents, and strategies for improving machine efficiency.
- **Life Management & In-service Experiences and Failures**:
- Strategies for diagnostics, monitoring, failures, and asset management.
- Insights from operational challenges and mitigation strategies.
- Innovative approaches to predictive maintenance, recycling, and circular economy solutions in rotating machines.
- **Power Generation from Renewable Energy Sources**: Latest developments in solar and wind plants, battery storage, and the green energy transition.
- **Transformers, Reactors, and Substation Insulation**
- **Transformers and Reactors**: Design, operation, and innovations in transformers and reactors.
- **Substation Insulation Coordination**: Techniques and tools for ensuring insulation reliability in high-voltage substations.
- **Outdoor Insulation**: Performance and development of outdoor insulation materials for various environmental conditions.
- **Insulation System Failures Investigation**: Case studies and failure analysis of insulation systems in transformers, reactors, and other high-voltage equipment.
- **Advanced Dielectrics and Insulation Materials**
- **New Materials & Nanodielectrics**: Exploration of cutting-edge materials, including nanodielectrics for advanced electrical insulation applications.
- **Dielectric Design**: Principles and innovations in dielectric material design for electrical machines and systems.
- **PD's and Streamers Investigations**: Research on partial discharge and

streamers in insulation systems and their impact on system reliability.

- **Insulating Materials in Rotating Machines**: Advances in insulating and magnetic materials for rotating machines.
- **Testing, Diagnostics, and Condition Assessment**
- **Testing Technologies**: Novel methods for testing electrical insulation, rotating machines, and other high-voltage equipment.
- **Diagnostics, Monitoring, and Condition Assessment**: Techniques for real-time diagnostics, condition monitoring, and life expectancy estimation.
- **Numerical Modeling**: Electromagnetic, coupled field, and electrical field modeling for better design and performance assessment of electrical machines and insulation systems.
- **Cables, Accessories, and Power Electronics**
- **Technologies for Cables and Accessories**: Latest technologies and materials used in power cables and their accessories.
- **Power Electronics**: Innovations and applications in power electronics as they relate to electrical insulation and rotating machines.
- **Renewable Energy and Smart Grid Integration**
- **Green Energy Transition**: Role of electrical insulation and rotating machines in supporting the shift to renewable energy sources.
- **Integration of Solar and Wind Power**: Technical challenges and solutions for integrating renewable energy sources into the grid.
- **Battery Storage Technologies**: Developments in battery storage systems and their impact on power generation and distribution.

Important Dates:

Abstract submission opens	23 September 2024
Abstract submission deadline	27 October 2024
Notification of abstract acceptance	22 November 2024
Registration opens	20 January 2025
Manuscript submission for peer review deadline	26 January 2025
Finalization of reviewed manuscripts deadline	30 March 2025

Abstract Submission:

Authors are invited to submit abstracts of up to 350 words on practical applications of electrical insulating systems and materials. All submissions will be done on-line using the ConfTool platform EIC 2025 - ConfTool Pro - Login. For further information and to submit abstracts, please go to the author's page on the conference website: www.ieee-eic.org.