

IEEE International Symposium on Diagnostics for Electrical Machines, Power Electronics and Drives (SDEMPED)







Dallas, Texas, USA | August 24-27, 2025

On behalf of the IEEE SDEMPED 2025 Organizing Committee, we would like to welcome you to Dallas TX, for the 15th edition of the SDEMPED. This is the 15th edition since the first SDEMPED was established as the only international symposium entirely devoted to the diagnostics of electrical machines, power electronics and drives.

The topics of interest include, but are not limited to:

ELECTRIC MACHINES and DRIVES

- Fault diagnosis and condition monitoring of electrical machines and drive systems
- Electrical, mechanical and thermal models for machine reliability and fault analysis
- Fault tolerant electric machines, drives and control schemes
- Advances in reliability of materials & insulators for electric machines, drive systems and components

POWER ELECTRONICS and COMPONENTS

- Reliability assessment and condition monitoring of Si and WBG power devices, gate drivers, and passive components
- Failure mechanism and modes, identification of fault precursors, and accelerated aging techniques

ALGORITHMS

- Lifetime modelling and RUL estimation tools
- IoT solutions, sensor data transfer and on-chip/cloud data processing, data analytics and information fusion
- · Al-assisted and digital twin solutions for fault

SYSTEMS & APPLICATIONS

• Reliability and condition monitoring advancements in various applications: Transportation, grid-tied systems, renewable energy systems, robotics, etc.

IMPORTANT DATES:

- All Submissions Open: December 2, 2024
- Tutorial/Special Session Proposals: January 31, 2025
- Manuscripts Submission Deadline: March 31, 2025
- Final Acceptance Notification: May 18, 2025
- Final Paper Submissions: June 15, 2025

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