

SDEMPED

27>30 August 2019

Symposium on Diagnostics for Electric Machines, Power Electronics and Drives

Toulouse, France



This symposium aims to provide a high-level international forum for researchers, professionals, professors, PhD students and in general for specialists in diagnostics and monitoring of electrical systems, including machines, power electronics, adjustable speed drives, fuel cells and electrolyzers, dielectric materials, signal processing methods, and related areas. A special focus will be on applications in transportation systems and especially on applications to aerospace embedded systems

Topics of the symposium

- 1. Electrical machines:** Failure detection and location in electrical machines using vibration, audible noise, electrical or mechanical variables, sensors, insulation failures, electrical, mechanical and thermal models.
- 2. Power electronics:** Diagnostics in power converters using input-output monitoring, thermal and/or electrical measurements on power semi-conductors, control supervision, signal processing.
- 3. Adjustable speed drives :** Monitoring and diagnostics for ASDs using electrical machines, power converters and control systems supervision, computer-based signal processing and data analysis.
- 4. Methods and tools for diagnostic and prognostic:** neural networks, fuzzy logic, artificial intelligence, genetic algorithms, expert systems, identification, signal processing techniques, observers...
- 5. Materials for electrical machines:** Insulating and magnetic materials, remaining life models, ageing tests.
- 6. Tests for predictive maintenance:** Partial discharge analysis and tests, new instruments for diagnostics.
- 7. Fuel Cells and Electrolyzers :** models for diagnostic or ageing, tests
- 8. Power Systems and Power Networks, Embedded Systems, Emergency Applications**

Committees

- General chair: Pascal Maussion (France)
- Honorary co-chairs : Giuseppe Buja (Italy), Gérard-André Capolino (France)
- Technical program committee: Jose A. Antonino-Daviu (Spain), Sang Bin Lee (Korea), Hubert Razik (France), Antoine Picot (France)
- Special sessions organizers: K. Gyftakis (U.K.), Jérémie Régnier (France)
- Publicity chairs: Bilal Akin (USA), Pinjia Zhang (China), Lucia Frosini (Italy), Thomas Wolbank (Austria)
- Publication chair: Luca Zarri (Italy)
- Keynote speakers/tutorials organizers : Elias Strangas (USA), Bruno Sareni (France)
- International steering committee: Gérard-André Capolino (Chair), Alberto Bellini (Awards Chair), Sang Bin Lee (Secretary), Jose A. Antonino-Daviu, Antonio J. Marques Cardoso, Pascal Maussion, Michael Orkisz, Martín Riera-Guasp, Tadeusz Sobczyk, Elias Strangas, Thomas Wolbank, Luca Zarri
- Organizing committee: Pascal Maussion, Antoine Picot, Marie Chabert, Maria Pietrzak-David, Jérémie Regnier, Bruno Sareni, Maurice Fadel, Bruno Dagues, Marlène Giamporcaro, SAIC Inpact, Luca Zarri.

Deadlines

- Special session and tutorial proposals : 2018, December 16
- Provisional full paper and tutorials proposals : 2019, January, 27
- Acceptance notification : 2019, April 21
- Final submissions : 2019, June 2nd

Venue

INP-ENSEEIH, school of engineers, Toulouse downtown : <http://www.enseeiht.fr/en/index.html>

<http://www.sdemped2019.com>

