8th Global Power, Energy and Communication Conference

Naples/ITALY

June 3-5, 2026

Special Session on

Advancements in Design and Control of High-Efficiency Electric Machines

Recent technological advances in electric machines have greatly facilitated their integration into many modern applications, namely wind power conversion systems, hydroelectric power, industrial transport, electric vehicles, pumping, railway traction, and fault diagnosis. Thanks to the growing demand for reliable, intelligent, and energy-efficient electric drive solutions, electric machines are now key components in the renewable energy sectors transportation and industrial.

In this context, this special session aims to explore and propose innovative solutions to improve the performance, reliability, energy efficiency, and operational safety of machines dedicated to new energy systems. We encourage researchers in this field to submit their conference articles to share their technical advances with readers.

Topics of interest include, but are not limited to:

- Embedded and real-time implementation of advanced machine control;
- Design and optimization of high-efficiency electric machine;
- Novel motor structures, topologies, and associated control strategies;
- Energy management in electric motor–driven systems;
- High-Efficiency Electric Machines in Renewable Energy and E-Mobility;
- Digital twin and predictive maintenance of electrical machines;
- Artificial intelligence and machine learning for electric motor control.
- Fault detection and diagnosis in electric motor systems;
- Machine learning techniques for sensorless and fault-tolerant drives,
- Reliability, thermal modeling and lifetime optimization of electric machines;
- Health monitoring of electric motors;

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Deadlines of the special session:

Full paper submission (maximum 6 pages):	**March 15, 2026**
Notification of acceptance:	**April 12, 2026**
Final submissions due:	**April 26, 2026**

All the instructions for paper submission are included at the conference website.
https://gpecom.org/2026/guidelines/