Special Issue

New Insights into Design and Control of Electric Motors

Message from the Guest Editors

Electric machines are widely used in various contexts, such as households and industry. Different application scenarios impose different requirements on motors, such as high overload capacity, high control precision, wide speed regulation range, low temperature rise, low noise, high reliability, high power density, and high efficiency. To achieve these objectives, innovative studies need to be carried out in multiple aspects, including electrical materials, motor topologies, design methods, and advanced motor control strategies. This Special Issue aims to present recent progress in the design and control of electric machines.

- Emerging applications of electric machines;
- Development and applications of new materials in motors, such as novel electrical silicon steels, permanent magnets, and insulation materials;
- Applications of new power electronic semiconductors in motor drives;
- New topologies of power converters and PWM modulation strategies;
- Novel motor structures, topologies, and their control strategies;
- Modeling and analysis methods for fast and precise evaluation of the performance of electrical machines;
- Multi-objective optimization design methods;
- Advanced cooling.

Guest Editors

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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