

Special Issue

Novel Designs, Modeling and Sizing Optimization of Electrical Machines

Message from the Guest Editors

In many applications today, the constraints are often severe and of different natures, pushing the designers of electrical machines to develop specific topologies and sizing methodologies. The increase in specific power, for example, leads to pushing the magnetic saturation and heating constraints beyond the limits usually acceptable by conventional analytical models. Electrical machines are also increasingly bigger, considering their working cycle with the search for a complex compromise between energy efficiency, mass, cost, etc. Considering the working cycle, the control strategy (flux weakening management) thus becomes an important part of the problem, directly impacting the design of the machine. The goal of this Special Issue is to highlight the impact of these optimizations under strong and multiple constraints in the design of electrical machines, highlight the development of more efficient technological solutions (cooling, materials, power supply, etc.) or adapted sizing methodologies (multiscale optimization, multiphysics, design considering working cycle, etc.).

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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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