Special Issue

Electrical Machines for Electric Vehicles and Renewable Energy Systems

Message from the Guest Editors

We welcome any original research papers on the modelling of electrical machines. Topics are the following: Finite element modelling and analysis of radial, axial and transverse flux motors and generators for e-mobility and renewable energy systems; Multi-physics electrical machine design, considering electromagnetic, thermal and mechanical aspects; Coupled electromagnetic–thermal finite element modelling and optimization of electrical machines; Electrical machine design, considering thermal management aspects; Heat transfer in electrical machines with thermal calculations, lumped parameter thermal networks, and computational fluid dynamics (CFD); Machine loss analysis coupled with thermal finite element and CFD simulations; The effect of manufacturing methods on the performance of electrical machines; Manufacturing challenges in electrical machines; Additively manufactured motor and generator components used to improve heat transfer in electric vehicles; Reliability-based electrical machine design for electric vehicles and renewable energy systems; Aging of electrical machines due to thermal and electrical stresses; Accelerated life tests in modern electrical machines.

Guest Editors

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Dr. Nick Baker

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Deadline for manuscript submissions

closed (15 May 2024)

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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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