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Design, Analytical Modeling, Optimization, and Application of Motor Drives

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Message from the Guest Editors

Motor drives have significantly developed since the first prototype was invented in the 19th century. They have been applied in many emerging industries. Advances in topologies, materials, control systems, and power electronics have made motor drives more efficient, compact, and reliable. However, the design, analytic modeling, optimization and application of motor drives still pose many challenges. Further research and development in these aspects are crucial to meet the growing demands for efficient, compact, and reliable motor systems.

This Special Issue aims to provide a platform for researchers to share their latest findings and applications related to motor drives. The Special Issue covers a wide range of topics, including flux-modulated electric machines, high-speed motors, direct-drive motors, integrated motor drives, analytical modeling, multi-physics analysis, surrogate-model-based optimization, multi-objective optimization, traction motors for electrified transportation, and joint motors for robots. We welcome original research articles, review papers, and case studies related to these topics. Manuscripts with real experiments are encouraged.



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Special Issue



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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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