Special Issue

High Speed Motors and Drives: Design, Challenges and Applications

Message from the Guest Editors

Over the decades, the speed of rotating electric machines has been continuously increasing and has now reached hundreds of thousands of rpm. High-speed motors and drives can lead to a high power density and compact design, which are beneficial to a wide range of applications, including aerospace, transportation, and hand-held tools. For example, high-speed permanent magnet synchronous machines can save on the amount of magnets used. This is notably the case if rare-earth materials are used as permanent magnets. This Special Issue attempts to capture the latest technological development in the materials, component, topology, control algorithms, and system design, associated with high-speed electrical machines and their power electronic drive systems. We particularly welcome multi-disciplinary design and optimization approaches, original contributions and review articles on mechanical design, electromagnetics, and industrial applications (e.g., green transportation, renewable energy, and energy storage).

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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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