

Special Issue

Fault Diagnostics and Fault Tolerance of Synchronous Electric Drives

Message from the Guest Editors

This Special Issue aims to explore the fault tolerance in hybrid rotor synchronous motors through design, fault diagnosis and control. It targets increasing fault tolerance via new designs, evaluations of hybrid rotor synchronous motors in terms of transient and steady-state faulty operations and new fault tolerant control strategies. This Special Issue focuses on:

- Analytical and finite element modeling as well as the optimization of more fault-tolerant hybrid rotor synchronous motors;
- Transient and steady-state operation prediction and the measurement of faulty hybrid rotor synchronous motors;
- The design and analysis of special types of hybrid rotor synchronous motors;
- The fault analysis and condition monitoring of hybrid rotor synchronous motors;
- The application of artificial intelligence in the performance parameter estimation, analysis, and design of hybrid rotor synchronous motors;
- Solutions for variable speed capabilities as well as improved fault tolerance control solutions for hybrid rotor synchronous motors;
- Studies comparing the efficiency, power factor, and reliability of hybrid rotor synchronous motors with those of other competitors.

Guest Editors

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About the Journal

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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