Special Issue

Electric Powertrain Design for High Efficiency and High Speed Operation Range

Message from the Guest Editors

The move to electric mobility as a new paradigm for public and private transport has generated great interest in the development of high-performance and high-efficiency electric powertrains. However, a complete design approach aimed to optimize the whole power train system is still an issue. This Special Issue will address the current state-of-the-art technology in the design of a synchronous machine for high-speed range and optimized flux weakening control in a highspeed range. Papers that investigate innovative design approaches and control strategies are invited. Topics may include but are not limited to studies on the design of permanent magnet machines, including design for torque ripple reduction, high-efficiency design, high power density, novel flux weakening and maximum torque per volt (MTPV) control strategies, and design for wide-bandgap (WBG) drives.

Guest Editors

Prof. Dr. Claudio Bianchini Department of Engineering (DIEF), University of Modena and Reggio Emilia, 41121 Modena, Italy

Dr. Ambra Torreggiani DIEF, University of Modena and Reggio Emilia, 41125 Modena, Italy

Deadline for manuscript submissions

closed (20 June 2021)



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/42751

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 applsci@mdpi.com

mdpi.com/journal/ applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



<u>applsci</u>



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)