Special Issue

Advances in Control for Permanent Magnet Synchronous Motor (PMSM)

Message from the Guest Editors

A Permanent Magnet Synchronous Motor (PMSM) has been widely used in various applications, such as robotics, machine tools, actuators, servo systems, transportation electrification, wind power generation, etc. Control techniques play a key role in the PMSM drive systems. Current vector control (CVC) is suitable for surface-mounted PMSM (SPMSM) since flux-weakening is merely required and the electrical parameters of PMSM are nearly constant or slow-varying so that the torque and flux can be well-controlled using the current model.

This Special Issue is dedicated to collecting and sharing the latest research and the newest ideas from both industry and academia about the advanced control strategies for PMSM in different applications. Topic of interest include, but are not limited to:

- o Torque and flux control;
- o Speed and position control;
- o Sensorless control:
- o Information reconstruction:
- o Fault diagnosis and fault-tolerant control;
- o Model-free adaptive control:
- Artificial intelligence and data-driven.

Guest Editors

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

