Special Issue

Advances in Switched Reluctance Motors (SRM), Bearingless Motors and Magnetic Bearings II

Message from the Guest Editor

Switched reluctance motors (SRMs) provide a potential candidate and a feasible solution with increased interest for industrial applications, due to their simple and rigid structure without permanent magnets, low manufacturing cost, excellent power–speed characteristics, and high reliability. High-efficiency SRMs are expected to be a competitive alternative to the other types of machines. The techniques used in design optimization methods, multi-physical analysis, and advanced control are attracting more and more attention from the research community. Bearingless devices, such as bearingless motors (BMs) and magnetic bearings (MBs), provide a stable support instead of mechanical bearings, due to their advantages of no contact, no pollution, no lubrication and simple structure. The BMs and MBs can be widely used in high vacuum and low temperature atmospheres, turbomolecular pumps, food and pharmacy processes and other applications without friction loss or pollution. The techniques used in multi-physical analysis, suspension control strategies, topological structure design and disturbances rejection are becoming a key research area.

Guest Editor

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