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High-Performance Electric Drives for Transport Applications (High-Speed Machines, High Pole Number Machines, High Frequency Machines)

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Message from the Guest Editors

With the ever-growing development of electric-drive-based transport, high-performance electric drives are being driven to unprecedented performance metrics, including the achievement of high torque (power) density and high efficiencies over a wide speed range, together with ensuring reliable operation over their lifetime. Numerous novel electrical machines and control strategies are emerging to address these challenges. In this Special Issue, contributions on high-performance electric drives for transport applications are welcome, including machine topologies (such as high-speed machines, high pole number machines, high frequency machines), control strategies, power converter topologies, performance analysis, multidomain design optimisation, thermal improvement techniques, component light-weighting, reliability, etc.

Keywords:

- High speed
- High pole number
- High frequency
- Additive manufacturing
- Cooling techniques
- Materials
- Reliability
- Transport

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Message from the Editor-in-Chief

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