



Electric Drives for Transportation Electrification and Industrial Systems

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Message from the Guest Editors

The recent advances in electric drives are poised to substantially impact the evolution of next-generation electrified transportation systems. These advances in electric drives are motivated by the imperative to meet the increasingly stringent requirements of modern transportation systems, and are enabled by advances in machine design, power electronic switches, and electric drive controls. Electric vehicles, as well as light and heavy rail traction systems, are examples of where innovations in electric drives can make a tangible impact on electrified transportation.

This Special Issue aims at archiving some of the recent advances in both the physical design and controls of electric drives. Potential topics include, but are not limited to: design and control of electric vehicle drives; applications of new switching devices in electric drives; electric drive control for recuperation of regenerative braking energy in electric vehicles and trains; online diagnosis and prognosis of faults in closed-loop inverter-fed motors for transportation electrification; finite element analysis co-simulation of inverter-fed electric motors to characterize and identify signatures of motor faults.





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