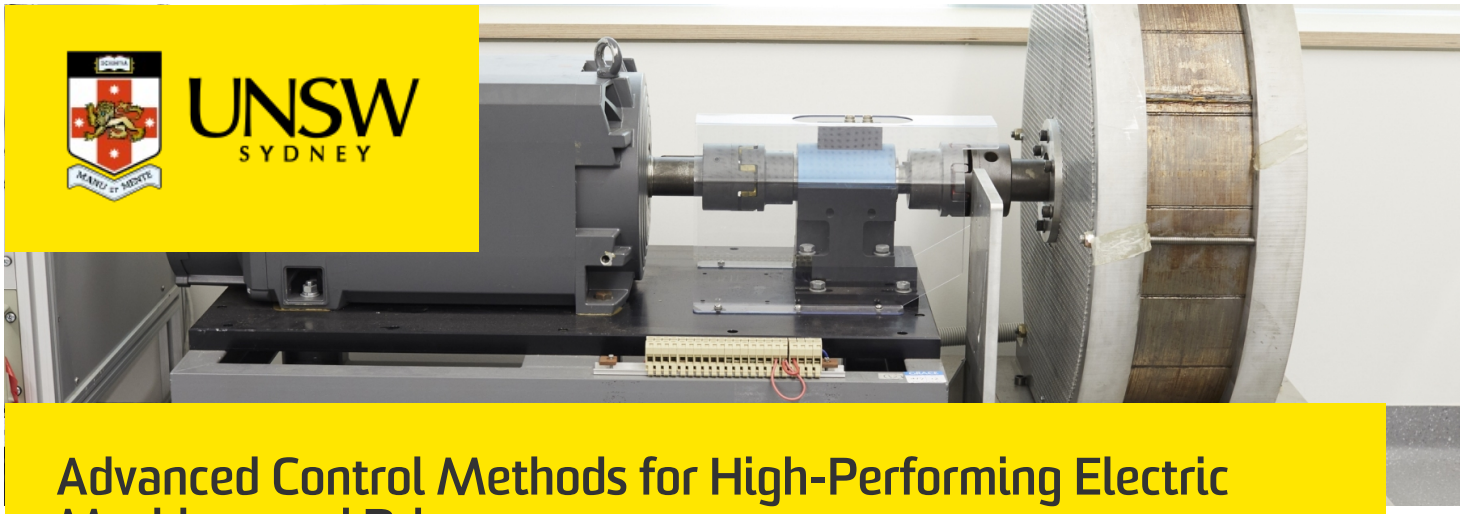

Advanced Control Methods for High-Performing Electric Machines and Drives

The push towards the widespread adoption of electric vehicles has spurred rapid new technological advances in electric machines, sensors, electric drives, and batteries. These new technologies have prompted the need for advanced new control systems that optimise the performance of individual components and the overall system.

Competitive advantage

- Advanced control methods that are broadly relevant to applications involving the use of electrical machines and drives
- Expertise in nonlinear systems and control theory, and optimal control theory, for the design and analysis of advanced control systems
- Expertise in modelling of power electronics and electrical machines
- An experienced interdisciplinary research team with a significant collaborative track record in the fusion of electrical machines, power electronics and advanced control techniques

Impact

Improved performance of converters and electrical machines in terms of:

- Speed of response
- Regulation performance
- Operations in field weakening
- Robust operation of systems with parameter variation

Capabilities and facilities

- State-of-the-art laboratories for electrical machine testing and characterisation, power electronics and electrical drives
- State-of-the-art real-time digital simulation facilities for hardware-in-the-loop testing

Our partners

- Motorica

More Information

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