



2024 Third International Conference on Sustainable Mobility Applications, Renewables and Technology (SMART)

November 22-24, 2024

Call for Contributions to the Special Session on Emerging Electrical
Machines and Drive Systems in Advanced Materials,
Condition/Fault Monitoring, and Thermal Management

By Dr. Dawei Liang and Prof. Jing Ou

Thematic: Nowadays, with the increasing power density of electrical machines, the high-efficiency and high-reliability requirements have become even more critical, especially in the applications of transportation electrification and renewable energy generation.

To achieve this goal, the emerging research in both electrical machine and control systems involves several areas, including new magnetic materials, additive manufacturing techniques, fault diagnosis/condition monitoring techniques, thermal management, and advanced cooling technologies. In the last few years, many research achievements in relevant topics have been achieved by both academia and industry.

Against this background, this special session aims to provide insight into the latest research findings in the design and control of electrical machines for high-reliability and high-efficiency purposes. Both the theoretical analyses and experimental results are welcome.

Topics of interest include, but are not limited to:

1. Application of emerging materials and manufacturing techniques,
2. Control strategies for high-reliability,
3. Condition monitoring and fault diagnosis,
4. Parameter estimation,
5. Thermal analyses and management, as well as advanced cooling technologies.

Submission: Prospective authors are invited to submit an extended abstract of two to three A4 pages. There is no specific template. Abstracts should be submitted directly to the special session organizers via email: d.liang@sheffield.ac.uk and Jing.ou@hit.edu.cn

Deadlines:	May 15, 2024	Abstract submission
	June 15, 2024	Provisional Acceptance
	July 30, 2024	Full paper submission
	August 30, 2024	Final acceptance