



ICEM 2024, Torino, September 1-4 2024

Special Session on

Off-Highway vehicle electrification: electric and hybrid powertrains and components

Organized and co-chaired by

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Call for Papers

The off-highway sector generally includes agricultural, construction and mining vehicles and equipment. These applications provide a non-negligible contribution in terms of greenhouse gas emissions and, in the last years, more and more stringent emission regulations are being introduced. This, in turn, is leading to an ever-growing interest from both manufacturers and the scientific community in off-highway vehicle electrification as a possible pathway to reduce emissions.

Power requests in an off-highway vehicle are not limited to the traction effort. Other loads are present such as implement usage, hydraulics, power take off (PTO) and several engine auxiliaries. This increases vehicle electrification potentials for this sector.

This special session aims at collecting contributions of authors from both academia and industry working in the field of off-highway vehicle electrification. Original research and practical contributions as well as surveys and state-of-the-art tutorials are welcome.

Topics of interest include, but are not limited to:

- Off-highway vehicles hybridization/electrification (alternative electric/hybrid powertrain architecture topologies, mechanical load electrification, traction electrification, etc.).
- Duty cycle definition for off-highway vehicle applications.
- Electric machines and drive designs for off-highway vehicle applications.
- Energy management strategies and control systems for off-highway vehicle applications.
- Power converter for off-highway vehicle applications.
- Energy storages systems for off-highway vehicle applications.
- Implement and equipment electrification.



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Submission of papers: paper submission follows the rules of regular papers. All the instructions for paper submission are included in the conference website

<https://icem.cc/2024>

List of authors



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