Annual Conference of the IEEE Industrial Electronics Society (IECON 2021)

Special Session on

“Power Electronics for Transportation Electrification Applications”

Organized by

Principal Organizer: Tárcio André dos Santos Barros (tarcioandre@fem.unicamp.br)
Affiliation: Faculty of Mechanical Engineering – Campinas State University

Organizer 1: Marcelo Vinícius de Paula (mvpaula@outlook.com)
Affiliation: Faculty of Mechanical Engineering – Campinas State University

Call for Papers

Theme: Considering the worldwide pursue for sustainability, the transportation electrification penetration is increasing rapidly. Power electronics is an indispensable technology for electric propulsion systems, energy storage systems and management, vehicle-to-grid (V2G) and grid-to-vehicle (G2V) applications, fast charging capability, energy regeneration, and vehicle microgrids. Additionally, electric and hybrid electric vehicle market fast expansion along with new regulations on internal combustion engine vehicles have contributed for a quick escalation of the general transportation electrification sector, such as ships, aircrafts, and land vehicles.

This special session is focused on technical advancements of power electronics for transportation electrification.

Topics of interest include, but are not limited to:

- Topologies, control, and modelling of static converters for electric motor drives applied to transportation electrification;
- Onboard and offboard charging isolated AC/DC converters;
- Electrical systems for charging stations;
- Electric motor drives for traction applications;
- Energy storage and management systems;
- Sensor-less electric motor drives;
- Modelling and control of advanced converters for transportation electrification;

Good quality papers may be considered for publication in the IEEE Trans. on Industrial Electronics, subject to further rounds of review.
• Static converters for secondary systems in vehicle microgrids;

Submissions Procedure: All the instructions for paper submission are included in the conference website: https://attend.ieee.org/iecon-2021/

Deadlines:
Full paper submission: June 25, 2021
Paper acceptance notification: July 30, 2021
Camera-ready paper submission: Aug. 27, 2021