

# 34<sup>th</sup> IEEE International Symposium on Industrial Electronics (ISIE 2025)

## Special Session on

## “High Performance and Intelligent Power Conversion Systems for Electrified Transportation”

### Organized by

**Principal Organizer:** Mehdi Narimani (narimanm@mcmaster.ca)

**Affiliation:** McMaster University, Canada

**Co-organizer 1:** Apparao Dekka (adekka@lakeheadu.ca)

**Affiliation:** Lakehead University, Canada

**Co-organizer 2:** Deepak Ronanki (dronanki@ieee.org)

**Affiliation:** IIT Madras, India

**Co-organizer 3:** Nasir Ali (alin49@mcmaster.ca)

**Affiliation:** McMaster University, Canada

## Call for Papers

High-performance power conversion systems are crucial for next-generation electrified transportation, including road, train, ship, and aerospace applications, enabling efficient energy conversion and optimal performance. With significant advancements in powertrain electrification and charging infrastructure, the demand for high-efficiency, high-power-density, and cost-effective solutions continues to grow in electrified transportation. Electric motor drives play a vital role in electrification of transportation systems, they require highly reliable and efficient traction systems to enhance sustainability, reliability, and reduce operational costs. This special session brings together experts from academia and industry to explore state-of-the-art developments, challenges, and future trends in high-performance power conversion, focusing on innovative topologies, advanced control strategies, and the integration of wide-bandgap semiconductors for next-generation electrified transportation systems

Topics of interest include, but are not limited to: (Provide a list of 5-10 special areas)

1	Advanced Electric Motor drives for Electrified Transportation
2	Charging infrastructure for Electrified Transportation
3	Wide-bandgap Devices for Charging and Traction Applications
4	Wireless Power Conversion Systems
5	Modular Power Converters Charging and Traction Applications
6	Fault Prediction, Fault Diagnostic, and Fault-Tolerant Operation
7	Advanced and Intelligent Control Methods for Charging and Traction Systems

## Reviewers (Provide 10-20 names with email and affiliation address)

	Name and Affiliation	Email-address
1	Qiang Gao: Shanghai Jiao Tong University, China	Gaoqiang@sjtu.edu.cn
2	Gaoliang Fang: University of Prince Edward Island, Canada	gfang@upei.ca
3	Muhammad Talib Faiz: Hong Kong Polytechnic University, Hong Kong	Talib.faiz@polyu.edu.hk
4	Lefei Ge: Northwestern Polytechnical University, China	lge@nwpu.edu.cn
5	Akhtar Hussain: University of Laval, Canada	akhtar.hussain@gel.ulaval.ca
6	Ahmed Abuelnaga: Rockwell Automation, USA	asahmed@ra.rockwell.com
7	Hong Gao: Washington State University, USA	hang.gao@wsu.edu
8	Deepak Ronanki: IIT Madra, India	dronanki@ieee.org
9	Hoang Le: Lakehead University, Canada	leh@lakeheadu.ca
10	Abhijit Choudhury: Hiatchi Energy, Japan	Abhijitc46@gmail.com
11	Sebastian Rivera: Delft University of Technology, The Netherlands	s.rivera.i@ieee.org
12	S. Das: NIT Goa, India	sdas@nitgoa.ac.in
13	Qin Li: Nanyang Technological University, Singapore	qin.li@ntu.edu.sg
14	Ricardo Lizana Fuentes: Universidad Catolica de la, Santisima Concepcion, Chile	ricardolizana@ucsc.cl
15	Dr. Abdul R. Beig: Khalifa University, UAE	balanthi.beig@ku.ac.ae
16	Athar Anif: The Ohio State University Columbus, OH, USA	hanif.6@osu.edu
17	Mahdi Homaeinezhad: North Dakota State University Fargo, USA	mahdi.homaeinezhad@ndsu.edu
18	Andrea Cervone: University of Naples Federico II, Italy	andrea.cervone@unina.it
19	Yixuan Wu: KTH Royal Institute of Technology, Sweden	yixuanw@kth.se
20	Anil Kumar Reddy Siddavatam: University of Houston, USA	asiddava@cougarnet.uh.edu

## Submission Procedure:

All the instructions for paper submission are included in the conference website: <https://ieee-isie-2025.org/>

## Deadlines:

Full paper submission: March, 2025  
 Paper acceptance notification: April 15, 2025  
 Camera-ready paper submission: May 14, 2025

Please send this completed document to:

[isie2025@icsevents.com](mailto:isie2025@icsevents.com)