



# ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY

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## Special Session on Advancements in Electric Mobility Conductive and Wireless Charging Technologies

### Organized and co-chaired by:

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### Call for Papers

#### Technical Outline of the Session and Topics:

The adoption of electric vehicles (EVs) in the automotive industry has grown due to their eco-friendly nature. Despite numerous advantages, the effective utilization of energy storage systems in EVs for achieving optimal driving range faces challenges. This is primarily attributed to the weight, bulkiness, limited lifespan, and extended charging times associated with the current storage elements. This session focuses on the critical aspects of power delivery, emphasizing both conductive and wireless technologies. Participants will delve into the current state of electric mobility, addressing challenges and opportunities in the field. The objectives include showcasing recent breakthroughs in conductive power technologies and highlighting innovations in wireless power solutions. The scope encompasses various research areas, incorporating real-world case studies and practical applications. The call for papers invites contributions that tackle challenges and propose effective solutions in the realm of power technologies for electric mobility charging. The session targets researchers, academics, and professionals engaged in advancing electric mobility, fostering a collaborative environment for sharing knowledge and insights.

#### Topics of the Session include, but are not limited to:

- Fast and ultra-fast battery charging systems
- Power electronic converter topologies for electric vehicles battery charging
- Wireless inductive and capacitive power transfer
- Quasi Dynamic, Dynamic charging and its applications.
- Grid integration Vehicle to X (V2X) charging systems
- Modelling, control analysis, and design of PFC, HFI, and DC-DC power converters for electric vehicles battery charging.
- Implementation of wide band gap semiconductor devices in electric vehicles battery charging.

#### Author's schedule:

Deadline for submission of special session papers	April 15, 2024
Notification of acceptance	June 10, 2024
Deadline for submission of final manuscript	July 01, 2024
Early submission is highly encouraged for early decision notifications!	

All the instructions for paper submission are included in the conference website:

[www.iecon-2024.org](http://www.iecon-2024.org)

