Call for Papers
IEEE Transactions on Transportation Electrification (TTE)
Special Issue on Electrified Ship Technologies

Worldwide demand for electrified vessels is growing rapidly, driven by environmental, fuel cost and performance considerations. Recent technical advancements in power distribution architectures for electrified ships, including MVDC and hybrid MVDC/MVAC infrastructures, have paved the way for application-specific research in power electronic circuitry, control, and components. These enhancements have resulted in ambitious goals for power density, efficiency, and reliability metrics to marshal a new generation of electrified ships. This Special Issue aims to inform the community about recent advancements in these objectives. Prospective authors are invited to submit manuscripts for review for publication in this special issue. Topics of interest include the following in the context of impact on electrified ships:

- Model-based Systems Engineering
- Digital Twin Development
- Electric Propulsion and Generation
- Energy Storage Systems
- Superconducting Devices & Systems
- Electromagnetic Interference
- Common-mode Behavior
- Cabling Considerations
- Autonomous Vessel Design
- Cold-Ironing and Shore Power
- Emission Control Systems
- Ship and System Level Models
- Power Conversion Topologies
- Fuel cells and Integration
- Dielectric Considerations
- Electromagnetic Compatibility
- Protection for AC and DC Systems
- Cyber-Physical System Considerations
- Battery-Electric Ship Implementations
- Cooling Systems & Thermal Solutions
- Subsystem and Component Models
- Wide Bandgap Device Applications
- Control Architectures and Methods
- Pulsating Loads and System Impact
- Wireless Charging at MW Scale
- Charging and Charging Infrastructures
- Medium Freq. AC Power Distribution
- Advanced Magnetics
- Decarbonization & Carbon Capture
- Renewable Generation Sources

Submission of Manuscripts to the Transactions:
All manuscripts must be submitted through Manuscript Central at http://mc.manuscriptcentral.com/tte-ieee. Submissions must be clearly marked “Electrified Ship Technologies” on the cover page. When uploading your paper, please also select the “Special Issue on Electrified Ship Technologies.” Refer to https://www.ieee-pels.org/publications/ieee-transactions-on-transportation-electrification for general information about submission through Manuscript Central.

Important Dates:
- Full Paper Submission Deadline: January 31, 2024
- Expected Publication Date: September 2024

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