

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