Special Issue

Thermal Energy Modeling in Microgrids with Urban Air Mobility

Message from the Guest Editors

This Special Issue seeks multidisciplinary research on innovative thermal energy solutions for microgrids supporting UAM infrastructure, including vertiports, charging systems, and climate-responsive air traffic management. Topics of interest include, but are not limited to, the following:

- Thermal energy storage and management in microgrid-powered UAM hubs.
- Battery thermal regulation for electric vertical takeoff and landing (eVTOL) aircraft.
- Microgrid optimization for energy-efficient vertiports.
- Impact of urban heat islands on UAM flight performance.
- AI and machine learning applications in thermal modeling for UAM microgrids.
- Renewable energy integration and waste heat recovery for urban air mobility.
- Resilience strategies for microgrid-based UAM infrastructure.
- Thermal energy storage in microgrid design, optimization, operation, and control involving renewable energy generation characteristics.
- Modeling and assessment of integrated multi-energy systems.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Thermo (ISSN: 2673-7264) is an international, peer-reviewed, and open access journal that publishes original research papers, reviews, and Special Issues dealing with experimental, theoretical, and applied thermal sciences. Both theoretical (simulation) and/or experimental research papers within our journal's scope are of particular interest, including satellite-related topics considering thermophysics, solubility phenomena, chemical thermodynamics, and chemical engineering. We encourage scientists to publish their results in as much detail as possible, and there is no restriction on the maximum length of papers. We greatly appreciate suggestions for enhancing the journal.

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