



Urban Air Mobility: Energy Management Progress and Challenges

Guest Editors:

Dr. Zhibin Zhou

Department of Energy and
Electrical Systems, ISEN Yncréa
Ouest, 29200 Brest, France

Dr. Teresa Donateo

Department of Engineering for
Innovation, University of Salento,
73100 Lecce, LE, Italy

Prof. Dr. Mohamed Benbouzid

Institut de Recherche Dupuy de
Lôme (UMR CNRS 6027 IRDL),
University of Brest, 29238 Brest,
France

Deadline for manuscript
submissions:

closed (20 November 2023)

Message from the Guest Editors

Dear colleagues,

The implementation of energy storage and renewable energies for unmanned aerial vehicles (UAVs, also called drones) could be essential for guaranteeing flight durations under specific weight/volume constraints. When multiple power supply sources are installed in a drone, the variability of the operation conditions means the energy management and the power distribution strategies should match the characteristics of each power supply source. To address these issues, some special design considerations should be adopted to combine different power sources (battery, fuel cell, supercapacitor, flywheel, etc.) and advanced energy management strategies (EMS) in the most efficient and effective way. Moreover, some fault-tolerant control strategies can be considered to ensure the smooth operation of the drone.

In this context, this Special Issue aims to be an open platform to share knowledge about energy management progress and challenges in VTOL aircraft and UAVs. It particularly seeks original contributions regarding ideas, recent developments, or matured studies addressing both theoretical and experimental aspects.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and
Telecommunications,
Politecnico di Torino, 10129
Torino, Italy

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Control and Systems Engineering*)

Contact Us

Electronics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/electronics
electronics@mdpi.com
[X@electronicsMDPI](https://x.com/electronicsMDPI)