

Special Issue on
**Energy Management Optimization of
Electric Aircraft Propulsion and its Impact
on Airport Electric Infrastructures**

WILEY



CALL FOR PAPERS

Recent advances in electric propulsion technology have stimulated interest in full-electric or hybrid-electric aircraft concepts, following on the heels of the electric automobile revolution.

Air transportation is a significant contributor to atmospheric pollutants which affect public health and our climate. In the last few decades, the “More Electric Aircraft” concept, driven by performance, environmental, and economic demands, has been an opportunity to unify and simplify diverse power supply requirements through the electrification of nonpropulsive subsystems. From an emissions perspective, the remaining propulsive systems are the most polluting and hardest to electrify. However, new and evolving technologies provide opportunities to achieve this. The goal of this special issue is to field a selection of high-quality papers with the aim of characterizing the impact of optimal large-scale aerospace electrification on ground infrastructure and on aircraft electric powertrain, with perspectives of on-board power generation, distribution and storage, management of new and extant aircraft-ground, and airport safety.

Potential topics include but are not limited to the following:

- ▶ Optimal network analysis of on-board power generation, conversion, and distribution systems
- ▶ Optimal mobility and e-taxi technology
- ▶ Optimal fault monitoring, diagnostics, and isolation for the electric motor and generator
- ▶ Optimal social, economic, and environmental impacts of hybrid/electric aircraft
- ▶ Optimal control strategies for smart airport power distribution systems
- ▶ Optimization of air traffic control, integrated IT, and scheduling
- ▶ Control strategies for smart airport power distribution systems
- ▶ Optimal reliability evaluation, system verification, and testing
- ▶ Safety, certification, and optimal MRO aspects

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jat/ieap/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Renato Rizzo, University of Naples
Federico II, Naples, Italy
renato.rizzo@unina.it

Guest Editors

Viacheslav Vavilov, Ufa State Aviation
Technical University, Ufa, Russia
vavilovv@ugatu.su

Luigi Pio Di Noia, University of Naples
Federico II, Naples, Italy
luigipio.dinoia@unina.it

Hamasaki Shinichi, Nagasaki
University, Nagasaki, Japan
hama-s@nagasaki-u.ac.jp

Submission Deadline

Friday, 17 August 2018

Publication Date

January 2019