Aircraft Microgrid Research

Overall, these contributions facilitate the development of robust, fault-tolerant, and efficient DC microgrids for electric aircraft, reducing development risks and accelerating ...

Objective: Define and implement the necessary set of controls & communication needed to manage power in a network of microgrids using a system of systems approach.

With these plans to deploy electric aircraft in the next decade, there are challenges relating to the increased electricity demand associated with electric aircraft, as well as the charging systems ...

This article investigates the current research status of energy management system architecture for airport microgrids charging electric aircraft domestically and internationally.

Renewable resources are being penetrated into microgrids on a larger scale in order to manage sustainable financial and environmental viability. Increased penetration of ...

This paper presents the development of an airport bipolar DC microgrid and its interconnected operations with the utility grid, electric vehicle (EV), and more electric aircraft ...

Abstract--This paper presents an overview of technology related to on-board microgrids for the More Electric Aircraft. All aircraft use an isolated system, where security of supply and power ...

We propose an integrated electricity-thermal-hydrogen microgrid that incorporates photovoltaics, hydrogen fuel cells, and multiple energy storage systems to reduce reliance on ...