Record Nr. UNINA9910438215403321

Titolo Advances in electric propulsion / / edited by Jean L. Broge

Pubbl/distr/stampa Warrendale, Pa. (400 Commonwealth Dr., Wallendale PA USA):,:

Society of Automotive Engineers, , [2017]

[Piscataqay, New Jersey]:,: IEEE Xplore,, [2017]

ISBN 1-5231-2406-7

0-7680-8418-0

Edizione [1st ed.]

Descrizione fisica 1 PDF (x, 73 pages) : : illustrations

Collana Society of Automotive Engineers. Electronic publications.

Disciplina 629.13435

Soggetti Aeronautics

Electric propulsion

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali "Aerospace"--Cover.

"SAE order number TU-003"--Title page verso.

Nota di contenuto Chapter 1. Efficiency, efficiency, efficiency -- Chapter 2. Applying

cogeneration in search of self-sufficient aircraft -- Chapter 3.

Designing fuel cells to fly -- Chapter 4. Asymmetrical capacitors for

electric propulsion -- Chapter 5. Fueling a fuel cell -- Chapter 6.

Engine certification standards impact on MEE.

Sommario/riassunto Aviation propulsion development continues to rely upon fossil fuels for

the vast majority of commercial and military applications. Until these fuels are depleted or abandoned, burning them will continue to jeopardize air quality and provoke increased regulation. With those challenges in mind, research and development of more efficient and electric propulsion systems will expand. Fuel-cell technology is but one example that addresses such emission and resource challenges, and others, including negligible acoustic emissions and the potential to leverage current infrastructure models. For now, these technologies are consigned to smaller aircraft applications, but are expected to mature

toward use in larger aircraft. Additionally, measures such as electric/conventional hybrid configurations will ultimately increase efficiencies and knowledge of electric systems while minimizing industrial costs. This book will take the reader through various

technologies that will enable a more-electric aircraft future, as well as design methods and certification requirements of more-electric engines.