



energies



Special Issue Reprint

Electric Vehicle Efficient Power and Propulsion Systems

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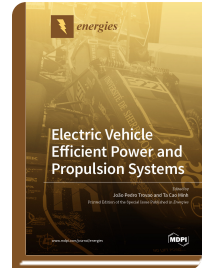
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Vehicle electrification has been identified as one of the main technology trends in this second decade of the 21st century. Nearly 10% of global car sales in 2021 were electric, and this figure would be 50% by 2030 to reduce the oil import dependency and transport emissions in line with countries' climate goals. This book addresses the efficient power and propulsion systems which cover essential topics for research and development on EVs, HEVs and fuel cell electric vehicles (FCEV), including:

Energy storage systems (battery, fuel cell, supercapacitors, and their hybrid systems); Power electronics devices and converters; Electric machine drive control, optimization, and design; Energy system advanced management methods

Primarily intended for professionals and advanced students who are working on EV/HEV/FCEV power and propulsion systems, this edited book surveys state of the art novel control/optimization techniques for different components, as well as for vehicle as a whole system. New readers may also find valuable information on the structure and methodologies in such an interdisciplinary field. Contributed by experienced authors from different research laboratory around the world, these 11 chapters provide balanced materials from theoretical background to methodologies and practical implementation to deal with various issues of this challenging technology. This reprint encourages researchers working in this field to stay actualized on the latest developments on electric vehicle efficient power and propulsion systems for road and rail, both manned and unmanned vehicles.



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