1. Record Nr. UNINA9910220021203321

Autore	Chris Bingham (Ed.)
Titolo	Electrical Power and Energy Systems for Transportation Applications
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2017
ISBN	3-03842-242-8
Descrizione fisica	1 electronic resource (XX, 572 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Electrical power and energy systems are at the forefront of application developments in renewable energy, smart grids, electric aircrafts, electric and hybrid vehicles and much more. The associated technologies and control methods are crucial to achieving global targets in energy efficiency and low-carbon operations, and will also contribute to key areas such as energy security. The greatest challenges occur when we combine new technologies at large-scale and often complex system level. The Special Edition will cover theoretical developments with special emphasis on applications in electrical power and energy systems. Topics covered include: Renewable Energy Systems: Energy management; hybrid systems; distributed systems; renewable sources and integration; transient energy storage, charging networks. Electrical Machines, Drives and Applications: AC and DC machines and drives; multiscale systems modeling; remote monitoring and diagnosis; electric and hybrid vehicles; energy conversion, vehicle to grid interaction. Power Electronic Systems: Converters and emerging technologies; modeling simulation and control; power factor correction; power supplies; active filters; reliability and fault tolerance. Electrical Power Generation Systems: Modeling and simulation of electrical power systems; load management; power quality; distribution reliability; distributed and islanded power systems, sensor networks, communication and control. Electrical Power Systems Modeling and Control: Modeling and control methodologies and applications;

intelligent systems; optimization and advanced heuristics; adaptive systems; robust control.