DESCRIPTION

An advanced level introductory book covering fundamental aspects, design and dynamics of electric and hybrid electric vehicles

There is significant demand for an understanding of the fundamentals, technologies, and design of electric and hybrid electric vehicles and their components from researchers, engineers, and graduate students. Although there is a good body of work in the literature, there is still a great need for electric and hybrid vehicle teaching materials. Electric and Hybrid Vehicles: Technologies, Modeling and Control – A Mechatronic Approach is based on the authors’ current research in vehicle systems and will include chapters on vehicle propulsion systems, the fundamentals of vehicle dynamics, EV and HEV technologies, chassis systems, steering control systems, and state, parameter and force estimations. The book is highly illustrated, and examples will be given throughout the book based on real applications and challenges in the automotive industry.

• Designed to help a new generation of engineers needing to master the principles of and further advances in hybrid vehicle technology

• Includes examples of real applications and challenges in the automotive industry with problems and solutions

• Takes a mechatronics approach to the study of electric and hybrid electric vehicles, appealing to mechanical and electrical engineering interests
• Responds to the increase in demand of universities offering courses in newer electric vehicle technologies

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