Record Nr. UNINA9910484942603321 Electric vehicles: modern technologies and trends / / editor, Nil Patel **Titolo** [and four others] Pubbl/distr/stampa Gateway East, Singapore:,: Springer,, [2021] ©2021 981-15-9251-9 **ISBN** Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XIV, 285 p. 165 illus., 115 illus. in color.) Collana Green Energy and Technology, , 1865-3529 Disciplina 629.2293 Soggetti Electric vehicles Power electronics Renewable energy sources Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Design and Modelling of Fuel Cell Hybrid Electric Vehicle for Urban Nota di contenuto Transportation -- Power Electronics - EV Battery Charging -- Modelling and designing of E-bike for local use -- The Effectiveness of smart grids V2G and integration of renewable energy sources -- A Comprehensive Study on Electrical Vehicle in Charging Infrastructure, Challenges and Future Scope. . Sommario/riassunto This book focuses on the latest emerging technologies in electric vehicles (EV), and their economic and environmental impact. The topics covered include different types of EV such as hybrid electrical vehicle (HEV), battery electrical vehicle (BEV), fuel cell electrical vehicle (FCEV), plug-in hybrid electrical vehicle (PHEV). Theoretical background and practical examples of conventional electrical machines, advanced electrical machines, battery energy sources, on-board charging and off-board charging techniques, and optimization methods are presented here. This book can be useful for students, researchers and practitioners interested in different problems and challenges associated with electric vehicles. .