

1. Record Nr.	UNINA9910404076603321
Autore	Muneer Tariq
Titolo	Practice and Innovations in Sustainable Transport
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2020
ISBN	3-03928-549-1
Descrizione fisica	1 online resource (118 p.)
<hr/>	
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
<hr/>	
Sommario/riassunto	<p>The book continues with an experimental analysis conducted to obtain accurate and complete information about electric vehicles in different traffic situations and road conditions. For the experimental analysis in this study, three different electric vehicles from the Edinburgh College leasing program were equipped and tracked to obtain over 50 GPS and energy consumption data for short distance journeys in the Edinburgh area and long-range tests between Edinburgh and Bristol. In the following section, an adaptive and robust square root cubature Kalman filter based on variational Bayesian approximation and Huber's M-estimation is proposed to accurately estimate state of charge (SOC), which is vital for safe operation and efficient management of lithium-ion batteries. A coupled-inductor DC-DC converter with a high voltage gain is proposed in the following section to match the voltage of a fuel cell stack to a DC link bus. Finally, the book presents a review of the different approaches that have been proposed by various authors to mitigate the impact of electric buses and electric taxis on the future smart grid.</p>