

1. Record Nr.	UNINA9910800112603321
Autore	Colmenar-Santos Antonio
Titolo	Development and Testing of Vehicle Software and its Influence on Sustainable Transport / / edited by Antonio Colmenar-Santos, David Borge-Diez, Pedro-Miguel Ortega-Cabezas
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2024
ISBN	3-031-47630-1
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (203 pages)
Altri autori (Persone)	Borge-DiezDavid Ortega-CabezasPedro-Miguel
Disciplina	629.2
Soggetti	Automotive engineering Computer programs - Testing Transportation engineering Traffic engineering Sustainability Automotive Engineering Software Testing Transportation Technology and Traffic Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Macroeconomic impact, reduction of fee deficit and profitability of a sustainable transport model based on electric mobility. Case study: City of León (Spain) ² -- Software validation techniques in the automotive sector -- Driver efficiency and software. Influence on eco-design ⁹ -- Driver efficiency and software. Influence on Vehicle-toBuilding ¹⁰ -- Contribution of driver efficiency to the European Green Deal ¹² .
Sommario/riassunto	This book evaluates the contributions of the electronic control unit software of an electric vehicle on sustainability and society, such as the reduction of emissions during a product design and the improvements in the vehicle. A sustainable transport model is proposed, demonstrating its economic viability. By validating software in a more efficient way and adding new functionalities to the software to enhance driving efficiency, energy consumption can be significantly reduced.

Therefore, software validation and development have a significant impact on sustainability. This book offers innovative validation solutions based on artificial intelligence techniques to reduce validation time and emissions. The impact of driving efficiency on sustainable transport models is studied in detail, making proposals to be considered in the current environmental policies under discussion within the European Union in order to improve the sustainability of transport models. Vehicles are becoming sophisticated electronic systems due to the fact that they are integrating a significant number of electronic control units. This trend will certainly continue in the year to come. Consequently, software validation techniques are a key element for car manufacturers in order to ensure the quality of the vehicle. This book contributes to these efforts.
