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Nota di contenuto	Introduction -- An overview of computing in Vehicular systems -- Smart transportation system: Challenges and opportunities -- Design and Implementation Procedure for an Advanced Driver Assistance System Based on an Hardware in loop simulation -- Modelling, Simulation, and Management Strategy of an Electric Vehicle Charging Station Based on Microgrid system -- Safety challenges of Electric & Automated vehicles -- Experimental analysis of smart computing technique for Autonomous Vehicle systems -- Assessment and prospects of increasing technological trends in the development of transportation systems -- Machine learning models for data analytics in Automotive application -- Conclusion.

Sommario/riassunto

This book presents various application areas of computing in the automotive sector. The authors explain how computing enhances the performance of vehicles, covering the applications of computing in smart transportation and the future scope. The authors focus on computing for vehicle safety in conjunction with the latest technologies in Internet of Things (IoT). The book provides a holistic approach to computing in an inter-disciplinary and unified view. Topics covered include driverless automated navigation systems, smart transportation, self-learning systems, in-vehicle intelligent systems, and off-road vehicle diagnosis and maintenance, among others. The authors include simulated examples and case studies for better understanding of the technologies and applications. The book is intended for a wide range of readers from students to researchers and industry practitioners and is a useful resource for those planning to pursue research in the area of computing and autonomous driving vehicles. Features an interdisciplinary approach to smart transportation systems, including intelligent vehicles, safety systems; Includes simulated examples and case studies for better understanding of presented technologies and their applications; Relevant for audience in a disciplines including automotive, electrical engineering, electronics, and computer science. .