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Titolo	Advanced Driver Assistance Systems and Autonomous Vehicles : From Fundamentals to Applications // edited by Yan Li, Hualiang Shi
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Collana	Computer Science Series
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Soggetti	Vehicles Automatic control Robotics Automation Artificial intelligence Vehicle Engineering Control, Robotics, Automation Artificial Intelligence
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1 - Introduction -- Chapter 2 - Basics and Applications of AI in ADAS and Autonomous Vehicles -- Chapter 3 - Computing Technology in Autonomous Vehicle -- Chapter 4 - Overview of Packaging Technologies and Cooling Solutions in ADAS market -- Chapter 5 - Flash Memory and NAND -- Chapter 6 – Interconnect -- Chapter 7 - Cameras in Advanced Driver-Assistance Systems and Autonomous Driving Vehicles -- Chapter 8 - Lidar technology -- Chapter 9 - Radar Technology -- Chapter 10 - Electrochemical Power Systems for Advanced Driver-Assistant Vehicles -- Chapter 11 - In-Vehicle Display Technology -- Chapter 12 - Disk drive for data center storage.- Chapter 13 - Role and responsibility of hardware reliability engineer -- Chapter 14 - Failure Analysis in Advanced Driver Assistance Systems -- Chapter 15 - Corrosion mechanisms of copper and gold ball bonds in semiconductor packages. .

## Sommario/riassunto

This book provides a comprehensive reference for both academia and industry on the fundamentals, technology details, and applications of Advanced Driver-Assistance Systems (ADAS) and autonomous driving, an emerging and rapidly growing area. The book written by experts covers the most recent research results and industry progress in the following areas: ADAS system design and test methodologies, advanced materials, modern automotive technologies, artificial intelligence, reliability concerns, and failure analysis in ADAS. Numerous images, tables, and didactic schematics are included throughout. This essential book equips readers with an in-depth understanding of all aspects of ADAS, providing insights into key areas for future research and development.

- Provides comprehensive coverage of the state-of-the-art in ADAS
- Covers advanced materials, deep learning, quality and reliability concerns, and fault isolation and failure analysis
- Discusses ADAS system design and test methodologies, novel automotive technologies
- Features contributions from both academic and industry authors, for a complete view of this important technology.

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