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Nota di contenuto	Chapter 1. Introduction and history of connected and automated vehicles -- Chapter 2. Localization -- Chapter 3. Connectivity -- Chapter 4. Sensor and actuator hardware -- Chapter 5. Computer

vision -- Chapter 6. Sensor fusion -- Chapter 7. Path planning and motion control -- Chapter 8. Verification and validation -- Chapter 9. Outlook.

Sommario/riassunto

The automotive industry is transforming to a greater degree than has occurred since Henry Ford introduced mass production of the automobile with the Model T in 1913. Advances in computing, data processing, and artificial intelligence (deep learning in particular) are driving the development of new levels of automation that will impact all aspects of our lives including our vehicles. What are Connected and Automated Vehicles (CAVs)? What are the underlying technologies that need to mature and converge for them to be widely deployed? Fundamentals of Connected and Automated Vehicles is written to answer these questions, educating the reader with the information required to make informed predictions of how and when CAVs will impact their lives. Topics covered include: History of Connected and Automated Vehicles, Localization, Connectivity, Sensor and Actuator Hardware, Computer Vision, Sensor Fusion, Path Planning and Motion Control, Verification and Validation, and Outlook for future of CAVs.