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Nota di contenuto	Autonomous Driving - A Practical Roadmap (2010-01-2335) / Jeffrey D. Rupp and Anthony G. King -- Sartre - Safe Road Trains for the Environment Reducing Fuel Consumption through Lower Aerodynamic Drag Coefficient (2011-36-0060) / Arturo Davila and Mario Nombela -- Ohio State University Experiences at the DARPA Challenges (2008-01-2718) / Keith A. Redmill, Umit Ozguner, Scott Biddlestone, Alex Hsieh, and John Martin -- Low-Cost Autonomous Vehicles for Urban Environments (2008-01-2717) / Mahesh K. Chengalva, Richard Bletsis, and Bernard P. Moss -- Vehicle Safety Communications - Applications: System Design & Objective Testing Results (2011-01-0575) / Farid Ahmed-Zaid, Hariharan Krishnan, Michael Maile, Lorenzo Caminiti, Sue Bai, and Steve VanSickle -- Distributed System Architecture of Autonomous Vehicles and Real-Time Path Planning Based on the

Curvilinear Coordinate System (2012-01-0740) / Keonyup Chu, Junsoo Kim, and MyoungHo Sunwoo -- Development of a Semi-Autonomous System for Testing with Somnolent Drivers (2011-01-0589) / Jaime Lopez, Jose Manuel Barrios, and Mario Nombela -- Investigating Control of Vision Based Autonomous Navigation in the Image Plane (2010-01-2005) / Rachana Ashok Gupta, Wesley Snyder, and W. Shepherd Pitts -- An Autonomous and Car-Following System via DSRC Communication (2012-01-0741) / Chan Wei Hsu, Ming Kuan KO, Min Huai Shih, and Shih Chieh Huang -- Integrated Controller Design for Path Following in Autonomous Vehicles (2011-01-1032) / Behrooz Mashadi, Pouyan Ahmadizadeh, and Majid Majidi -- Autonomous Vehicle Control in Urban Environment by Map-Based Driving Lane Detection (2011-28-0035) / Takanori Yoshizawa, Pongsathorn Raksincharoensak, and Masao Nagai -- Navigation Control in an Urban Autonomous Ground Vehicle (2011-01-1037) / Bapiraju Surampudi and Joe Steiber.

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Sommario/riassunto

Self-driving cars are no longer in the realm of science fiction, thanks to the integration of numerous automotive technologies that have matured over many years. Technologies such as adaptive cruise control, forward collision warning, lane departure warning, and V2V/V2I communications are being merged into one complex system. The papers in this compendium were carefully selected to bring the reader up to date on successful demonstrations of autonomous vehicles, ongoing projects, and what the future may hold for this technology. It is divided into three sections: overview, major design and test collaborations, and a sampling of autonomous vehicle research projects.

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