



## The DARPA Urban Challenge [ Autonomous Vehicles in City Traffic /

Buehler, Martin

Springer Berlin Heidelberg,  
2009

Monografía

This volume, edited by Martin Buehler, Karl Iagnemma and Sanjiv Singh, presents a unique and comprehensive collection of the scientific results obtained by finalist teams that participated in the DARPA Urban Challenge in November 2007, in the mock city environment of the George Air Force base in Victorville, California. This book is the companion of a previous volume by the same editors which was devoted to the Grand Challenge, which took place in the Nevada desert during October 2005, and was the second in the series of autonomous vehicle races sponsored by DARPA. The Urban Challenge demonstrated how cutting-edge perception, control, and motion planning techniques can allow intelligent autonomous vehicles not only to travel significant distances in off-road terrain, but also to operate in urban scenarios. Beyond the value for future military applications--which motivated DARPA to sponsor the race--the expected impact in the commercial sector for automotive manufacturers is equally, if not more, important: autonomous sensing and control constitute key technologies for vehicles of the future, and might help save thousands of lives that are now lost in traffic accidents. As with the previous STAR volume, the original papers collected in this book were initially published in special issues of the Journal of Field Robotics. Our series is proud to collect them in an archival publication as a special STAR volume!

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**Título:** The DARPA Urban Challenge [Recurso electrónico-En línea] Autonomous Vehicles in City Traffic edited by Martin Buehler, Karl Iagnemma, Sanjiv Singh

**Editorial:** Berlin, Heidelberg Springer Berlin Heidelberg 2009

**Descripción física:** XXXV, 628 p. digital

**Tipo Audiovisual:** Engineering Artificial intelligence Systems theory Engineering Control, Robotics, Mechatronics Artificial Intelligence (incl. Robotics) Machinery and Machine Elements Systems Theory, Control

**Mención de serie:** Springer Tracts in Advanced Robotics 1610-7438 56

**Documento fuente:** Springer eBooks

**Nota general:** Engineering (Springer-11647)

**Contenido:** Autonomous Driving in Urban Environments: Boss and the Urban Challenge -- Motion Planning in Urban Environments -- Junior: The Stanford Entry in the Urban Challenge -- Odin: Team VictorTango\2019s Entry in the DARPA Urban Challenge -- A Perception-Driven Autonomous Urban Vehicle -- Little Ben: The Ben Franklin Racing Team\2019s Entry in the 2007 DARPA Urban Challenge -- Team Cornell\2019s Skynet: Robust Perception and Planning in an Urban Environment -- A Practical Approach to Robotic Design for the DARPA Urban Challenge -- Team AnnieWAY\2019s Autonomous System for the DARPA Urban Challenge 2007 -- Driving with Tentacles - Integral Structures for Sensing and Motion -- Caroline: An Autonomously Driving Vehicle for Urban Environments -- The MIT \2013 Cornell Collision and Why It Happened -- A Perspective on Emerging Automotive Safety Applications, Derived from Lessons Learned through Participation in the DARPA Grand Challenges -- TerraMax: Team Oshkosh Urban Robot

**Restricciones de acceso:** Accesible sólo para usuarios de la UPV

**Tipo recurso electrónico:** Recurso a texto completo

**Detalles del sistema:** Forma de acceso: Web

**ISBN:** 9783642039911 978-3-642-03991-1

**Autores:** Iagnemma, Karl Singh, Sanjiv

**Entidades:** SpringerLink (Servicio en línea)

**Enlace a formato físico adicional:** Printed edition 9783642039904

**Punto acceso adicional serie-Título:** Springer Tracts in Advanced Robotics 1610-7438 56

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