

Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) PDF

Intelligent Unmanned Ground Vehicles

Autonomous Navigation
Research at Carnegie Mellon

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Kluwer Academic Publishers



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Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) by ISBN 0792398335 *Intelligent Unmanned Ground Vehicles* describes the technology developed and the results obtained by the Carnegie Mellon Robotics Institute in the course of the DARPA Unmanned Ground Vehicle (UGV) project. The goal of this work was to equip off-road vehicles with computer-

controlled, unmanned driving capabilities. The book describes contributions in the area of mobility for UGVs including: tools for assembling complex autonomous mobility systems; on-road and off-road navigation; sensing techniques; and route planning algorithms. In addition to basic mobility technology, the book covers a number of integrated systems demonstrated in the field in realistic scenarios. The approaches presented in this book can be applied to a wide range of mobile robotics applications, from automated passenger cars to planetary exploration, and construction and agricultural machines.

Intelligent Unmanned Ground Vehicles shows the progress that was achieved during this program, from brittle specially-built robots operating under highly constrained conditions, to groups of modified commercial vehicles operating in tough environments. One measure of progress is how much of this technology is being used in other applications. For example, much of the work in road-following, architectures and obstacle detection has been the basis for the Automated Highway Systems (AHS) prototypes currently under development. AHS will lead to commercial prototypes within a few years. The cross-country technology is also being used in the development of planetary rovers with a projected launch date within a few years. The architectural tools built under this program have been used in numerous applications, from an automated harvester to an autonomous excavator.

The results reported in this work provide tools for further research development leading to practical, reliable and economical mobile robots.

Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) Review

This Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) book is not really ordinary book, you have it then the world is in your hands. The benefit you get by reading this book is actually information inside this reserve incredible fresh, you will get information which is getting deeper an individual read a lot of information you will get. This kind of Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) without we recognize teach the one who looking at it become critical in imagining and analyzing. Don't be worry Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) can bring any time you are and not make your tote space or bookshelves' grow to be full because you can have it inside your lovely laptop even cell phone. This Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon (The Springer International Series in Engineering and Computer Science) having great arrangement in word and layout, so you will not really feel uninterested in reading.