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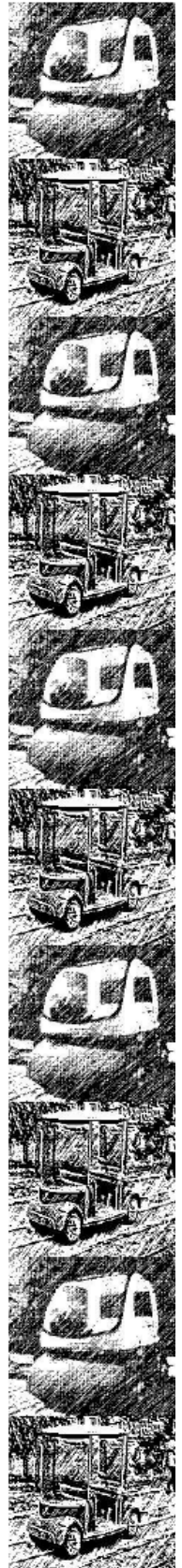
Planning, Perception and Navigation for Intelligent Vehicles

April 14, 2007, Rome, Italy



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Introduction

The purpose of this workshop is to discuss topics related to the challenging problems of autonomous navigation and of driving assistance in open and dynamic environments. Technologies related to application fields such as unmanned outdoor vehicles or intelligent road vehicles will be considered from both the theoretical and technological point of views. Several research questions located on the cutting edge of the state of the art will be addressed. Among the many application areas that robotics is addressing, transportation of people and goods seem to be a domain that will dramatically benefit from intelligent automation. Fully automatic driving is emerging as the approach to dramatically improve efficiency while at the same time leading to the goal of zero fatalities. This workshop will address robotics technologies, which are at the very core of this major shift in the automobile paradigm.

Topics

- Object detection, tracking and classification
- Collision prediction and avoidance
- Environment perception, vehicle localization and autonomous navigation
- Real-time perception and sensor fusion
- Integrated in-vehicle and infrastructure systems
- Integrated "LiLo: looking-in and looking-out" sensing
- Cooperative techniques
- Human-centred driver assistance
- Driver state, intent and activity sensing
- SLAM in dynamic environments
- Real-time motion planning in dynamic environments

Selected papers will be considered for a special issue of the IEEE Transactions on Intelligent Transportation Systems.

Workshop Homepage:

<http://www.isr.uc.pt/~urbano/WorkICRA07>