Title:
Autonomous Vehicles Fleet Management using Artificial Intelligence

Description:
The aim of the project is to lay the theoretical foundations for the automation of high-level decision-making processes in autonomous vehicles, both single and in groups, and to develop technological demonstrators. To this end, it is necessary to identify tools, based on artificial intelligence and innovative decision and control algorithms, which allow vehicles, and more generally robots, to organize themselves to carry out tasks, respond to events, and ultimately manage their own life cycle. The goal is to develop tools that make the delegation of increasingly complex activities to machines completely autonomous, reliable and effective, leaving a pure supervisory role to the human operator. The interaction with man will therefore become an almost equal relationship in which the machines, capable of organizing themselves, will take care of all the daily routine activities, including strategic management of fleets, monitoring of operations, automatic management of emergencies and of contingencies, automatic report generation and intelligent troubleshooting.

Hosting Institution:
University of Pisa

Contacts:
Lorenzo Pollini - lorenzo.pollini@unipi.it

Type of scholarship:
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