

THE UNIVERSITY OF PARMA ARGO PROJECT: CRITICAL REVIEW AND PERSPECTIVES

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The talk will present the University of Parma ARGO Project. It will describe the main objectives and goals of this project and will focus on the most relevant past achievements and on future developments.

The ARGO project -officially started about 2 years ago- was launched after a first 8-year-long research stage, conducted within the European PROMETHEUS Project. Although the main objective was the development of an active safety system to be used on vehicles of the future, further developments led to the design and implementation of a system for automatic driving.

The talk will highlight and motivate the main design specifications used throughout the whole project, which may be

summarized as follows: (i) the choice to use only visual information to sense the surrounding environment, in order not to create interference with other vehicles equipped with the same kind of sensors, and (ii) the use of low-cost commercial hardware, in order to reduce the cost of the final system.

The results of the ARGO project have been demonstrated to the scientific community and to the international press with a 2000 km journey throughout Italy (the "MilleMiglia in Automatico" tour). During this journey, the ARGO vehicle drove itself autonomously along Italian highways in real traffic and weather conditions. The talk will present the main problems encountered during the test and will discuss future enhancements and possible improvement of the whole system.