

Abstract

Intelligent Vehicle Robotics is a research area affordable only to big size research groups, mainly because of its high costs. By the present work we propose to develop Intelligent Vehicle Robotics research with modest budgets using an accurately scaled platform.

We have developed a scaled intelligent vehicle model to simulate private electric vehicles. It is a low cost, flexible, expandable and open platform that has been meant to test intelligent vehicle solutions to be, after that tested in real scale intelligent vehicles. We have called the model ASEIMOV, standing for Autonomous Scaled Electric Intelligent MOnitored Vehicle.

The model consists of a scaled electric vehicle that has been equipped with sensors, web cameras, a PC computer, batteries and ballasts to simulate physically and through software an electric smart vehicle. A carefully scaled vehicle means that the successful solutions tested on the scaled platform are worthy to be tried on real scale smart vehicles in a further step of research. Through this work we describe the ASEIMOV model.