CHALMERS

Design of A Localization-Based Collision Avoidance System For Wireless Car

Master of Science Thesis

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Abstract

In this project, a reliable and inexpensive collision avoidance system was designed for vehicles traversing roads in high speeds. Miniature wireless cars in an indoor traffic model are used to simulate real vehicles movements. Several experiments were done to make the car movement reliable. The selected localization system keeps track of each car's movement. Each car's speed and steer is adjusted by the collision avoidance system, and it is done through sending control commands with regards to the cars location information obtained from the localization system.

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