

Smart road



• Sensor network - Smart road

> Description

ICare is a model instrumented system of a smart road application. The goal of smart road project is to provide information to the vehicle to improve driver's comfort and security.

Technologies developed

- Smart RFID system

Associated research topics

- RFID
- Sensor network
- Wireless measurement
- Road safety
- Smart antennas
- Embedded system

Potential fields of application

- Smart road
- Bridge monitoring

Presentation

The I-Care project is aimed to develop an instrumented road in order to get information from the road itself to the vehicle.

These information will provide accurate physical measurements from the road to the car and will improve safety and driving conditions.

Colored pavement on the floor symbolise the road equipped with RFID TAGs. 1/10th car models are equipped with RFID readers to get TAGs information.

The reader is controlled with a PDA screen placed on the roof off the model car.

A road panel is also wireless connected to a TAG placed in front of it and is able to update the data automatically.

Information provided to the driver are speed limit, road name, direction, traffic information and so on.

Next steps will be to provide physical measurements such as temperature, road traffic condition, humidity and so on.