

CSGI

KAMIJO LAB.

[Autonomous Driving with Navigation Technology and Onboard Sensor Fusion]

Center for Socio-Global Informatics

<http://kmj.iis.u-tokyo.ac.jp>

Applied Multimedia Information Processing

Information Science and Technology

Information and Communication Engineering

Navigation and Sensor Fusion for Autonomous Driving

Safety Assistance System using On-board Sensors

The traffic accidents still remain as a serious problem. We develop robust navigation and onboard sensor technologies, which can be used in driver assistance and autonomous driving systems. Our ultimate goal is to protect vulnerable road users and increase the road safety by implementing safety assistance system.

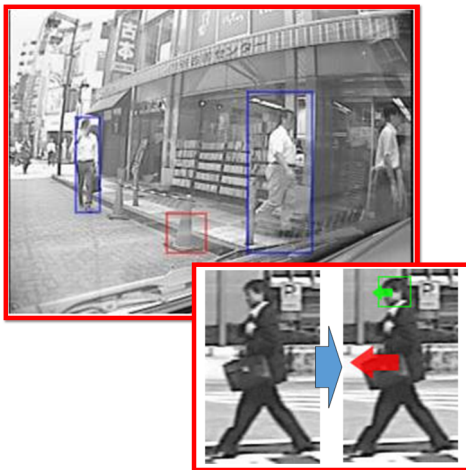
Pedestrian Detection

Pedestrian detection and trajectory estimation by on-board monocular camera
Pedestrian detection using Received Signal Strength Indicator(RSSI)

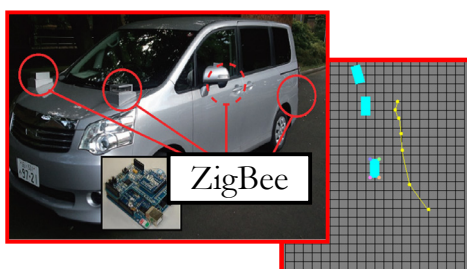
Advanced Navigation System

Positioning accuracy improvement using GPS and 3D map in urban canyon
Pedestrian Dead Reckoning upgrading with mobile device

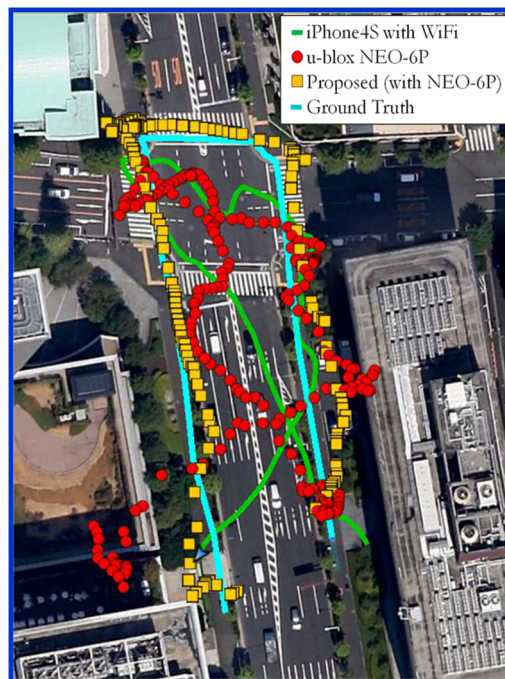
Next Generation Traffic Signal Controlling system



Pedestrian detection using Camera



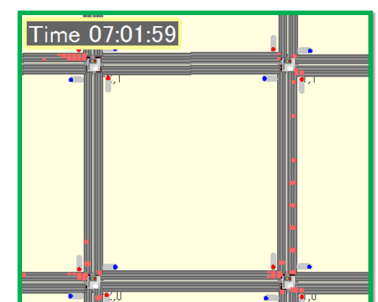
Pedestrian detection using RSSI



Pedestrian positioning with GPS



Activity recognition with PDR



Traffic signal control