



K. NAKANO LAB.

Experiment/Experience

[Measurement and Control in Mobility]

Advanced Mobility Research Center

Mechanical and Biological Systems Control

Interdisciplinary Information Studies, Mechanical Engineering

English Lab Page

Japanese Lab Page

http://www.knakanolab.iis.u-tokyo.ac.jp/english/index_en.htm

While attention on automated driving of automobiles increases, aiming for augmentation of a driver, human oriented mobility engineering researches such as shared control, human-machine interface, and high level sensing have been conducted. The followings are topics of our researches.

1. Effect Evaluation of Haptic Guidance Control
2. Analysis of Driver Behavior Based on Integration of Visual and Haptic Information Under Shared Control
3. Estimation of Drowsiness of Drivers with Haptic Interface
4. Evaluation of Interface for Advanced Driver-Assistance Systems
5. Human Machine Interface Using sEMG for Steering Control
6. Effect of In-Vehicle Traffic Signal on Driving Behavior
7. Cooperated Control with Traffic Signal for Automated Driving Bus
8. Dynamic Driving Task Fallback System for an Automated Vehicle Encountering Sensor Failure in Monitoring Driving Environment
9. Energy Harvesting in Rotating Tires Using Stochastic Resonance
10. Slip Detection of a Railway Vehicle from Acceleration Measured Onboard
11. Estimation of Friction Coefficient Between Rail and Wheel from Measured Values of a PQ Wheel Using Kalman Filter
12. Active Control of Sound Transmission

