



# K. NAKANO LAB.

## [Measurement and Control in Mobility]

Advanced Mobility Research Center

Mechanical and Biological Systems Control

Interdisciplinary Information Studies, Mechanical Engineering

[http://www.knakanolab.iis.u-tokyo.ac.jp/english/index\\_en.htm](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.

Effect evaluation of haptic guidance control

Haptic guidance control considering change of look-ahead distance

Haptic guidance control under passive fatigue

Estimation of drowsiness of drivers with haptic interface

Effect of Inter-vehicle traffic signals at signalized intersections on driving behaviors

Application of Inter-vehicle traffic signals at non-signalized intersections

Traffic control with inter-vehicle traffic signals and road signs

Energy harvesting in rotating tires using stochastic resonance

Measurement and control in railway vehicles

Independent component analysis applied to measurement of vehicle vibration



Driving Simulator



In-Vehicle Traffic Signal



Vibration Analysis with ICA



Railway Electric Cart



Experimental Traffic Light and a Test Car



Energy Harvester in the Rotating Tire