Human-oriented Mobility Engineering

Based on knowledge of dynamics, measurement, and control, we are carrying out the studies related to human-oriented mobility engineering. The followings are topics of the researches.

- Mobility engineering using bio-signals
- Haptic guidance control
- Estimation of drowsiness of drivers with haptic interface
- Evaluation of human-machine-interface of automobiles with gaze measurement
- Influence on driving behaviors of inter-vehicle traffic signal
- Traffic control with inter-vehicle traffic signals and road signs
- Energy harvesting in rotating tires using stochastic resonance
- Application of ITS technology to railway vehicles
- Independent component analysis applied to measurement of vehicle vibration
- Evaluation of driving ability of elderly drivers with white matter lesions