

K. NAKANO LAB.

Safe and Comfort Mobility for Everyone



Department of Mechanical and Biofunctional systems
Harmonic Mobility Research Center (ITS Center)

Department of Mechanical Engineering,
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Mechanical and Biological Systems Control

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

Based on the fundamental fields of mechanics, vibration and control, research is carried out on condition monitoring, ergonomics, human-machine interface, automated driving and cooperative systems related to mobility. Non-technical issues, called ELSI, are also addressed with the aim of implementing these technologies in society. The main research topics are

1. Evaluation of Performance of Shared Control
2. Haptic Steering Assistance Based on Prediction of the Future Trajectory in Line with the Intention of the Driver
3. Evaluation of Human Machine Interface for Vehicle - infrastructure Cooperative Driver Assistance
4. Understanding and Optimizing Situational Acceptance in Automated Driving
5. Trajectory Prediction of Surrounding Vehicles Based on Traffic Scenario Understanding
6. Energy Harvesting in Rotating Body
7. Estimation of Condition Between Rail and Wheel from Measured Values of a PQ Wheelset
8. Unified Traffic Control System for Railway and Road Vehicles Using Mobile Phone Line
9. Driving Assistance for Electric Wheelchairs at Pedestrian Crossings and Railroad Crossings Using Infrastructure to Vehicle Communication
10. Activities to Realize Level 4 Cooperated Automated Mobility Service
11. Building the Method for Social Implementation of Automated Driving Technology Complying with Actual State Based on ELSI

