Safe and Comfort Mobility for Everyone

K. NAKANO LAB.

[Measurement and Control in Mobility]

Advanced Mobility Research Center

Mechanical and Biological Systems Control

Interdisciplinary Information Studies, Mechanical Engineering

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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. Evaluation of Performance of Shared Control
2. Driver Model for Shared Control
3. Steering Control Using sEMG
4. Effect of Exterior Human-Machine-Interface on a Traveling Bicycle
5. Driving Simulator Experiment on Rollover Feeling in a Heavy Duty Truck
6. Effect of In-Vehicle Traffic Signal on Driving Behavior
7. Steering Controller Design of 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 Body
10. Decreased Deceleration Detection of Railway Vehicle in Snow Condition
11. Estimation of Condition Between Rail and Wheel from Measured Values of a PQ Wheel
12. Unified Traffic Control System for Railway and Road Vehicles Using Mobile Phone Line