SHINTARO ONO LAB
(Proj. Assoc. Prof.)

[Sensing and Visualization for ITS]

Vehicle Dynamic Control Strategy of Automated Driving*
Advanced Mobility Research Center (ITS Center)

Mechano-Informatic Mobility Engineering

*Corporate Sponsored Research Program

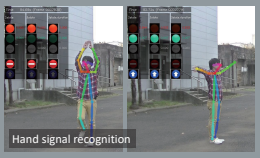
http://www.its.iis.u-tokyo.ac.jp/onoshin/

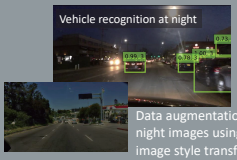
Visualization
Practical Use

Real Scene Understanding
Information Extraction

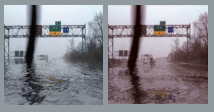
Real World Sensing
Modeling

Basic Technology for Automated Driving -- Toward wider ODD --





Detecting Unusual Events



Flood detection for driving video
Data augmentation using CG and GAN

Sensing by Specialized Vehicle

3D Modeling of Road Structure

Video-based Driving Simulator

Enhancing reality using real video for background

System for Information Collection, Integration, Visualization, and Distribution

Reducing CO_2 Emission by Raising Awareness of Citizens.
Social experiment in Kashiwa City proved the possibility of 8% reduction by the Regional Transport Information System for promoting eco-friendly travel behavior.

Space-time Video Processing

Separating foreground/ background by spacetime filtering

Sensing by General Vehicles

Super Resolution (Refinement) of Super Wide-Angle On-Vehicle Camera

Street Panorama before East Japan Earthquake Reconstructed from Driving Video Recorder

Institute of Industrial Science, The University of Tokyo