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/

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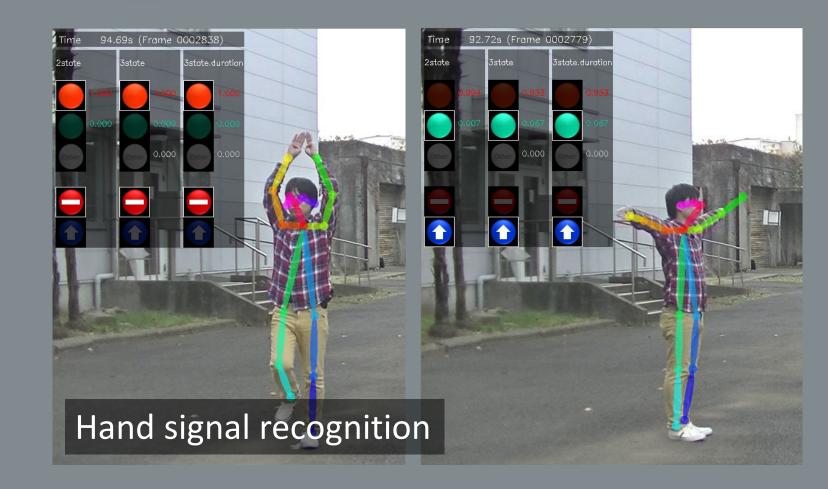
Model

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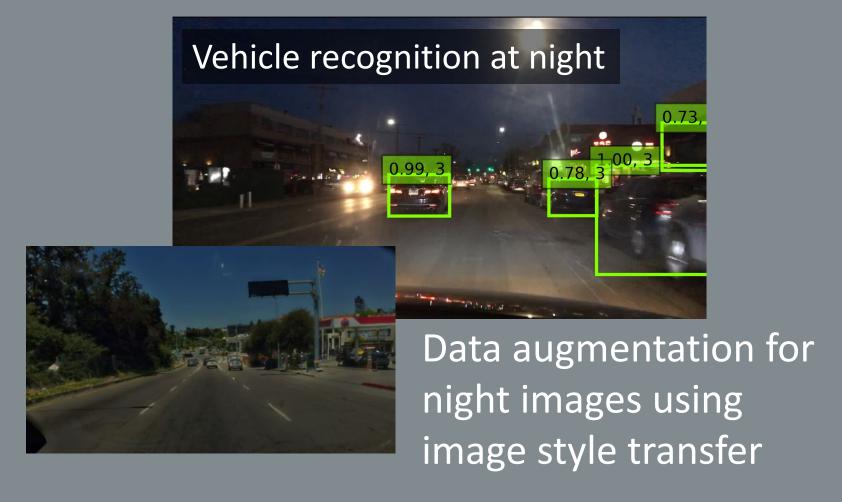
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Extraction

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





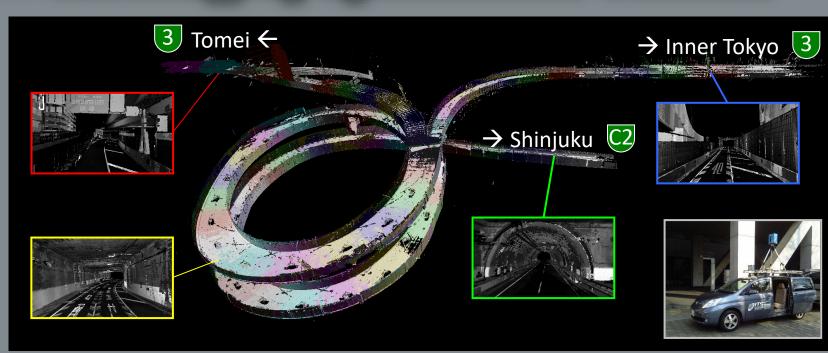


Detecting Unusual Events



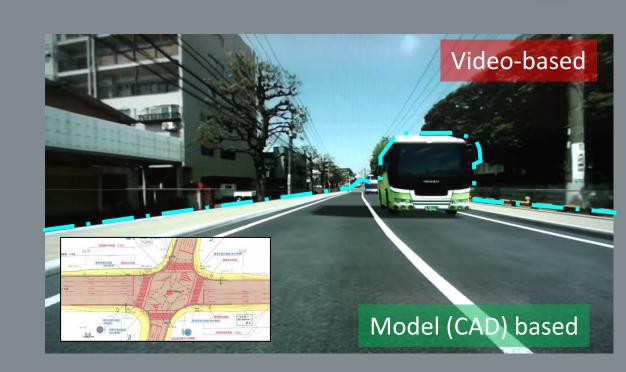
Flood detection for driving video Data augmentation using CG and GAN

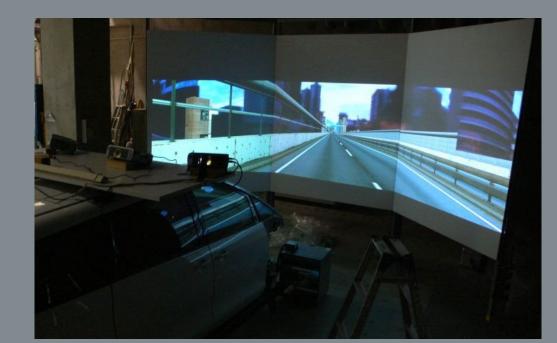
Sensing by Specialized Vehicle



3D Modeling of Road Structure

Video-based Driving Simulator

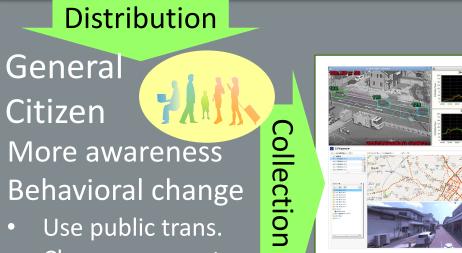




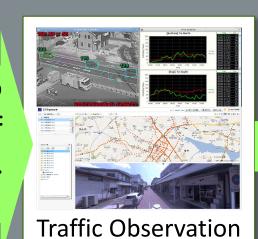
Enhancing reality using real video for background

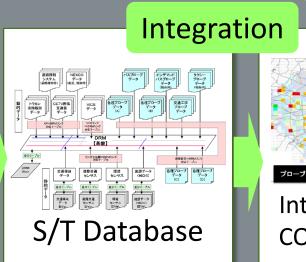
System for Information Collection, Integration, Visualization, and Distribution

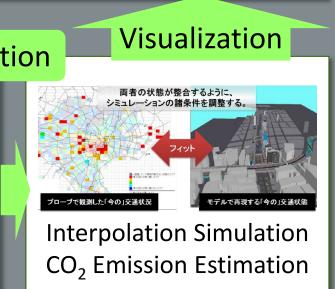




Do eco-driving







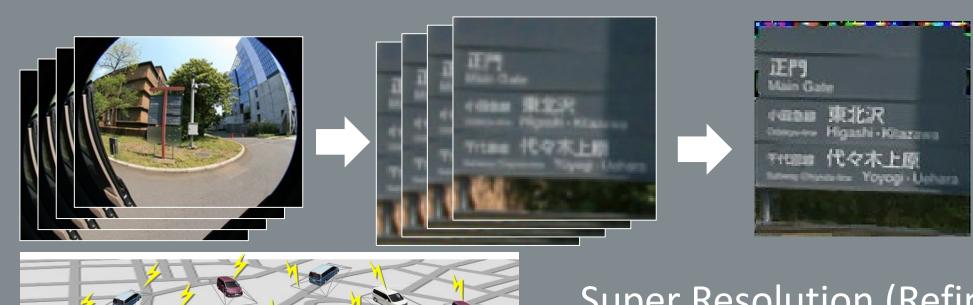
Reducing CO₂ Emission by Raising Awareness of Citizens. Social experiment in Kashiwa City proved the possibility of 8% reduction by the Regional Transport Information System for promoting eco-friendly travel behavior.

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