Harmonic Mobility Research Center

[Designing the Next Generation Transport System]

Intelligent Transport Systems

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https://www.its.iis.u-tokyo.ac.jp/

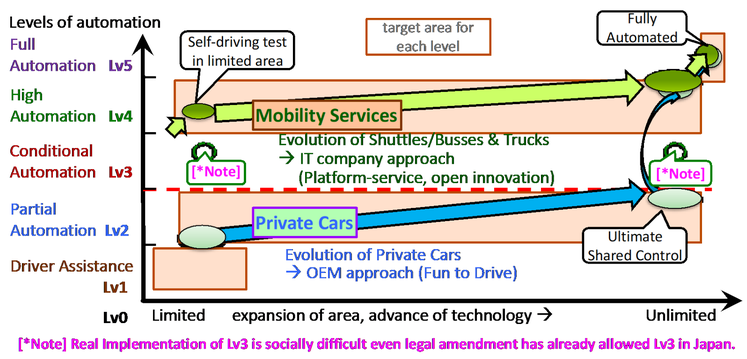
- **ITS (Intelligent Transport Systems)** is a state-of-the-art transport system that integrates various technologies in traffic, vehicles, and electronic information and communication engineering.
- The ITS Center aims to promote “harmony” among various technologies and systems related to advanced mobility to realize a sustainable future society
- In July 2018, the ITS Center took the lead in launching the Mobility Innovation Collaborative Research Organization (UTmobI) as a cross-departmental organization within the university, and since July 2019 it has been promoting it with an eight-department structure.

Research and Developments on ITS

Societal implementation of automated driving

Assessment of bipolarized mobility innovation scenarios, cross-field academic collaboration

Automated Driving emerging scenario proposal and the Impact Analysis

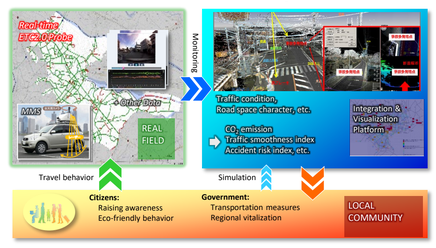


[*Note] Real Implementation of Lv3 is socially difficult even legal amendment has already allowed Lv3 in Japan.

Kashiwa ITS FOT Model City

ITS research activities launched for environment-friendly transport society in Kashiwa City, which is designated as one of the ITS FOT model cities by the Cabinet Office of Japan

Kashiwa ITS Smart City



Field test of automated driving bus (2019.11~)

Technical

Vehicle-infrastructure cooperative technology aimed at expanding situations in which automated driving is possible

Non-technical

Kashiwa Campus UTokyo ⇔ Kashiwanoha-Campus Station

Investigation of the acceptability of automated driving and ELSI (Ethical, Legal, and Social Implications) Study

ITS R&R Experiment Field

Experiment fields for automobiles and trains and a driving simulator for large vehicle.

Large-Scale Experiment and Advanced-Analysis Platform, Kashiwa Campus

Next-Generation Infrastructure

Autonomous Traffic Signal System

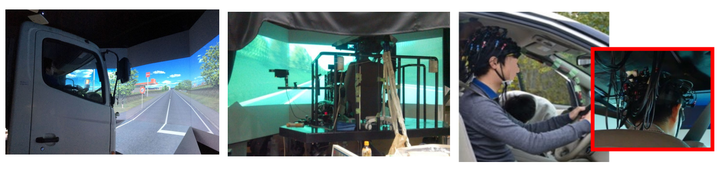
Technological studies on AVs

Driving test of automated driving buses

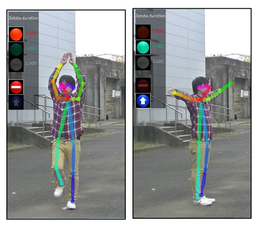
Sensing

Study on driving behaviors, driver status, and human interfaces for automated driving based on driving simulators and biometric measurements

Driver monitoring



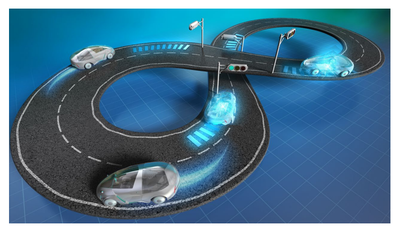
Recognition of hand signals by the in-vehicle camera



Low-Carbon Mobility Vision

Strategic deployment of EV infra-structure using Dynamic Wireless Power Transfer (DWPT)

Mathematical Optimization of DWPT Locations
Compact Batteries, Smarter Energy Use



Human Resource Development and Social Return Activities

ITS Seminar

Series of seminars organized about three times a year, and ITS based on needs from local areas as well as central administration promoted

Lectures

Not only lectures for students but also a special lecture "UTmobI Forum" (once a year) for private sectors organized for developing human resource in ITS industry

Research Committee

Informal discussions about latest ITS topics hosted every month inviting speakers from academia, industry, and government

Global Collaboration

ITS Center hosts an international symposium every year and exchanges faculty members and students with other universities and institutes through international collaboration as well as domestic collaboration.