



## Human Factors : HMI and User Education CAD GermanyJapan HF

### Overviews

#### Objectives of this collaboration

- Accelerate successful introduction of safe automated vehicle technology.
- Increase social acceptance of automated systems for broader international markets based on cross-cultural comparisons and considerations of obtained results.

#### Japanese partners

- **Coordinator**
  - Satoshi Kitazaki (AIST)
- **Research Institutes**
  - Keio U(KO), AIST, U of Tokyo(UT), U of Tsukuba(TU), Kumamoto U(KU)

#### German partners

- **Coordinator**
  - Klaus Bengler (TU Munich)
- **Research Institutes**
  - TU Dresden(TUD), TU Chemnitz(TUC), TU Munich(TUM), DLR, Ulm U(UULM)

### Achievements

#### Task A / WP 1: External communication at low speeds

For more info



- **Members**
  - KO : External HMI and vehicle behavior, effects of road markings for Low-speed AVs.
  - TUD : Effects of eHMIs on interaction between AVs and pedestrians.
  - TUC : Interaction between cyclists and AVs.
  - TUM : Communication strategies of AVs addressing vulnerable road users.
  - DLR : Modeling pedestrians' decision-making and behavior & design of eHMIs.
  - UULM: Interaction between automated driving systems and drivers outside the vehicle.
- **Joint Publications: 2 (under writing)**

#### Task B / WP 3: Driver's interaction with the system

For more info



- **Members**
  - AIST: Design guidelines for the driver to build proper situation awareness.
  - UT : Evaluation method for driver's understanding of system functional limitations.
  - TUM : Effects of driver interaction during transition phases with MRMs.
  - UULM: Interaction between automated driving systems and drivers inside the vehicle.
- **Joint Publications: 2 (under writing)**

#### Task C / WP 2: Education and training of users

For more info



- TU : General knowledge education is important for drivers to use AD safely.
- KU : Video teaching materials were developed based on effective educational methods.
- TUD : Literature review on effectiveness of training for automated driving.
- TUM : Effect of training on users' knowledge about automated driving (L1 to L3).

#### Others

- Lecture exchange, staff exchange, organized session (IEA2021)