

Research of ways to support roads for early realization of automatic driving

Road Traffic Department

We are developing a road-vehicle coordination system that supports driving from the roadside in complicated situations, such as highway merges, for the early realization of safe and smooth automatic driving. We are conducting experiments and evaluations to use automatic driving services in the society of mountainous regions where populations are aging rapidly.

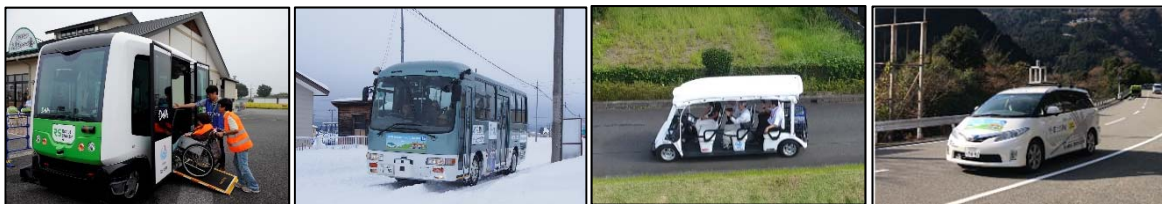
Social background and problems

- The development of independent automatic driving technologies using sensors on vehicles is being conducted mainly by automotive manufacturers. On the other hand, under complicated traffic conditions, such as highway merges, limitations of the sensors on vehicles and other factors are resulting in difficulties in realizing automatic driving conducted independently by a vehicle.
- Mountainous regions where the population is aging and the birthrate is declining are hoping for the realization of transportation services based on automatic driving because they face decreased quality and quantity of public transportation services, and securing the flow and distribution of people is an important issue for them.

Content of this study

Experiment in an automatic driving service in mountainous regions using roadside service stations as bases

We experimented with automatic driving services connecting regional bases, such as roadside stations, with lifestyle bases to secure the means of carrying people and objects in mountainous regions where the population is aging. NILIM is publicly recruiting automatic driving vehicles to be used in the experiment. NILIM is also providing technical advice for the technical verification of road traffic, regional environment, and social acceptability for early application of automatic driving services in society and for the establishment of plans at the experimental sites.

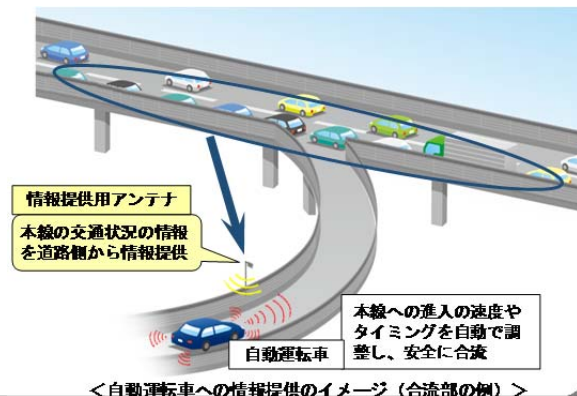


Status of the experiment

Joint research for the realization of road-vehicle coordinated automatic driving on highways and other roads

The joint research of the public and private sectors started in 2018 for the realization of automatic driving on highways using the support system based on information provided from the road in complicated traffic environments such as road merges.

A prototype system is going to be built to verify its effectiveness in experiments on NILIM test roads. The goal is to determine the specifications and apply the technology in society.



Realize safe and smooth automatic driving on highways and other roads by assisting driving from the road. Actually start a low-speed automatic driving service to secure the flow and distribution of people in mountainous regions.

Relevant articles

- Experiment of automatic driving in mountainous regions using roadside service stations as bases
- Joint research concerning next-generation coordinate ITS