Press release

SIP-adus
FY2021 FOTs start in Tokyo waterfront area
Data utilization by V2N and safety assurance in virtual space

The Second Phase of SIP- Automated Driving for Universal Services[1] ("SIP-adus") has been conducting field operational tests ("FOTs") in Tokyo waterfront area since 2019 with the aim of realizing safe and comfortable automated driving society. In FY2021, with the participation of a total of 22 institutions, including automobile manufacturers, auto parts suppliers, and universities in Japan and overseas, FOTs will start in November to distribute traffic environment data necessary for automated driving from the public long range network. SIP-adus will also invite a wide range of participants to verify the effectiveness of the safety assurance of automated driving systems in virtual space.

1. Overview of SIP-adus

The second phase of SIP-adus is promoting research and development on common issues (cooperative area) that should be tackled jointly by industry-academia-government collaboration, with the aim of realizing a society in which all people can lead a high quality of life by contributing to solving social issues such as reducing traffic accidents and congestion, ensuring mobility for vulnerable road users, reducing driver shortages in logistics and mobility services, and reducing costs through the practical application and widespread use of automated driving.

2. Outline of FOTs in Tokyo waterfront area

Aiming to realize advanced vehicle-infrastructure cooperative driving automation utilizing traffic environment data, SIP-adus has developed infrastructure such as ITS roadside units for traffic signal information and high-precision 3D maps on general roads over Tokyo waterfront area, and sensors for merging lane assistance on the Metropolitan Expressway and conducted the FOTs with the participation of automobile manufacturers, auto parts suppliers, universities, ventures in Japan and overseas, and verified the usefulness and confirmed the countermeasures.

In FY2021, tests will be conducted by developing experimental environment that can distribute a variety of traffic environment data to vehicles through the public long range network (V2N)*2, as well as a safety evaluation environment in virtual space.

(1) Distribution of traffic environment data using V2N

As new efforts to utilize traffic environment data, traffic congestion information at the lane level utilizing vehicle probe data, latest rainfall information possessed by other companies, simulated emergency vehicle information and signal information distributed through V2I*3 tested last year will be distributed to vehicles via V2N. Tests will be carried out regarding issues related to the effectiveness of the information and social implementation.

・Test period

From November 2021 to the end of March 2022.

・Participants

A total of 22 institutions including automobile manufacturers, auto parts suppliers, and universities in Japan and overseas (see Attachment 1).

(2)Providing a safety evaluation environment in a virtual space

In order to build a safety evaluation environment using virtual space, SIP-adus is developing simulation models that are highly consistent with actual phenomena under various traffic environments. Also SIP-adus will build a virtual safety evaluation environment centered on Tokyo Waterfront City area, which is the field of FOTs in Tokyo Waterfront area, and conduct FOTs to confirm its effectiveness.

・Test period

From November 2021 to the end of April 2022.

・Participants

Expected to be automobile manufacturers, auto parts suppliers, universities in Japan and overseas and other corporations and institutes engaged in research and development of automated driving technology.

3. Related efforts

In order to disseminate information on the achievements including FOTs in Tokyo waterfront area and to foster public acceptance of automated driving, SIP-adus holds seminars and events on legal systems and research results. Seminars in the past can be referred on the web. Please refer to the SIP-adus homepage for details.

[Notes]

*1 The second phase of SIP Automated Driving for Universal Services
　https://www.sip-adus.go.jp

*2 Public Long Range Network (V2N: Vehicle to Network)
　Communication between car and cloud network.

*3 Short Range Communication (V2I: Vehicle to Infrastructure)
　Communication between car and roadside equipment.

＜Contact information＞

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