

Summary of SIP-adus Project (FY2016)

Name of the project

A research of the pedestrian support system common platform in a consideration of problems and solutions to realize automated driving systems

Responsible Organization

Hitachi, Navitime Japan, and Zenrin Consortium

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Object of the Project

To realize the safe, secure and friendly traffic systems for all people including vulnerable road users such as the elderly and people with disabilities, we construct the pedestrian support system that improves accessibilities to public transportation. It decreases traffic accidents by merging dynamic location information of pedestrian and surrounding cars in cyber space.

Project Summary**① Survey of necessary information and study and evaluation of its utilization method**

We surveyed the necessary information for the pedestrian support system. Along the route of Shinbashi – Shiodome – Toyosu, near ART planned route, we created the real data of necessary information. As an evaluation application of common platform data, we developed the personal navigation prototype installed those real data. In the field test of this personal navigation, we confirmed the effectiveness and acceptability of the personal navigation and checked the excess and deficiency of necessary information. In the field test of this personal navigation, we also researched the effective utilization of the dynamic map information.

② Research and evaluation of collection, management and provision method of information

As a method of collecting common platform data, we designed, prototyped a data collection application using GPS. We created the test data for that application. And also we designed and prototyped an submission application of necessary information and confirmed that the application could create a dummy data. In addition, we researched the method of providing common platform data from map makers to business application developers and we extracted issues for the next year and after.

In the cooperation with SIP project of the Ministry of Internal Affairs and Communications, we researched the utilizing method of technologies such as the high-precision positioning and risk determination in pedestrian support system. We considered the utilities of those technologies in the pedestrian terminal for large-scale feasibility studies beginning from next year.

③ Research of the method and specifications of PICS cooperation

In the cooperation with SIP project of National Police Agency, we researched the content and cooperation method of necessary information for PICS cooperation. In addition, we considered the cooperation specifications between the personal navigation and PICS terminal that was communicating to PICS.

④ Research and evaluation of acceptability

We collected various opinions from mobility-handicapped persons in the Koto city UD workshop. We fed those back to personal navigation prototyping and researched the acceptability of the personal navigation.

In addition, through the cooperation with the specialists from College, National Rehabilitation Center for Persons with Disabilities, we considered the measures for the prevalence and utilization of the pedestrian support system.

Further, we considered methods and schemes that improved autonomous safety awareness and promoted awareness development for a community of helping each other.

Future plan

We propose the large-scale feasibility studies beginning from next year, continuous research and evaluation of the pedestrian support system. Following are some examples.

1. Collection method of necessary information in short period and for low cost
 - Feasibility studies of necessary information collection by using the data collection application and submission data collection application
2. Research of providing methods of collected data to the information center
3. Research of classification methods of user characteristics to be linked
4. Improvements of the personal navigator