



Smart JAMP (2022) Study for the Realization of Smart City in Phuket, the Kingdom of Thailand

Category of Issues
in the Area



Target Area

- Phuket Province, Thailand

Background and Purpose

- This study is for smart development in the transport sector of Phuket, Thailand, a world renowned tourist destination, to facilitate comfortable and convenient movement on the island for tourists and residents alike.
- In this study, traffic data acquired from AI imaging analysis of CCTV data and probe data will be integrated with probe data to calculate optimal routes; this proposed technology is expected to reduce travel times and traffic congestion.

Related Organization

- Digital Economy Promotion Agency (depa), Phuket Province, Phuket Provincial Police, etc.

Project Stage

- Pre-Feasibility Study

Contents and Results

1. Study on the method of combining CCTV and probe data
 •The combination of AI analysis of CCTV camera images with probe data was studied and the utilization of the aforementioned data for the provision of guidance on alternate routes via the MaaS application was proposed.

2. Case study of combining CCTV and probe data
 •The traffic volume entering from R402 and R4027 and the travel speed using CCTV and probe data for the section from the airport to Heroines Roundabout were verified and analyzed. For this section, typically travel time on R402 is shorter; however, according to analysis, at times when traffic volume on R402 is particularly high that makes congested, travel time on R4027 becomes shorter.

3. Proposal of the methods of providing the information
 •It was proposed that for times when travel time on R402 is increased, an effective method of providing traffic information to users would be to utilize the MaaS application and information boards to provide traffic information and guide drivers to reroute to R4027 as well as to provide real-time CCTV image data.

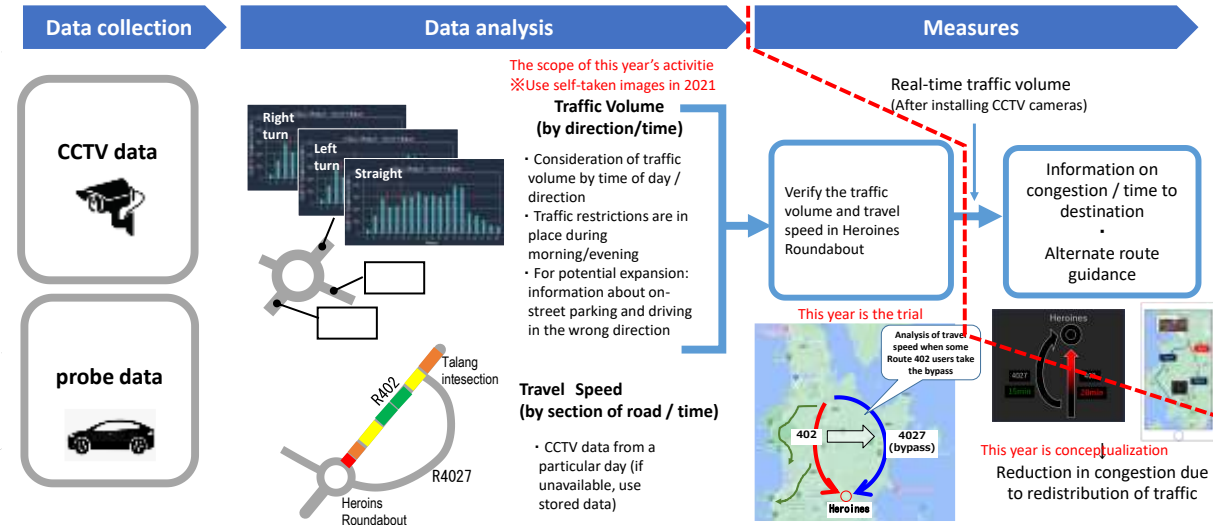


Figure 1: Process of Combining AI Analysis of CCTV Camera Images and Probe Data



Figure 2: A Method of Providing Traffic Information Using Combined Analysis of CCTV and Probe Data