



Smart JAMP(2021) Feasibility Study on the Introduction of Smart Bus Shelters for the Realization of Smart City in Phnom Penh, Kingdom of Cambodia

Category of Issues in the Area



Target Area

- Phnom Penh Capital City, Kingdom of Cambodia

Background and Purpose

- Phnom Penh is making efforts to mitigate traffic congestion and improve the environment by promoting usage of public bus. Smart Bus Shelter is one of important components proposed in the roadmap for Phnom Penh Smart City Strategies.
- The objective of this project is to conduct study on the Smart Bus Shelter implementation and propose a plan for the experimental implementation.

Related Organization

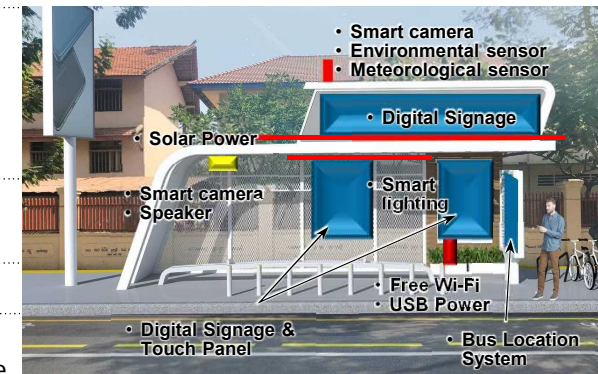
- PPCA (Phnom Penh City Administration), CBA (Phnom Penh City Bus Authority), DPWT (Phnom Penh Department of Public Works and Transport), etc.

Project Stage

- Feasibility Study

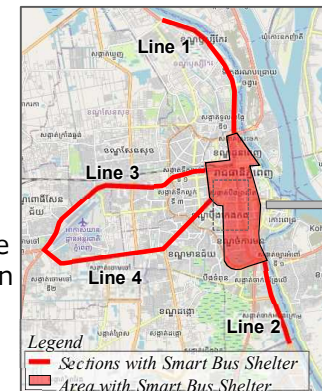
Contents and Results

- Investigation of Local Needs and Current Situation and Summarization of Issues
 - Local needs and issues related to Smart Bus Shelter implementation were analyzed by investigation of the urban transport conditions, related plans, etc. and interviews. The needs and issues were summarized, which include increase of public bus users, promotion of development of smart city, improvement of environment and safety, improvement of financial conditions of CBA.
- Study on Smart Bus Shelter Implementation
 - Based on the needs and issues, systems for the Smart Bus Shelter were proposed. The proposed system consists of digital signage, bus location system, solar power, audio broadcasting system, smart camera, etc. (Fig.1)
 - Target sections and area were proposed-based on the bigger number of bus users (Fig. 2).
 - BOO (Build-Own-Operate) arrangement was proposed as a potential business scheme of Smart Bus Shelters.
- Experimental Implementation Plan of the Smart Bus Shelter
 - Experimental implementation at targeted three existing bus stops for one month was proposed. (Fig. 3)
 - At the same time of our proposal of system to be used for the experiment, evaluation items at each stage of before/during/after the experiment, which be considered for a planning of the full-scale implementation were sorted out.
- Study on the Utilization of Data Collected from the Smart Bus Shelters
 - Data utilization, such as new information provision services using data collected from the smart bus shelters was studied.
 - Data platform development strategy, which will integrated and manage the collected data and assumed to be connected to City OS was proposed.
- Seminars Held
 - A domestic seminar for Japanese companies assumed to implement advanced Japanese technologies and a briefing session for Phnom Penh to introduce the Japanese technologies were held.



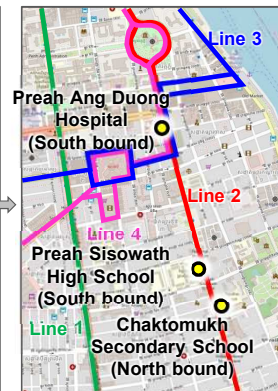
Base Image Source: Data provided by JICA

Fig. 1 Image of Smart Bus Shelter



Map Source: OpenStreetMap

Fig. 2 Sections and Area for the Smart Bus Shelter Implementation



Map Source: OpenStreetMap

Fig. 3 Three Bus Stops for Experimental Implementation