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Real-time Public Bus Trajectory Geospatial Data Acquisition System in Yangon City, Myanmar

Dr. Ko Ko Lwin, Project Assistant Professor IIS, The University of Tokyo

Geospatial data acquisition of public bus trajectories is important for public transport planning and traffic congestion analysis. By collaboration with Matatha (Yangon City transportation committee), we established a real-time public bus trajectory data acquisition system in Yangon City in order to understand current public bus mobility and traffic congestion status by measuring bus locations, speeds and directions of each bus from a remote server. A bus GPS data collection team in Yangon has been installing smartphones to individual bus. Approximately 35 smartphones are already installed and 400 are planning to install within a year. By integrating with other geospatial data such as person trip survey data, mobile Call Detail Record (CDR) data and transportation network, we can build a geospatial model which can predict future traffic volume and human mobility patterns at multi-temporal scale for sustainable urban transport planning and disaster mitigation processes in Yangon City.

(1) Data acquisition area, Yangon City; (2) Bus trajectory data; (3) GPS mounted public transportation bus; (4) Smartphone with GPS tracking application; (5) GPS installation and system inspection