Yangon City Geospatial Dashboard (SATREPS)

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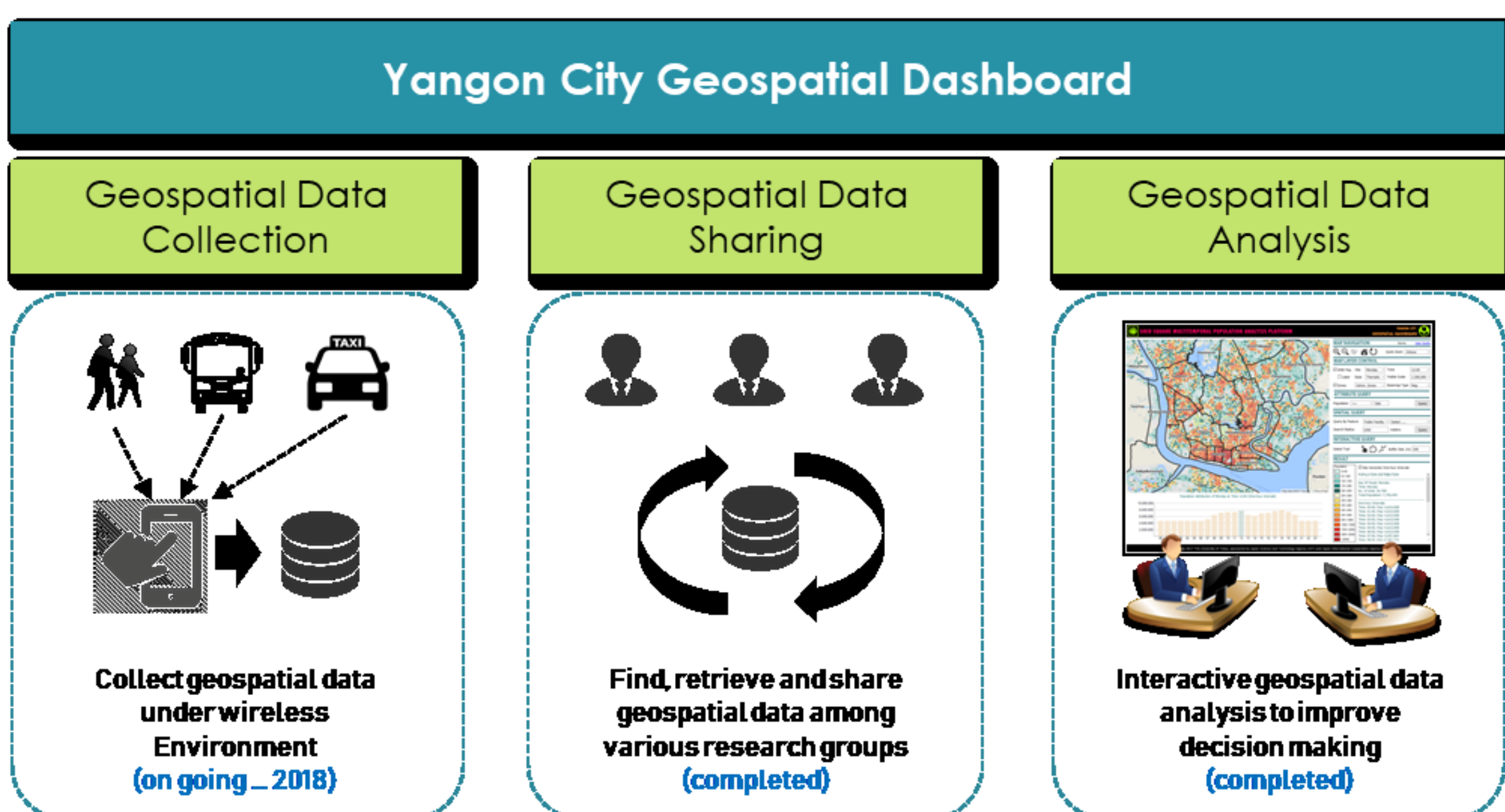
Introduction

Yangon City Geospatial Dashboard is a part of the core project "Development of a Comprehensive Disaster Resilience System and Collaboration Platform in Myanmar" sponsored by JST (Japan Science and Technology Agency) and JICA (Japan International Cooperation Agency).

Aim

To Collect, Share and Analyze geospatial data for disaster management
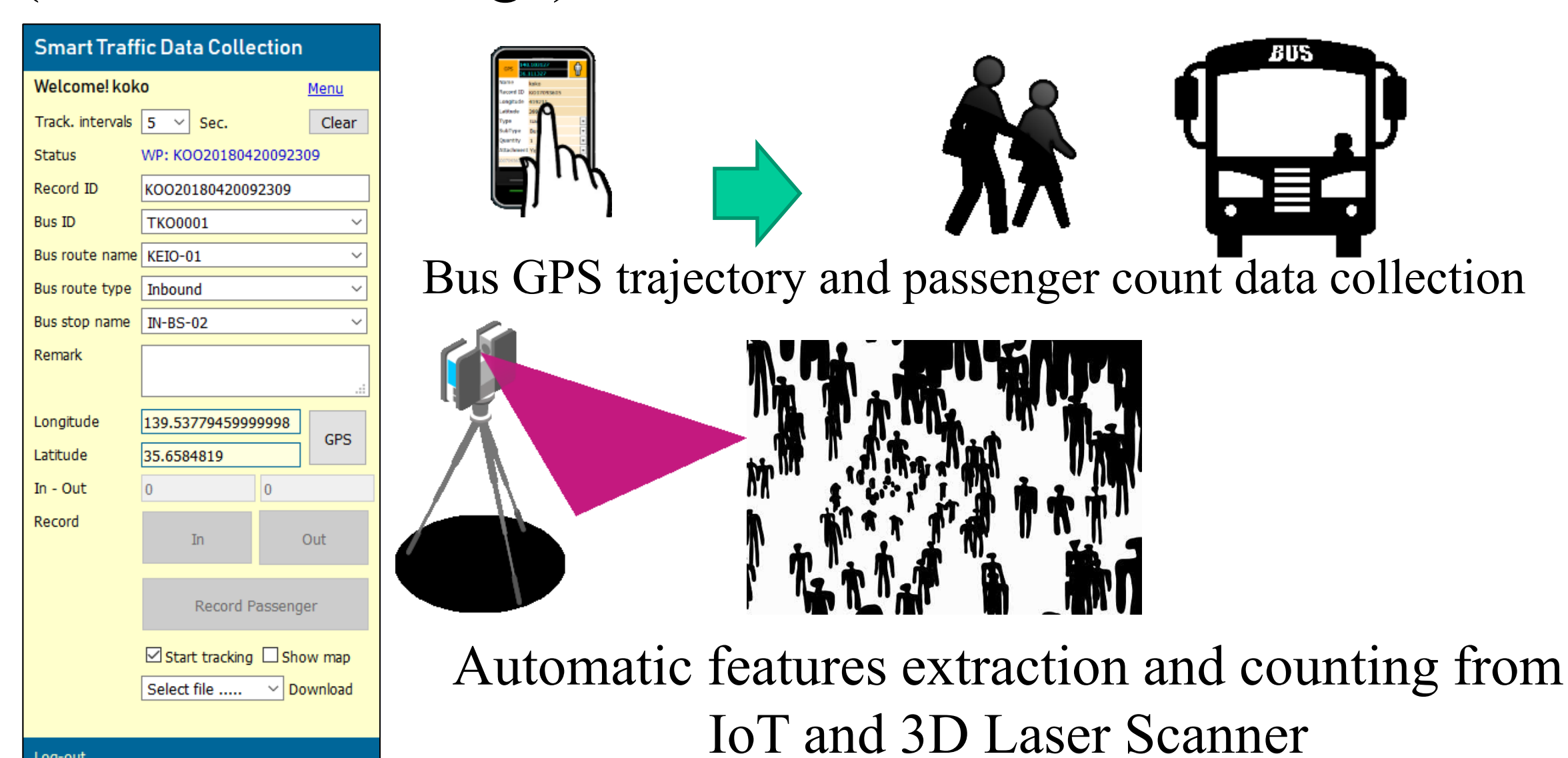
Components

Yangon city geospatial dashboard has three submodules: M01: Geospatial Data Collection, M02: Geospatial Data Sharing and M03: Geospatial Data Analysis.

Testbed Url: http://sekilab-satreps1.iis.u-tokyo.ac.jp/yangon_geospatialdashboard/
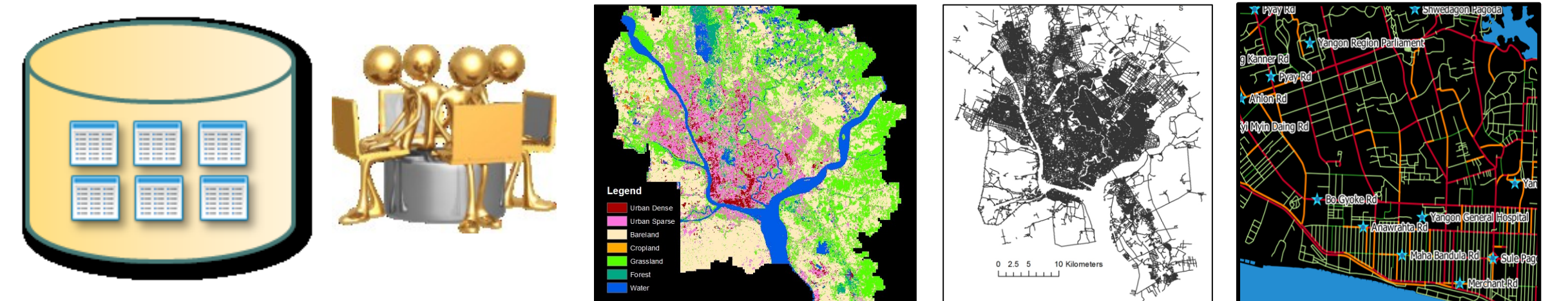
M01: Geospatial Data Collection

This submodule aims to collect geospatial data under wireless environment using smartphones or IoT (Internet of Things) devices.

Bus GPS trajectory and passenger count data collection

Automatic features extraction and counting from IoT and 3D Laser Scanner

M02: Geospatial Data Sharing

This submodule aims to provide and share geospatial data between project members.

M03: Geospatial Data Analysis

This submodule aims to improve spatial decision making for disaster management and emergency preparedness by timely manners.

1. Processing status
2. Check for 24-hour result (slow process)
3. Result in brief
4. Result by 24-hour
5. Map legend
6. Graph view for 24-hour population
7. Current time population

Example1: Grid square multitemporal population data estimated from mobile CDR for disaster and emergency preparedness

Example2: Hourly link speed computed from taxi GPS data

References

Lwin, K., Sekimoto, Y. and Takeuchi, W. (2018). Development of GIS Integrated Big Data Research Toolbox (BigGIS-RTX) for Mobile CDR Data Processing in Disasters Management. *Journal of Disaster Research*, 13(2). https://www.fujipress.jp/jdr/dr/dsstr0013000020380/
Lwin, K. K., Sekimoto, Y. and Takeuchi, W. (2017). Mobile CDR data disaggregation for home users based multitemporal grid square population estimation, *International Conference on Computers in Urban Planning CUPUM 2017*, July 11-14, University of S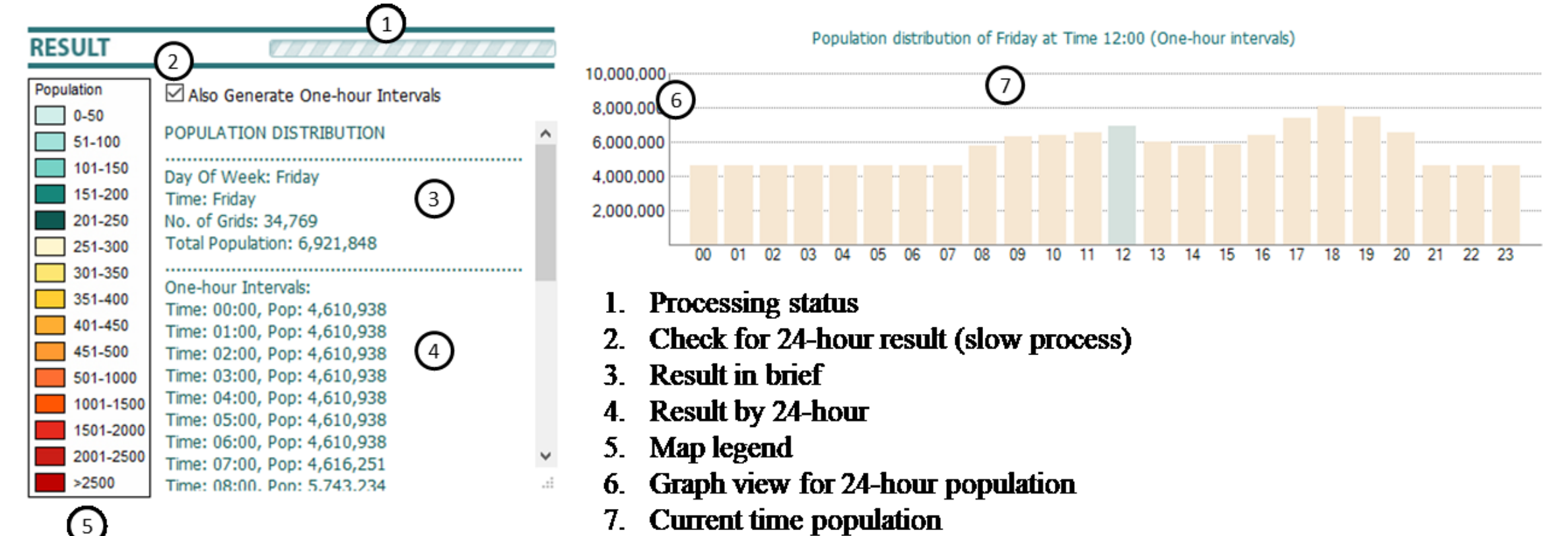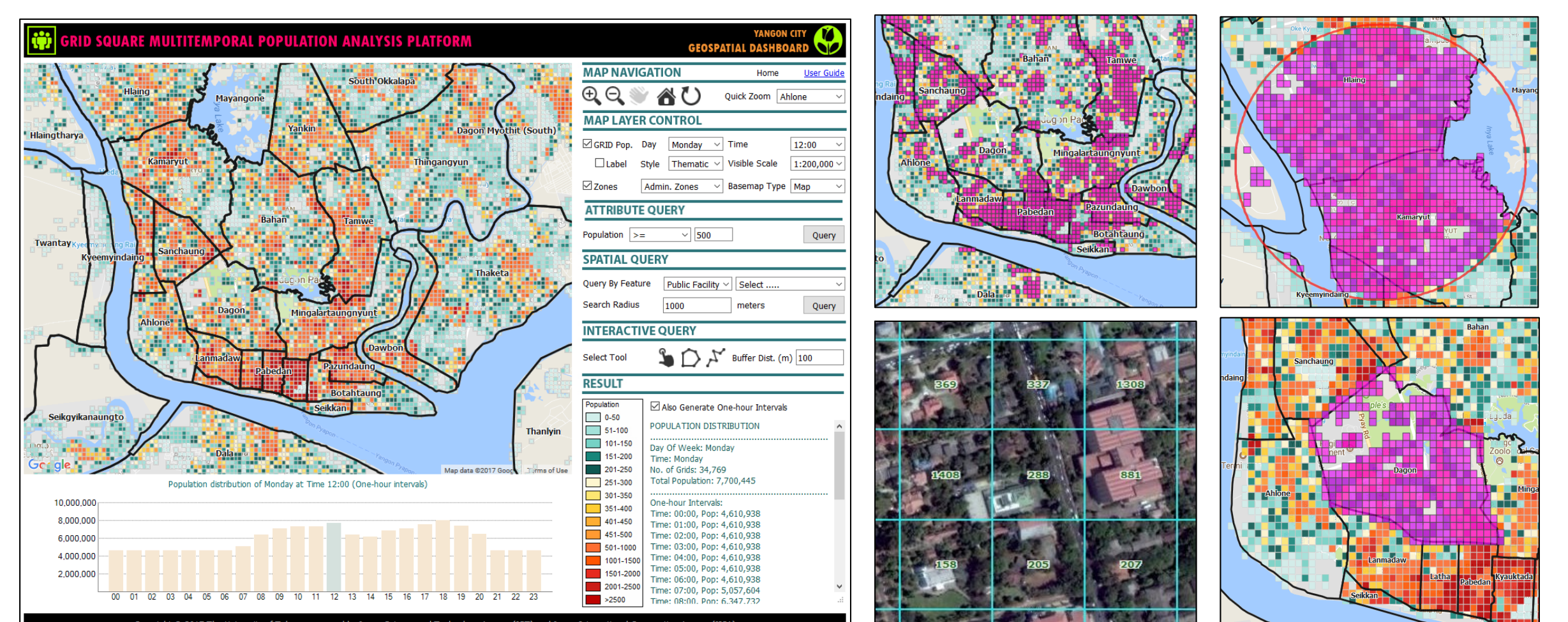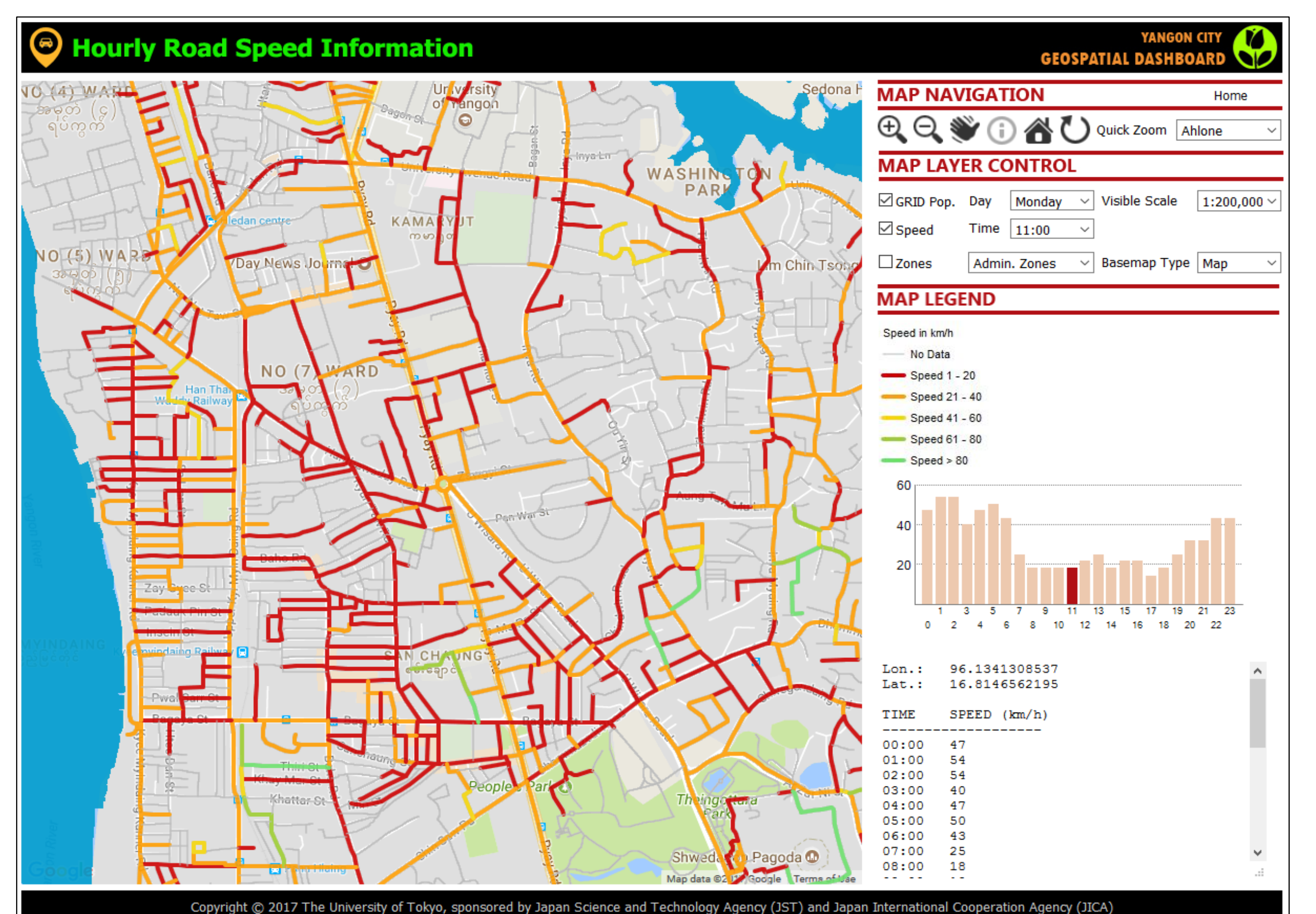outh Australia, Adelaide, Australia.