Crowd-AI Sensing Based Traffic Analysis for Ho Chi Minh City Planning Simulation

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Problems

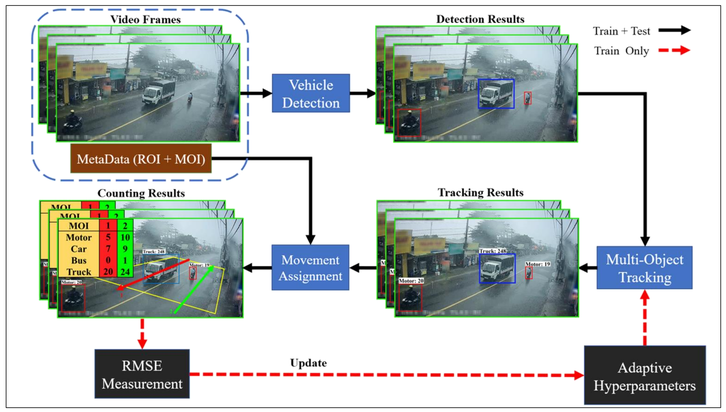
- Ho Chi Minh City (HCMC) needs resources to solve infrastructure problems.
- Monitoring staff watch traffic activities from thousands of cameras installed on streets in HCMC.

Intellectual Merits

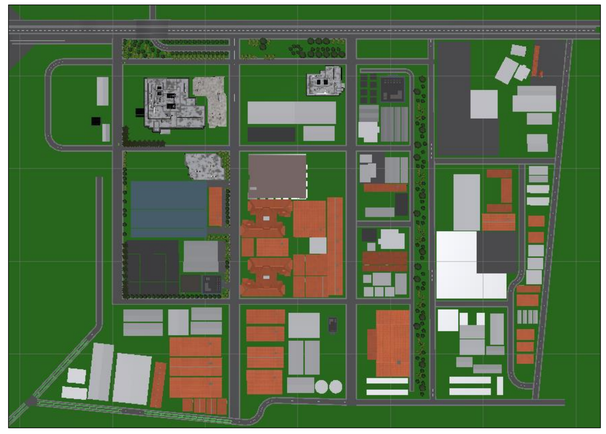
The intellectual merits include the novelty of combining analysed data via computer vision to feed into a simulator for city planning. We apply state-of-the-art computer vision algorithms to analyze the traffic. The analyzed data later is used for the city planning simulator.

Project Activities

- **Traffic Analysis:** Data Collection, Data Annotation, Traffic Analysis (Object Detection, Object Tracking)



- **City Planning Simulation**: Object Modeling, Scene Modeling



Broader Impact

The project will advance the computer vision research field by providing new solutions for traffic analysis.

The simulator will aid the city authorities in HCMC to seek drastic improvement to the existing infrastructure.

Sustainability

The collected data and the computational model developed from this project will be used for Ho Chi Minh City and other cities in Asia. In addition, the outcomes of this project can be used in the US side.

Next steps

We plan to complete the traffic analysis component. We also aim to construct the dense traffic graph from the analyzed data Finally, we will integrate the dense traffic graph into the city simulation

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