

CHED-PCARI-DARE Project 1

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Project 1: Technical Design and System Deployment



Task:

- Create a data gathering and processing platform to be hosted at Mapua.
 - The platform shall primarily gather, filter, and organize data feeds from both raw sensor readings and data acquired from 3rd parties.





The Data Gathering Platform:



Project 1 Developed Systems:

1. TRIPKO:

- A transportation survey mobile app that facilitates field data gathering.
- Serves as an alternative to the conventional pen and paper survey method.





The Data Gathering Platform:



TRIPKO:

➤ It has tools essential in conducting various field survey activities such as:

- License Plate Survey
- Boarding and Alighting
- Classified Traffic Volume Count
- Passenger Load Count
- Road Inventory
- Summary Reporting





The Data Gathering Platform:



2. Video-based Vehicle Classification and Counting.

- From CCTV footages, the vehicles will be classified and counted as motorcycles, tricycles, cars, trucks, buses, and other vehicles.
- Video-based vehicle classification and counting has two (2) variants.





The Data Gathering Platform:



Variant 1:

Vehicle counter for flow measurement (vehicle passing per hour) which will be used for performance evaluation (e.g. level of service).





The Data Gathering Platform:



Variant 2:

Vehicle counter for Smart Map &/or Actuated Traffic Control
(instantaneous volume rate)





The Data Gathering Platform:



3. Video-based vehicle tracking and speed estimation system.

- From a CCTV footage, the system tracks each vehicle along the road and then estimate their moving speed.

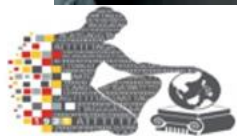




The Data Gathering Platform:



3. The video-based real-time vehicle tracking and speed estimation system

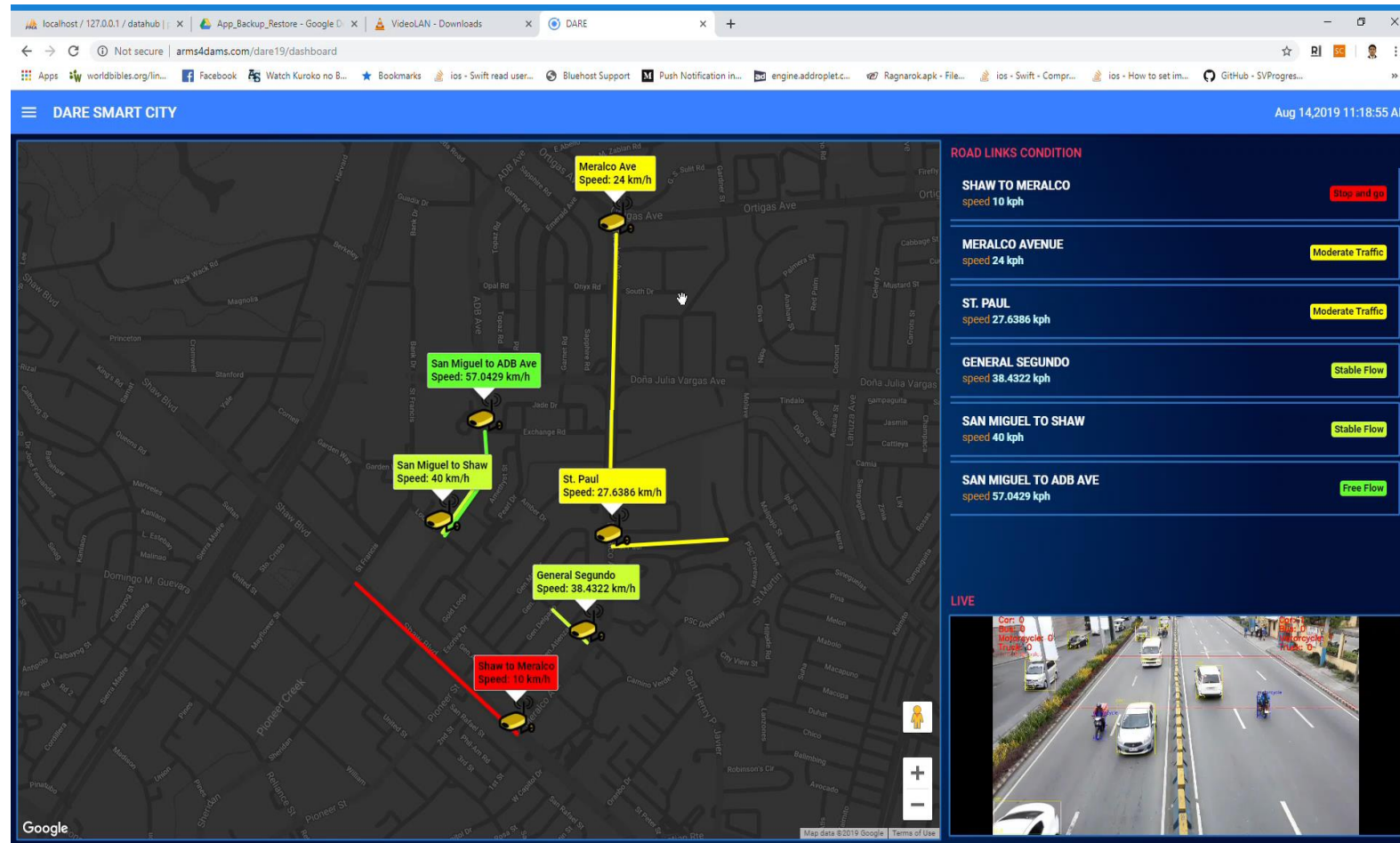




The Data Gathering Platform:



4. Sample Smart Map





The Data Processing Platform:



5. The Data Hub

A collection of data from multiple transportation data sources organized for distribution, sharing, and subsetting.



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The Data Processing Platform:



Thank you.



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