Location Information System and Traffic Observation System for Urban Transport Improvement in Vientiane Lao PDR

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Needs of Laos for Development

- Enhancement of public transportation use in urban areas with high population and industry accumulation.
- Mitigation of traffic congestion caused by increased car numbers.
- Formulation of traffic planning and urban planning based on accumulated data.

Expecting Outcome for Laos

- Realization of effective bus operation plan.
- Establishment of sustainable traffic management and control systems using data obtained from the applied system.

Contents of the Survey

- Real-time bus operation location data collection provision by installing GPS devices.
- Traffic flow monitoring by installing traffic monitoring systems on bus routes.
- Provision of traffic congestion information to road users through smart phones.
- Suggest a plan for bus effective operation and urban traffic control to bus enterprises and transport policy decision makers.

Suggested technology and products

1. Bus location system by using smartphone GPS system
   - Bus location system by using smartphone
   - Reduce primary cost and operation cost.

2. Traffic monitoring system by using Wi-Fi packet sensor Monitor which receives smartphone information (Wi-Fi packet) installed at intersections
   - Based on accumulated data, traffic flow will be analyzed.
ITS by Two Products

- Mitigate traffic congestion in the Vientiane urban area by using two systems
  - (1) Public bus location system
  - (2) Traffic survey system utilize Wi-Fi Packet Sensors
BUS LOCATION SYSTEM

http://lao.busnavi.asia/
Bus operate with just Smartphone

- In-vehicle terminal is equipped to the all buses under the support of VCSBE
- No trouble in operation and stable movement is confirmed

All route are shown according to a color
Click a certain bus, route is displayed
Select route, it is shown
It appears on the aerial photo

Monitoring of bus is available by browser of PC
To Check the Position of All Buses

• Updated every one second
  – Bus Stops information, Fare of each line, Rote name are popped up on click.
Bus Stop Information

- Pictures of Bus Stop, Facilities surrounding Bus Stops are informed
Congested Section by using Bus Prove
Monitors for Bus Users in CBS
Publicity of Bus Location System in Bus
Lao Telecom bears Communication Cost
Wi-Fi Packet Sensor
27 Sensors installed at Major Cross Section
Travel Speed by Wi-Fi Packet Sensor
Real-time Monitoring