Advanced Traffic Management System (ATMS)

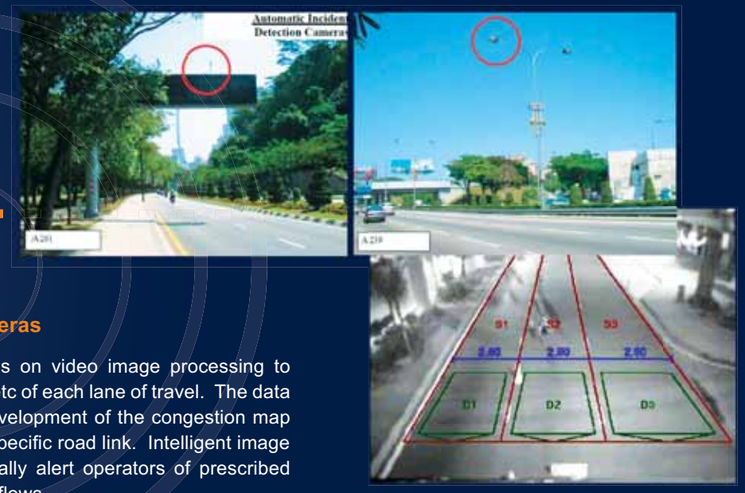
The Advanced Traffic Management System (ATMS) comprises of a powerful suite of applications which binds the various sub-systems (such as CCTV, vehicle detection, communications, variable message systems, etc) into a coherent single interface that enables any one operator to have almost unlimited command and control capabilities over the entire system. Through a single interface on any ATMS workstation, an operator will have access to all information necessary to detect, monitor, respond and advise on any traffic situation within his or her command.

The roadside equipment used to collect data in the ITIS project are :

Closed Circuit Television (CCTV) Cameras

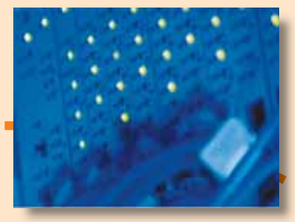
CCTV cameras function as the eyes of the ITIS. The operators at the Transport Management Centre are able to pan, tilt and zoom these cameras, to monitor the traffic situations and congestion.

The cameras are strategically located along the selected corridors.



Automatic Incident Detection (AID) Cameras

The Automatic Incident Detection system relies on video image processing to calculate the average speed, count, occupancy etc of each lane of travel. The data from these detectors forms the basis for the development of the congestion map which relate flow speed and occupancy over a specific road link. Intelligent image processing enables the detectors to automatically alert operators of prescribed incidents such as stopped vehicles and reverse flows.



db & Application Server

GPS Satellites

Vehicle Probes

Automatic Vehicle Location System (AVLS)

AVLS encompasses vehicles which are fitted with global positioning system tracking devices that allow these vehicles to be tracked 24-hours a day. These vehicles are used as traffic probes and the data collected is used to build speed profiles for a road network. The speed profiles are to be used to develop congestion maps for medium to long-term transport planning and for traffic engineering purposes.

AVLS: Data is transferred from vehicles to TMC