



HîghwayXperT<sup>™</sup>

Powered by QuaLiX Information System

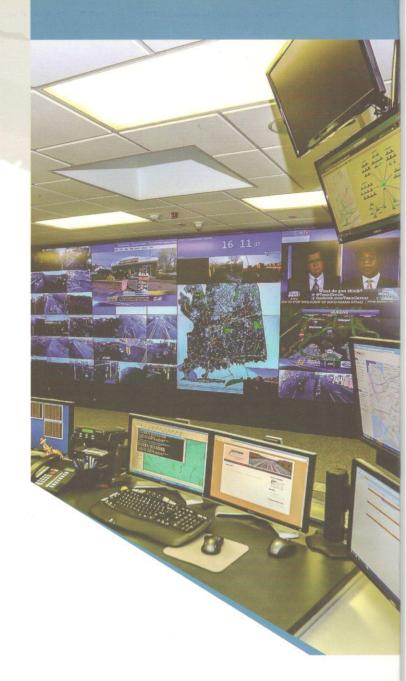
### Advance Traffic Management System – HighwayXperT<sup>™</sup>

QuaLiX's Advance Traffic Management System (ATMS) integrates multiple technologies to improve the flow of vehicle traffic and improve safety. Real-time traffic data from a traffic detection system flows into a Traffic Control center. HTMS is a comprehensive and scalable platform for transportation management solutions that offers intelligence, insight and system-wide information integration. It provides centralized management of traffic operations by using data that is collected from disparate systems across geographic locations.

QuaLiX's Highway Traffic Management System provides an innovative solution by utilizing state-of-art system technologies and proven field equipment.

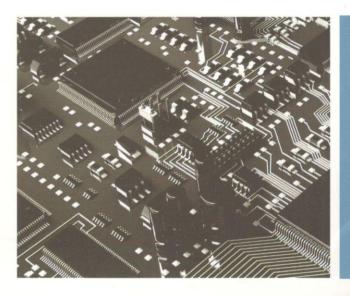
ATMS complementary technologies include:

- Automatic Traffic Counter and Classifier (ATCC)
- Video Incident Detection System (VIDS)
- Closed Circuit Television Surveillance (CCTV)
- Variable Message Sign (VMS)
- Emergency Call Box (ECB)
- Meteorological Data Station (MDS)



# Automatic Traffic Counter and Classier (ATCC)

Automated detection, classification and measurement of speed of vehicles are challenging tasks in a no-lane disciplined and heterogeneous traffic. QuaLiX proposes an inductive loop sensor wherein multiple numbers of small loops are placed within a large outer loop for measuring traffic parameters under such traffic.



In the new system, the outer loop alone is connected to the measurement unit and all the small loops are coupled inductively to the outer loop. This scheme is simple, effective and can be employed to convert an existing single loop system to a multiple loop system which is suitable for heterogeneous traffic. The measurement is based on a synchronous detection method.

QuaLiX's ATCC is a fully integrated multi-lane bi-directional traffic data gathering device.

#### Standard Constructions Features:

- Small in size
- Solar operated
- No hassle in field setup
- ▶ 40 GB on board memory
- Advanced loop profiling function to detect mixed traffic
- Qualix ATCC ensures operational safety during installation and data retrieval.



# Video Incident Detection (VIDS)

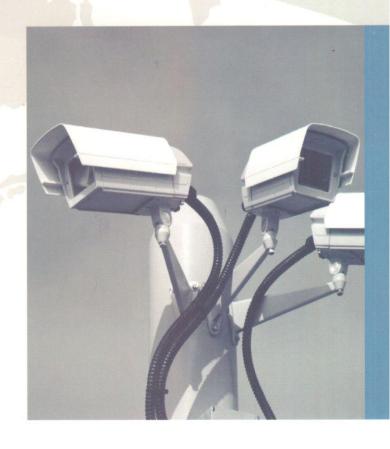
Automatic Video Incident Detection System (Speed, Crash Detection) is deployed in situations where 100% visual coverage is required and the need to immediate incident response is critical.

Typically the Automatic Video Incident Detection System is an addition to the surveillance CCTV systems and consists of the following:

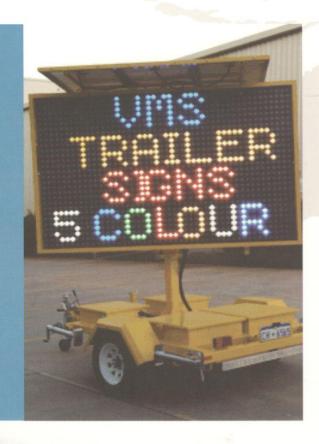
- Fixed CCTV camera
- Video image processor
- Control Center Software.
- ▶ Method of communication (modem, leased line, fiber network etc.)

## Closed Circuit Television Surveillance (CCTV)

CCTV system transfers real time streams of highway to the control center, provides information for traffic management and according to situation operator broadcast the information for road users through VMS. CCTV-based Monitoring System ensures effective monitoring of traffic even in low-light conditions. The CCTV camera is located near the Emergency Telephone as an additional support for the vehicle seeking help.



## Variable Message Sign (VMS)



Variable Message Sign Board provides information related to safety and activities like weather information, congestion, diversion, etc. directly to the road user.

Our key to success has been to provide highly reliable systems at competitive prices so that our customers associate with QuaLiX. Our products and systems adhere to the complete specification of MoRTH.

### Emergency Call Box (ECB)

QuaLiX™ ECB is indigenously designed and developed by in-house research and development team to meet demanding situations on highways and is specially designed for adverse environments and for road-users to report an accident /incident on the expressway to request for assistance. The rugged, weatherproof metal housing, high-power amplifier and low power consumption make it ideal for handling emergency calls from highway or in mining areas.

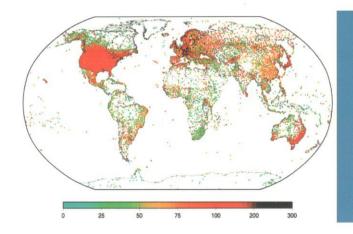
- Daily Self-Test
- Lost calls saving
- IP 65 Certified Durable Housing
- Maintenance & Operation logbook
- GPS Tracking System (In case of Theft)
- ▶ Full Duplex communication with the operator
- Auto switching between IP Module & GSM Module



# Meteorological Data Station (MDS)

HighwayXperT™ is a fully integrated software system for efficiently managing, acquisition, processing, and distribution of weather information to the road users.

At unmanned stations, observations are performed in every 10 minutes. All the observational data is transmitted to the Central Control Room. The following are the parameters which we measure through MDS:



- Wind direction
- Temperature
- Road Temperature

- Wind speed
- Visibility
- Relative Humidity

