Overview

Intelligent Traffic Monitor from IntelliVision is a Smart Transportation/ITS solution for traffic monitoring at intersections and traffic lights. The system software analyzes all vehicles and traffic patterns and provides vehicle presence, absence and other traffic light controlling features. The system provides the following information:

- If a vehicle is present or standing in the lane, or in the zone or intersection
- How long the vehicle has been present
- Should the traffic signal be given to specific lanes or left/right turns
- Total amount of traffic
- How long to hold the signal
- Vehicle and traffic counts

Input and Output
Live video stream (RTSP/H264) or video file or VMS/NVR/DVR video stream.

Camera, Server or Cloud
IntelliVision can provide the Intelligent Traffic Monitor solution in the camera, in a server, or in the cloud.

Applications

Intelligent Traffic Monitor is useful for:

- Traffic control and monitoring
- Traffic congestion
- Intersection monitoring
- Traffic metrics/analysis
- Current situation on the roads
- Vehicle wait periods
- Making traffic lights more intelligent
- Increasing throughput of vehicles
- Traffic/ITS Planning for cities and roadways

IntelliVision
AI and Video Analytics for Smart Cameras

Features

Intelligent Traffic Monitor provides the following detection features.

Features
- Left/right turn and through lane support
- Failsafe mode on sudden change
- Support for day/night mode of operation
- Directionality check
- Shadow suppression
- Traffic light info IN support
- By default 32 zones detection support
- Sensitivity control

Detection Accuracy
97-99% in normal daytime conditions. Poor visibility, weather or complex conditions will lead to lower accuracy.

Input
Video stream at resolution not less than CIF with 4:3 aspect ratio.
# of detection zones with parameters for each zone such as:
- Directionality: ON (default)/OFF and related angle 0-359 degrees
- Shadow suppression flag: ON (default)/OFF
- Cars per zone: 0 (default) or exact # of cars expected in zone at once
- Sensitivity: 5 (default), 0 (min) - 9 (max)
- Lane ID: each lane is assigned a unique numeric ID
- Type of lane: left/right/through
- Is Enabled: specifies if zone is enabled for processing or not
- Work Mode: minimized false detections, normal (default), high true detection

Output
For each detection zone or lane:
- Vehicle presence: 0 or 1
- Status: Normal Functioning, Learning, Failsafe
- Processing mode: Day or Night
- Type of lane: Left/Right/Through
- Engine Mode: either Primary or Secondary engine ON
- Optional relay output

Platform Specifications

Intelligent Traffic Monitor is available in the following forms:

- SDK for embedding in cameras with video chipsets from Ambarella, Qualcomm, HiSilicon and others

- Software application and SDK running on Intel-based servers

- Cloud-based web services running on public or private cloud

About IntelliVision

IntelliVision is a market leader in AI and Deep Learning-based video analytics and video cloud software for Smart Cameras. IntelliVision solutions provide actionable insights for security and monitoring in Smart Home/Enterprise/City and Retail applications. IntelliVision's Advanced Driver Assistance Systems (ADAS) improve car and road safety in automobiles. IntelliVision is headquartered in San Jose, California with offices in Asia and Europe and is a subsidiary of Nortek Security and Control.

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