

# **Vehicle Counting & Classification**



### **Complete Traffic Analytic Solution**

A state-of-the-art traffic monitoring automated system using high resolution cameras, thermal vision And video analytics.



#### Real time intelligence of Traffic Flow

The solution provides real time performance of urban arterial roads and motorways as well as detection of congestion.





## Axel based classification

Solution supports standard vehicle classes of various geographic regions based on size of vehicle and on axle count

"By our patented fusion algorithms, all these independent reads can be fused to increase detection and OCR rates to deliver for close to 100% accuracy in both detection and OCR rates using this approach."

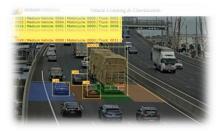
Subhash Challa, CEO - SenSen Networks



# Why Vehicle Counting & Classification

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#### SOLUTION OVERVIEW

Vehicle counting and classification application is a versatile video analytics system used to track and provide vehicle count statistics. The system operates using either analogue or IP cameras and in most environmental conditions. A user friendly web-based interface allows the user to access the system from anywhere to view, track and analyze the data, reports and graphs in real time.

#### HARDWARE DESIGN

- High resolution cameras which can operate in day and night.
- No additional cameras or infrastructure changes required
- Flexible mounting on gantries, poles, walls
- Flexible power options solar or commercial charging

#### EDGE FEATURES

- SenSen's inhouse vehicle counting & classification software
- Patented state of the art fusion algorithm
- Recorded high-res videos
- Seamless integration with SenSen's cloud hosted back office (BOS)

#### **BOS FEATURES**

- Cloud support for Axis ARTPEC-4 enabled cameras
- Edge recording of high resolution video & image data
- Optional edge processing with micro processing devices
- Advanced data transfer mechanism for back office processing
- Exceptional performance under low bandwidth conditions as well with no data loss
- Vehicle counts and classification data can be accessed Remotely

#### KEY FEATURES

- Vehicle detection at intersections
- Road side monitoring
- Monitoring traffic in tunnels
- Highway traffic management
- Thermal cameras which support traffic detection even in total darkness
- Heavy vehicle detection and classification
- User friendly web based interface which the user can access from anywhere to analyse the data, reports and graphs in real time

#### SOLUTION USE CASES

- Highways pin point accurate vehicle data for optimum traffic lane management
- Toll roads vehicle classification data for toll operations
- Tunnels alarm based triggers to alert for hazards
- Height restrictions –detection and alarms for over-height vehicles
- Traffic surveys vehicle counts and classification data to aid decision making
- Heavy vehicle detection, solution detects heavy vehicles based on their size or through axle based count

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