i2V Systems

Advanced Video Analytics

Intelligent and Integrated Video Solutions

Best Security & Surveillance Solution

www.i2vsys.com
Advanced Video Analytics

i2V software has in built comprehensive cluster of advanced Video Analytic Algorithms. Each Video Analytic Module is coupled with Incident-Event-Action framework. i2V Video Analytics are equipped with False Alarm Suppression Technology (FAST) which minimizes false alarms and further strengthens the solution reliability.

i2V claims to provide best quality video analytics. We are highly stringent with the accuracy level of analytic and this is the reason our customers rely on our products.

i2V supports a wide variety of video analytics which suits most of the surveillance scenario.
Video Perimeter Tripwire

**Description**

Video Perimeter Tripwire analytic provides an Intelligent Solution for Large Indoor and Outdoor Perimeter Protection applications. It detects the moving objects using intelligent object validation techniques.

It generates minimal false alarm rate and captures only the zoomed image of the object causing the Perimeter Breach and raises appropriate alarm to the security staff or designated individuals. It also stores the time duration between the pre and post event of the Perimeter Breach.

**Features**

- Supports all types of virtual lines Vertical, Horizontal and Slanted.
- Supports multiple lines with all types of line combinations.
- Supports Direction rule based Perimeter security.
- Supports a combination of Connected and Non Connected virtual perimeter lines.
- Allows different Setting for Each Perimeter Line.
- Each Perimeter Line is identified with an unique identifier, as a result a user can get the exact perimeter Line where the breach has occurred.
- Supports Global parameter Control over all the Virtual Perimeter Lines.
- Automatically enhances the Image under Scenarios like Bad light, Fog, etc.
- Automatically zooms the image of the breached object.
Video Intrusion Detection

Description

Video Intrusion Detection locates a moving object in the prohibited or restricted area. The algorithm analyses the video frames and outputs the location of moving targets within the frame.

Video based Intrusion detection (VID) is a way of defining activity in a scene by analyzing image data and differences in a series of images. The functionality is made available with video management software. It allows the user to set the activity threshold depending on what the user wants to monitor. The system has the capability to set the sensitivity for the indoor or outdoor conditions to avoid any false alarms.

Features

- Supports Multiple Intrusion Zone selection under single Camera view itself.
- Direction based Intrusion detection with regular shapes.
- Supports Wide variety of Intrusion Zone’s shapes starting with Simple Rectangle to any sized Polygon.
- User can define Directional based Intrusion for Regular Shaped Zones like Square, Rectangle.
- User can get Zone based Alarms.
- Global Parameter Control over the System.
- Well tuned to even Low Frame Rate and Low Resolution Input.
- Minimal False Alarm Rates.
- Automatic Image enhancement Controls for Bad light Scenarios.
- Well customized to Indian Requirements.
- Supports the feature of scheduled automatic on/off.
Video Enhancement

Description

Video Enhancement analytic automatically converts the low contrast and low brightness video to enhanced video.

It intelligently enhances the quality of the video by analyzing the local and global features in each frame of the video.

Automatic Video Image Enhancement can be used in following cases:

• Enhancing Video containing Fog.
• Enhancing the Video containing Low light.
• Enhancing the Video in Rainy season.

Features

► Available on live and playback video.
► Advanced image enhancement techniques were used to improve the video quality.
► Useful while viewing the videos covered with Fog or Rain.
► Play and record better quality videos at night time.
► Scheduled application of this feature is possible with i2V VMS.
Fire Detection

Description

i2V has introduced a Video Based Fire Detection technology to further strengthen the IP Video Surveillance solutions. It works using advanced Image processing and Pattern Recognition algorithm.

This analytic has been tested on a wide variety of scenarios ranging from normal indoor mild fire to forest fires. It alerts the user, the intensity and duration of the fire occurrence.

i2V’s False Alarm Suppression Technology (FAST) further helps in adding more reliability to this Video Analytic.
Abandoned Object Detection

Description

Abandoned Object Detection has a very crucial Video Analytic Algorithm which can fulfill many of the current security requirements.

It is practically impossible for the humans to manually monitor crowded places, especially like Airports, Railway Stations, City Metro Stations etc. The Algorithm used by this analytic is specially tuned to handle crowded scenes and it aims at detecting suspicious objects & unattended baggage. It adds maximum intelligence to the surveillance applications.

Features

- Very accurate even in low light conditions.
- Well tuned to handle crowded scenarios like Shopping malls, Airports, Metro Stations etc.
- System can learn and identify temporary background changes to avoid false alarms.
- Pre Event recording feature is available.
- Ideal for detecting the abandoned baggage in public places.
- Useful in detecting Foreign objects on the Railway tracks.
Camera Tampering Detection

Description

Camera Tampering Detection is an Advanced Video based analytic which can be coupled up with any of the i2V's Video Analytics. It further strengthens the i2V's video solution by continuously monitoring the video feed from the camera.

Camera Tampering event will be generated whenever a camera is moved, partially covered, severely defocused, paint sprayed etc.
Indoor People Counting

Description

Indoor People Counting Video Analytic module helps in Statistical analysis of Human flow inside any building or premises.

It gives a real time indication of number of visitors inside any store or building.

Indoor People Counting Analytic creates a Virtual line or Virtual zone for counting operation. It counts the Human's Heads passing over the virtual line. The user can adjust the position of the virtual line over the image.

Features

- Counts the people in exhibitions to avoid overcrowding.

- Helps in estimating the better ways to evacuate any building by knowing the total people count in advance.

- Helps in getting the routing information as the cameras not only count people, but they can also sense the direction of movement to determine the route people take inside the store.

- Useful in knowing the Average dwell time of people inside any building.

- Helps in better Staff planning by getting people flow statistics.
**Stopped Vehicle Detection**

![Stopped Vehicle Detection Image]

**Description**

Most of the road accidents occur due to stopped vehicles, Stopped Vehicle Detection analytic is capable of detecting a stopped vehicle in multiple scenarios. Once the system detects the stopped vehicle, it is capable of taking the zoomed snapshot of the vehicle including the vehicle’s License Plate number image.

Once the user selects any No-Parking area, system starts detecting vehicle coming close to it. If any vehicle lowers its speed or trying to stop in No-Parking zone, then the system will alert the user for illegal halting. User can also select any number of zones in the video, each zone can have its own configurable parameters. It also configures the Time duration for which vehicle is allowed to halt.

**Features**

- Prevents any kind of illegal parking or illegal halting of vehicles on the roads, premises etc.
- Prevents traffic jams in crowded areas because of the illegal halting.
- Detects the vehicle which needs assistance.
- Illegal halting for long period of time can be detected & can alert the security for any unusual activity like Bomb or Explosive material inside the vehicle.
Missing Object Detection

Object Removal Detection Analytic protects valuables without any human monitoring. User can select the objects which need to be watched by the camera, whenever an object is found missing, the system generates the alarm. The camera will act as a virtual guard for the valuable objects.

24x7 monitoring of the valuable objects is possible with Object Removal Detection. User can also configures the time alarm that is raised once the system detects a missing object.

Description

Features

- Very simple & user friendly graphical interface with minimal mouse clicks.
- Effective for 24x7 round the clock monitoring, even with minimum illumination.
- User can select any number of objects to be watched by the Analytic.
- Watches multiple objects with a single video with great performance.
- Well suited to Indian Requirements.
- Round the clock monitor valuables especially in Museums.
- Protects sensitive objects like gold ornaments etc., in a shop’s show case.
- Monitors Equipments like computers, servers in private/confidential server rooms.
- Helpful in the protection of assets in banks and other financial locations.
- Acts as an eye watcher for items displayed during product exhibitions.
Advanced Motion Detection

Description

Conventional Motion Detection Algorithms works on Consecutive Frame Pixel Differencing based methods which are prone to False Alarms due to temporary background changes.

i2V's intelligent False Alarm Suppression (FAST) technology helps in rejecting the false alarms in the below possible cases:

• Temporary background changes due to sudden light.
• Shadow movement due to the object moving outside the Interest Zone.
• User can select the exact Interest Zone with simple mouse clicks in
• Analytic’s settings page.

i2V uses advanced background learning based methods to intelligently detect genuine motion and it validates the result each time before giving final alarm.
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