IntelliVision
AI and Video Analytics for Smart Cameras

Smart City/Security Solution

Intelligent Video Analytics

Face Recognition

License Plate Recognition

Securing The City and Enterprise

With Intelligent Video Analytics

Overview

Securing cities, buildings, enterprise and school campuses, retail, government, and critical infrastructure requires more than simple CCTV surveillance.

IntelliVision has developed a large number of Deep Learning and AI-based security and surveillance applications for both government and business. IntelliVision security solutions for the Smart City and Smart Enterprise markets take advantage of the full suite of IntelliVision video analytics products, such as:

- Intelligent video motion detection
- Intrusion detection/line crossing
- Human/vehicle detection
- License plate recognition
- Fall/duress detection
- Object left/removed
- Face recognition

IntelliVision's Smart Security solution is available as an SDK for embedding in cameras with popular video chipsets, as a software application and SDK running on Intel-based servers, or as a cloud-based web service running on public or private cloud.

Intelligent Video Analytics

IntelliVision's AI-based video analytics products make video cameras truly smart by analyzing video content in real-time, extracting metadata, sending out alerts and providing actionable insights. Video analytics can be integrated in-camera, on-premise servers, and/or on-cloud. They are able to extract just the valid motion in a scene, filtering out noise such as trees, lighting changes and animal movements, thereby reducing false alarms to practically zero.

Key features include object classification – human/pet/vehicle, intrusion detection and line crossing, people/vehicle counting, object left/removed and video summary.

- **Video Motion Detection.** Detects valid motion, filtering out noise such as lighting changes and tree/animal movements.

- **Loitering.** Detects when a person has been in a specified area for more than a specified time.

- **Object Left/Removed.** Detects when an object has been left unattended for too long and is not part of the normal scene, or when an object is removed.

- **Camera Tamper Detection.** Detects any attempt to tamper with the camera, partially or completely blocking its field of view, or drastically changing the camera angle.

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- **Line Crossing.** Detects a moving object which crosses the defined line. Entry/exit direction can be defined and line drawn in any direction.

- **Intrusion Detection.** Provides automated perimeter monitoring and secure area protection.

- **Object Classification.** Detects and classifies an object as a Human, Vehicle, Pet, or other. Reduces false detection from non-security related objects.

- **Fall/Duress.** Detects when a person has fallen and is not getting up.

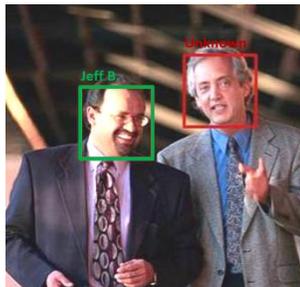- **Video Summary.** Reduces a long archived video to a short, manageable summary with actual events.

Face Recognition

IntelliVision's Face Recognizer™ is a Deep Learning and AI-based face detection, search and recognition solution that uses a stored database of faces to detect, recognize and record people's faces that appear in a camera's field of view.

Face Recognizer has achieved an accuracy as high as 99.6% on public databases, comparable to Google and Facebook. The following capabilities are provided:

- **Detect and Log Faces.** Faces are detected and logged in the database for later forensic investigation.

- **Recognize Faces.** Once enrolled in the database or present in a pre-loaded watch list, faces can be recognized and alerts provided.

- **Multiple Camera Support.** Search for faces from a single camera or across multiple cameras.

- **Support for Large Database of Faces.** Face database allows up to 100K faces.

- **Fast Recognition.** Faces can be recognized in less than 1-2 seconds.

- **Anti-spoofing.** Detected faces are subjected to a "liveness" test.

License Plate Recognition

IntelliVision's License Plate Recognizer™ is a Deep Learning and AI-based license plate detection, recognition and search solution with an accuracy as high as 98%. Vehicle monitoring is a large part of outdoor security and surveillance, and license plate recognition is an integral part of this task. The product works with live cameras as well as archived video. The following capabilities are provided:

- **Moving or Stationary Detection.** Detects and recognizes license plates on moving or stationary vehicles

- **Multiple Plate Styles and Countries.** Multiple plate styles and multiple country formats are supported, e.g. regular/stacked. Check for current list of countries.

- **Real-time or Archive Search.** Detected plates are compared against a watch list database and alerts are provided on plate matches in real-time. Or searches can be made on archives by time or for a specific plate.

- **Various LPR/ANPR Models.** Different recognition models are available such as gates, entrance, roadside, traffic lights, parking lots, highway, tollway and mobile/law enforcement vehicles.

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 a subsidiary of Nortek Security & Control, with headquarters in San Jose, California and offices in Asia and Europe.

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