Face Recognition

Miscreants don’t press alarm bells for you.

Your VIP customers don’t come forward to get preferential treatment.
Get a plethora of benefits with Face Recognition. What you need to do is just plug it into your existing Video Surveillance system without any extra camera investment. Being an open-platform solution it can be integrated with many VMS software including Milestone, Genetec, etc.

How It Works

AllGoVision captures faces and stores them in your database. Detects people through CCTV camera view and matches with the database. It gives alarms recognizing someone important for you or alerts you against a potential miscreant. It is based on most advanced technology which uses 3D structure to extract the feature points from the face and creates a feature vector containing the most dominant features on the face and stores them as models.

1. **Face Detection**
   The application takes video in real time from surveillance cameras, CCTV or archived video footage. The system analyses individual frames of the video to locate human face and capture it as a sample.

2. **Feature Extraction**
   The unique facial characteristics of the captured sample are then assessed and unique set of data is extracted from the 3D structure of the detected face.

3. **Face Recognition**
   Depending on success or failure to find a match in the database, the system alerts if face is recognized or not. For a recognized face, the system flashes additional registered information and image of that individual.

4. **Face Search**
   The extracted data set for the sample is matched with the models available in the database of registered faces.

Features & Options

- Works with generic IP cameras with good quality.
- Works even with PC, you don’t need high end systems.
- Works in both indoor as well as outdoor environments.
- Works with limited pose changes.
- Works even when people are walking.
- Works despite camouflage efforts with spectacles, beard or wig.
- Works for people of different ethnicity.
- Face recognition time can be as low as 1 sec.
- Works for up to tens of thousands of registered faces.
- Works even with one registered image per face.

Apart from Alarm Pop Up, Alarm Playback and basic Search options, Alarm Center – AllGoVision’s Alarm Management Client provides a lot of advanced analytic options: Face Count, Face Presence, Face Frequency, and even Demographics (Age & Gender).
Applications – Security / Business Intelligence

**Black List Identification**
- Upload a specific watch lists based on negative past record.
- The software captures faces of all visitors to find a match with your black list.
- On successful matching, it gives you an alert of their presence.
- Easier to spot a terrorist at Airport or detect the presence of shop lifter in your retail store.

**Restricted Zone Security**
- Your workplace or lobby has a mix of people - staff, contractors, visitors, even unknown persons.
- Your business demands zone restriction i.e. certain people are allowed in certain work-zones.
- The application captures people’s faces and tries to match against a database of registered faces.
- On failure, detects inappropriate access to a restricted zone and alerts your security personnel.

**VIP Identification**
- Faces of people entering your premises are captured and matched with your database of VIPs.
- Once matched, it alerts your personnel / triggers work processes for special attention / service.
- Your VIP customer doesn’t like to come forward and ask for the preferential treatment.
- The system prompts you - recognizes VIPs visiting w/o prior notice, before your staff could do so.
- The electronic message board intelligently welcomes your guests, creates a lasting impression.

**Access Control & Attendance System**
- Automates people access to specific areas based on recognized faces.
- Requires no physical or deliberate interaction, - less intrusive and contact-free process.
- Eliminates ‘buddy punching’ and the need for carrying cards and badges.
- Generates attendance report auto e-mailer or uploads report through FTP.

**Forensic Analysis**
- Capture and store Images and Video Clips of detected faces as alarms in your database.
- Upload the face image of any suspect for the system to find out the relevant alarms.
- Face Forensic Search makes it easy to trace the individual’s movements or whereabouts.

**Viewership Analytics**
- For in-depth viewership data analysis and customized communication on Digital Signage.
- **Face Count** (Number of Faces looking into your Ad) feature helps viewership detection.
- **Face Presence** (The time for which Face looked into your message) and **Face Frequency** (Distribution plot for Face Presence) gives you a new kind of engagement analysis.
- Viewership profiling based on **Demographics** (Age, Gender)

**Retail Intelligence**
- Your frequent customers’ faces are matched with their purchase preferences & biometric data.
- When they face a particular shelf, local electronic display flashes customized communications.
- Real-time marketing for effective promotions and efficient product delivery to consumers.
- **Eye-Gaze detection** (face pose estimation) finds most viewed section and shelves so that you place your product strategically in the most revenue generating areas of your retail store.

**Flexible Solution**
- The application can either run stand alone or can be integrated with a VMS.
- Generates alarm for face being recognized or not. Real-time display of recognized person details.
- Tracks detected face when it is moving and doesn’t generate multiple alarms for the same face.
- Works simultaneously with video analytics for other cameras.
About Us

AllGoVision is a unit of AllGo Embedded Systems, founded in 2005, and headquartered in Bangalore with branches in US and Dubai. AllGoVision is a leading video analytics software and has a global spread of sales partners, with proven installations worldwide. We have dedicated ourselves into in-depth research and product innovation and house more than 150 top-notch engineers. AllGoVision Video Analytics Software is equipped with a total of 30 plus basic and advanced Video Analytics features. It is an Open Platform Analytics integrated with many VMS manufacturers. AllGoVision focuses on providing following benefits to its customers - robust performance, cost efficiency, ease of use and customization.