Smart Video Analytics

AI-driven Surveillance and Real Time Reporting

FOLLOW US

Biocube
Redefining Identity

Background

Evolution of surveillance systems and their applications

Video surveillance has been in existence for the last 50 years. The strategic installation of cameras inside and outside organizational parameters enables public and employee safety. However, this CCTV and IP-based surveillance system requires extensive manual monitoring during the live and recorded feed to detect anomalies, prevent incidents, and solve the investigation.

It means recruiting in-house security staff and training them about the monitoring systems and constant upgradation costs, which leads to high CAPEX. The possibility of not raising timely alerts is high because of the inability of the security staff to stay active 24x7, falling asleep on the job, and other factors.

The monitoring solutions are also vulnerable to video spoofing, a common criminal practice to keep the in-house staff unaware. The guards often realize that they are watching spoofed videos when it's too late, which means they delay raising alarms that can alert the authorities, putting people at risk.

Even the C4I (Command, Control, Communications, Computer, and Intelligence) system, considered state-of-the-art in the surveillance industry, requires human intervention. The probability of gathering all actionable intelligence requires going through hours of video footage with human-in-the-loop, which often keeps the post investigations open.

In short, the existing surveillance systems have the following disadvantages:

⚠ **Demands watching extensive hours of footage for investigation.**

⚠ **Lost intelligence due to dependence on manual tracking of anomaly detection.**

⚠ **Delay in reporting fire, fall, robbery, or other incidents due to human-based reporting system.**

⚠ **Requires additional human resources for 24X7 tracking, which means ongoing CAPEX.**

⚠ **Extensive system-oriented staff training for managing in-house security.**

Biocube, using its proprietary AI-enabled technology, has overcome the problems associated with traditional CCTV and IP camera surveillance systems. The company has developed an interoperable solution that meets the needs of different organizations globally while adhering to security compliances.It even delivers insights that enable the stakeholders to take real-time decisions for enhancing public and personnel safety.

FOLLOW US

Biocube
Redefining Identity

Introducing Biocube's AI-enabled Video Analytics

Leveraging AI, Big Data, and Machine Learning into the traditional modes of surveillance systems has upgraded monitoring capabilities by enabling autonomous intelligence gathering.

Biocube's Video Analytics is a solution derives actionable insights from captured video feed without human intervention. The solution offers enhanced anomaly detection capabilities, much beyond the traditional C4I systems. It captures one million frames per second from a cluster of CCTV or IP camera feeds and stores usable video feeds in a cloud server.

Businesses can also use it for setting alerts on customized needs. For example, healthcare centers can set alerts of patient sleep hours and monitor individual rest periods to achieve their recovery goals effectively.

Another advantage of Biocube's Video Analytics is crowd management. The solution can generate real-time alerts of overcrowding. Moreover, it doesn't involve human intervention to trigger alerts.

The self-service solution works 24x7 and instantly alerts authorities of spoofing activities, giving them sufficient time to take precautionary measures and safeguard the people from potential harm.

Biocube Video Analytics is a solution that can process video and image data in a textual format using WiFi or 4G/5G connectivity with ultra-low latency.

Key Features

✓ **Real-Time Human Body Posture Detection**

The video analysis solution offers real-time tracking of body postures like sleeping, sitting, standing, etc.,& issues an alert based on predetermined parameters. The AI model can be trained to identify any other body posture.

✓ **Automated Technology for Solving Investigations Faster**

The automated technology helps to ascertain qualitative information by pinpointing anomalies and persons of interest in an easy to understand format.
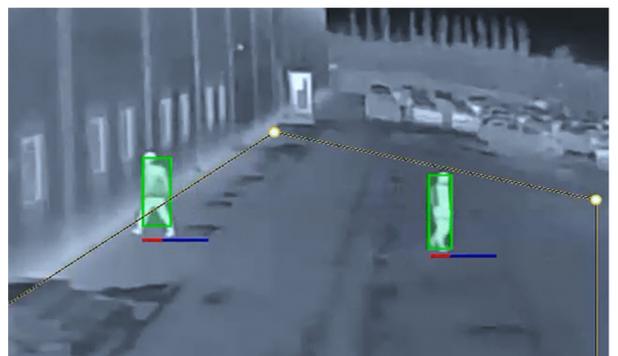
Simplifies Crowd Management

Our solution counts the exact number of people in a space and offers historical data that enables in crowd management, especially during peak hours.

High Frame Rate Processing

Biocube's Video Analytics solution captures 1 million frames per second using a 2 MP (1920x1080) CCTV/IP camera with less than three seconds of latency.

AI-driven Real-Time Incident Alerts

The solution sends real-time alerts for fall, fire, intrusion, trespassing, camera tampering, tripwire, and tailgating.
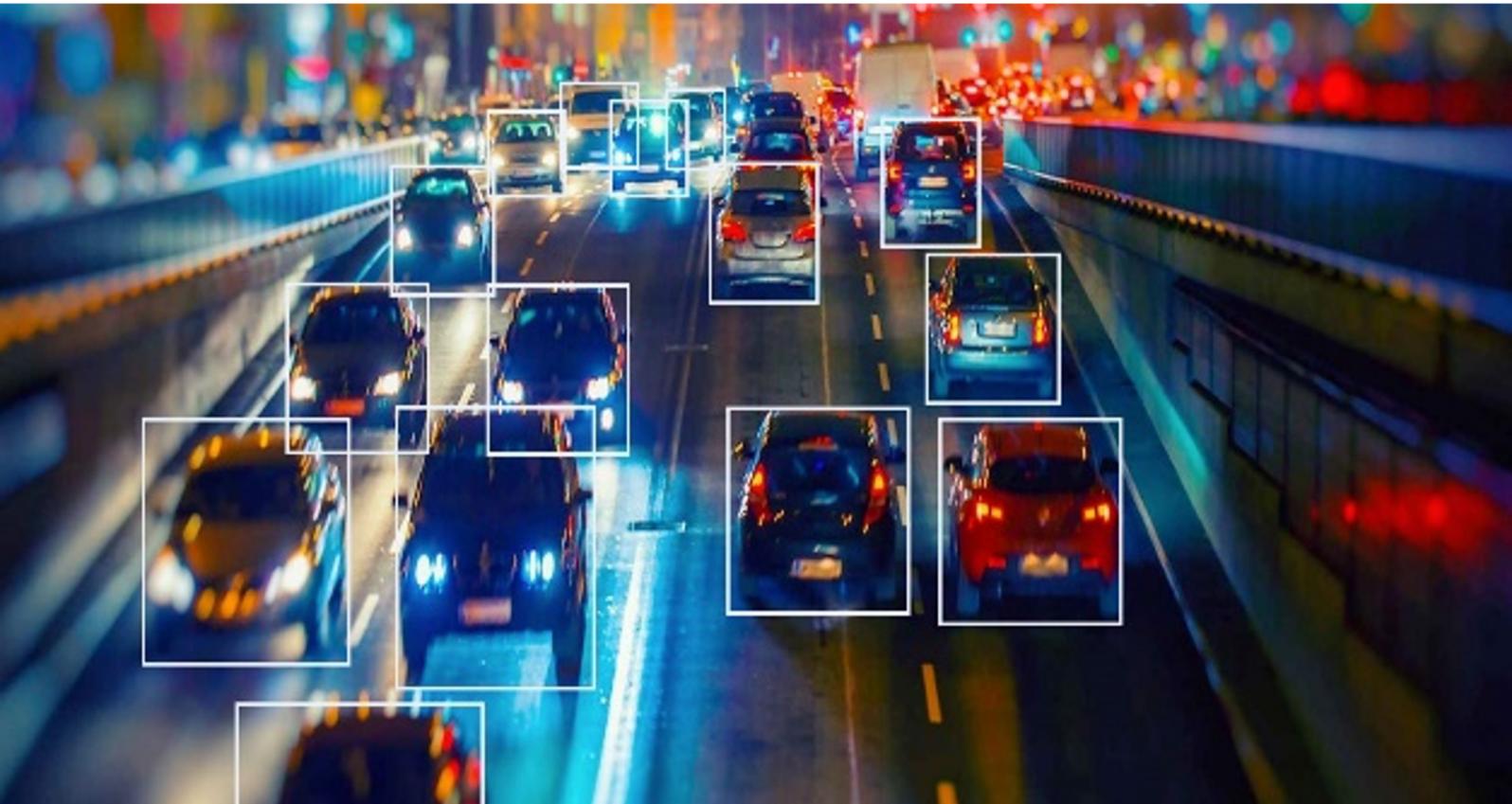
Search analysis with smart search live video/image analytics.

How Do We Process Video Surveillance Data?
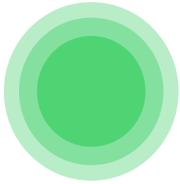
Descriptive Analysis (What Happened?)

Our AI-driven solution converts video-to-text that offers in-depth reporting of situational awareness.
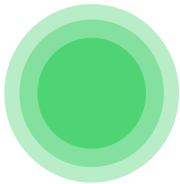
Diagnostic Analysis (Why Did it happen?)

The autonomous solution refers to usable frames for deciphering person or objects of interest and segments them into customized categories.

Predictive Analytics (What Will Happen?)

At this stage, the video-based data intelligence solution forecasts activities based on past trends, causation, and correlation.
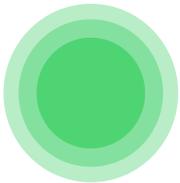
Prescriptive Analytics (What do We Recommend?)

Our Big Data and AI-driven Video Analytics solution makes recommendations based on the prescriptive analytics.

Biocube
Redefining Identity

How Does Biocube's Video Analytics Work?

1. **Pre-processing**

   The integrated Generative AI solution intakes the live video monitoring feed from CCTV and IP cameras and selects the most usable data.

2. **Data Queuing**

   Efficient management of video data, optimization of processing resources, and real-time or near-real-time analysis of video streams.

3. **Textual Outputs**

   Our solution converts the usable monitored video feed into granular textual data for smart assessment of access, authentication, and activities customized based on the admin's requirement.

Redefining Identity

Widely Applicable

Biocube's AI-driven Video & Image Analytics solution is widely used across industry verticals.

It accurately offers insights on movements, traffic, parking, crowd management, smart store operation, quality control at construction sites, incident detection, process compliance, etc.

✓ **Suspicious Incident Flagging**

Detect abnormal human behavior and suspicious objects/activities. Granular textual analysis of video surveillance would assist in investigations and enable taking corrective measures to enhance security.

✓ **Intrusion Detection**

Safeguard intruder entry in sterile zones & high-security installation areas and protect the compound perimeter. Set customizable alerts for unwarranted entry in restricted areas.

✓ **Real-Time Behavioral Intelligence**

Analyze the crowd flow and headcount with actionable insights to assist in crowd management. Effectively utilize behavioral intelligence to take timely measures against fire, fall, or other incidents during peak hours.

✓ **Traffic & Parking Management**

Control the traffic effectively during rush hour and detect illegal traffic at intersections, city roads, and highways. Use historical traffic intelligence and set up forecasts for traffic management.

FOLLOW US

Biocube
Redefining Identity

Benefits of Biocube's AI-enabled
Video Analytics

Crisis Control

Automated incident alerts help in improving public safety. Data-driven intelligence to detect suspicious activities in real time.

Scalable

The autonomous solution can harness feeds into customizable analytics from any number of CCTV and IP cameras.

Automated Surveillance

AI-driven monitoring removes the need for human intervention and diminishes human errors. Simultaneously, it acts as a cost-effective solution..

Low Latency

Our AI-driven solution offers better read and write speed than traditional systems with minimal delay.

Intelligent Space Allocation

Our solution requires 60-85% lower cloud storage space than standard DVR systems, ensuring optimal capacity utilization.

Reliable & Fault Tolerant

Our Video Analytics solution is backed by technology that operates continuously without interruption.

About Us

Biocube Technologies Inc. is redefining the space of biometric identity management with the world's first & only multi-factor & multimodal biometric platform. Biocube's artificial intelligence and data analytics backed identity platform runs on multiple devices such as mobile, tablet, laptop, and desktops with webcam and IP camera and does not need any specialized device. This makes the implementation of this technology completely capex-light.

Since its inception in 2019, the company has developed multiple products focused on different industry requirements – visa, immigration & border security, banking KYC, HR management, visitor management, healthcare, and many more- for businesses and government bodies. Biocube has offices in India, the US, and the UK and is expanding its global footprint. It is a continuous endeavor of Biocube to ensure the security & convenience of users and to make the identity world safer & smarter.

 CONTACT US connect@biocube.ai