# PEOPLE ANALYTICS

# BANK ATM MONITORING USING ARTIFICIAL INTELLIGENCE



Employees use ATM machines at Axis Bank's corporate headquarters in Mumbai, India, July 25, 2017. Credit: Reuters/Danish Siddiqui/Files

Uncanny Vision Solutions Pvt Ltd

www.uncannyvision.com | sales@uncannyvision.com

# CHALLENGE

There are over 3 million ATMs installed on and off-site by different banks across the world. All these ATMs see thousands of transactions every hour which puts the security of the ATMs in question. In spite of the security personnel provided by the banks for the ATMs, thefts, assaults, and property damages are a regular occurrence. This called for the need of an intelligence based system which would alert security guards on real-time if there are any suspicious activities inside or outside the ATMs to improve the security of customers as well as the banks.



*Some news on ATM robberies in 2020*

# SOLUTION

An artificial intelligence based system to smarten the existing surveillance cameras installed inside and outside the ATMs. A process of continuous monitoring and predictive analysis of actions in ATMs set up to detect suspicious activities, and alert the necessary authorities to avoid mishaps.

The existing e-surveillance systems require a person monitoring alerts coming from hundreds of ATMs at a time and manually intruding to take actions in case of any anomalies. What Uncanny Vision does is, add intelligence to this system, by triggering alerts only in case of a real threat.

# WHAT CAN BE MONITORED?



## Camera tampering
Detection of this action when someone touches the CCTV cameras installed in the ATM and generate real-time alerts

## Crowding
Detect the presence of multiple people inside the ATMs to ensure adherence to the compliance code.
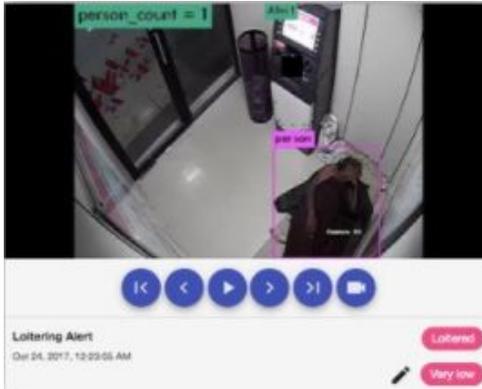
## Loitering

1. Detect if a person is loitering around or inside the ATM for a longer duration.
2. Detection of a person sleeping inside the ATM

## Detection of Anomalous behaviour

Detect any anomalous actions inside the ATM like a person falling off, etc.



# ARCHITECTURE



The existing infra consists of all ATM cameras connected to their individual Intrusion Panels. These intrusion panels send events to the ICCC platform

which in turn displays all the events on a video wall. This wall is continuously monitored by the bank personnel to report suspicious activity. Uncanny Vision simplifies by adding intelligence to this system and generates 'Triggered events', only the events that require actual attention from the personnel.

# RESULTS

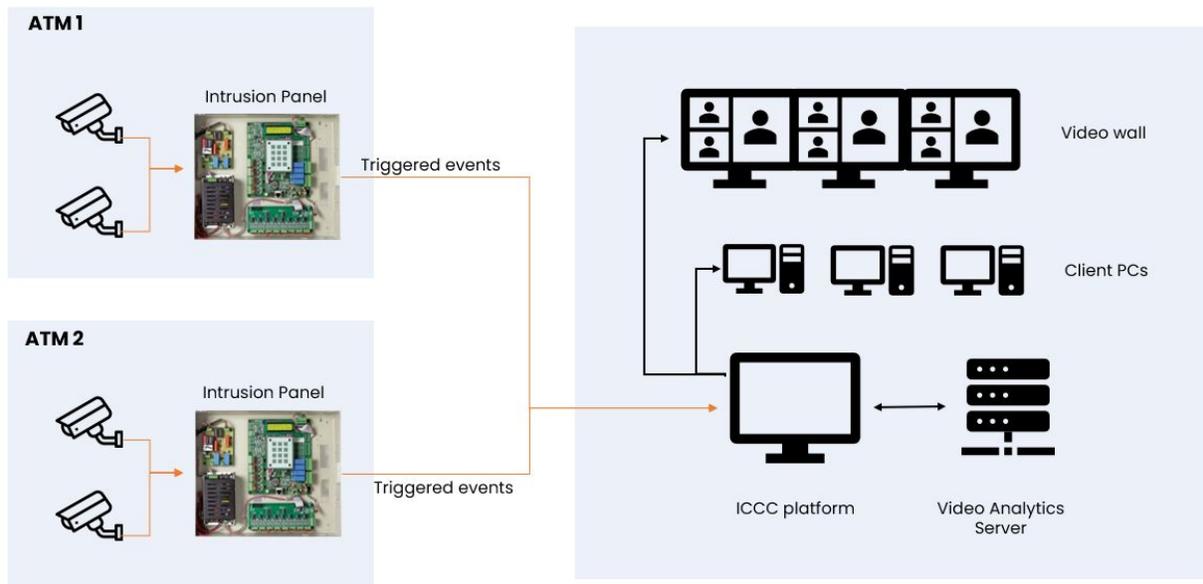Our solution has been deployed in 5000+ ATMs across India along with pilots in Europe and SouthEast Asia(SEA). All the surveillance systems are working with high accuracy in generating alerts for the anomalies detected in the ATMs. Our system is continuously monitoring with very minimal downtime.
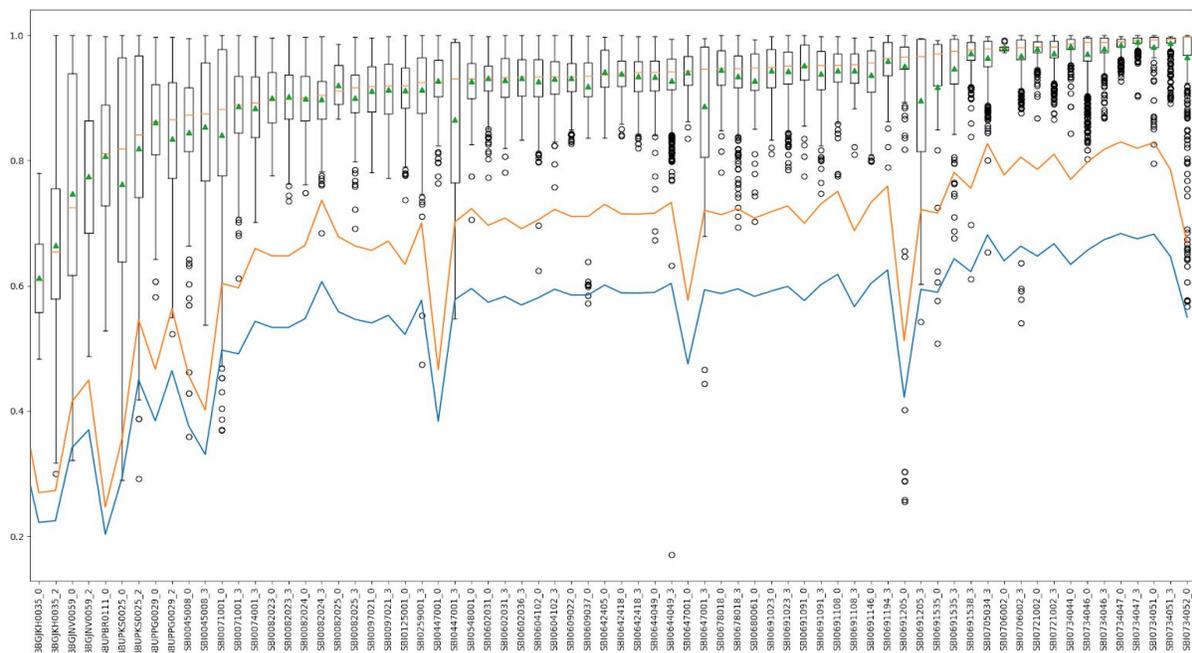


Result of Tampering check in an ATM

# About Uncanny Vision

Uncanny Vision is an award-winning AI-based Computer Vision company delivering next generation real-time Edge-based Video Analytics solutions for Smart Cities, Smart Buildings, Smart Parking & Smart Infrastructure – specifically for People & Vehicle Monitoring using cameras. We enable cameras to "see" and "understand" their environment instantly using AI/Deep Learning algorithms. Core solutions include People, Vehicle count, classification as well as high accuracy License Plate Recognition used by many cities around the world. Using unique optimization techniques, Uncanny Vision provides this solution on low-cost Edge AI processing systems powered by Intel and on high performance Data Center or Cloud systems powered by Nvidia.
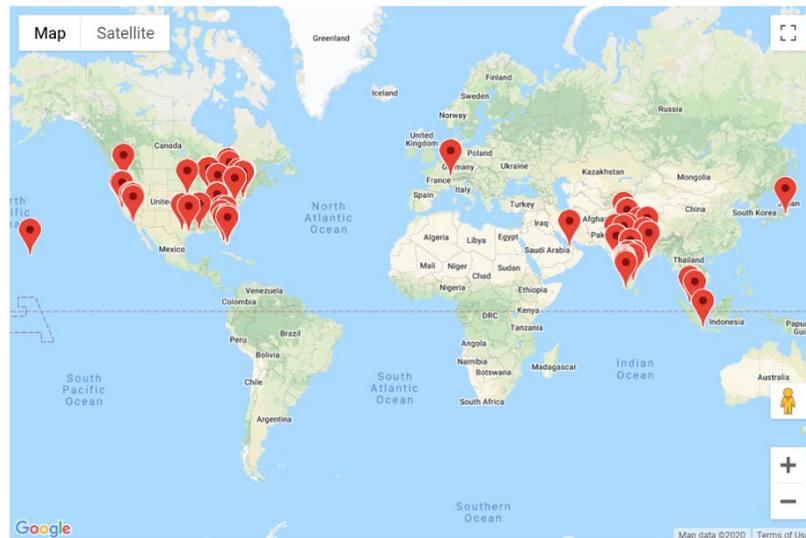


Uncanny Vision®

| UNCANNY VISION SOLUTIONS PVT LTD, INDIA | UNCANNY VISION JAPAN G.K, JAPAN | UNCANNY VISION AMERICAS INC, USA |
|---|---|---|
| Phone: +91-9738675965 | Phone: +81-9091578522 | Phone: + 1-4083758731 |

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Uncanny Vision Solutions Pvt Ltd

www.uncannyvision.com | sales@uncannyvision.com