

# VIDEO ANALYTICS FOR INDUSTRY CUSTOMER

## Executive Summary

Incubated in Indian Institute of Technology (IIT)-Delhi in 2005, Vehant Technologies is a pioneer in Artificial Intelligence/Machine Learning- based Physical Security, Surveillance and Traffic Monitoring & Junction Enforcement Solutions. Designed & developed in India; manufactured in India and Europe to meet global standards, features and quality.

“Technological innovation and advancement is the core strength of Vehant and our highly efficient team of researchers is impelled to offer Vehant’s clients products and solutions which are crafted to perfection.”

These days, technology is the epicentre of our everyday lives. Different decisions every day are determined by technology whether it is to determine where to travel, what to shop or how to prepare a meal. Just as technology helps improve our life, it helps us, the business owners to offer solutions and platforms to make it better for our customers. We draw out valuable insights from the plethora of information obtained from everywhere and facilitate our customers in decision making on the basis of collected insights.

The purpose of this document is to highlight a common problem at large premises of organizations in India in automotive and logistics industry. The document proposes a solution offered by Vehant Technologies in partnership with Intel for the challenges faced by the organizations.

## Introduction

A significant impact of leveraging technology is seen in enterprises like retail, logistics, hospitality and PPE safety through video analytics technology. Video analytics technology is a great tool to identify various objects in captured videos, ranging from detecting color, humans, objects and the like. This data about data is processed deeply and quickly by Vehant's AI based advanced video analytics solution which provides insights to the client for decision making and developing strategies to improve customer experience, leading to increase in customer count.

The companies with large premise on countryside like automotive companies face a common problem of animal intrusion on regular basis. Moreover, these companies use expensive heavy equipment and often face challenge of locating the equipment on premise for usage. The AI based video analytics solution resolves these issues through object identification and intrusion detection thus alerting the user for the activity.

## Problem Statement

Vehant's clients from automotive industry and logistics and transportation industry faced an incessant problem of human and animal intrusion in sensitive areas on premise like testing area, stock area, etc. The premises are located in rural areas, and near forestation and wildlife areas owing to their large size. The animals often enter the private premise as they are in close vicinity. The problem leads to animal injuries or even death and the client takes it as a responsibility to ensure the safety of the animals.

Another challenge for the client is to locate a misplaced heavy equipment in the premise. Large equipment are required at several places for various purposes within the premise like handling or shifting other material, etc. It becomes challenging to locate large-sized equipment in a compound spread over acres. Most of the times, manual records are infeasible to maintain in such cases.

## Proposed Solution

Vehant Technologies being a pronounced video analytics solution provider, offers effective solutions for object identification and intrusion detection that work on advanced AI and ML algorithms. The solution brings together different detection and tracking issues under single visualization pane.

The artificial intelligence based advanced video analytics solution checks and monitors the area under surveillance in real time with low rate of false alarms. It raises an event in case a movement is detected. The unique technology offers easy detection of violators who are in the prohibited area and makes the data and statistics easily available to the client through the user friendly interface of the solution. The solution works to identify and locate human beings, animals and objects within the video and facilitates the client in quick decision making.

The advanced algorithms process videos fetched from the field of view of IP camera. The feed are relayed to the local processing units or central control unit which are built on Intel i7 or Intel Xeon processors. The system captures and detects movement in the video, raises an event and notifies the user whenever a movement or intrusion is detected. The user friendly interface provides access to the event. The pre-trained algorithm of the ready-to-use system is used to detect the presence of person, animal and object in separate cases.

In order to control the challenge of person and animal intrusion as well as identification of exact location of a certain equipment on premise, the clients deployed Vehant's video analytics based solution. The client implemented Vehant's advanced video analytics technology to include complex analysis of video streams. The benefits offered by the solution include

- Realtime detection of person, animal or object
- Detecting and analyzing hotspots
- Movement detection in marked or prohibited area on premises
- Video record of all unauthorized access
- Minimal human intervention
- Dashboard for easy monitoring

Vehant's AI powered video analytics solution helps clients in monitoring their premise against unauthorized access safeguarding their sensitive areas. The user friendly solution framework is completely developed in India. Vehant provides state-of-the-art analytics solutions in the country and globally.