

# BEHAVIORAL RECOGNITION FOR URBAN MOBILITY SECURITY & SAFETY

## ENHANCE EVERY VIDEO STREAM WITH ARTIFICIAL INTELLIGENCE VIDEO UNDERSTANDING TECHNOLOGY

In today's global urban and business environments, enterprises and authorities use diverse technologies trying to keep cities, public areas and business campuses safe from multiple hazards, risks or threats. Secure, safe and efficient mobility is the key for successful urban ecosystem and quality of life.

viisights wise provides real-time understanding of video footage captured by surveillance cameras spread throughout traffic control centers, roads, public areas, buildings, shopping centers, commercial and industrial zones. The system processes and understands large number of video streams in real-time (or offline for investigative mode), while providing near real-time insights and alerts in the form of actions, events and scenes of interest for smarter mobility of humans and vehicles.

## POWERED BY DEEP VIDEO UNDERSTANDING

viisights has developed a deep video understanding technology that applies holistic and temporal analysis engine for Scene Participants recognition and their characteristics. viisights holistic engine analyzes live video content through a top-down and time-based approach which is capable of recognizing in near real-time scene, events, actions and their context, objects and their attributes.

## FUNCTIONALITY GROUPS



Traffic Monitoring



Suspicious Activity

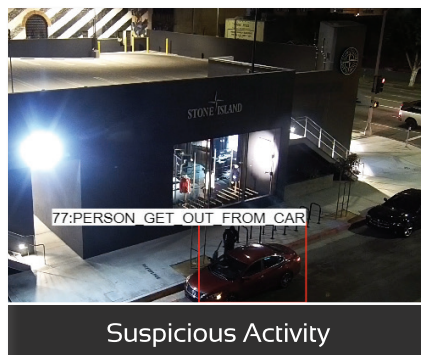
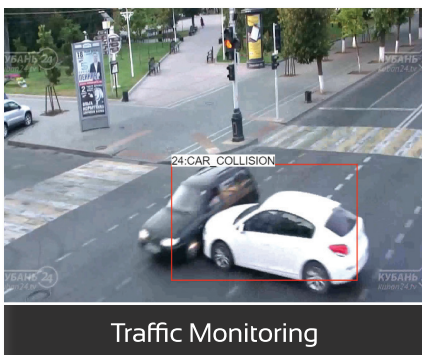


Crowd Management



Safe Mobility

## USE-CASE EXAMPLES



# BEHAVIORAL RECOGNITION FOR PUBLIC AND AUTONOMOUS MOBILITY

## MONITOR IN-VEHICLE OCCUPANTS WITH ARTIFICIAL INTELLIGENCE VIDEO UNDERSTANDING TECHNOLOGY

Fully autonomous vehicles have no drivers – only passengers.

In sporadic pay-as-you drive services, there is no car owner and therefore no person in charge. In driver-for-rent services or in public transportation vehicles, the passengers are unknown or strangers.

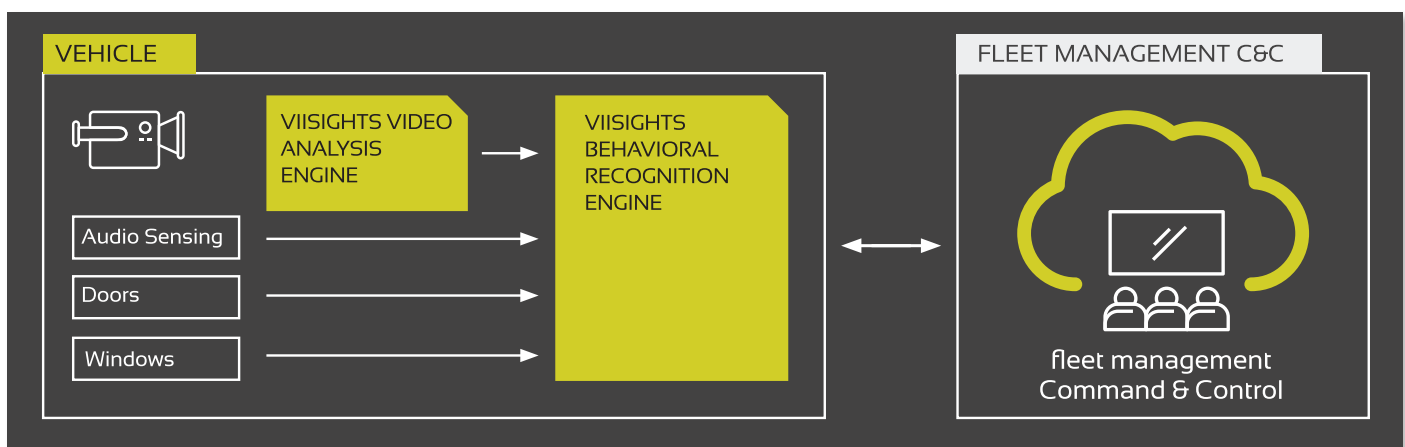
In all these use-cases it is important to ensure that all in-vehicle occupants are secure, safe and the vehicle is protected from occupant's improper use and external threats.

The increasing demand for public transportation (metros, trains, shuttles), together with analysts predictions regarding the future of large-scale use of autonomous robo-taxis and robo-bus generates the need for in-vehicle monitoring that will ensure in-vehicle safety. viisights' in-vehicle monitoring system utilizes viisights' ability to understand human behavior via live video streams sourced from an in-vehicle camera(s). In many cases, the video stream will be used as the main signal, yet the system can use additional sensors and data to increase its accuracy.

## USE-CASE EXAMPLES

 OCCUPANT SAFETY	 OCCUPANT SECURITY	 VEHICLE PROTECTION
<ul style="list-style-type: none"> <li>■ Density Mapping</li> <li>■ Seat-Occupancy</li> <li>■ People Counting</li> <li>■ Abandoned Child/Person</li> <li>■ Abandoned Bag</li> <li>■ Smoke/Fire Detection</li> <li>■ Person with/without a Mask</li> <li>■ Person and Group Proximity</li> </ul>	<ul style="list-style-type: none"> <li>■ Violence/Anti-Social Detection</li> <li>■ Threat Detection (person running)</li> <li>■ Tampering Detection</li> <li>■ Person Re-identification</li> </ul>	<ul style="list-style-type: none"> <li>■ Wheelchair, Pram, Bicycle, Scooter Detection</li> <li>■ Vandalism Detection</li> <li>■ Improper Use               <ul style="list-style-type: none"> <li>■ Smoking</li> <li>■ Alcohol</li> <li>■ Drugs</li> <li>■ Nudity</li> <li>■ Sex</li> <li>■ Weapon</li> </ul> </li> <li>■ Littering</li> </ul>

## ARCHITECTURE



## ABOUT VIISIGHTS

viisights is a leading provider of behavioral understanding systems for real-time video intelligence that leverage unique artificial intelligence technology. The company provides behavioral understanding systems for safe and smart cities, enterprises, campuses, financial institutes, critical infrastructures, transportation hubs and shared mobility initiatives. viisights' mission statement is to develop artificial intelligence technologies that facilitate human-like video understanding, in order to create fully autonomous video intelligence systems powered by pattern prediction technology.