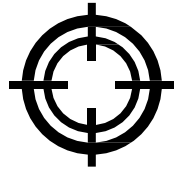




# Vaidio Analytics for Hospitals & Healthcare Facilities

**V A I B S**  
VIDEO AI ANALYTICS

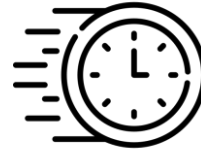
# Overview Vaidio AI Analytics Platform



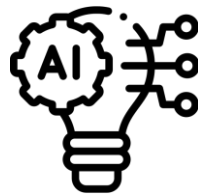
**ACCURATE  
ALERTS**



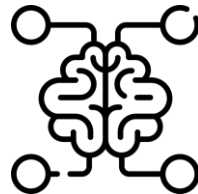
**MAXIMIZED  
EFFICIENCY**



**FAST  
VIDEO SEARCH**



**AI-ENABLED  
ANALYTICS**



**COMPREHENSIVE  
FUNCTIONALITY**

- **VERSATILE**  
More analytics than any alternative
- **FAST**  
Search days of video in minutes
- **ACCURATE**  
Reduce false positives by orders of magnitude
- **IMMEDIATE**  
Real-time alerts in 3 seconds or less
- **INTELLIGENT**  
Natural-language search across multiple objects
- **OPEN**  
Integrate with 97% of ONVIF devices
- **IMPACTFUL**  
Increase alert readiness, improve productivity

# Hospital & Healthcare Facilities



# Hospital & Healthcare Layout

## Ambulances/Unloading Area

- ☑ Access Control with License Plate Recognition
- ☑ Illegal Parking
- ☑ Intrusion Detection
- ☑ Abandoned Object Detection Emergency Entrance / Exit

## Pharmacies

- ☑ Access Control with Face Recognition
- ☑ Smoke and Fire Detection
- ☑ Weapon Detection
- ☑ Loitering

## Security Center

- ☑ Camera Health Management
- ☑ Track Target Objects
- ☑ Real Time Alerts
- ☑ Video Search

## Doctor's Office

- ☑ Aggression Detection
- ☑ Person Fall and Crouch

## Patient Area

- ☑ QR and Barcode Recognition
- ☑ Smoke and Fire Detection
- ☑ Person Fall and Crouch

## Corridor Area

- ☑ Abandoned Object Detection
- ☑ QR and Barcode Recognition
- ☑ Smoke and Fire Detection
- ☑ Person Fall and Crouch

## Lobby / Waiting Room

- ☑ Age, Gender and Emotion Detection
- ☑ Abandoned Object Detection
- ☑ Social Health Analytics
- ☑ Person Fall and Crouch
- ☑ Queue Detection

## Parking Lots

- ☑ License Plate Recognition
- ☑ Vehicle Make and Model
- ☑ Vehicle Counting
- ☑ Illegal Parking
- ☑ Loitering

## Entrance Area

- ☑ Face Recognition with Blacklist
- ☑ Loitering
- ☑ People Counting
- ☑ Weapon Detection



# Challenges Hospitals & Healthcare Facilities

- Hospitals & healthcare facilities facilitate
- A high volume of patients, visitors and employees
- Hospitals & healthcare facilities are open and inviting environments
- Hospitals & healthcare facilities never close and serving their communities 24/7
- Increasing workplace violence from drugs related crimes, gang incidents and patient outbursts
- Ongoing risk of infant abduction cases
- False claims against nurses, physicians and other medical staff



# Challenges Hospitals & Healthcare Facilities

## Indoor areas

- Entrance
- Lobby / waiting room
- Corridor
- Patient area
- Doctor's office
- Pharmacies
- Security center



# Entrance

- Use face recognition in combination with a watchlist to notify security staff when known aggressive patients enter the hospital.
- Monitor persons that remain in and around the pharmacy for a protracted time without an apparent purpose (loitering).
- Draw a line and count the incoming and outgoing patients at the entrance to analyze and optimize the hospital infrastructure.
- Monitor and detect weapons in real time and trigger an alert when a weapon appears in the camera field of view.



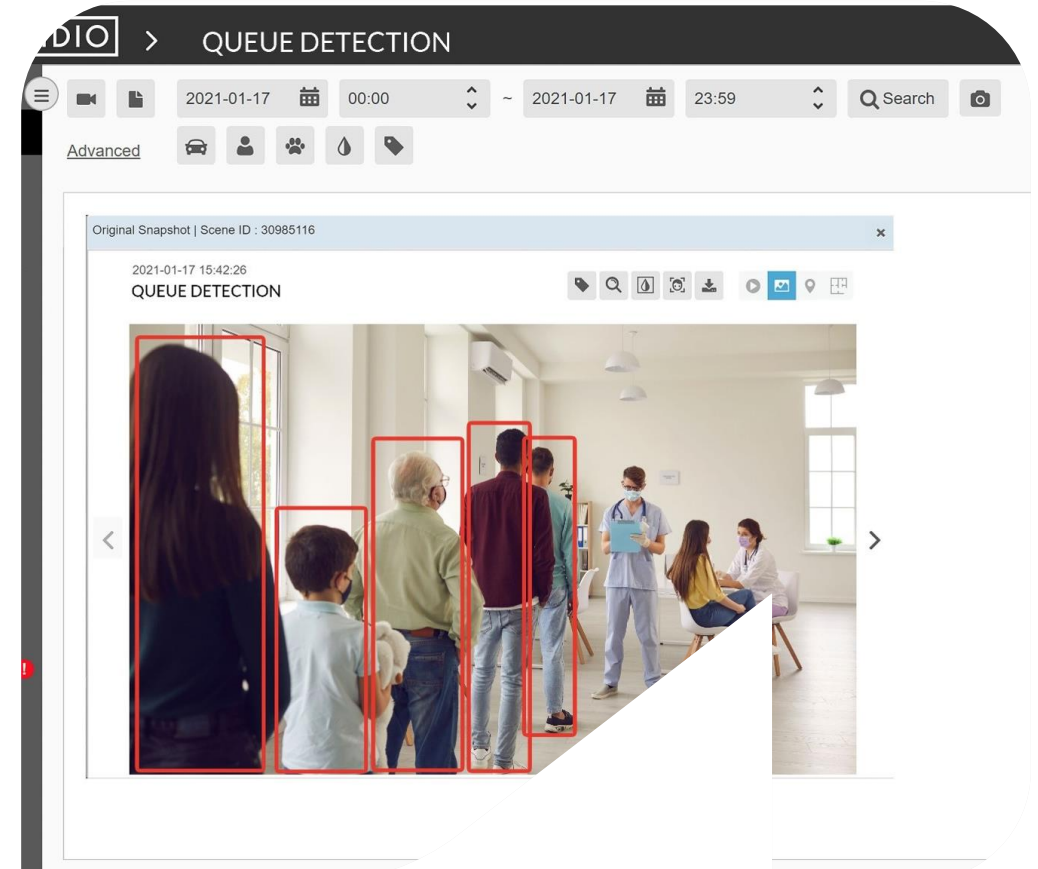
# Lobby and/or Waiting Room

- Recognize emotions such as anger, sadness, fear and joy.
- Use emotion tracking to give the hospital the ability of what is pleasing, interesting or annoying hospital patients based on their emotional reaction.
- Detect age and gender for patient segmentation in age and gender groups.
- Trigger alerts if abandoned objects reach a certain (abnormal) time threshold in the lobby/waiting room area.



# Lobby and/or Waiting Room

- Use social health analytics in combination with temperature screening when patients enter the lobby / waiting room.
- Trigger alerts when patients fall or crouch in the lobby / waiting room.
- Monitor and detect queues and trigger alerts to prevent waiting times and improve patient satisfaction to optimize the patient experience in the hospitals.
- Align medical staff resources with the patient flow.



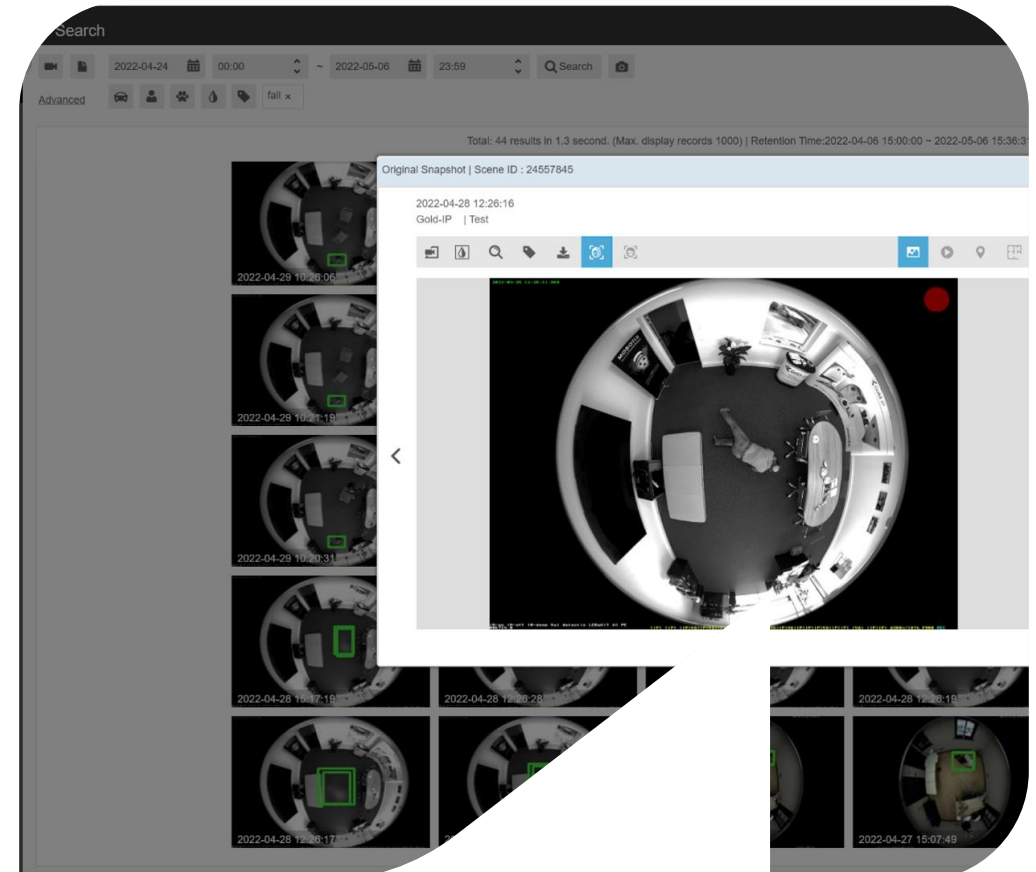
# Corridor

- Detect abandoned objects in real-time and trigger alerts.
- Identify persons who left objects inside the corridor and try to locate this persons.
- Track and locate medical equipment with QR-code and/or barcode recognition.
- Trigger an alert when smoke or fire appears in the camera field of view.
- Trigger alerts when patients fall or crouch in the corridor and warn medical staff on their mobile devices.



# Patient Area

- Notify medical staff when a patient falls or crouches in the field of view of the camera.
- Automatic bed recognition
- Fall detection solution on a fisheye camera to cover an entire patient room.
- AI analytics detection to reduce false alarms to a minimum.
- Alert directly integrated into Care Call System.
- Operates 24/7 in all patient rooms.
- Actionable data insights into day/night rhythm of patients.
- Privacy filter for blurring patients.



# Patient Area

- Tag wheelchairs, beds, monitors, mobile workstations and other hospital assets with QR-codes and/or barcodes to track and locate this medical equipment.
- Trigger an alert when smoke or fire appears in the camera field of view.



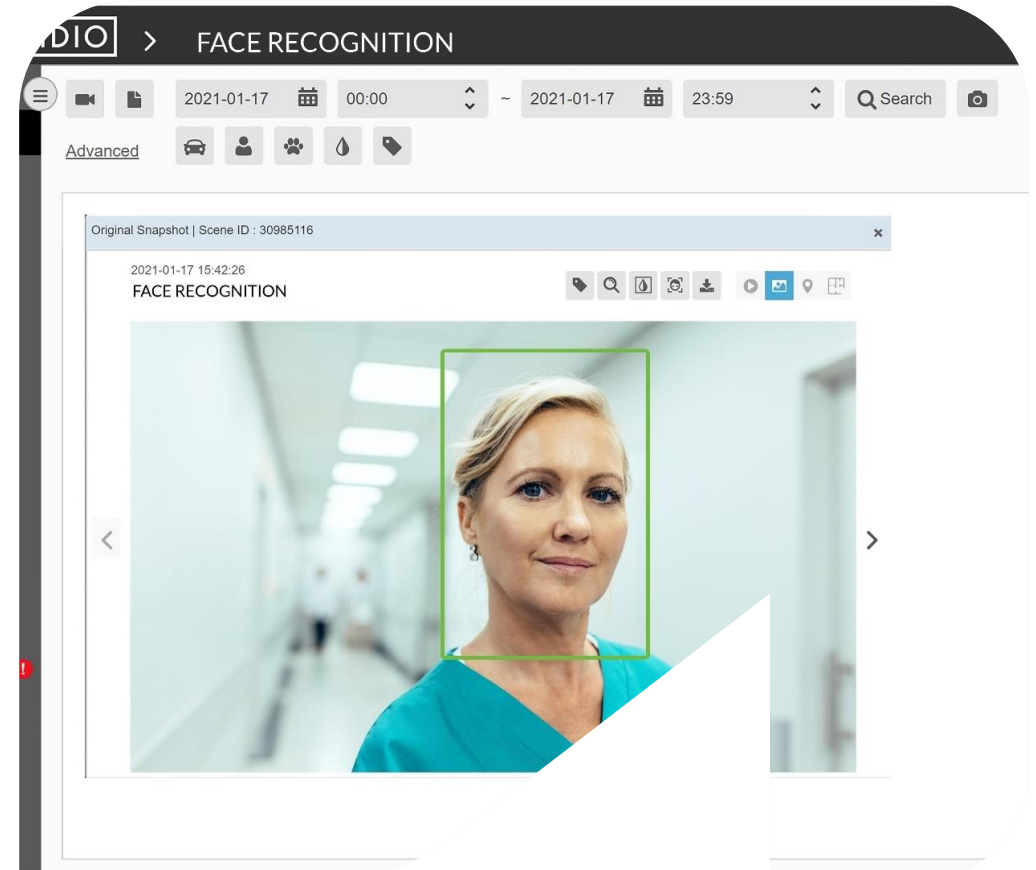
## Doctor's Office

- Detect outbursts and aggressive behavior from hospital patients and trigger real-time alerts to protect doctors and other medical staff.
- Trigger alerts when patients fall or crouch in the doctor's office to notify other medical staff to support the doctor.
- Use Vaidio face search to locate doctors quickly in case of an emergency.



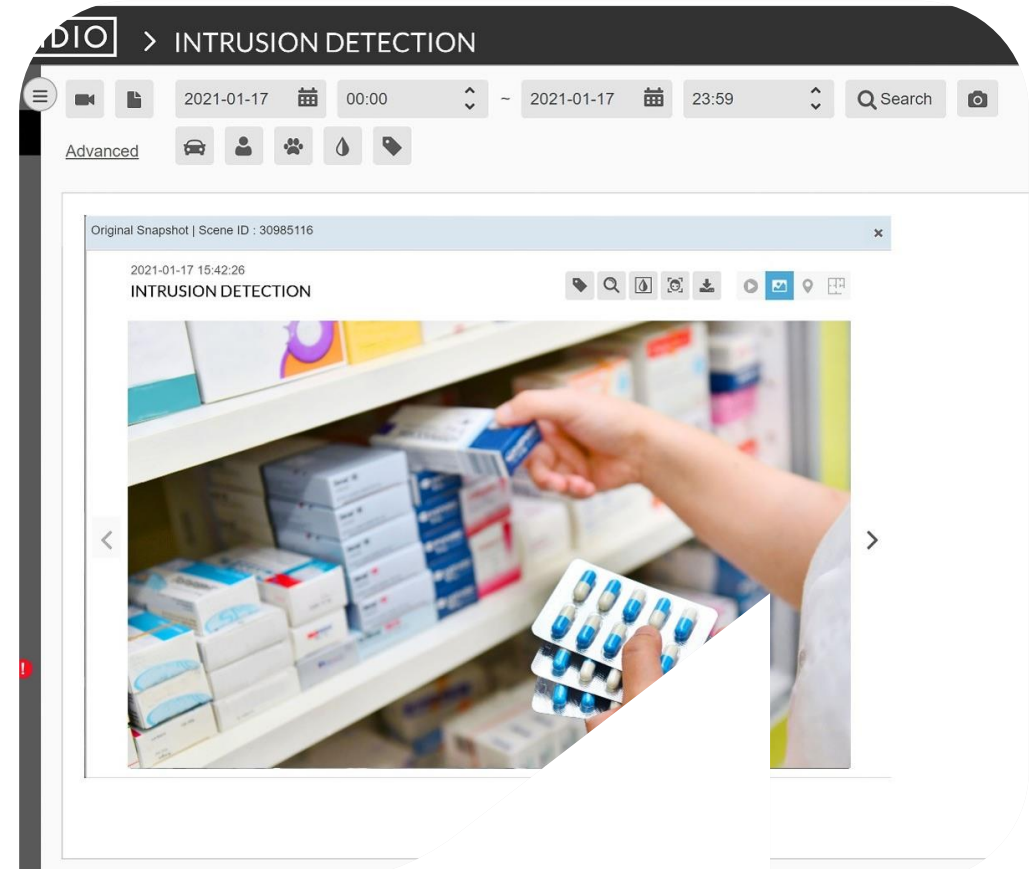
# Pharmacies

- Integration of Vaidio AI-based recognition in access control and HRM systems to unlock the hospital pharmacy in real-time for authorized medical staff only to prevent fraud and theft.
- No concerns about badges that are lost or stolen as badges are no longer required.
- Track target persons on a map and perform tracing in case of accidents or incidents in and around the pharmacy area.



# Pharmacies

- Trigger an alert when smoke or fire appears in the camera field of view and prevent damages to pharmacy assets to a minimum.
- Monitor persons that remain in and around the pharmacy for a protracted time without an apparent purpose (loitering).
- Monitor and detect weapons in real time and trigger an alert when a weapon appears in the camera field of view.



# Security Center

- Receive alerts and take action when a camera is repositioned, blurred or blocked.
- Track target objects by event time stamp and camera location (map tracking).
- Provide real-time alerts to hospital security staff on mobile devices in case of incidents.
- Search through terabytes of video in seconds when investigating incidents and provide visual evidence for insurance claims.
- Completely integrated with the VMS or AMS System



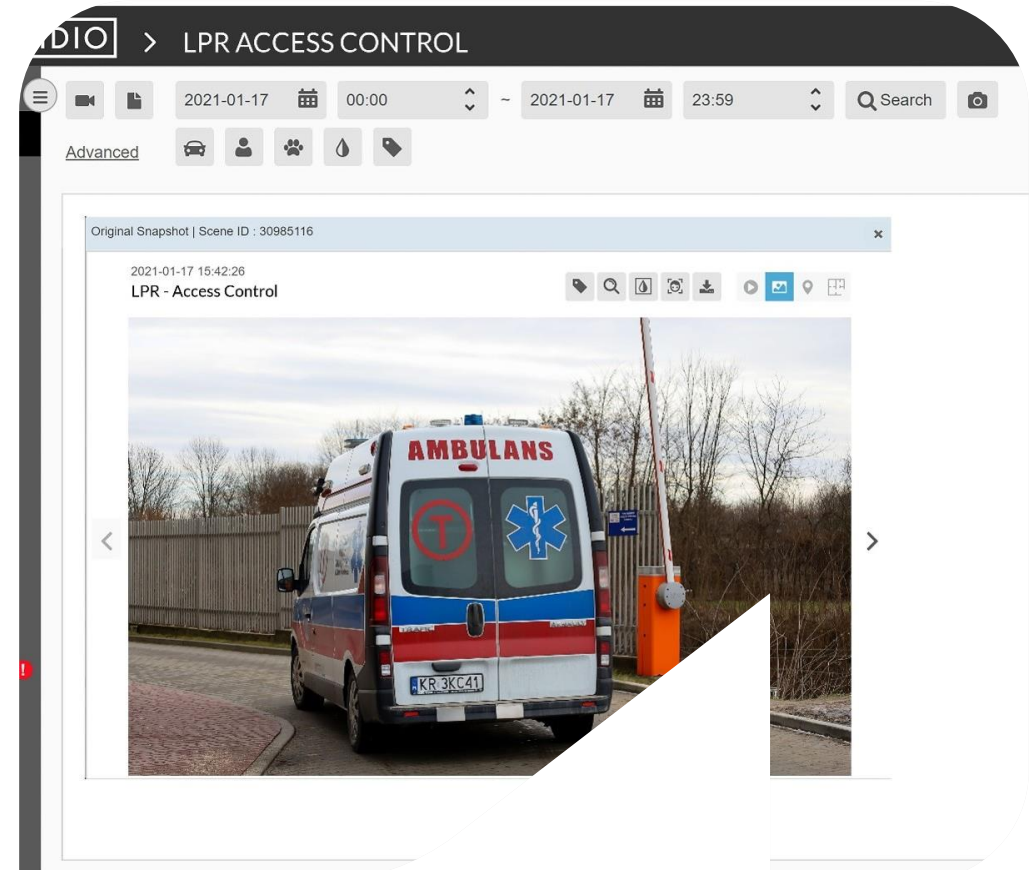
# Outdoor Areas

- Ambulances/unloading area
- Parking lots



# Ambulances/Unloading Area

- Register ambulance license plates for automatic entrance control.
- Apply license plate recognition with whitelist to prevent access to and illegal parking in ambulance and unloading zones.
- Detect abandoned objects that are blocking emergency entrances and exits for ambulances.
- Draw a ROI in ambulance and unloading zones and trigger alerts when people enter in the field of view of the camera.

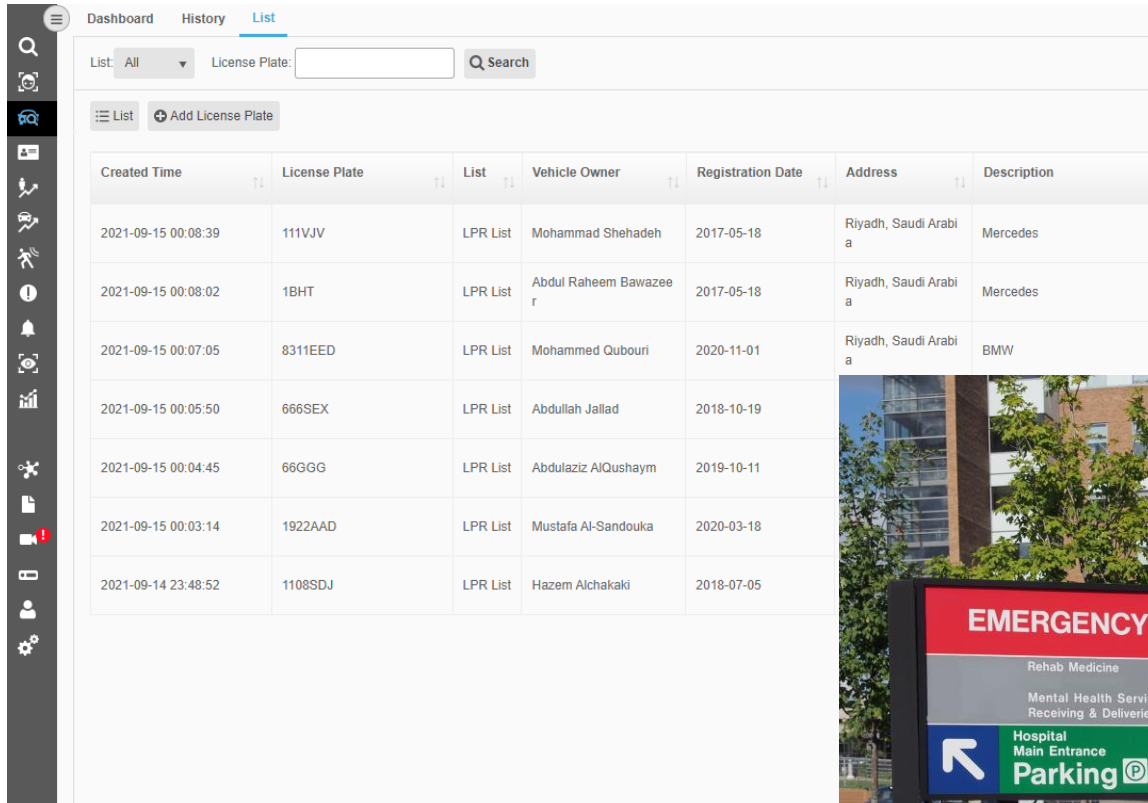


# Ambulances/Unloading Area

- Monitor and detect fire & smoke in real time in the ambulance and unloading zones and trigger an alert when fire or smoke enters the camera field of view.
- Monitor people that remain at the ambulance and unloading zones for a protracted time without an apparent purpose (loitering).



# Parking Lots

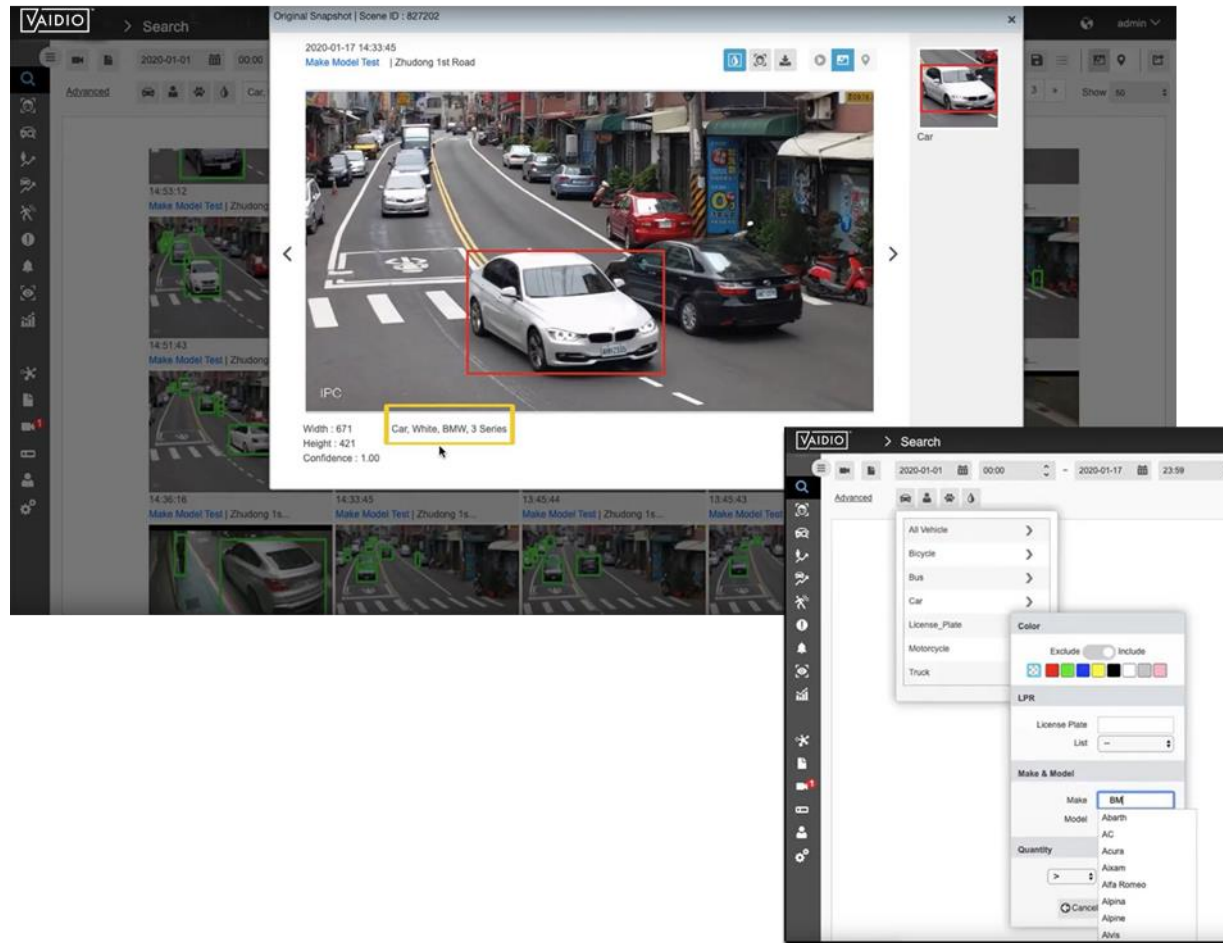


Created Time	License Plate	List	Vehicle Owner	Registration Date	Address	Description
2021-09-15 00:08:39	111VJV	LPR List	Mohammad Shehadeh	2017-05-18	Riyadh, Saudi Arabia	Mercedes
2021-09-15 00:08:02	1BHT	LPR List	Abdul Raheem Bawazeer	2017-05-18	Riyadh, Saudi Arabia	Mercedes
2021-09-15 00:07:05	8311EED	LPR List	Mohammed Qubouri	2020-11-01	Riyadh, Saudi Arabia	BMW
2021-09-15 00:05:50	666SEX	LPR List	Abdullah Jallad	2018-10-19		
2021-09-15 00:04:45	66GGG	LPR List	Abdulaziz AlQushaym	2019-10-11		
2021-09-15 00:03:14	1922AAD	LPR List	Mustafa Al-Sandouka	2020-03-18		
2021-09-14 23:48:52	1108SDJ	LPR List	Hazem Alchakaki	2018-07-05		



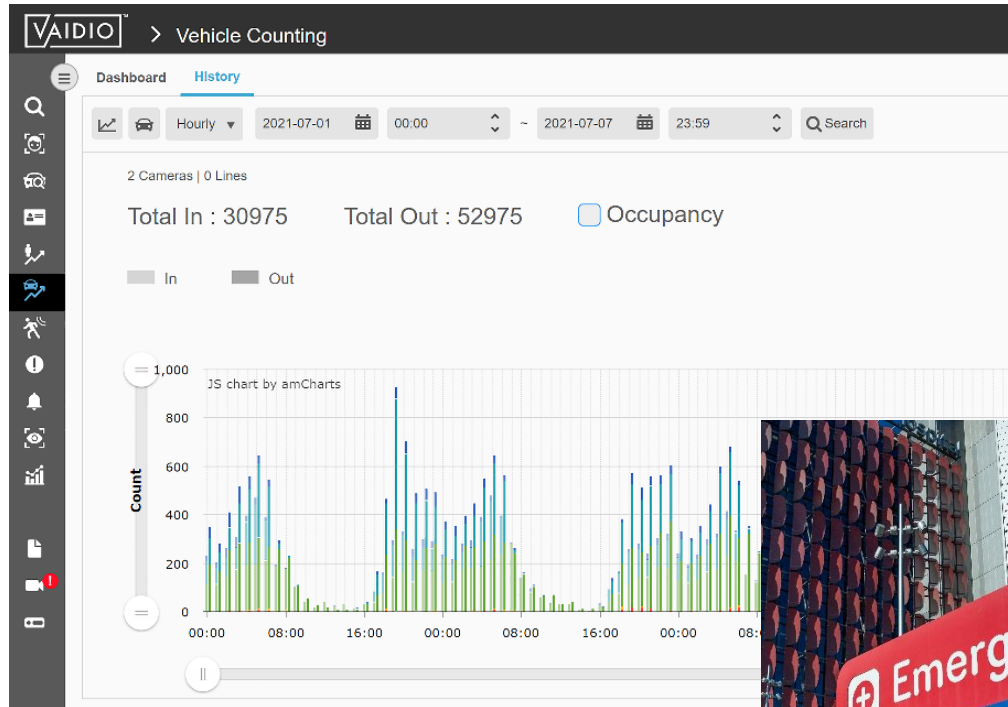
- Register vehicle license plates with vehicle owners to create black- and whitelists.
- Apply license plate recognition with whitelist for hospital staff for restricted parking areas.
- Apply license plate recognition with blacklist for leave without paying or for aggressive patients.
- Trigger alerts for cars that are illegally parked and notify the security center in real-time.

# Parking Lots



- Search for a specific vehicle make and model through multiple cameras and uploaded video footage.
- Narrow down search results when searching for a target vehicle.
- Track vehicles in real-time based on color, quantity and partial license plate number.
- Identify over 200 makes and 2000 models.
- Detect cars parked at the main entrance for longer than the allowed time.

# Parking Lots



- Vaidio vehicle counting provides actionable data to analyze traffic flows and optimize decision making around hospital infrastructure.
- Determine hospital peak hours.
- Categorization of vehicles in bicycle, bus, car, motorcycle and truck.
- Generate reports based on traffic flows and categorization.

# Vaidio Tool Kit

- Train your own object detection model.
- Input: user selected footage.
- Output: ready-to-use AI model.



# Vaidio Tool Kit Advantages

- **Ease-of-use**  
No knowledge required around neural networks, AI libraries, algorithms and datasets.
- **Versatility**  
Train a model for any object.
- **Interface**  
Intuitive graphical user interface.
- **Security**  
No data sharing to 3rd-party labelling services.
- **Customization**  
No customization fee for customer specific requests.



# Use Case

## ■ Challenge

Detect uniforms in hospitals and healthcare facilities.

## ■ Solution

Train your own uniform detection model with Vaidio DIY.

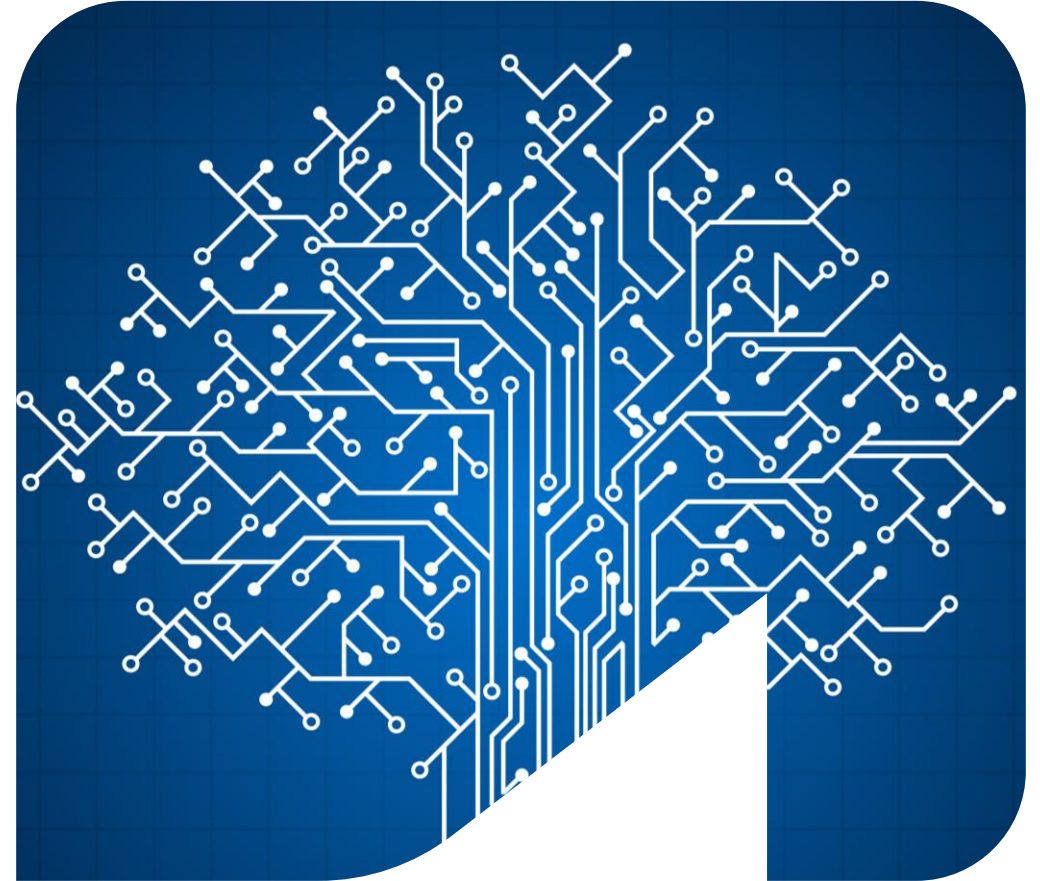
## ■ Benefits

- ☑ Make sure that medical staff is wearing the proper uniforms.
- ☑ Patient is able to recognize medical staff.



# Integration Capabilities

- Camera integration
- Cloud platform integration
- ERP integration
- IO device integration
- Software services
- VMS integration



# Hospitals & Healthcare Facilities | Vaidio Benefits & Savings

- Vaidio ai-enabled video analytics help maintain the safety in hospitals and healthcare facilities and give employees piece of mind.
- Vaidio AI-enabled video analytics provides actionable data to analyze & optimize decision making around the hospitals and healthcare facilities infrastructure.
- Review hours of video in seconds – increase in productivity of the monitoring security staff.
- Real-time alerts and pro-active follow up can prevent events from happening – reduce damage.
- Vaidio AI-enabled video analytics will reduce the number of false positives to a minimum – save time and resources from investigating false alerts.
- Monitor multiple hospitals and healthcare facilities from a central location. provide real time alerts to on-site security staff via mobile devices.





# Vaidio Analytics for Hospitals & Healthcare Facilities

**VAIBS**  
VIDEO AI ANALYTICS