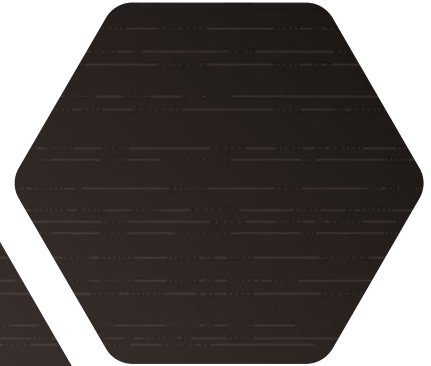


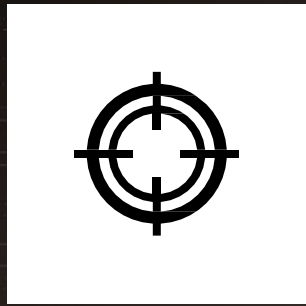
WORLD'S LEADING AI ENGINE BUILDERS

VAIDIO

AICUDA TECHNOLOGY & IRONYUN

ANALYTICS FOR A SAFER WORLD





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



FUEL STATIONS

AI-BASED ANALYTICS

	Detect/ count	Attribute/ classification		Identification
 People	Area total  Count within the field of view or within a specified area	Clothing 		Face recognition  Individual
	Line total  Entry/ exit count	Clothing color 8 colors: 		
 Vehicles	Area total  Count within the field of view or within a specified area	Model 4 models: 	Car make & model 200 makes and 2000 models: 	
	Line total  Entry/ exit count	車色 8 colors: 		
	Illegal parking detection  Detection of illegal parking in a car park section/ area	License plate recognition  100+ countries worldwide		

FUEL STATION LAYOUT



Checkout Counter

- Queue Detection
- Weapon Detection
- POS Integration



Shelf Area

- Advertising display VIP customers
- People Counting
- Heatmap



Unloading Area

- Smoke and Fire Detection
- Abandoned Object Detection
- Intrusion Detection
- Gas Leaking
- Person Fall
- Loitering



Refueling Area

- Smoke and Fire Detection
- Abandoned Object Detection
- Person Fall



Storage Room

- Access Control with Face Recognition
- Smoke and Fire Detection
- Intrusion Detection



Exit Area

- Intrusion Detection
- License Plate Recognition
- Abnormalities
- Vehicle Counting for traffic flow and statistical information



Entrance Area

- License Plate Recognition
- Whitelist for VIP customers, blacklist for shoplifters
- Vehicle Counting for traffic flow and statistical information



CHALLENGES FUEL STATIONS



OIL & GAS IS EXPLOSIVE AND FLAMMABLE WHICH CAN CAUSE CASUALTIES AND DAMAGE

POTENTIAL ARMED ROBBERIES AND VANDALISM ATTACKS

RISK THAT DRIVERS LEAVE WITHOUT PAYING, RESULTING IN DAMAGES FOR FUEL STATION OWNERS

NO VALID EVIDENCE TO RESOLVE REFUELING AND PURCHASE DISPUTES

REMOTE SUPERVISION OF STAFF AND SERVICE EVALUATION IS DIFFICULT DUE TO NUMEROUS, SCATTERED FUEL STATIONS

INDOOR AND OUTDOOR AREAS



OUTDOOR AREAS

- ENTRANCE & EXIT AREA
- UNLOADING AREA
- REFUELING AREA

INDOOR AREAS

- STORAGE ROOM
- SHELF AREA
- CHECKOUT COUNTER

ENTRANCE AND EXIT AREAS

Mobile phone and
seat belt detection



Make and model
detection



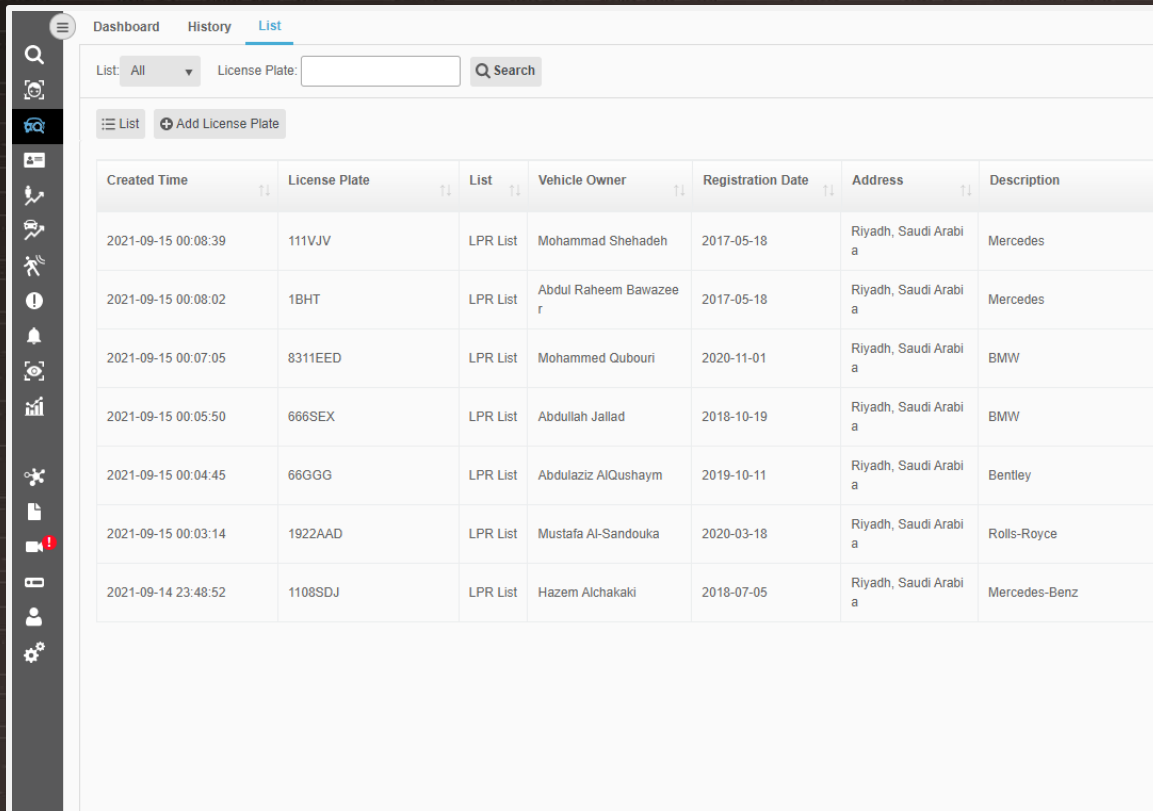
Vehicle license
plate recognition



Face recognition

Speed, car stop, slow moving
and traffic flow

ENTRANCE AND EXIT AREAS



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	Riyadh, Saudi Arabia	BMW
2021-09-15 00:04:45	66GGG	LPR List	Abdulaziz AlQushaym	2019-10-11	Riyadh, Saudi Arabia	Bentley
2021-09-15 00:03:14	1922AAD	LPR List	Mustafa Al-Sandouka	2020-03-18	Riyadh, Saudi Arabia	Rolls-Royce
2021-09-14 23:48:52	1108SDJ	LPR List	Hazem Alchakaki	2018-07-05	Riyadh, Saudi Arabia	Mercedes-Benz

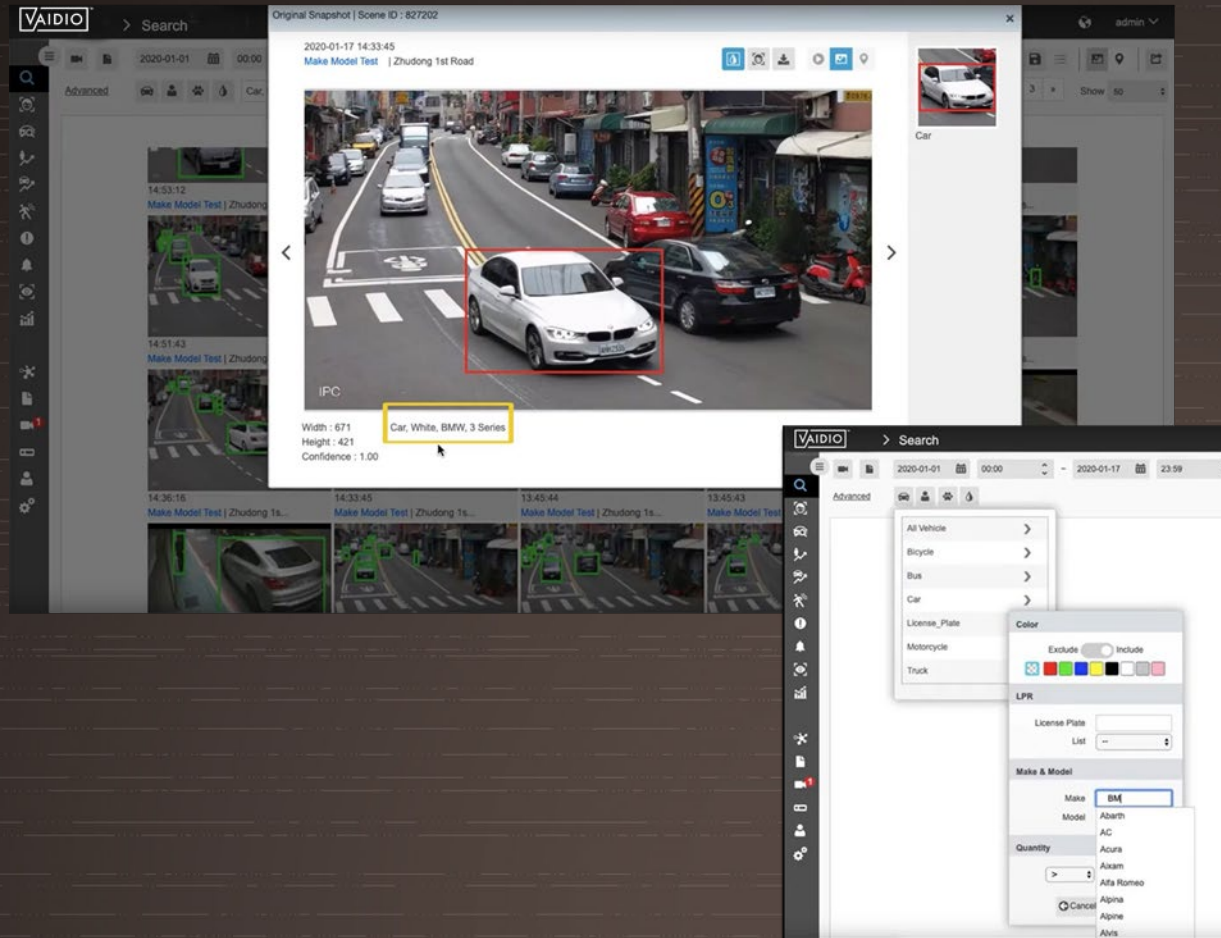
REGISTER VEHICLE LICENSE PLATES WITH VEHICLE OWNERS TO CREATE BLACK- AND WHITELISTS

APPLY LICENSE PLATE RECOGNITION WITH WHITELIST FOR VIP CUSTOMERS

APPLY LICENSE PLATE RECOGNITION WITH BLACKLIST FOR LEAVE WITHOUT PAYING CUSTOMERS AND SHOPLIFTERS

TRIGGER ALERTS FOR CARS THAT ARE ILLEGAL PARKED

ENTRANCE AND EXIT AREAS



SEARCH FOR A SPECIFIC VEHICLE MAKE AND MODEL THROUGH MULTIPLE CAMERAS AND UPLOADED VIDEO FOOTAGE

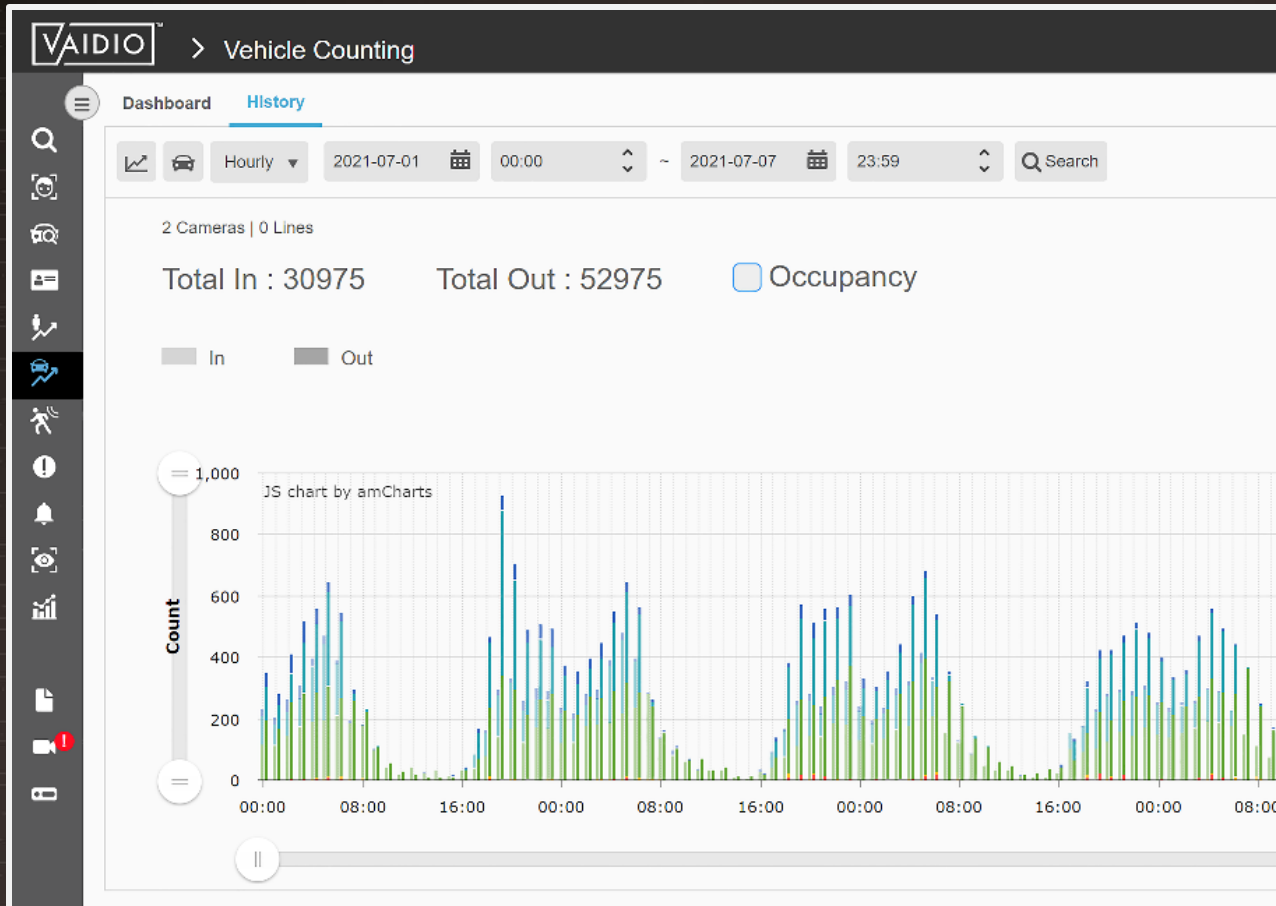
NARROW DOWN SEARCH RESULTS WHEN SEARCHING FOR A TARGET VEHICLE

TRACK VEHICLES IN REAL-TIME BASED ON COLOR, QUANTITY AND PARTIAL LICENSE PLATE NUMBER

IDENTIFY OVER 200 MAKES AND 2000 MODELS



ENTRANCE AND EXIT AREAS



VAIDIO VEHICLE COUNTING PROVIDES ACTIONABLE DATA TO ANALYZE TRAFFIC FLOWS AND OPTIMIZE DECISION MAKING AROUND FUEL STATION INFRASTRUCTURE TO SPUR GROWTH

DETERMINE FUEL STATION PEAK HOURS

CATEGORIZATION OF VEHICLES IN BICYCLE, BUS, CAR, MOTORCYCLE AND TRUCK

GENERATE REPORTS BASED ON TRAFFIC FLOWS AND CATEGORIZATION

UNLOADING AREA



MONITOR AND DETECT FIRE & SMOKE IN REAL-TIME AND TRIGGER AN ALERT WHEN FIRE OR SMOKE ENTERS THE CAMERA FIELD OF VIEW

MONITOR PEOPLE THAT REMAIN AT THE UNLOADING AREA FOR A PROTRACTED TIME WITHOUT AN APPARENT PURPOSE (LOITERING)

DRAW A ROI AROUND THE PERIMETER AND RECEIVE ALERTS WHEN PERSONS ENTER THE CAMERA FIELD OF VIEW

UNLOADING AREA



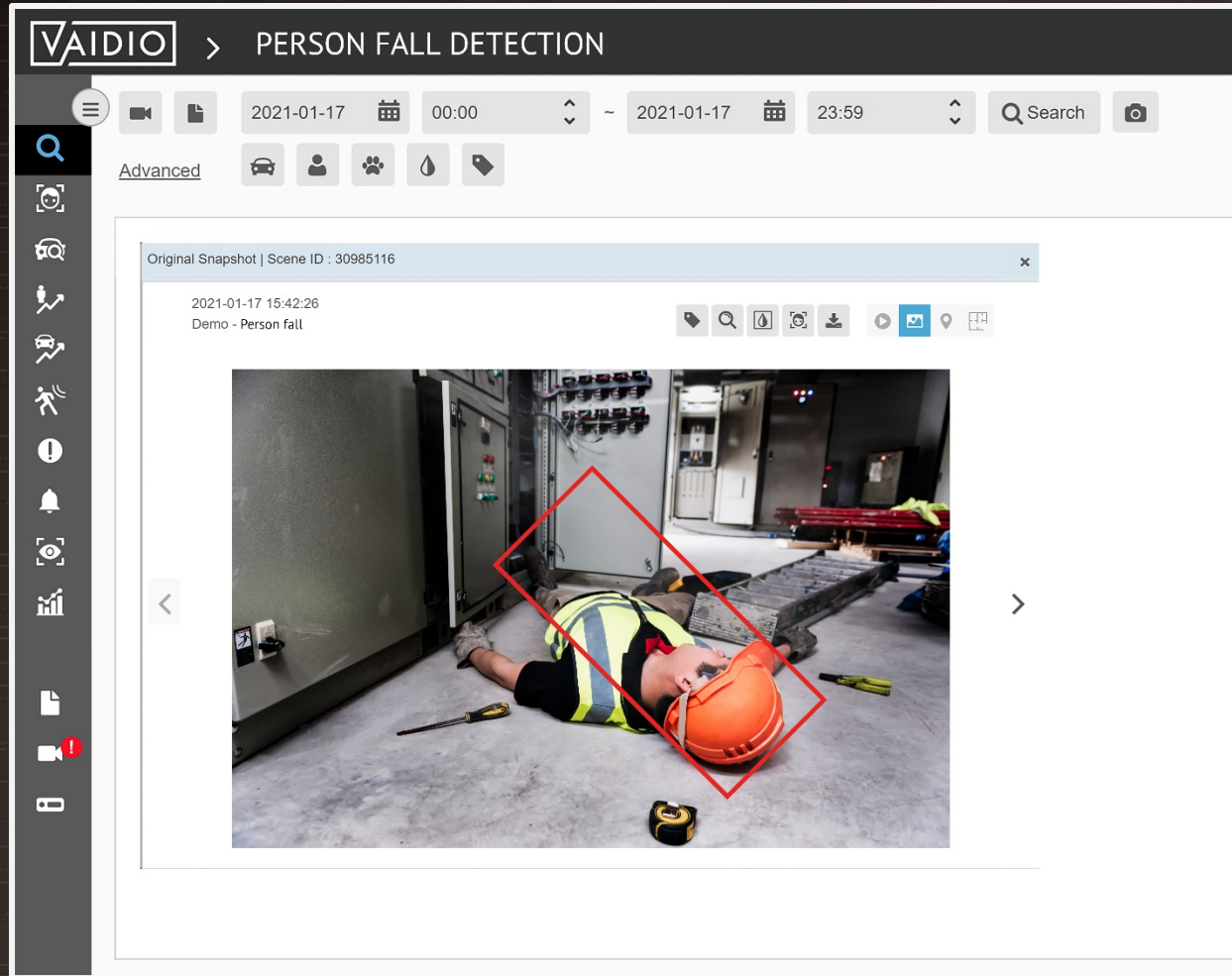
- ROI can be any irregular shape
- Supports multiple ROIs in the same frame
- Different alert rules can be applied for different ROIs
- Multiple ROIs can overlap one another in the same area
- Supports exclusive ROI to avoid false alerts by any existing obstruction
- Supports 3D detection: a person who appears in the ROI but is actually between the camera and the ROI will not trigger an alert

DRAW REGIONS OF INTEREST (ROI) WITHIN THE COVERED FUEL STATION AREA PERIMETER TO CREATE A VIRTUAL FENCE AND RECEIVE ALERTS WHEN PERSONS ENTER THE CAMERA FIELD OF VIEW

USE THERMAL DETECTION CAMERAS TO DETECT HUMAN ACTIVITY ON UNUSUAL PLACES WITHIN THE COVERED AREA PERIMETER AND TRIGGER REAL-TIME ALERTS TO GROUND SECURITY STAFF

VAIDIO INTRUSION DETECTION AUTOMATES THE MONITORING TASK OF HIGH-RISK SITES TO PROVIDE A HIGH LEVEL OF SECURITY

UNLOADING AREA

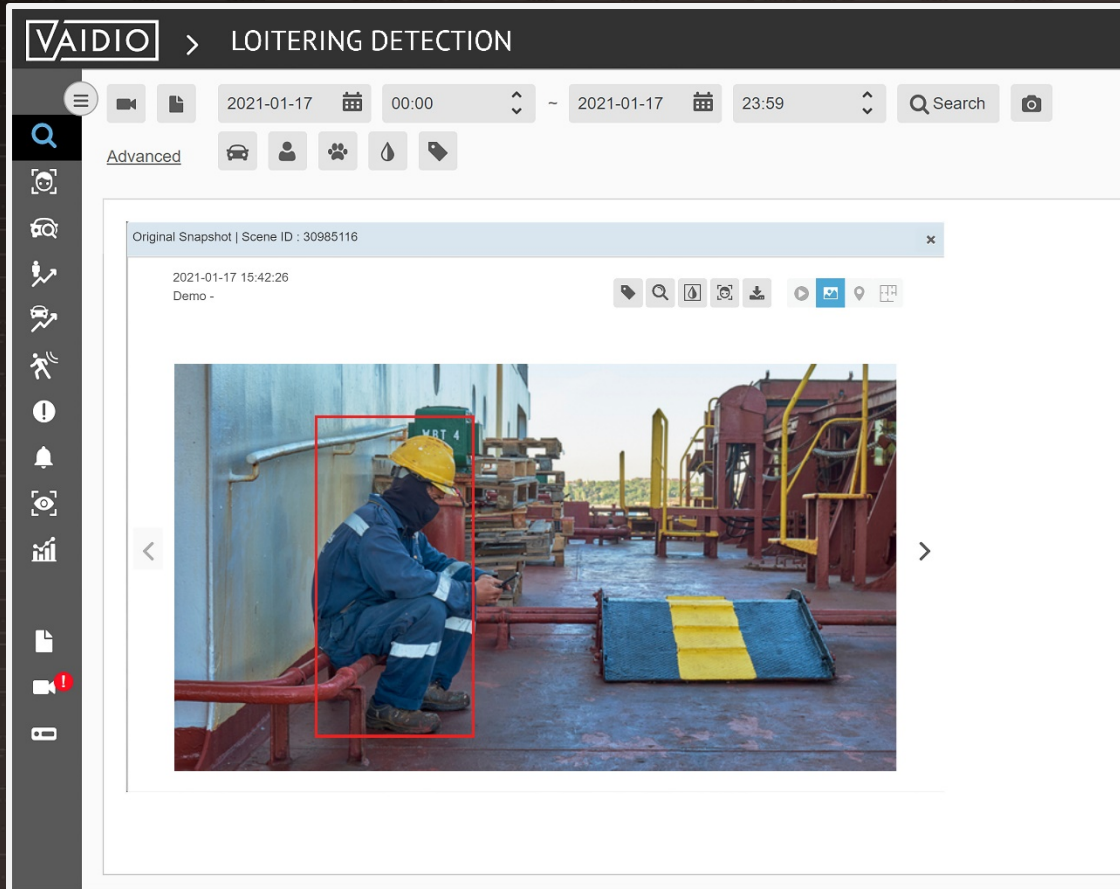


VAIDIO AI-ENABLED ANALYTICS DETECTS ABNORMAL MOVEMENT PATTERNS LIKE FALLING AND CROUCHING

TRIGGER REAL-TIME ALERTS WHEN FUEL STATION EMPLOYEES FALL OR CROUCH IN THE FIELD OF VIEW OF A CAMERA

ENABLE THE OPERATOR TO IMMEDIATELY FOLLOW UP AND WARN THE MEDICAL TEAM IF NECESSARY

UNLOADING AREA

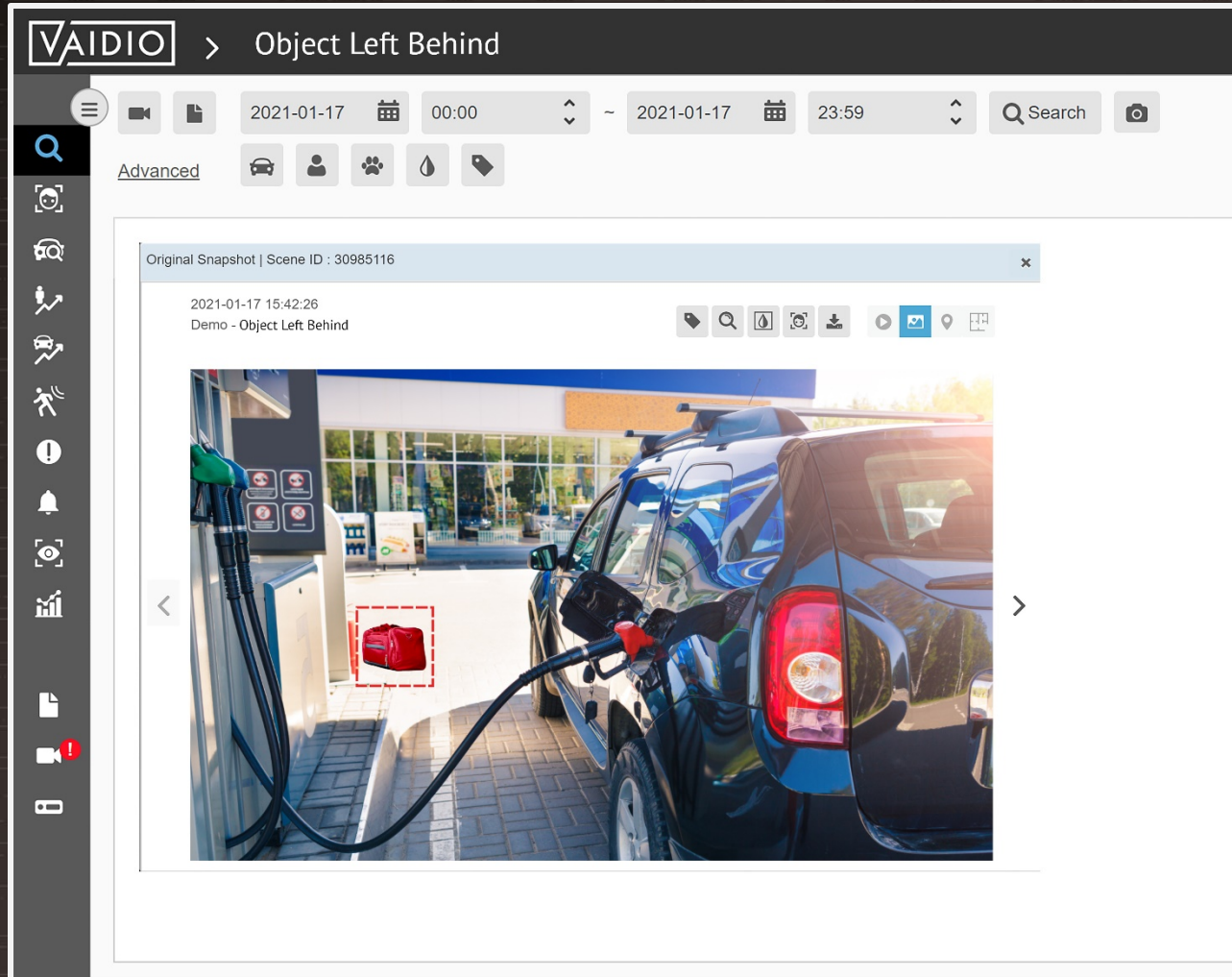


DETECT EMPLOYEES OR PERSONS WHO REMAIN IN THE UNLOADING AREA FOR A PROTRACTED TIME WITHOUT AN APPARENT PURPOSE (LOITERING)

LOITERING MOSTLY TAKES PLACE BEFORE AN EVENT HAS OCCURRED AND A PERPETRATOR IS NOT YET A PERPETRATOR BUT RATHER A SUSPICIOUS TARGET

STAFF OF THE FUEL STATION CAN TAKE PROACTIVE MEASURES TO PREVENT A CRIMINAL EVENT

REFUELING AREA



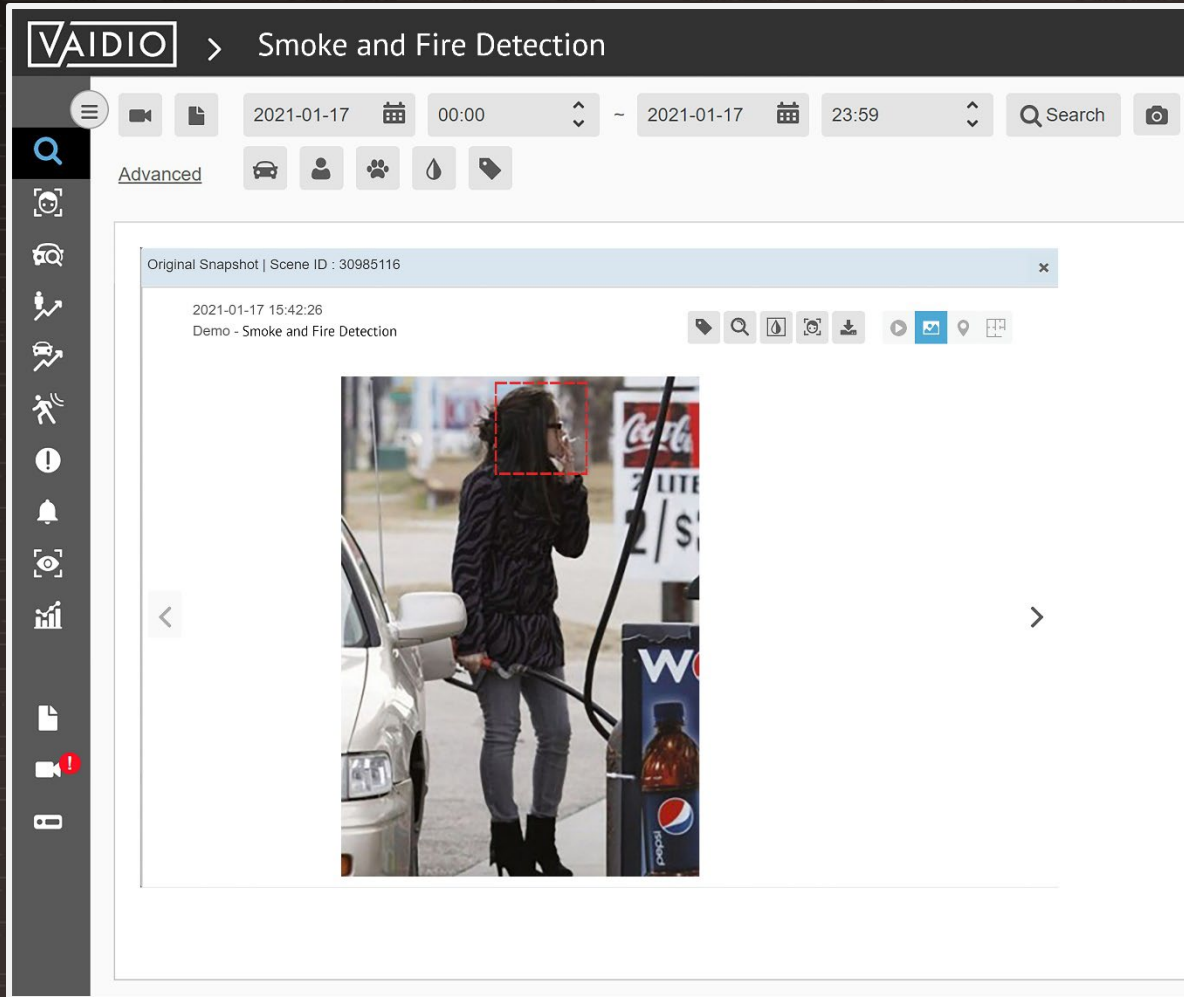
TRIGGER AN ALERT IF AN ABANDONED OBJECT REACH A CERTAIN (ABNORMAL) TIME THRESHOLD IN A SPECIFIED ZONE

IDENTIFY THE PERSON WHO LEFT THE OBJECT AT THE FUEL STATION AND TRY TO LOCATE THIS PERSON AS QUICKLY AS POSSIBLE

NOTIFY FUEL STATION STAFF TO TAKE THE PROPER ACTION

PREVENT POSSIBLE TERRORIST ATTACKS AND ELIMINATE THE THREAT TO LIFE AND HEALTH OF CUSTOMERS AND STAFF OF THE FUEL STATION

REFUELING AREA



MONITOR AND DETECT SMOKE & FIRE IN AND AROUND THE REFUELING AREA IN REAL TIME

TRIGGER AN ALERT WHEN SMOKE OR FIRE APPEARS IN THE CAMERA FIELD OF VIEW AND PREVENT DAMAGES TO PROPERTY AND ASSETS TO A MINIMUM

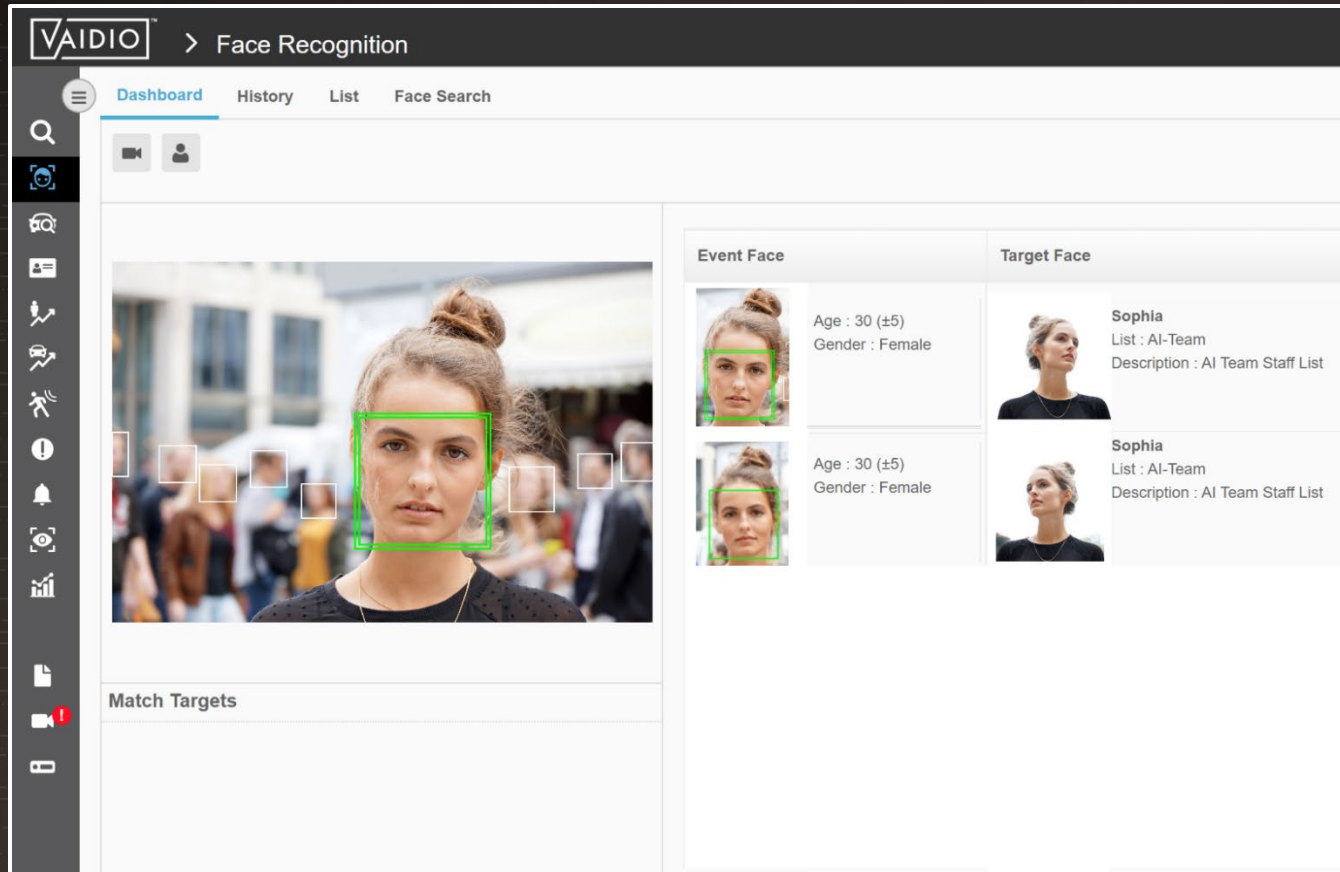
INVESTIGATE VIA VIDEO SEARCH AND PROVIDE VISUAL EVIDENCE FOR INSURANCE COMPANIES

INTEGRATE VAIDIO WITH THE FUEL STATION FIRE PROTECTION SYSTEM

VAIDIO IS ABLE TO SEND OUT ALERTS TO THE FIRE BRIGADE



STORAGE AREA



INTEGRATION OF VAIDIO AI-BASED FACE RECOGNITION IN ACCESS CONTROL AND HRM SYSTEMS TO UNLOCK THE STORAGE AREA IN REAL-TIME FOR AUTHORIZED STAFF ONLY AND PREVENT FRAUD

NO CONCERNS ABOUT BADGES THAT ARE LOST OR STOLEN AS BADGES ARE NO LONGER REQUIRED

TRACK TARGET PERSONS ON A MAP AND PERFORM CONTACT TRACING IN CASE OF ACCIDENT OR INCIDENT

SHELF AREA



VAIDIO EMOTION DETECTION TO GET INSIGHT IN WHAT IS PLEASING, INTERESTING OR ANNOYING SHOPPERS BASED ON THEIR EMOTIONAL REACTION

SEND SHOPPERS MESSAGES TRIGGERED BY THEIR EMOTIONS

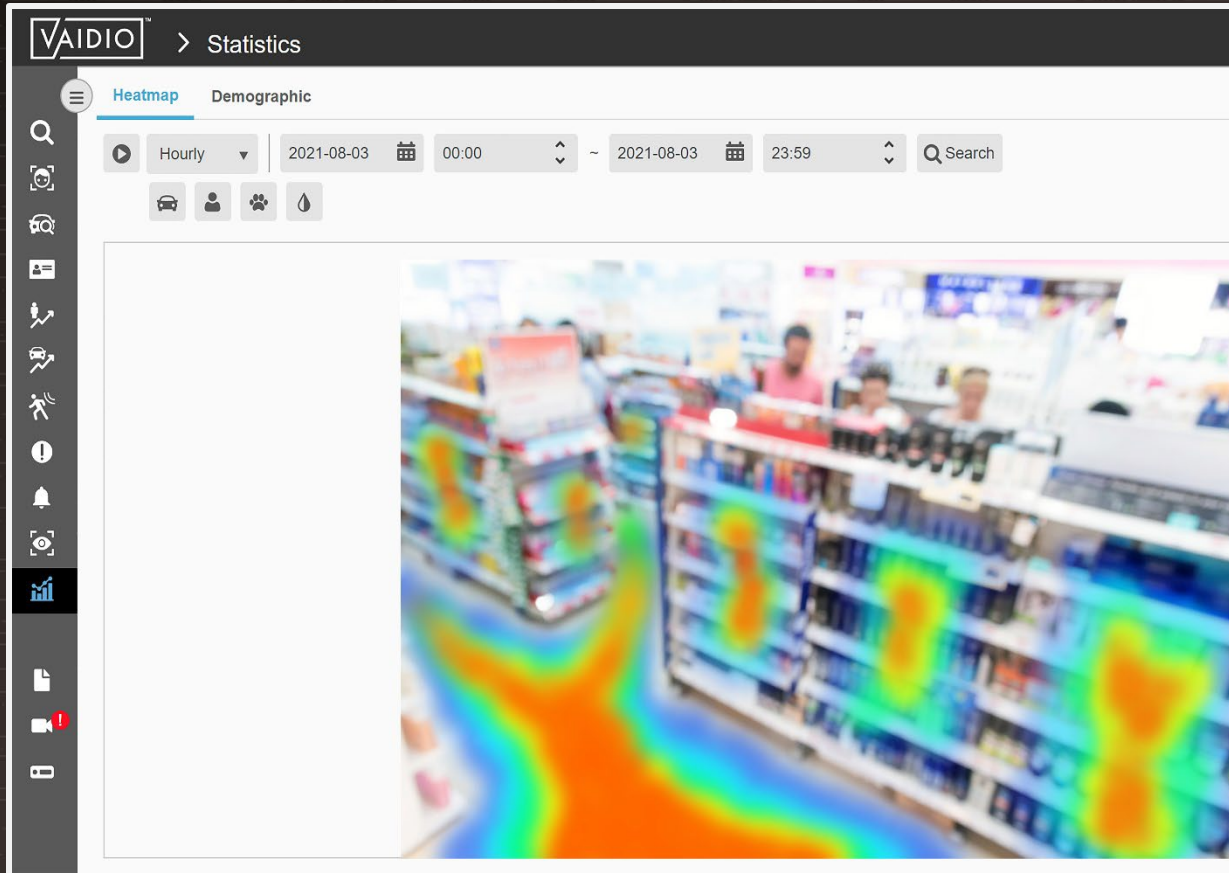
VAIDIO IN COMBINATION WITH DIGITAL SIGNAGE EMPOWERS FUEL STATION RETAILERS TO PROVIDE THE RIGHT MESSAGE AT THE RIGHT TIME TO THE RIGHT PERSON

MEASURE THE NUMBER OF SHOPPERS PASSING BY A DESIGNATED AREA

CAPTURE QUANTIFIED AND QUALITATIVE DATA ON SHOPPERS



SHELF AREA



OPTIMIZE MARKETING STRATEGY AND FUEL STATION RETAIL SECTION LAYOUT BASED ON HEATMAP INFORMATION

VISUALIZATION OF SHOPPERS MOVEMENT IN THE FUEL STATION'S RETAIL SECTION

TRACKING WHERE SHOPPERS SPEND TIME

ANALYZE IN WHICH PRODUCTS SHOPPERS ARE INTERESTED IN

CREATE ULTIMATE SHOPPERS EXPERIENCE

SHELF AREA

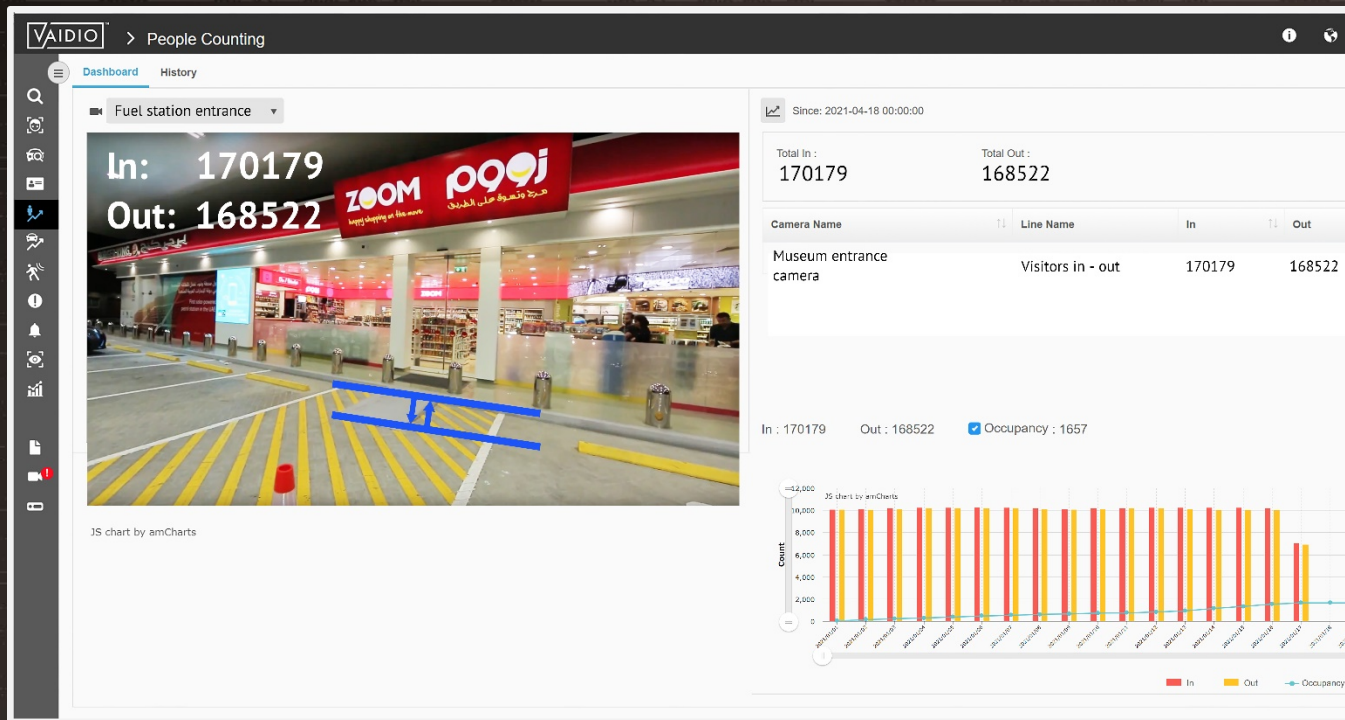
COUNT CUSTOMERS IN A PRE-DEFINED AREA IN REAL TIME TO PROVIDE QUANTITATIVE AND ACTIONABLE INSIGHTS FOR BUSINESS INTELLIGENCE AND DATA-DRIVEN DECISION MAKING

CALCULATE TOTAL TRAFFIC FLOWS AND ANALYZE STATISTICS IN A CERTAIN PERIOD OF TIME

RECOGNIZE RUSH HOURS

ADJUST HOURS OF OPERATION AND WORK SCHEDULES OF STAFF MEMBERS BASED ON TOTAL TRAFFIC FLOWS

GENERATE REPORTS AND ANALYZE CUSTOMER MOVEMENT



SHELF AREA



CHECKOUT COUNTER



MONITOR AND DETECT QUEUES AT THE CHECKOUT COUNTER IN REAL TIME AND REDUCE NEGATIVE IN-STORE EXPERIENCE TO A MINIMUM

TRIGGER AN ALERT WHEN QUEUES APPEARS IN THE CAMERA FIELD OF VIEW AND PREVENT QUEUES FROM HAPPENING

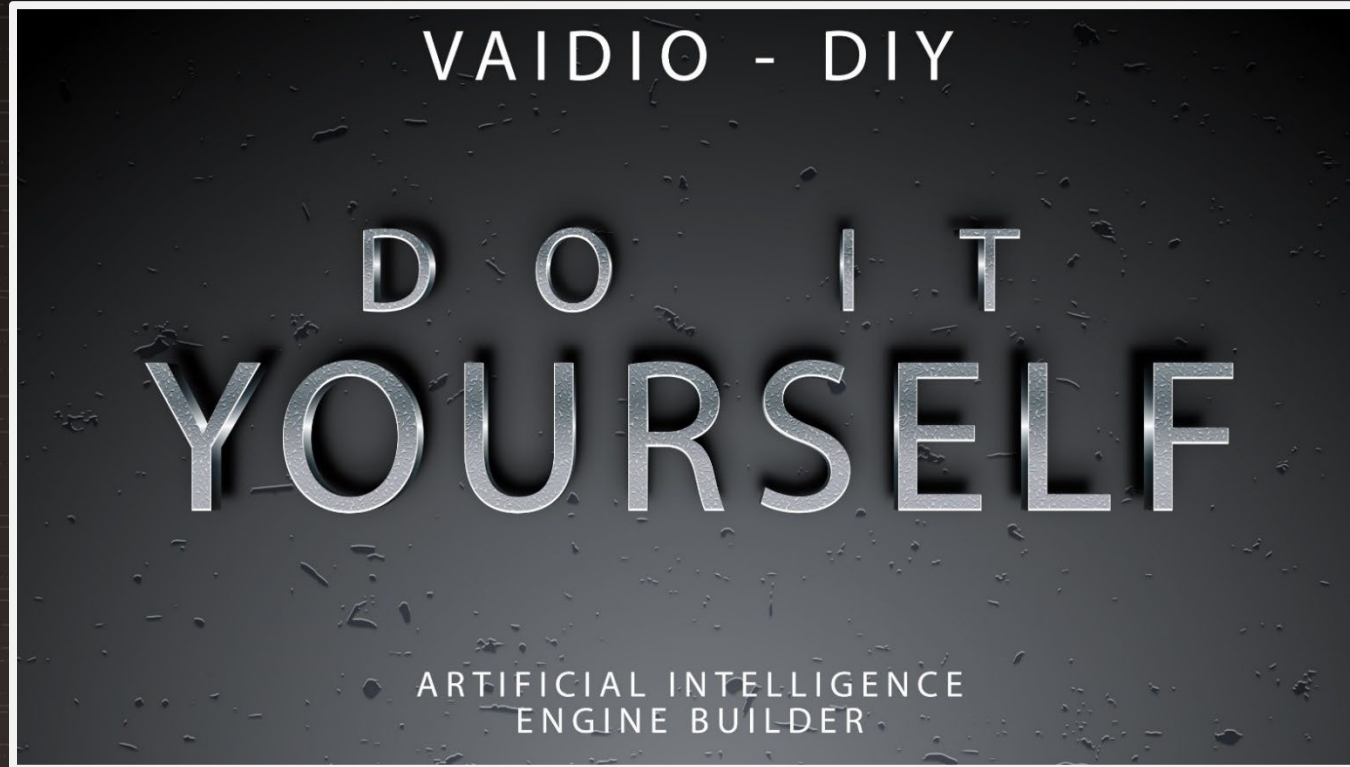
SECURE AN EFFICIENT RESOURCE POOL OF EMPLOYEES

INTEGRATE VAIDIO WITH HRM SYSTEMS TO ALIGN EMPLOYEE RESOURCES

VAIDIO IS ABLE TO SEND OUT ALERTS TO THE FUEL STATION RETAIL MANAGER OR OWNER



VAIDIO TOOL KIT



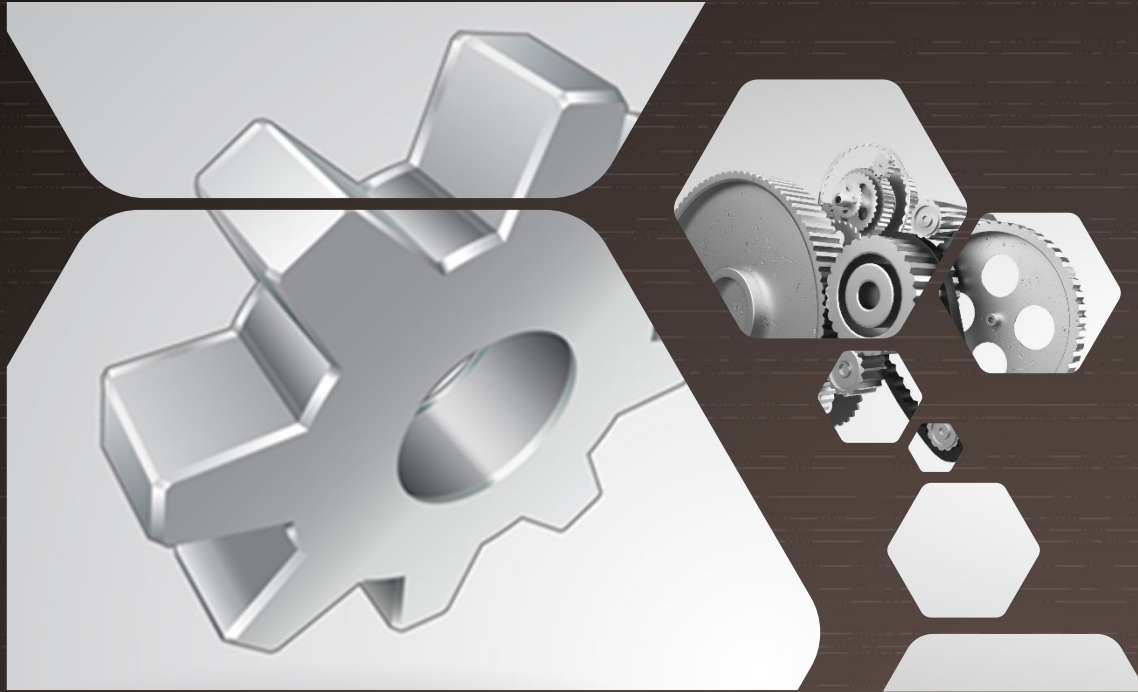
TRAIN YOUR OWN OBJECT
DETECTION MODEL

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 1



FUEL STATION

CHALLENGE

DETECT DRONE SIGHTINGS OVER
CRITICAL INFRASTRUCTURE FACILITIES

SOLUTION

TRAIN YOUR OWN DRONE DETECTION
MODEL WITH VAIDIO-DIY

BENEFITS

- ❖ PROTECT CRITICAL INFRASTRUCTURE FACILITIES
- ❖ PREVENT TERRORIST ATTACKS

USE CASE 2



FUEL STATION RETAIL STORE

CHALLENGE

DETECT FRUITS AND VEGETABLES WITH IMPERFECTIONS

SOLUTION

TRAIN YOUR OWN FRUITS AND VEGETABLES IMPERFECTION DETECTION MODEL WITH VAIDIO-DIY

BENEFITS

❖ GUARANTEE THE QUALITY OF THE FRUITS AND VEGETABLES FOR SHOPPERS



INTEGRATION CAPABILITIES



CAMERA INTEGRATION

CLOUD PLATFORM INTEGRATION

ERP INTEGRATION

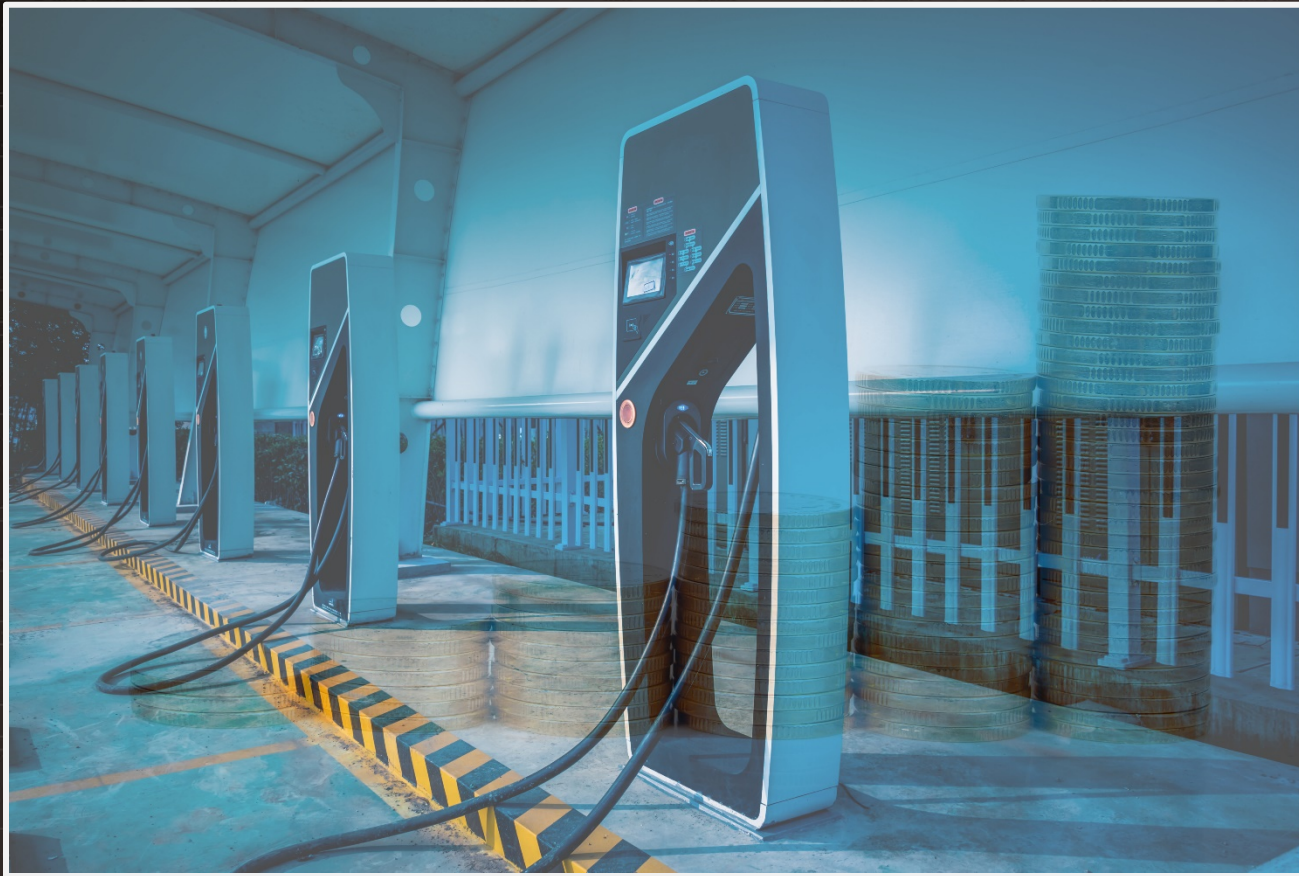


IO DEVICE INTEGRATION

SOFTWARE SERVICES

VMS INTEGRATION

FUEL STATIONS



VAIDIO BENEFITS & SAVINGS

VAIDIO AI-ENABLED VIDEO ANALYTICS HELP MAINTAIN THE SAFETY IN FUEL STATIONS AND GIVE EMPLOYEES PIECE OF MIND

VAIDIO AI-ENABLED VIDEO ANALYTICS PROVIDES ACTIONABLE DATA TO ANALYZE & OPTIMIZE DECISION MAKING AROUND THE FUEL STATION 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 FUEL STATIONS FROM A CENTRAL LOCATION. PROVIDE REAL-TIME ALERTS TO ON-SITE SECURITY STAFF VIA MOBILE DEVICES



 **AICUDA**
TECHNOLOGY

VAIDIO™





VAIDIO™ AI VISION PLATFORM

