

Prevent drive-offs with DPS



AVUTECH

computer vision
sensors & systems

ALL-IN-ONE SOLUTION

Fuel theft is a known problem for owners and managers of petrol stations. It not only causes a loss of revenue, it also leads to unsafe situations for both employees and customers. Once the drive-off is a fact, it is difficult to retain the money involved. Therefore it is better to prevent drive-offs. AVUTECH has developed a system based on license plate recognition, which drastically minimalizes fuel theft: DPS, Drive-off Prevention System.

DPS is a complete solution, that recognizes a license plate and matches it with a nationwide blacklist in seconds. When a match is found an alarm is generated to alert the cashier. The cashier blocks the pump and a drive-off is prevented.

DPS is an off-the-shelf product to prevent fuel theft at gas stations. The system is a combination of hardware and a subscription based service. The subscription provides the blacklist of the centralized drive off registry and gives access to a personalized management website. Updates for the software, and the ANPR engine are included keeping the system up to date.

Local server or standalone embedded ANPR camera

As most gas stations are equipped with IP cameras, the prevention of fuel theft can start immediately. Connect (existing) IP cameras to a DPS server and all is set to go. Besides a server solution, AVUTECH offers all-in-one ANPR camera systems, the X-Series, that run ANPR and DPS on board to protect individual pumps. With this solution no extra server is required.

DPS tablet at the counter

At petrol stations cars come and go. Often a cashier is too busy to pay full attention to each newly incoming car. The DPS tablet placed at the counter displays all vehicles visiting the station. It provides the cashier with an overview of the premises, without having to look outside. All visiting cars pop up on the screen with the information required to release a pump or not. It shows an image of the car, its recognized license plate and car data like make, model and color*.

- Know exactly which vehicles are at the pumps at any moment.
- Stop fuel theft immediately when the alarm goes off.
- Detect a false license plate by comparing car data (make, model and color) and the image of the car *
- Add a new drive-off to the black list in a few clicks. Next time this license plate visits again, the alarm will sound.

AUDIOVISUAL
ALARM
TRIGGERED BY
A BLACKLISTED
VEHICLE



*Car data is only available in countries with an accessible registry hosted by the government or by a certified institution for registration of vehicles.

PREVENTION IS THE BEST CURE



Local and centralized black list

There are notorious offenders, that will drive off without paying and wave while they drive off. And there are people, who will come back and pay later. To manage both types of drive-offs, DPS features a centralized and a local black lists of drive-offs. The centralized list is a cloud based drive-off registry filled with drive-offs of all connected petrol stations. License plates on this list are available for all connected petrol stations.

The local black list is kept at petrol station level to keep a license plate black listed until the fuel bill is paid. This license plate is only available for the individual gas station, that reported the drive-off.

Management website

A secure account provides access to the management website. Drive-offs, that are registered via the tablet, can be complemented with the loss amount and comments from the cashier or station manager. Non-registered license plate can be manually added. Multiple location can be managed from a single administrator account.

Two step authorization

In case a non registered vehicle commits fuel theft, it is easily added using the tablet. An image and the corresponding number plate are placed automatically on the local list of the petrol station and will generate an alarm the next time the license plate is recognized at the station it has been reported. To place a license plate on the centralized DPS registry, to alert all connected petrol stations, a two factor authorization is used. This drive-off license plate has to be authorized via the management website. Double checking a drive-off license plate will make sure the proper offender's vehicle to be registered and prevents undesirable situations at the checkout.



THE ANPR SPECIALIST

Highly accurate ANPR

At the base of the system is the AVUTECH ANPR engine. Built with both computer vision algorithms and deep learning, the AVUTECH engine uses the latest AI technologies to achieve its accurate and fast performance. From the very beginning, the AVUTECH license plate recognition engine is trained to read plates from difficult viewing angles, challenging contrasts and low resolution images. Country specific modules and the vanity plate add-on further increase its accuracy.

The company

AVUTECH is a Dutch manufacturer of computer vision sensor systems. At AVUTECH, hardware specialists work side by side with software engineers to develop products and solutions of the highest quality. AVUTECH's expertise and knowledge regarding ANPR and video analyses techniques results in innovative products, incorporating the latest technology in embedded video analysis. Together with international partners, AVUTECH strives to deliver first class ANPR and VCA products, that exceed project requirements, resulting in satisfied customers



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