



ENTRANCE/EXIT SYSTEM



COMMON CHALLENGES FOR ENTRANCE/EXIT

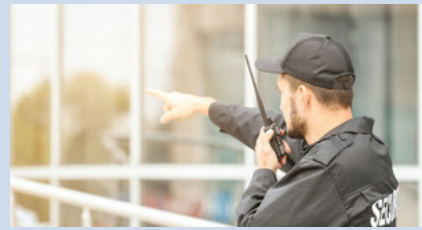
Low efficiency

Drivers have to stop car and open barrier manually



Labour cost waste

A guard needs to be on site once emergency occurs



Numerous components

Complex systems and difficult deployment



Lack of charge management



WHAT HIKVISION PROVIDES

Efficient



- ANPR-based Vehicle Management Solution
- Automated and efficient vehicle passing flow
- Non-stop solution

Lightweight



- Simpler system composition
- Easier deployment that saves training and labour costs
- Cost-effective solution for car park

All-in-one



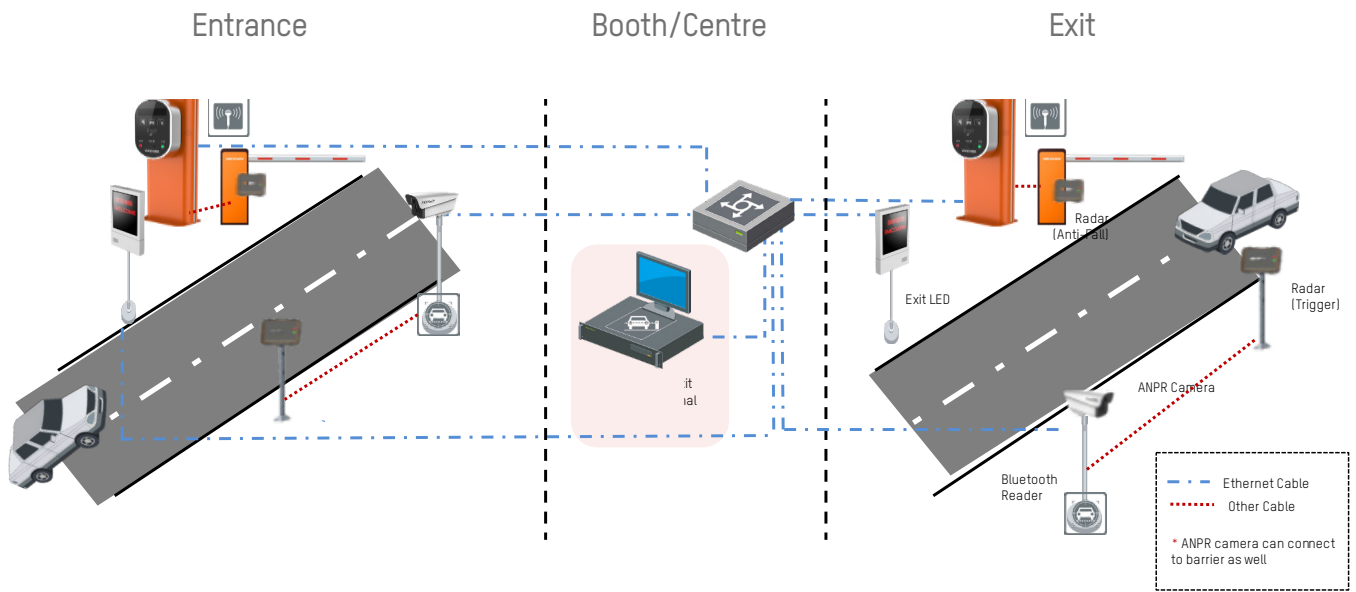
- The Control Terminal integrates workstation, PMS software, multiple interfaces and switch
- The ANPR Camera integrates camera, light, ANPR algorithm and license capture algorithm

Professional

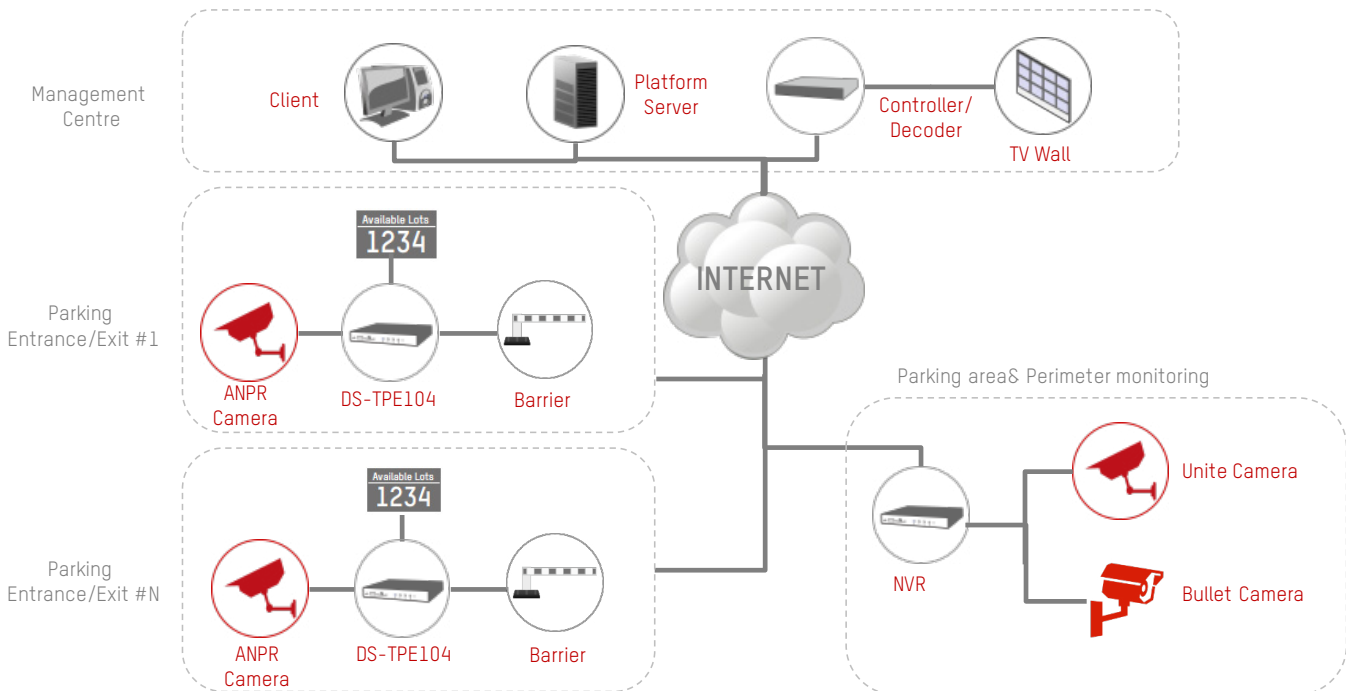


- Detailed entry and exit records and report management
- Rigorous charge management
- Effective and configurable authorisation management

ENTRANCE/EXIT SYSTEM OVERVIEW

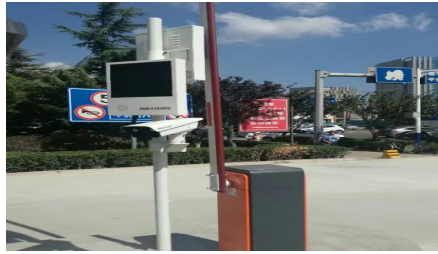


SYSTEM ARCHITECTURE OVERVIEW

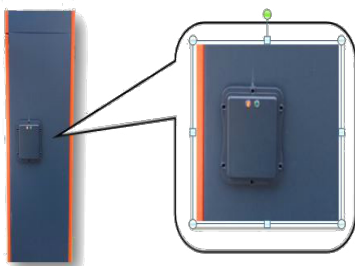
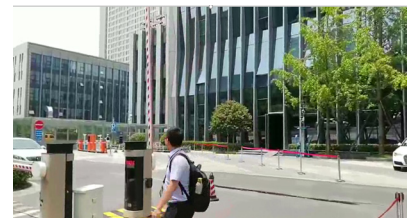
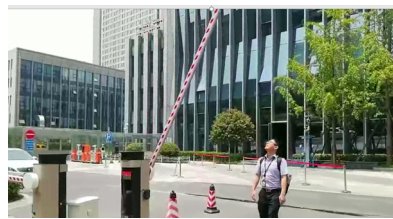
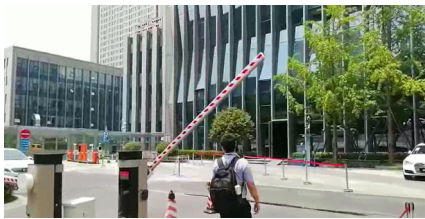


PARKING AREA SOLUTION APPLICATIONS

Entrance/Exit- High efficiency



- ANPR Cameras: with a Deep Learning algorithm, the camera detects moving cars with the assistance of video & radar. Cameras can also recognise VIP vehicles and automatically verify entry. The data (plate data/plate cut out, overview image and video) will be stored in the server for search later. The barrier will be automatically opened via alarm out if the plate number is already registered in whitelist. The panel will indicate the plate number, helping driver to acknowledge.
- Trigger Radar: this detects an approaching vehicle and triggers the ANPR and barrier equipment. No pavement removal is required for a sensing coil.
- LED display panel integration: By integrating an LED display panel at the entrance, all available parking resources and information to guide the visitor can be seen, reducing the effort to find a space.



Trigger Radar & Anti-Fall Radar

- Easier installation and maintenance – No pavement removal required for a sensing coil
- Extra safety – Both vehicles and pedestrians benefit from protection
- Robust design – Unaffected by environmental influences including light, dust, rain and snow
- Trigger Radar detects approaching vehicle and triggers ANPR and barrier
- Safety sensor ensures the barrier remains open when passageway is not clear.

MANAGEMENT CENTRE

Efficiency with high security



• Barrier control

The vehicle can be allowed to enter the car park automatically via a white list, and this leads to quick entry and exit with ANPR systems.



• Multiple parking fee rules

Designed for temporary vehicles, such as payment by total parking length, pay-per-parking, payment by day and night, etc.



• Data record & smart search

Supports license number plate & vehicle picture storage, and storage of clips showing the vehicle passing through. Supports search and view of the passing vehicle information.



• Visitor management

Supports Black/white list management, alarm notification (up to 5000 plate numbers). Supports special parking alarm, including overstay and list expiration check.

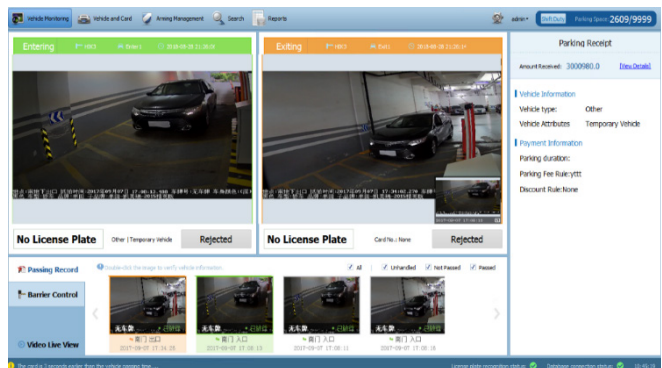


• Count of parking spaces available



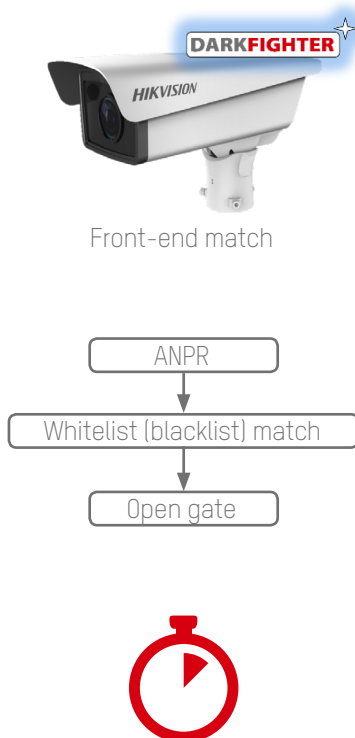
• Data analysis

Including vehicle traffic flow report, average parking time report etc.

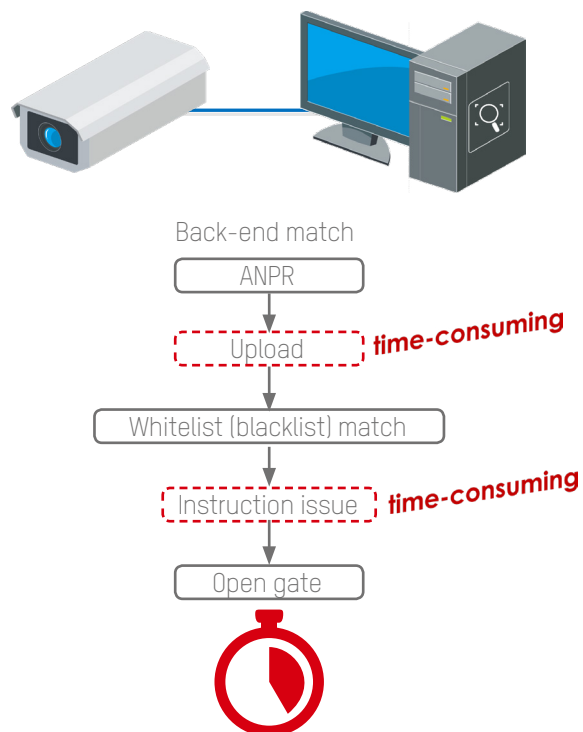


KEY TECHNOLOGY

Efficiency with high security

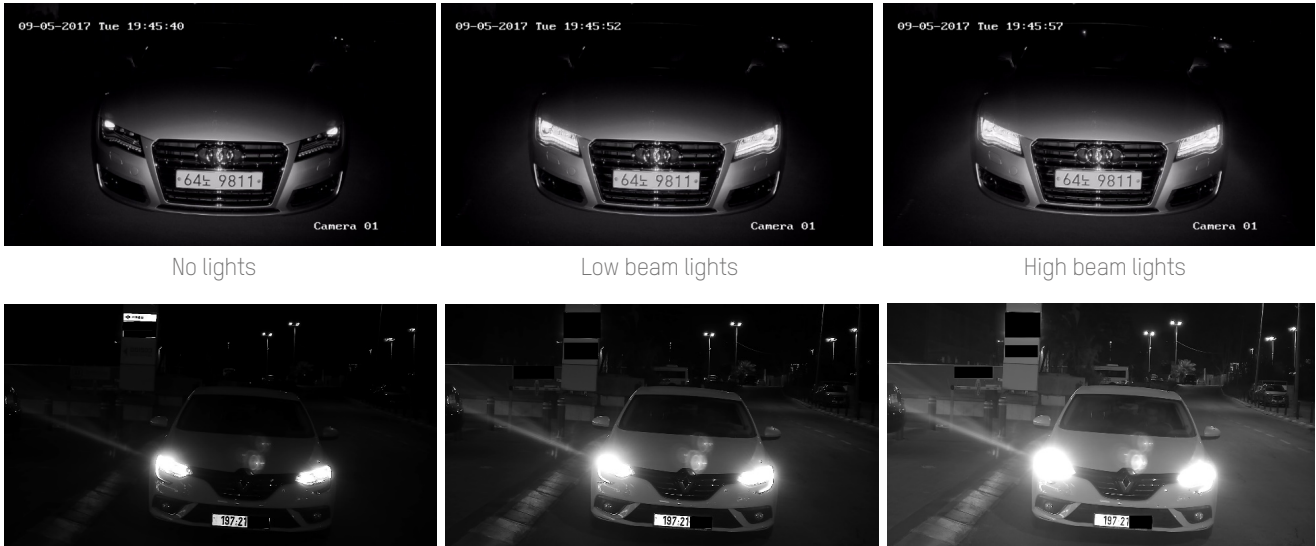


VS



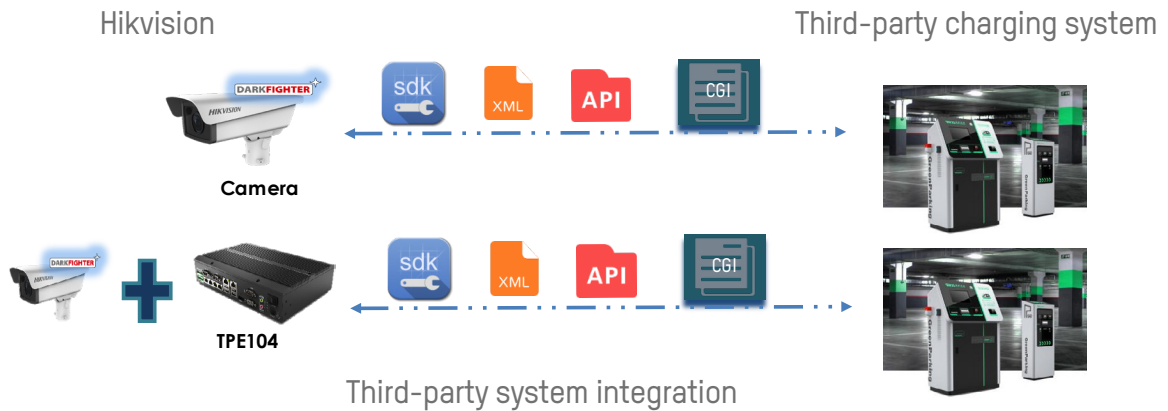
Anti-Glare

High night image quality in spite of high beam lights



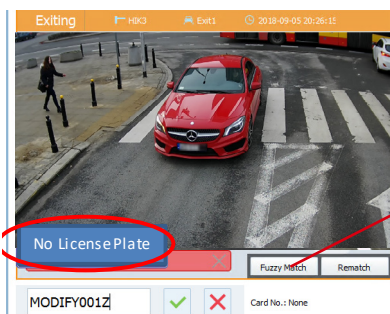
Open Protocol for integrated

Provide abundant data through different protocol of various product combinations

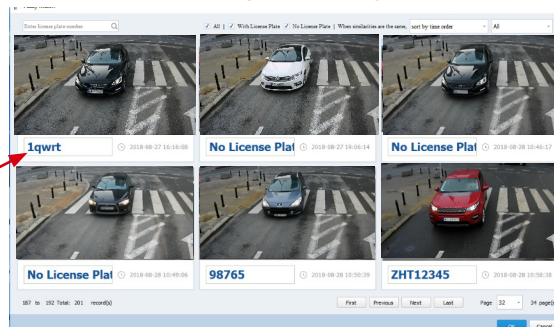


ANPR-Based solution - Exception handling

Modification of false license



Fuzzy Matching



For vehicles without matching entry record (unlicensed or falsely recognised), the operator at the exit can manually modify the false license and match the entry & exit records using a fuzzy matching function. If the entry record still cannot be found, the vehicle can pay, according to the circumstances.

Manual Charge Management -Flexible and configurable payment rules

• For temporary parking at tollbooth:

Parking Rates
No charge for first 30 minutes.

Parking Time	Rate
0.5 to 2 hours	5
2 to 4 hours	10
4 to 8 hours	15
Over 8 hours	20
Maximum per day	50

Overnight parking is surcharged by the rule. Double click the picture to configure rule.

Charge by parking time periods

Parking Rates
No charge for first 30 minutes.

Parking Time	Rate
08:00--21:00	4/hours
21:00--08:00	10/entry
Maximum per day	50

Overnight parking is surcharged by the rule. Double click the picture to configure rule.

Charge by parking time

Parking Rates

Vehicle Type	Rate
Small-sized vehicle	4/entry
Large-sized vehicle	8/entry

Double click the picture to configure rule.

Charge by parking sessions

• For parking pass:

Customers can pay for a annual pass, 6 monthly pass, 3 monthly pass, monthly pass or other custom periods.

• Personalised payment rule:

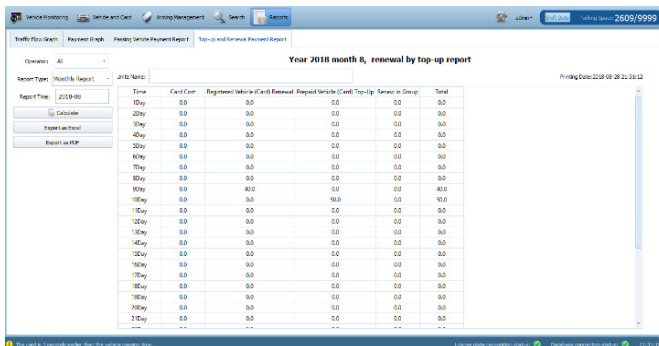
More payment rules can be personalised as the customers need.

• The system also supports discount management, card cost management, etc.

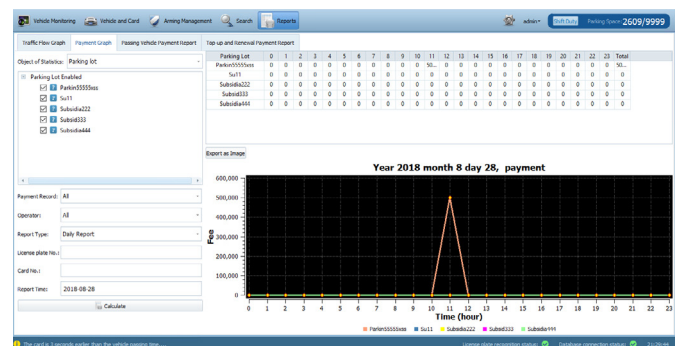
Parking Operation – Various logs & reports

[Passing Information Search](#)
[Passing Vehicle Payment Information Search](#)
[Search Vehicle in Parking Lot](#)
[Payment Information Search](#)
[Card Information Search](#)
[Duty Shift Search](#)
[Operation Record Search](#)
[Discount Search](#)

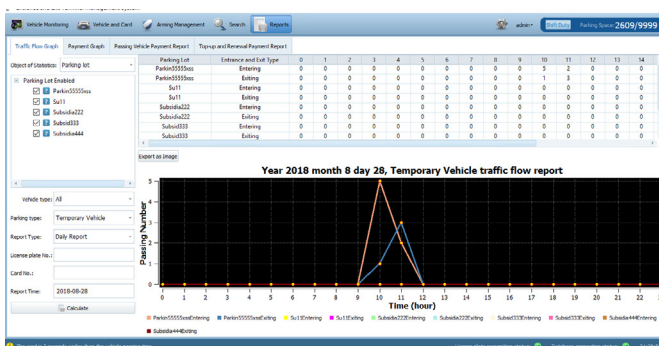
Various system records and reports can be provided, like passing record, passing vehicle payment record, duty shift record, operation record, discount record for real-time status trace or the operation analysis. The terminal supports storage of more than 800,000 passing records.



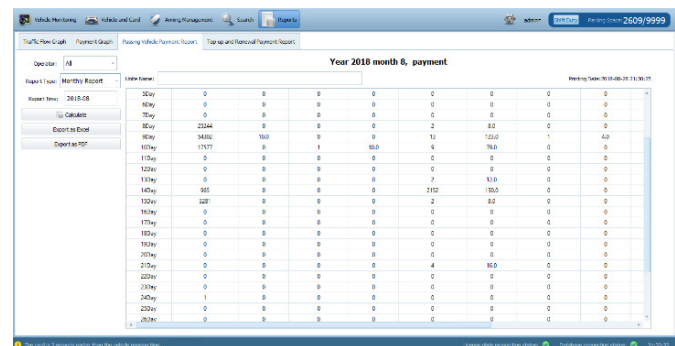
Top-up and Renewal Payment Report



Payment Graph



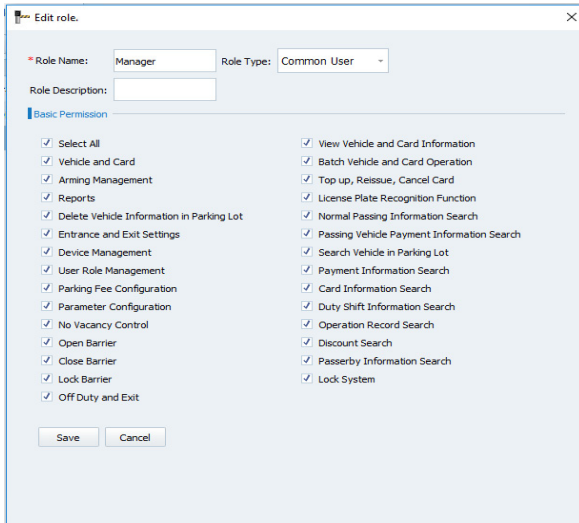
Traffic Flow Graph



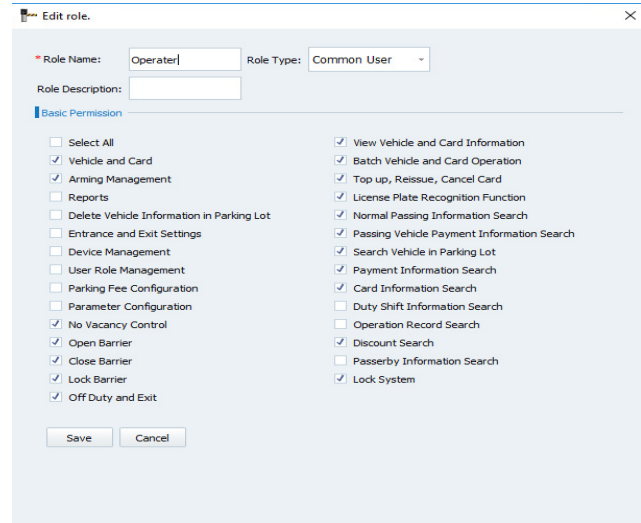
Passing Vehicle Payment Report

Parking operation – Fine and Configurable Authorisation Management

Supports different role authorities - one for high-efficiency management and internal fraud prevention and another, typical authorisation setting, for administrators and tollbooth operators, as below:



Administrator



Tollbooth Operator

SOLUTION VALUE

Efficient

- ANPR-based Vehicle Management Solution
- Automated and efficient vehicle passing flow
- Non-stop solution

Lightweight

- Simpler system composition
- Easier deployment that saves training and labour costs
- Cost-effective solution for car park

Flexible

- Flexible Entrance/Exit control method, including ANPR, Card/Ticket, and Bluetooth.

All-in-one

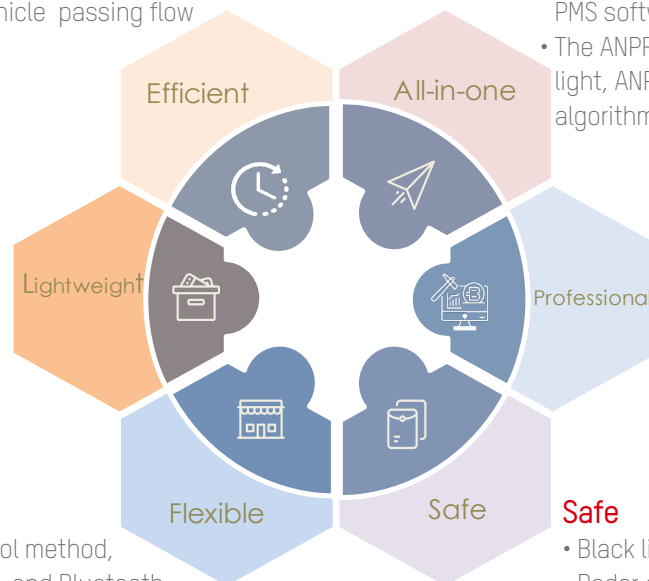
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Professional

- Detailed entry and exit records and report management
- Rigorous charge management
- Fine and configurable authorisation management

Safe

- Black list alarm
- Radar can protect the vehicle and personal from barrier falling



PRODUCT INTRODUCTION



DS-TCG227
ANPR Unit

- 2 MP, CMOS, 1920 x 1080, built-in LPR algorithm
- Integrated camera, housing, lens, power adaptor, supplement Lights
- Motorised lens
- Software one-key focus, easy debugging
- Built in whitelist, LPR identification support, barrier / gate control , audio output.



DS-TVL224-4-5Y
E&E Outdoor LED Display

- Four lines of text, LED outdoor Display
- Integrates with speaker
- LED Brightness: 1,200 cd
- Colours: Red, yellow, green
- Pixel Resolution: 64 x 64
- Dot Pitch: P4.75
- Dimensions: 364 x 484 x 60mm



DS-TPE104(2T)
Control Terminal

- 4 Channels of lane access
- 4 x 10/100 Mbps Ethernet ports, 2 x 1000 Mbps Ethernet ports, dual NICs
- 2 x RS485 ports, 3 x RS232 ports
- 4 x Relay ports support barrier / gate control
- 1 x audio output
- 2TB HDD included.



DS-TME401/402-TL-S
Entrance / Exit Controller

- Entrance, HDD not included
- Supports chat, no card output, support LED audio remind,
- Supports charging and accepting car when system offline.



TMG40X-XX
Barrier Gate

- Barrier type: high speed
- Lift-up speed: 1.6-2s
- Arm form: 3m, straight-arm
- Colour: red
- Arm moving direction: rightward
- Input power supply: 220V 50Hz
- Anti-failing.



DS-TMG033
Capture Trigger

- 2.4GHZ MMIC
- maximum trigger distance : 6m
- Beam width : Vertical 34°, Horizontal 12°
- Adjustable Detection Range
- Distinguish the vehicle from pedestrian and only capture vehicle.



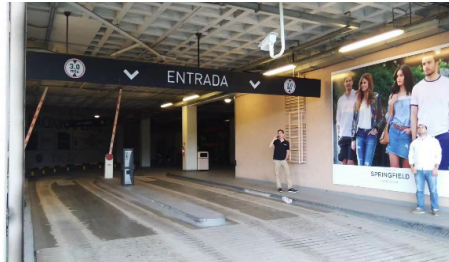
DS-TMG033
Anti-fall

- 2.4GHZ MMIC
- maximum trigger distance : 6m
- Beam width : Vertical 12°, Horizontal 34°
- Adjustable Detection Range
- Avoid fall accidents of both vehicles and pedestrians.

SUCCESS STORIES

The Parking Guidance Solution, Zabrze, Poland

HIKVISION's access control system provides the efficiency of access using video recognition to provide non-stop entrance & exit, replace manual entrance control with ANPR technique, automatic control enhances the efficiency.



03-07-2018 Wed 17:22:16

Camera 01

Main Stream Sub-Stream Third Stream Manual Capture Record

Second-L Armed

ID	Capture Time	Plate Color	Plate Number	Picture Position
180	20180307172211195			C:\Users\Administrator\ITCP Web\ScenePics\normalType\20180307\
179	20180307172211195			C:\Users\Administrator\ITCP Web\ScenePics\normalType\20180307\20180307172211195.jpg
178	20180307172000394			C:\Users\Administrator\ITCP Web\ScenePics\normalType\20180307\
177	20180307172000394			C:\Users\Administrator\ITCP Web\ScenePics\normalType\20180307\20180307172000394.jpg
176	20180307171922354			C:\Users\Administrator\ITCP Web\ScenePics\normalType\20180307\

EX 657NH EX657NH Measure Plate Open Folder

Supplement Light Image Entrance/Exit

F1

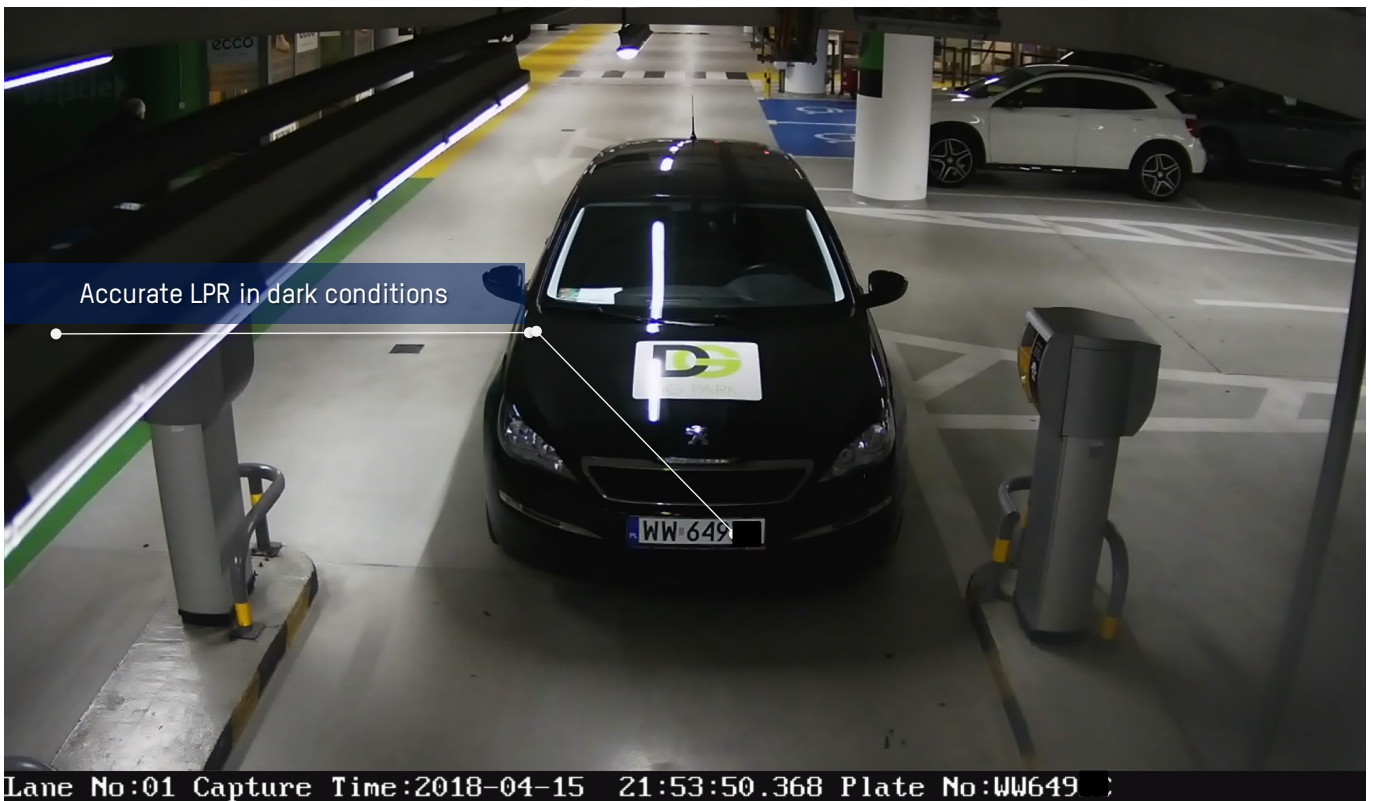
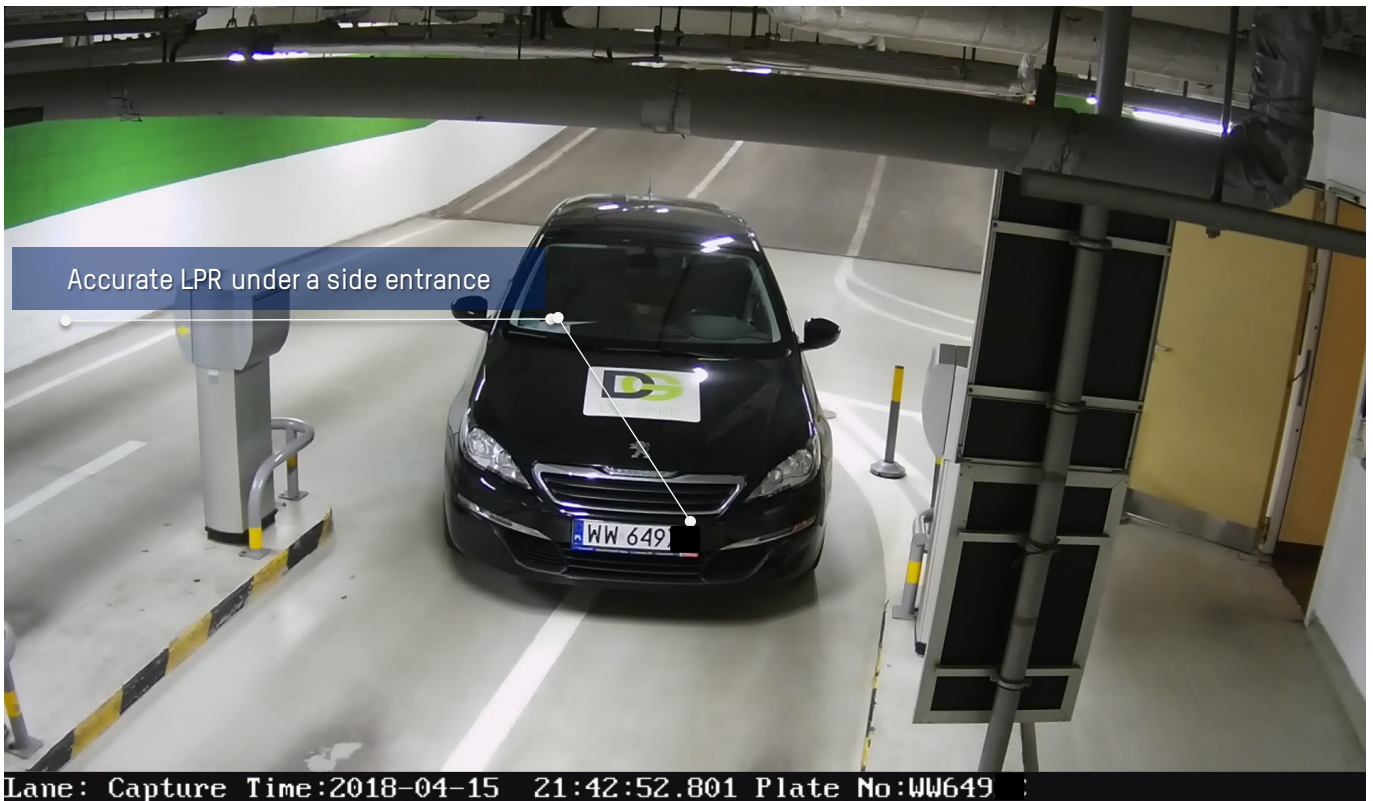
Control Constant Light According to Brightness Condition

Control Constant Light According to Time Schedule

Start Time 17:00

End Time 08:00

Save



URBAN INTELLIGENCE TRAFFIC SYSTEM



CDG Computer Peripheral
and Supplies Ltd.

244 Soi Pattanakarn 53, Pattanakarn, Suanluang, Bangkok 10250 Thailand
Tel : (66) 0-2322-9535, 0-2722-4040 Fax : (66) 0-2322-7990
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