

The Fifth Generation Of AI Smart Parking Solution

Diamond Label SI Provider



The AI Smart Parking Solution's scope of application includes:



Indoor Parking Lots
(Enterprise, Community,
Campus, Commercial)



Outdoor Parking Lots
(Enterprise, Campus,
Commercial)



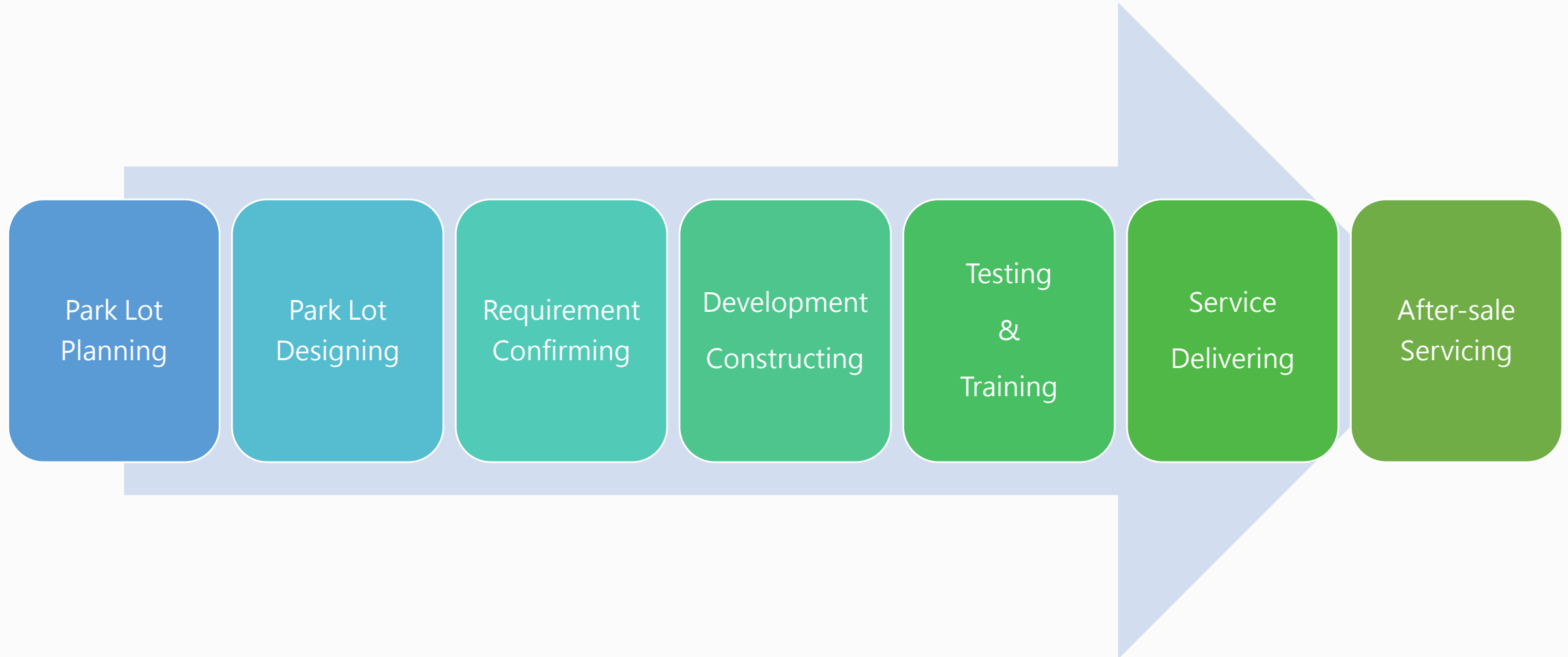
Parking Buildings
(Government Agencies,
Enterprises, College Campuses)

The advantages of cooperating with us using the AI Smart Parking solution:

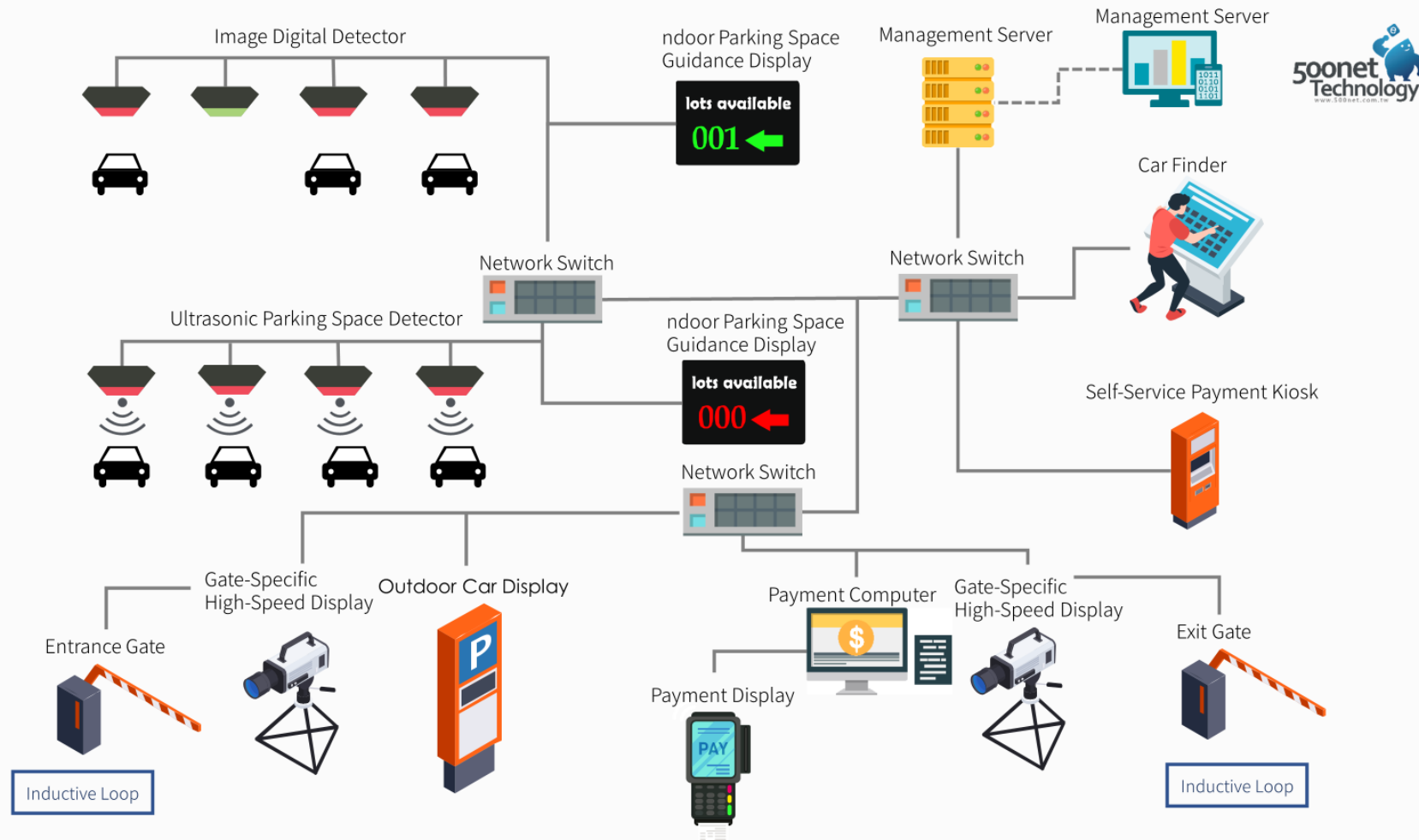
1. The product surpasses industry standards (5-year warranty TSMC standard)
2. Unmanned AI management system (path guidance, automatic recovery, cloud maintenance, technological enforcement, smart car searching, privacy masking)
3. Integrated cloud energy platform OCPP2.01+ energy consumption management



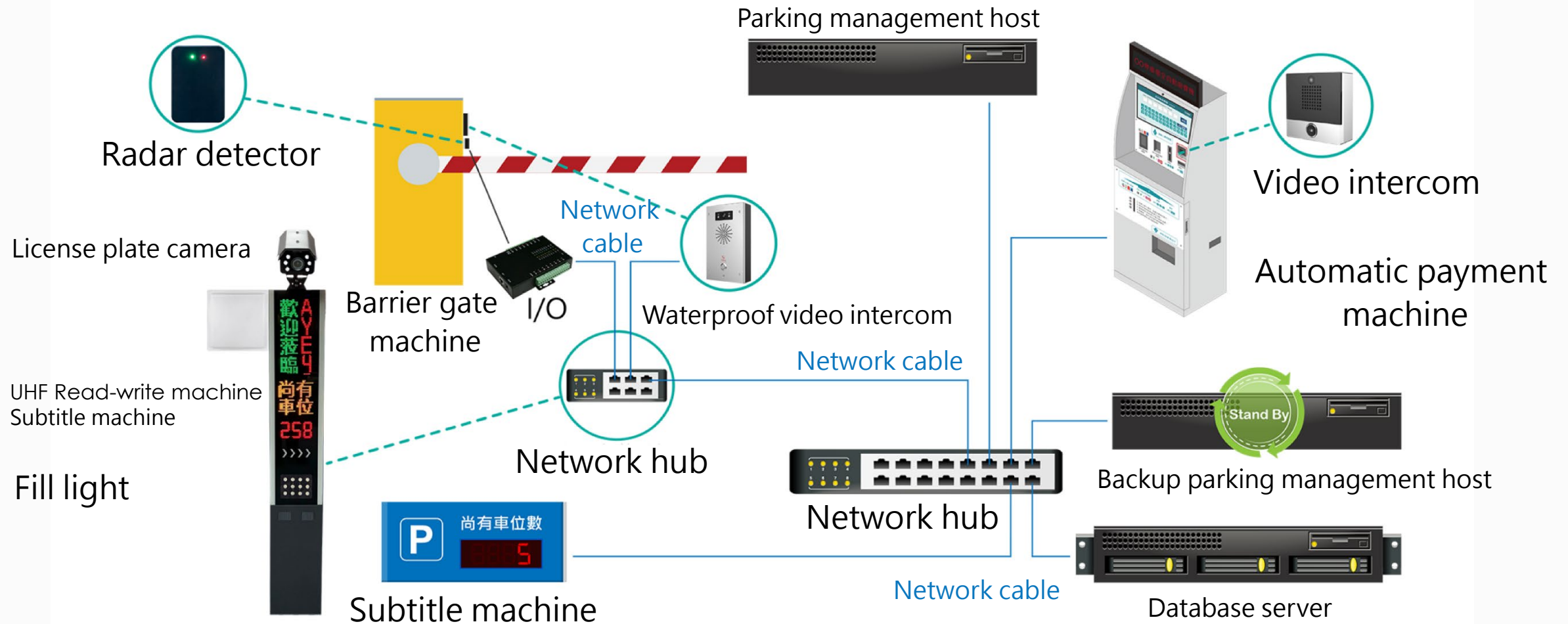
AI Smart Parking Solution - One-Stop Service



The architecture of the AI Smart Parking Solution includes:



The deployment architecture of the AI Smart Parking Solution includes:

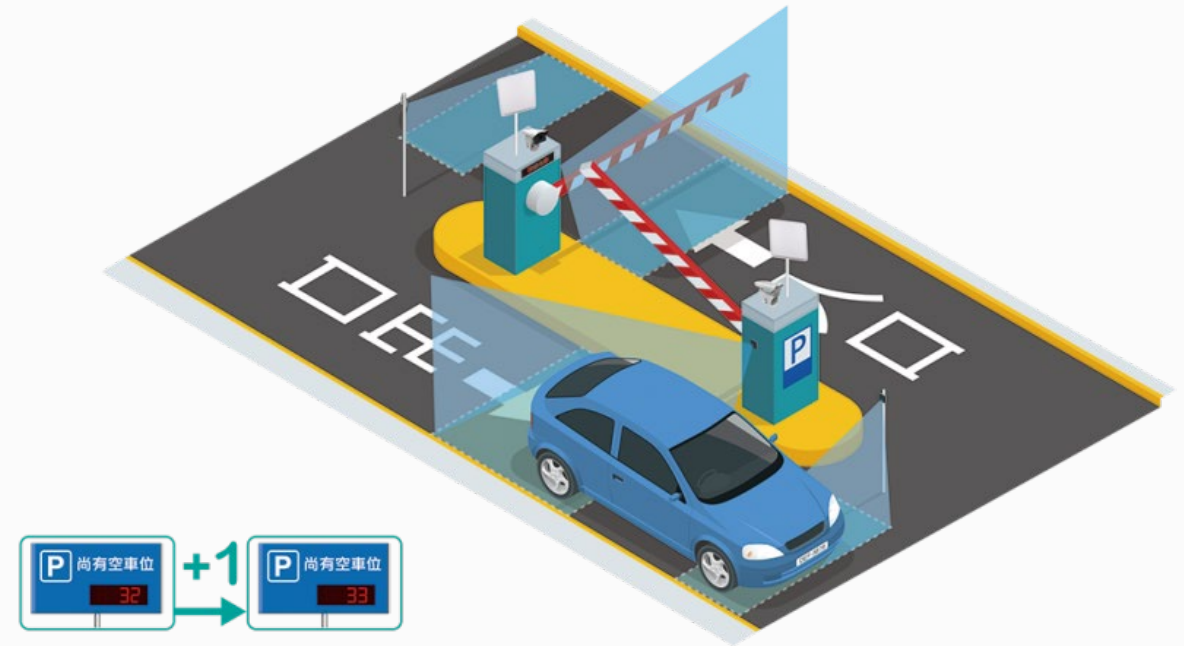


The product features of the AI Smart Parking Solution include:

1. Entrance and exit license plate recognition (vehicle information recording, license plate correction, whitelist management, blacklist management).
2. Management of occupied parking spaces (area management: electric, parent-child, disabled, heavy machinery, etc.).
3. LED area guidance indicator system.
4. Smart parking management system.
5. Parking lot technology enforcement system.
6. Parking lot security monitoring system.
7. Parking lot energy saving and environmental control system.
8. Smart touch screen car finding system (with image preview).
9. Fully automatic multi-payment system payment machine (including online payment system, temporary parking, monthly parking, long-term parking permit).
10. Parking central control system (authorization management, zone management, alarm handling, remote assistance).
11. Report management (data query, statistical reports).
12. Mobile app.

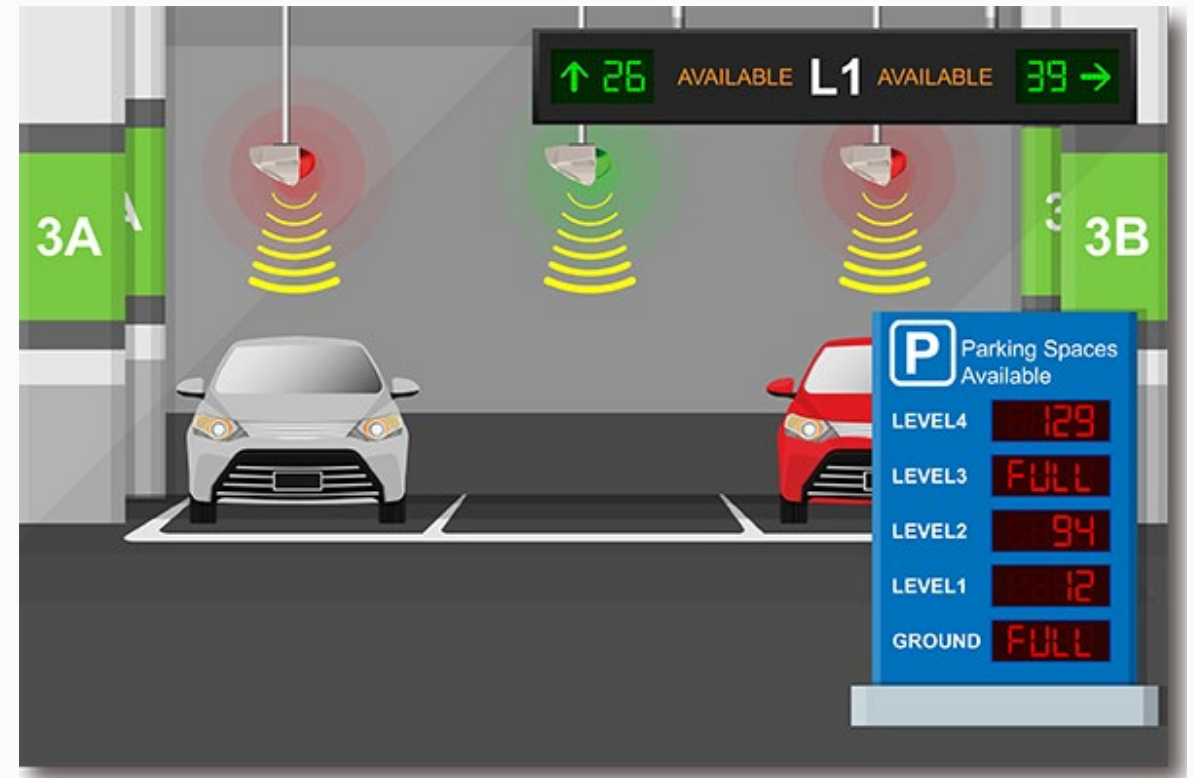
AI Smart Parking Solution: Entrance and Exit License Plate Recognition

1. Regardless of whether it's a community parking lot, campus parking lot, enterprise parking lot, or commercial parking lot, license plate recognition can be used for access management.
2. Vehicles registered with a parking permit will be added to the whitelist. When the system recognizes an approved vehicle (car, motorcycle), it automatically activates the barrier for entry.
3. For temporary parking (temporary entry), the system starts recording the entry time when the vehicle enters. If the vehicle exits after the free exit time, it must pay the corresponding parking fee.



AI Smart Parking Solution: Occupied Parking Space Management

1. With our ultrasonic occupancy detection system, vehicles owners simply can monitor the status of parking space anytime upon entry.
2. After entry, the LED signs will guide vehicles owners to the available parking spaces through the shortest route.
3. Parking spaces can be categorized into different colors. For example, "green" is referred to standard parking space, whereas "blue" is for the disabled, pink means the parent-child space, and white is for electric vehicles.



AI Smart Parking Solution: LED Area Guidance Indicator System

1. From the moment of entry, the system records the vehicle's entry and exit, and combines it with the current number of available parking spaces for comprehensive management
2. Upon entry, drivers can grasp the basic parking space conditions of each floor and area.
3. After entry, drivers can check the current parking space status of each area at major intersections and floor entrances, making it easier to find parking spaces



AI Smart Parking Solution: Intelligent Parking Management System

1. According to the customer's attributes, different versions of the parking management system are planned (enterprise, campus, community, commercial, etc.).
2. Customers can implement our existing standard systems according to their actual needs.
3. Custom development is also available based on the customer's specific requirements.
4. The system adopts a Responsive Web Design (RWD) mode, allowing synchronization of management between mobile phones and computers.



AI Smart Parking Management System: Vehicle Entry and Exit Records

Vehicle entry and exit records

時間(起) :

2024/03/01 上午 12:00



時間(迄)

2024/04/01 上午 12:00



篩選

匯出

搜尋車號註記 :

車號	時間	進出場	來源	單據ID	車牌	註記
BTV2905	2024/3/26 下午 03:13:16	離場(正門)	車證	120209	BTV2905	林正嵐(教職員工)-汽車
BFQ6178	2024/3/26 下午 03:13:04	離場(正門)	車證	120094	BFQ6178	王豐家(教職員工)-汽車
EAL1725	2024/3/26 下午 03:12:53	離場(正門)	白名單	12565	EAL1725	淡客-淡水站車號
ARF7937	2024/3/26 下午 03:12:28	進場	車證	120895	ARF7937	張韶祁(社團指導老師)-汽車
BKH6730	2024/3/26 下午 03:12:14	離場(正門)	臨時停車	0	BKH6730	30分內開放通行
BQP5331	2024/3/26 下午 03:11:59	離場(正門)	車證	120291	BQP5331	曾郁景(教職員工)-汽車
EAL1726	2024/3/26 下午 03:11:45	離場(正門)	白名單	12566	EAL1726	淡客-淡水站車號
AAT5656	2024/3/26 下午 03:11:13	離場(正門)	白名單	12636	AAT5656	【身障生】歷史四黃翔聖專簽申請(1130731止)0930983972

AI Smart Parking Management System: Regular Parking Permit Application Management

Fill out the application form

丁、芳鄰

112學年度第2學期

申請人

姓名*

手機*

電子信箱*

地址*

車輛

車號*

接受英文數字5-8碼

廠牌

顏色

車主*

車主關係*

本人

車證選項

作業項目*

首次



領取方式

寄送方式*

至事務組領證



63129



請輸入驗證碼

確認送出

回上頁

AI Smart Parking Management System:

Parking Permit Application Progress Management

Application status

Show 25 entries Search: <input type="text"/>						
案件編號	車證類別 /申請日期	學年度 /效期	駕駛人 /手機 /電子信箱	車主 /車種 /車號	需繳交證件	審核狀態 /審核意見
97999	廠商 2023-08-08	112學年度 (上學期)	王大明 五百 0972175195 tmlin1982@gmail.com	王大明 機車 BBB1111	行照(王大明) 未繳	待繳費 取消申請
Showing 1 to 1 of 1 entries						
First Previous 1 Next Last						

[回上頁](#)

AI Smart Parking Management System: Online Payment and Receipt Inquiry



AI Smart Parking Management System: Online Payment System

Payment

請輸入車牌號碼
(完整車號如ABC1234，或數字如1234)

Receipt

請輸入完整車號如ABC1234

請點選圖片進行繳費

時間 2024/3/26 下午 06:52:3



辨識車號 7826XV

進場時間:2024/3/26 下午 06:52:36
現在時間:2024/3/27 上午 08:00:38
車號:7826XV, 停車費:420

2024-03-26 18:52:36.597 7826XV Trigger Source: 攝影機



車號:7826XV, 繳費金額:420
請選擇繳費方式

LinePay



街口支付



悠遊付



全支付



AI Smart Parking Management System: Payment Record (Receipt) Inquiry

Recent five payment records

訂單編號	進場時間	離場時間	繳費時間	金額	操作
38485	2024/1/1 下午 12:07:17		2024-01-01 17:37:08	180	<input type="button" value="顯示"/> <input type="button" value="下載"/>

AI Smart Parking Management System: Online Reservation for Visitor Parking Spaces

Fill out the application form

申請單位	來賓資訊	車輛資訊
表單類別： <input type="text" value="教學業務"/>	來賓單位： <input type="text"/>	車輛種類： <input type="text" value="小客車"/>
申請單位： <input type="text" value="單位二"/>	來賓姓名： <input type="text"/>	車輛總數： <input type="text" value="1"/>
繳費方式： <input checked="" type="radio"/> 駕駛人繳費 <input type="radio"/> 申請人繳費	來賓電話： <input type="text"/>	車 號： <input type="text"/>
備 註： <input type="text"/>	到校原因： <input type="text"/> <p>字數須不超過20</p>	<p>超過一輛以上車號，請用半形逗號 (,) 隔開，最多登記10台</p>
	入校時間： <input type="text" value="2023/10/02 上午 09:00"/>	
	離校時間： <input type="text" value="2023/10/02 下午 05:00"/>	

確認送出

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AI Smart Parking Management System: Vehicle Entry and Exit Image Recording

Search for vehicle entry and exit images

Search

請輸入車牌號碼
(完整車號如ABC1234，或數字如 1234)

BTQ3926

搜尋

Entry

時間 2024/3/16 下午 12:22:2



辨識車號 BTQ3926

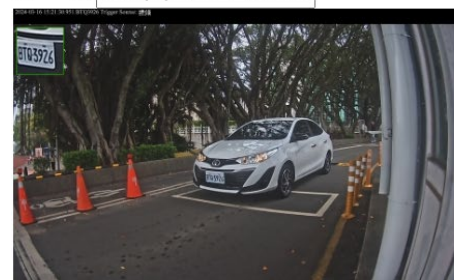
時間 2024/3/16 上午 09:01:2



辨識車號 BTQ3926

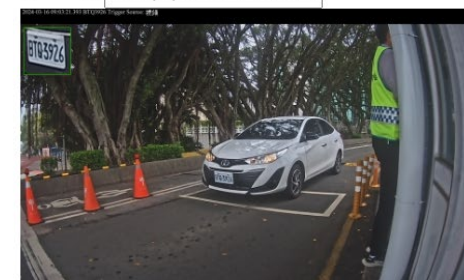
Exit

時間 2024/3/16 下午 03:21:3



辨識車號 BTQ3926

時間 2024/3/16 上午 09:03:2



辨識車號 BTQ3926

AI Smart Parking Management System: Blacklist Management

Management of vehicle blacklist

車號 註記

Show 25 entries <input data-bbox="1905 525 2173 568" type="text" value="Search:"/>		
車號	註記	
BEL9108	逆向行駛	<input type="button" value="刪除"/>
AWK7689	逆向行駛	<input type="button" value="刪除"/>
TDL9200	逆向行駛	<input type="button" value="刪除"/>
AGF7328	超速屢勸不聽	<input type="button" value="刪除"/>
RCQ3265	物流超速屢勸不聽	<input type="button" value="刪除"/>
AXJ3895	超速屢勸不聽(108/10/22)	<input type="button" value="刪除"/>
ALB8933	學生未經申請入校及過夜停放(109/03/10)	<input type="button" value="刪除"/>
BJE2902	學生(法文黃昭嘉)學號410088024)未經申請入校及過夜停放(111/09/23)	<input type="button" value="刪除"/>

AI Smart Parking Management System: Vehicle Violation Record Management

Management of vehicle violation records

車號	<input type="text"/>	事件時間	<input type="text" value="年 / 月 / 日 -- -- : --"/>	<input type="button" value="📅"/>
事由	<input type="text"/>			
選擇檔案	<input type="text" value="未選擇任何檔案"/> 檔案格式(jpg,png,gif)			
新增	<input type="button" value="返回"/>			

車號	<input type="text"/>	<input type="button" value="查詢"/>
身分	<input type="text"/>	姓名 <input type="text"/>

AI Smart Parking Solution: Parking Lot Technology Enforcement System

We have implemented various parking safety management systems in the parking lot to ensure the safety of pedestrians and vehicles, including:

- A. Speed monitoring
(overspeed warning)
- B. Reverse warning
- C. Illegal parking detection
(warning for parking in non-parking areas)
- D. Misplacement warning
(e.g., occupying an electric vehicle charging spot)



AI Smart Parking Solution: Parking Lot Security Monitoring System

1. We have installed AI-enabled cameras and management hosts in the parking lot to assist in comprehensive security monitoring, ensuring safety within the premises. This includes:
 - A. Pedestrian-vehicle conflict detection (warning lights alert)
 - B. Electronic fence (intrusion alarm)
 - C. Loitering detection (tracking and identification)



AI Smart Parking Solution:

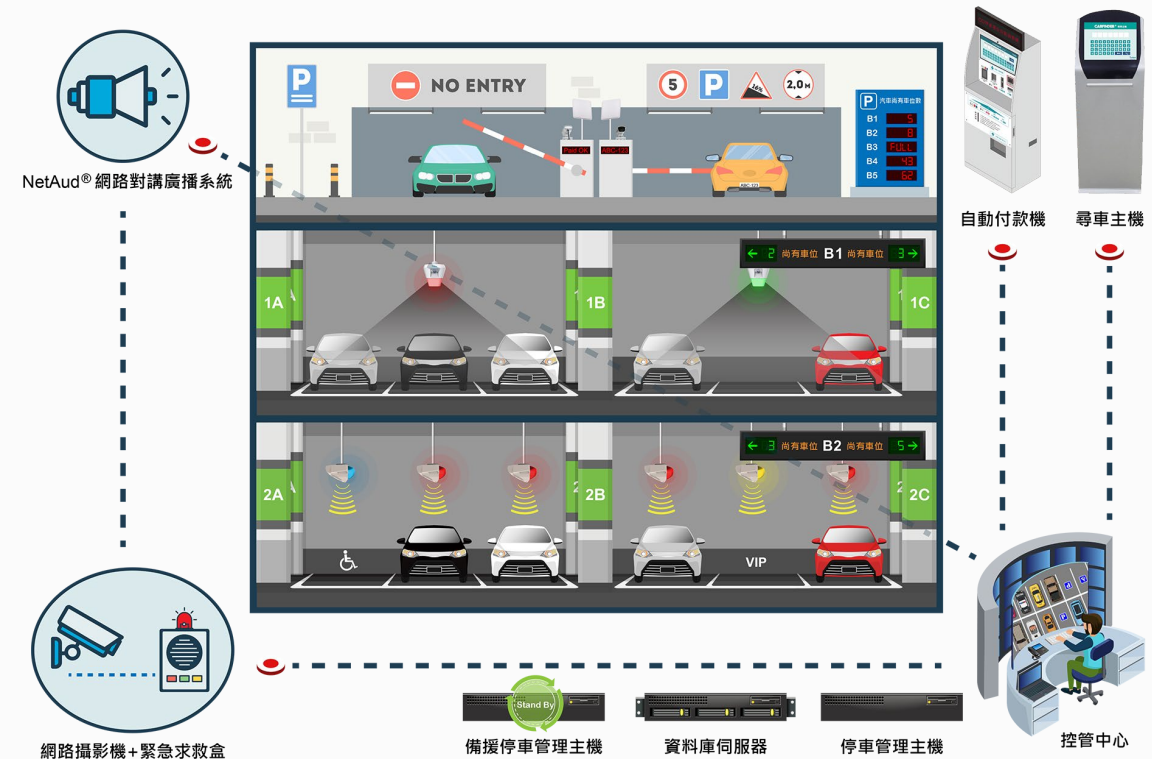
Parking Lot Environmental Control and Energy Saving System

1. Based on ESG environmental principles, we have also introduced energy-saving and environmental control devices into the parking lot, including:
 - A. Lights turn off automatically in occupied parking spaces
 - B. Automatically reduce light brightness by 50% in areas without vehicles or pedestrians for an extended period
 - C. When carbon dioxide levels are high, ventilation facilities are automatically activated to maintain air quality within the premises



AI Smart Parking Solution: Intelligent Touchscreen vehicles Locating System

1. The system provides car owners with an interactive touchscreen car finding kiosk on-site, enabling them to locate their parked vehicles easily.
2. Additionally, the system records the vehicle's license plate and parking area through parking space cameras, uploading the information to the management system.
3. The car finding kiosks are strategically placed near payment machines (one on each floor if the facility has multiple levels).
4. Furthermore, users can also access the car finding feature through their mobile phones (web/app).



The AI Smart Parking Solution includes a comprehensive automated multi-payment system

1. Integrating cash, EasyCard, credit cards, and other commonly used online payment methods
2. consumers have the flexibility to choose between payment options via payment machines or scanning QR codes for online payments
3. This approach reduces wait times for vehicle owners queuing at payment machines, enhancing overall efficiency



The AI Smart Parking Solution includes The Parking Central Control System

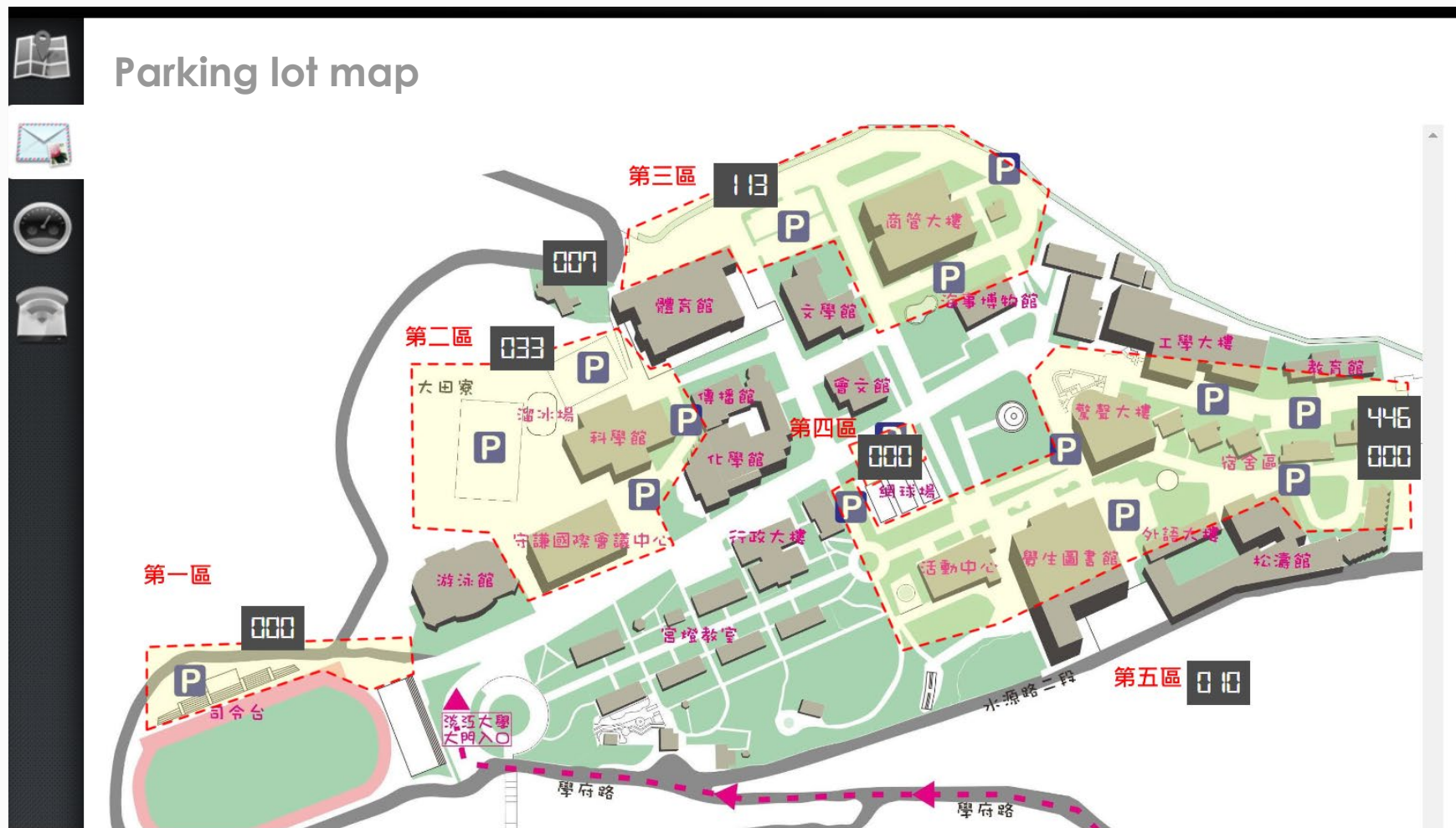
1. We integrate all parking facility equipment (P5 system architecture and P6 wiring architecture) into the Central Control System mainframe through edge computing and network connectivity.
2. The Central Control System comprises management systems, redundancy systems, databases, etc.
3. It allows real-time monitoring of traffic flow, zone management, system load status, hardware fault detection, etc



AI Parking Central Control System: Parking Lot Traffic Monitoring and Management



AI Parking Central Control System: Parking Map (Current Parking Availability)



AI Parking Central Control System: Parking Area Management



Parking area management

Show 25 entries Search:

停車區域	停格格數	目前停車數	Action
A 區	17	17	修改資料
B 區	158	126	修改資料
C 區	113	0	修改資料
D 區	13	13	修改資料
E 區	147	135	修改資料
Total	448	343	修改資料
五虎崗1樓	427	427	修改資料
五虎崗2樓	776	330	修改資料
大忠街	350	341	修改資料

AI Parking Central Control System: Vehicle Occupancy Detection and Management

● Reservation ● Available ● Occupied ● Disabled ● Parent-child ○ Electric vehicle



Monitoring Detection Adequacy System - Inspection Items

Spending a large budget on installing cameras, only to find out that when incidents occur, there's no footage captured?

Camera
signal
abnormal!



Camera signal
abnormal!



Camera lens
dirty, causing
unclear footage!



Storage damaged.
Images not
retained!

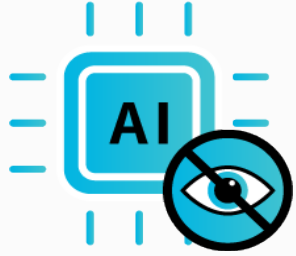


Inspection items

- ☒ Camera disconnected
- ☒ Camera black screen
- ☒ Screen flickering (noise)
- ☒ Screen obscured (by foliage, honeycomb...)

- ☒ Camera intentionally moved
- ☒ Video storage abnormal
- ☒ Specific area abnormal (e.g., masking of infrared detector)

Monitoring Adequacy Detection System - Functional Features



Replace human eyes with AI,
Instant alerting and reporting
without omission



Ensure site security, reduce occupational
accidents, and provide sufficient
evidence in the event of an accident



Proactively monitor and generate
automatic reports compliant with ISO
standards



Support remote connection for
updates and status viewing, reducing
the need for on-site manpower.



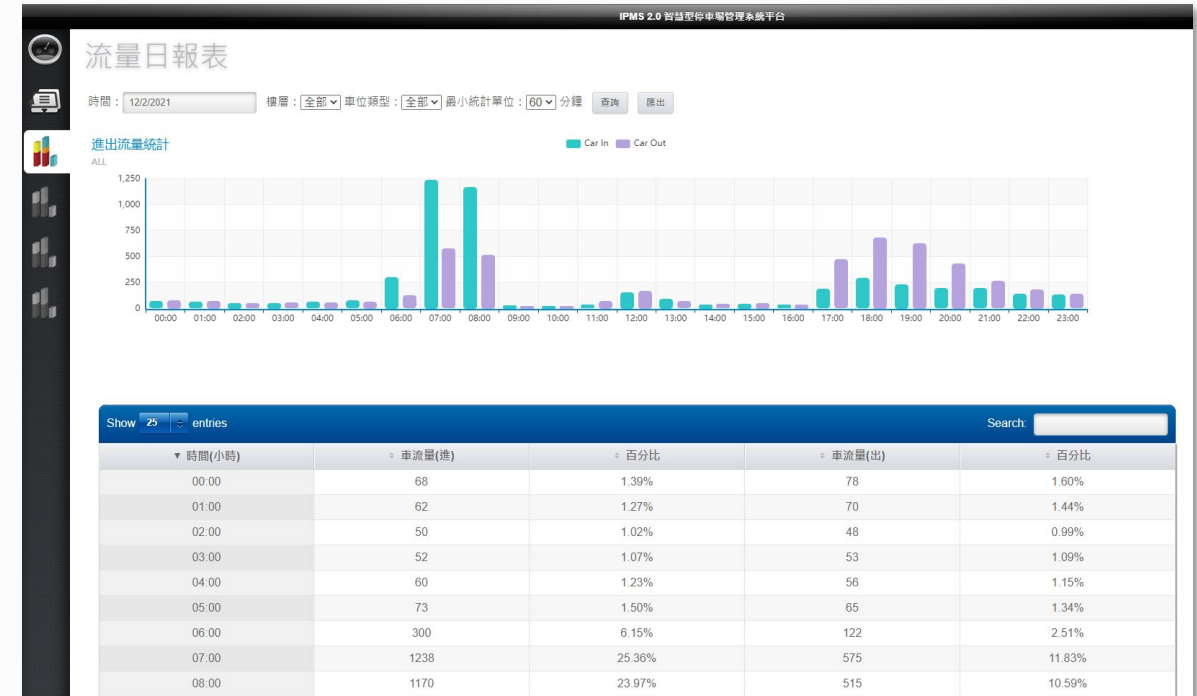
Maintain independent operation
in case of network interruption,
increasing system reliability.



Affordable high-tech with low-cost,
low-power AI acceleration

AI Smart Parking Solution: Report Management

1. All parking lot data records can be presented and analyzed through visualized reports, allowing managers to have a clear overview.
2. Parking traffic report (daily/monthly/quarterly/yearly)
3. Parking space utilization report
4. Charging pile usage and revenue management report
5. Revenue management report (regular/temporary parking)
6. The system adopts a Responsive Web Design (RWD) mode, allowing synchronization of login and management between mobile phones and computers.



AI Smart Parking Solution: Mobile App

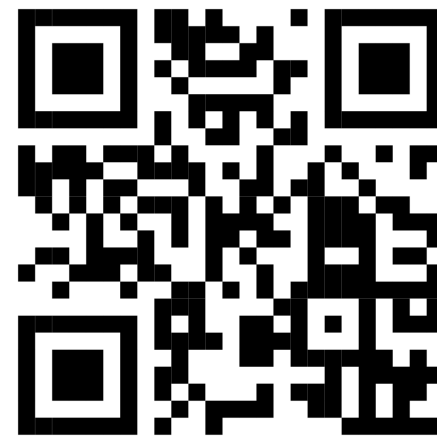
1. Car owners can use the mobile app to check the current availability of parking spaces in the parking lot
2. Find parking spaces via the mobile app
3. Handle parking permit renewal
4. Apply for temporary visitor parking spaces
5. Make online payments for parking
6. Reserve parking spaces
(e.g., electric car owners can reserve charging spaces)





Smart system solutions

Informatization, systematization
and intelligence
Professional advisory team



HEADQUARTER AND OPERATION OFFICE

I-TEK Metal Manufacturing Co., Ltd.

18 Gungye 3rd Road, Annan, Tainan 70955, Taiwan

T 886-6-3840722 **E** sd.klacci@gmail.com

F 886-6-3840715 sd@klacci.com
sd@iteklock.com.tw