



PMS : Parking Management System
(Ceiling Mounted LPR)
VPGS : Parking Guidance System
(Zone Guidance Display)

NEXPA SYSTEM

Deakin University, Australia

CASE STUDY

Background NEXPA SYSTEM

- Founded in 2004, NEXPA has been developing and implementing revolutionary technologies that drive the world of smart parking and public surveillance to the next level.
- At NEXPA, we constantly test and challenge our technology; we strive to offer smart and convenient solutions to our customers. With over 50 patents in video analytics and surveillance systems, we have the expertise and experience to provide solutions tailored to maximize the potential of a parking lot, transforming it to pivotal asset supporting the business growth.
- Together with global partners like Cisco System, Inc., NEXPA looks to continuously develop advanced parking solutions as one of the key pillars of IoT(Internet of Things). As a part of CIM(City Infrastructure Management) of Cisco Systems, Inc., we work towards the vision of a world with smart cities and communities.

Project Overview



<Introduction of Deakin University>

Deakin is a new-generation university with campuses in Melbourne's Burwood suburb, Geelong Waurin Ponds, Geelong Waterfront and Warrnambool, as well as online Cloud campus. Parking operator of university selected NEXPA's SMART PARKING SOLUTION for convenient operation of parking facility and ease of finding available parking space through zone guidance displays.



<Client requirements>

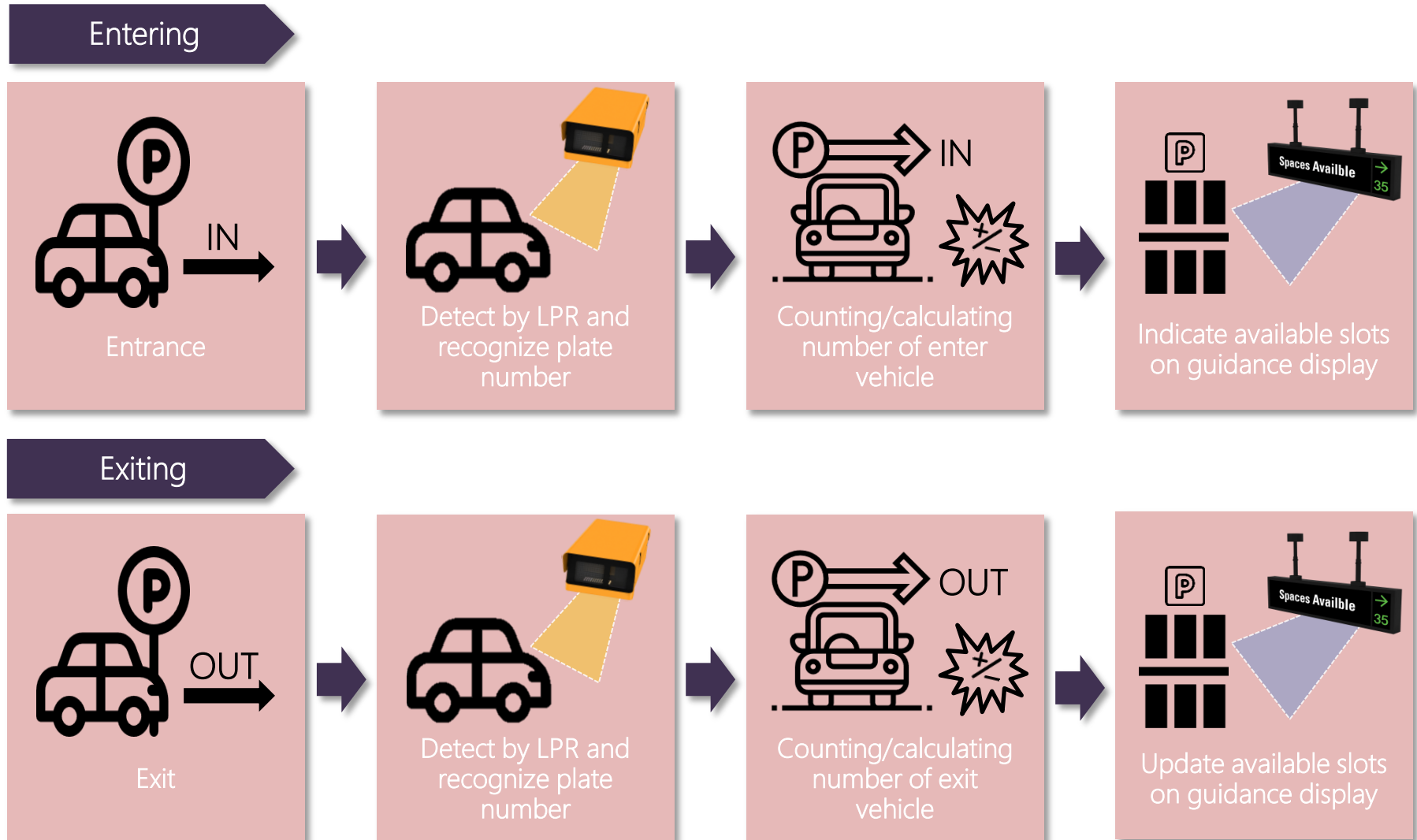
①PMS:

-Ceiling Mounted LPR: Automatic Number Plate Recognition

②VPGS:

-Zone Guidance Display: Guidance of available parking slot

Solution Operation Scenario



NEXPA Proposed Solution Major Components



Ceiling Mounted LPR

- Ceiling mount type
- Recognition speed: within 0.8 sec.
- Infrared or white high brightness LED lighting
- CCD 1.3M Pixel or CMOS 1.2M Pixel

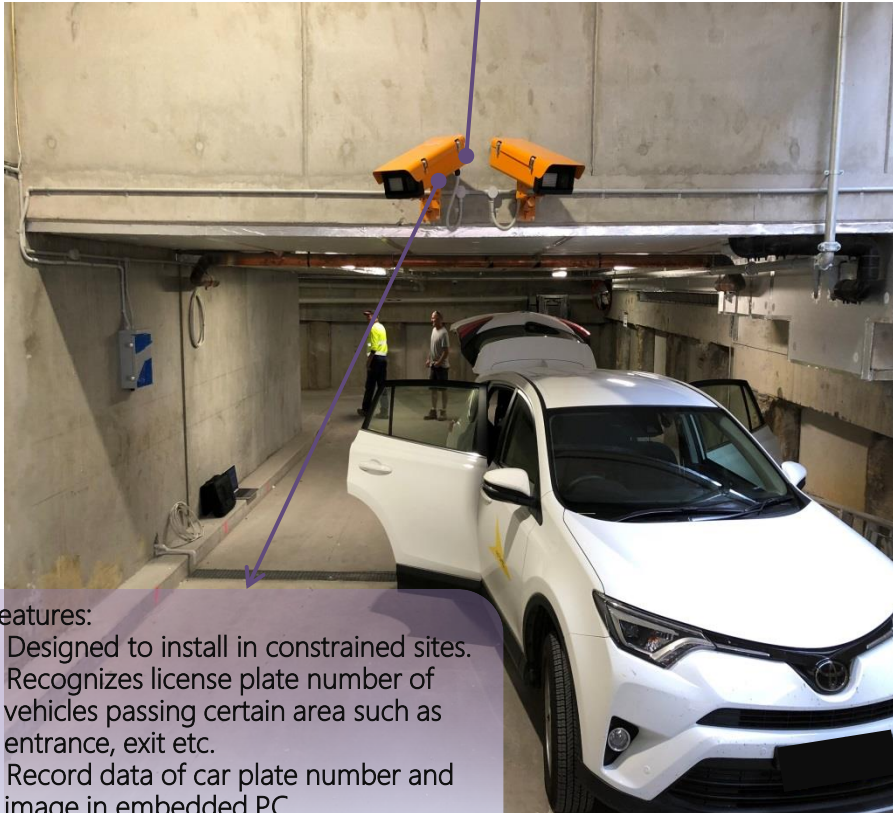


Zone Guidance Display

- Ceiling type
- LED Module: 128mm*128mm SMD
- Module Color: Red, Green, Yellow (3 color)
- Source of Lighting: LED Back light

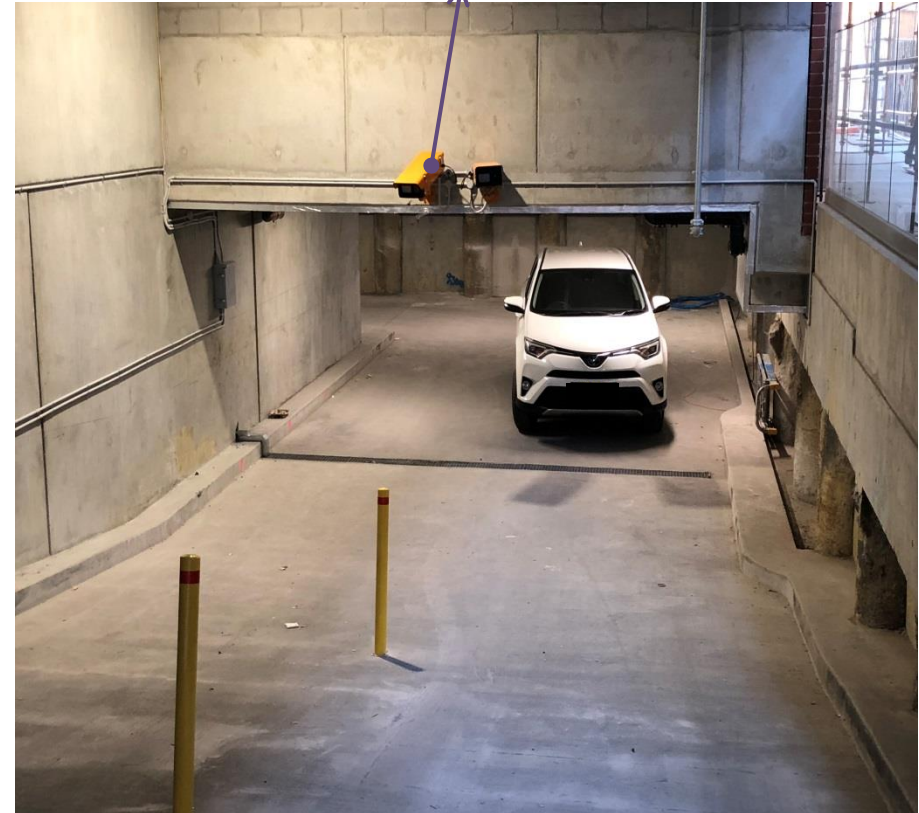
Site pictures

Ceiling Mounted LPR



- Features:
- ☞ Designed to install in constrained sites.
 - ☞ Recognizes license plate number of vehicles passing certain area such as entrance, exit etc.
 - ☞ Record data of car plate number and image in embedded PC.
 - ☞ Easy to manage.

- The LPR machine detects car's presence and recognizes the vehicle license plate number.
- NEXPA uses our proprietary algorithm coupled with machine running method for this work that enables a high accuracy level. (over 99%)



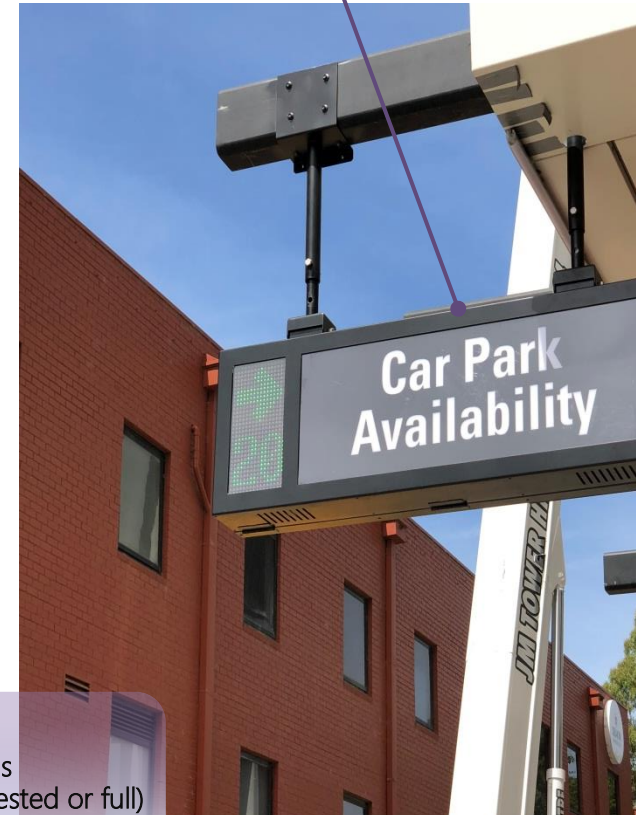
Site pictures

Zone Guidance Display

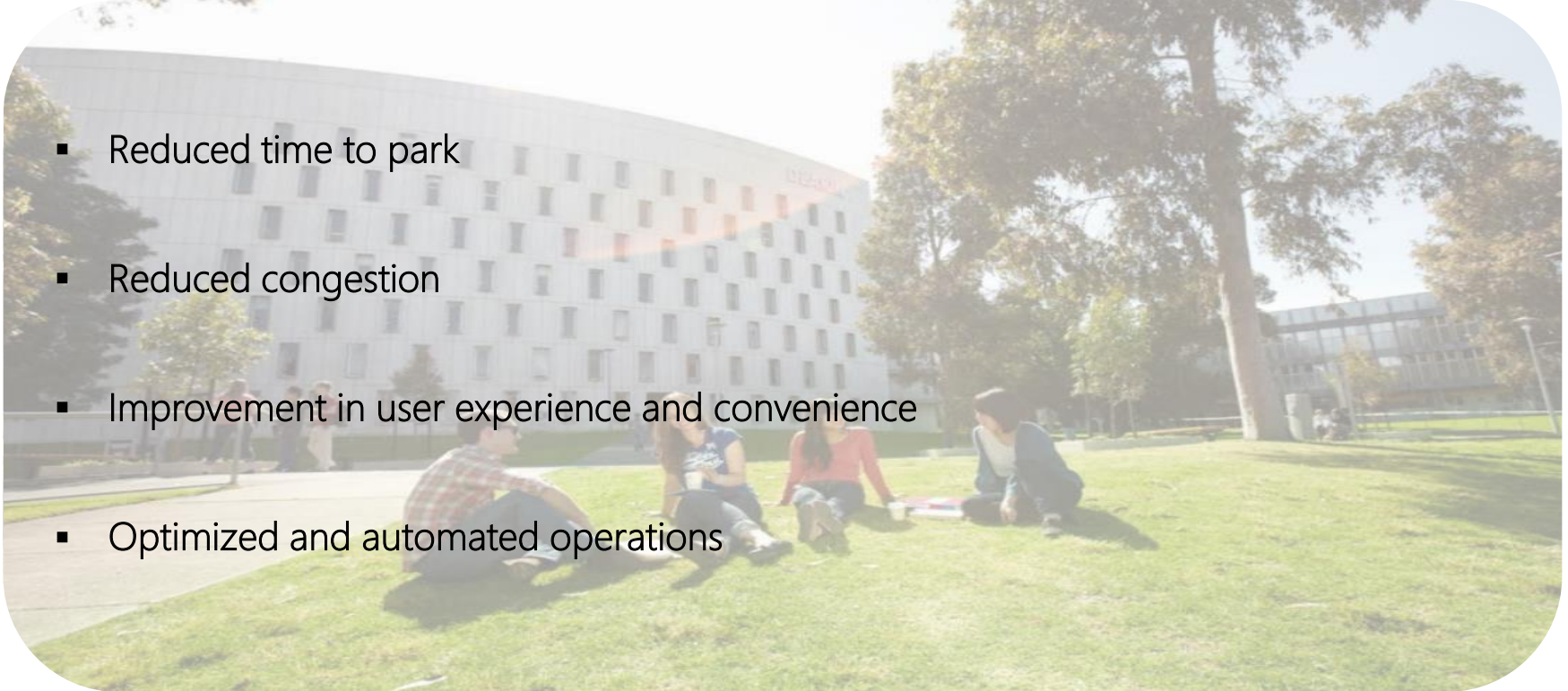


- Features:
- ☞ Three colors for different status (Green - available, Red - congested or full)
 - ☞ Bright LED module

- Zone guidance display shows the number of available parking spaces in a specific direction.



Conclusion

- 
- Reduced time to park
 - Reduced congestion
 - Improvement in user experience and convenience
 - Optimized and automated operations