



EPA-Polis-CPA Workshop - *Parking Innovation*

Fair and Efficient Enforcement: Backbone of Your City's Parking Policy

Peter Dingemans - Managing Director ParKam BV

- 🕒 Camera Based Smart Parking Technology
- 🕒 Enforcement Solution
- 🕒 Summary



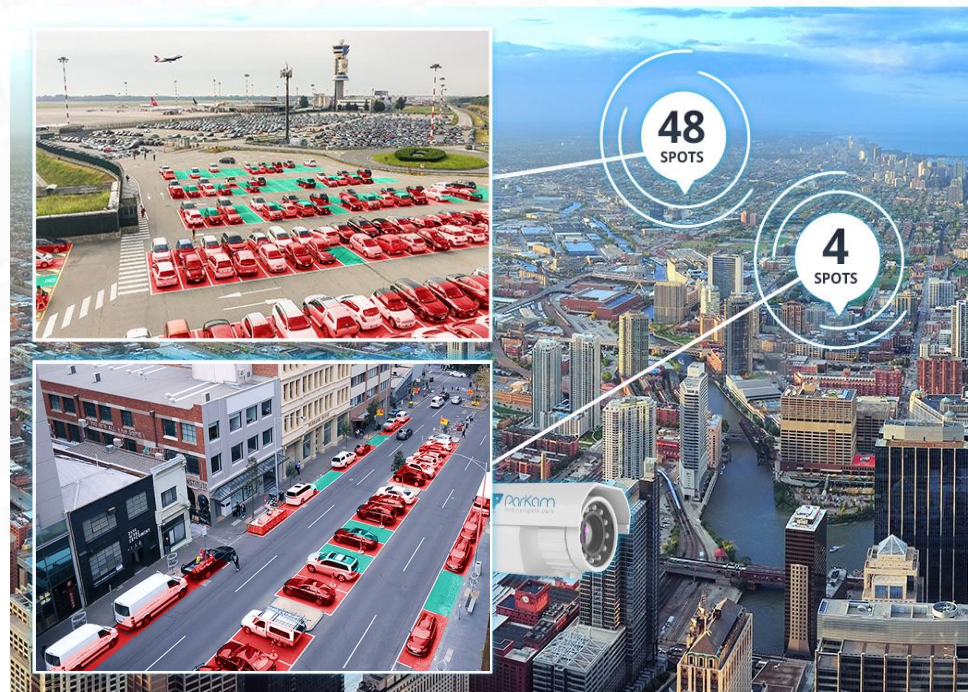


CONCEPT



ParKam was formed to resolve the problem of finding reliable parking on the go

- Real time computer vision and image processing system
- The only solution that identifies which parking spot **will remain available** by the time the user arrives, using learning machines and deep learning algorithms
- Utilizes cameras that are already installed or will be installed with minimum disruption to ongoing operations, and will last for many years



Proud to be member of:





CONCEPT



ParKam was formed to resolve the problem of finding reliable parking on the go

- One simple camera can cover up to 100 parking bays
- Low maintenance cost
- Fully automated technology that does not rely on users for crowd sourcing solution
- High accuracy level in extreme weather conditions
- Wide range of Data from the same streaming



Proud to be member of:





AVAILABILITY MAP

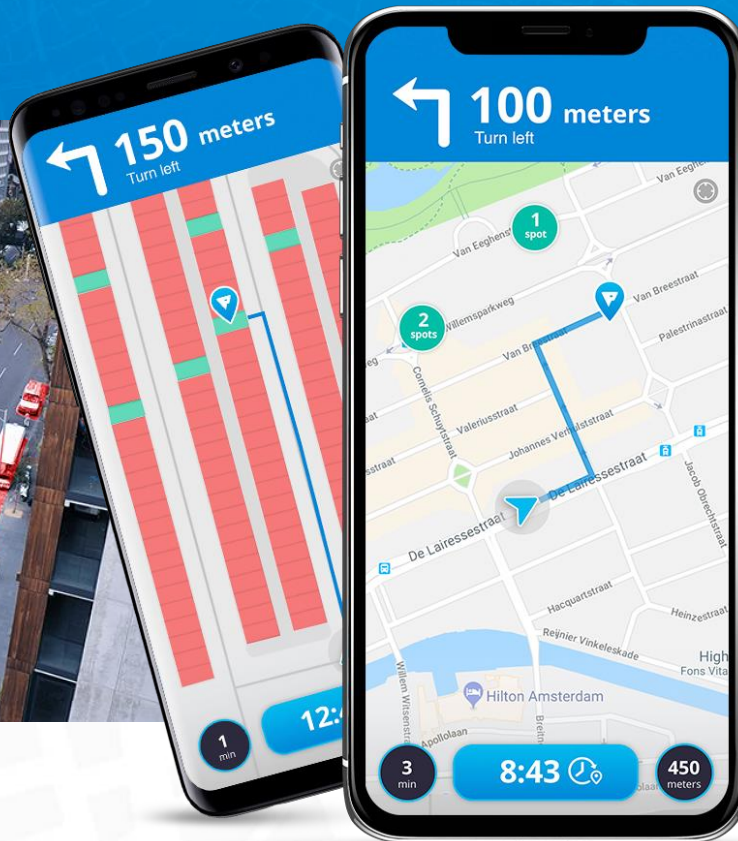
per parking spot, based on real-time camera data



Ahuzot Hof - Hatachana Parking Lot, Tel Aviv



REAL-TIME NAVIGATION SYSTEM





REAL-TIME NAVIGATION SYSTEM



The navigation app will guide users to an available parking spot, closest to their destination, taking into account the estimated arrival time and its “life expectancy”, thus **ensuring the driver will always arrive at an available parking spot.**



Enter Destination

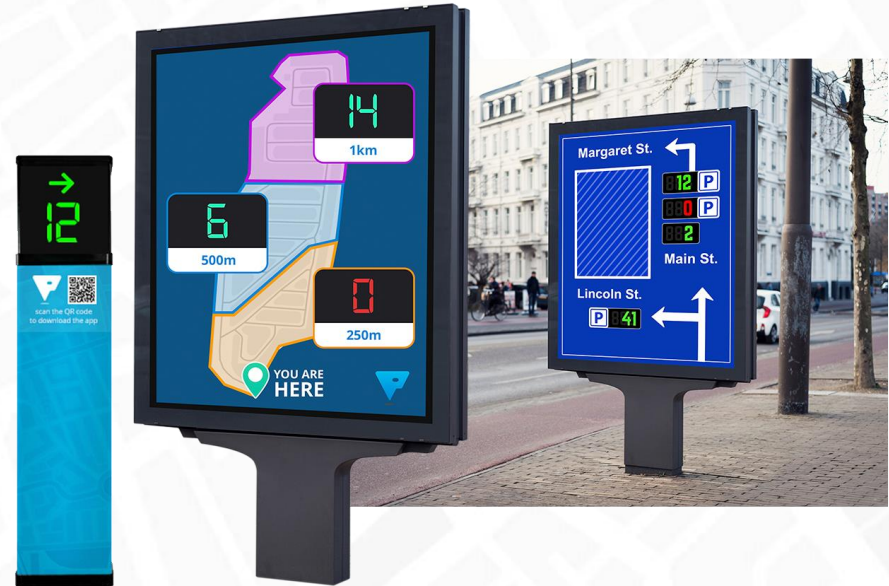
Main Screen – Parking Availability Map



ELECTRONIC GUIDANCE

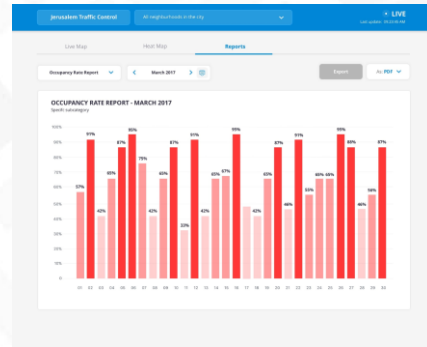
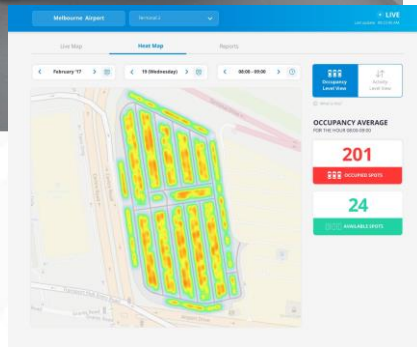
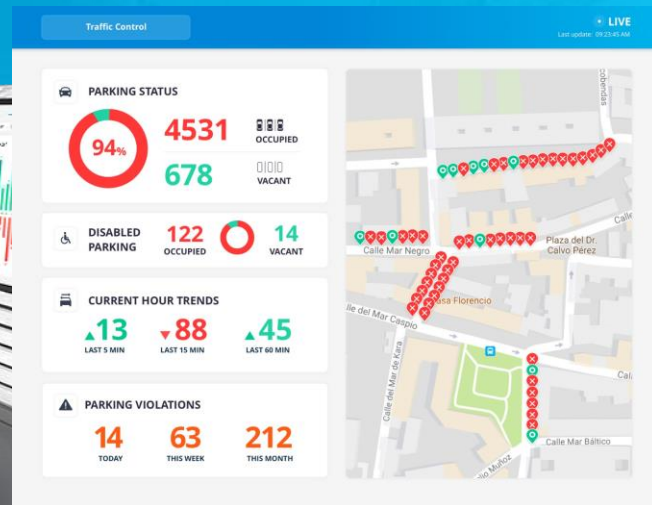


- Our proprietary mapping technology assigns GPS coordinates to every parking spot and any point of interest.
- Unique mapping can be displayed on smart signs in the parking areas, offering an alternative solution to end-users that don't use smartphones.
- Reliable tool shows parking availability, which gets updated in real-time as parking status changes.
- By using live footage from the cameras, we guarantee the highest accuracy rate. The technology does not rely on users for crowd sourcing solution.





ADVANCED BI TOOL





ENFORCEMENT SYSTEM



ENFORCEMENT SYSTEM



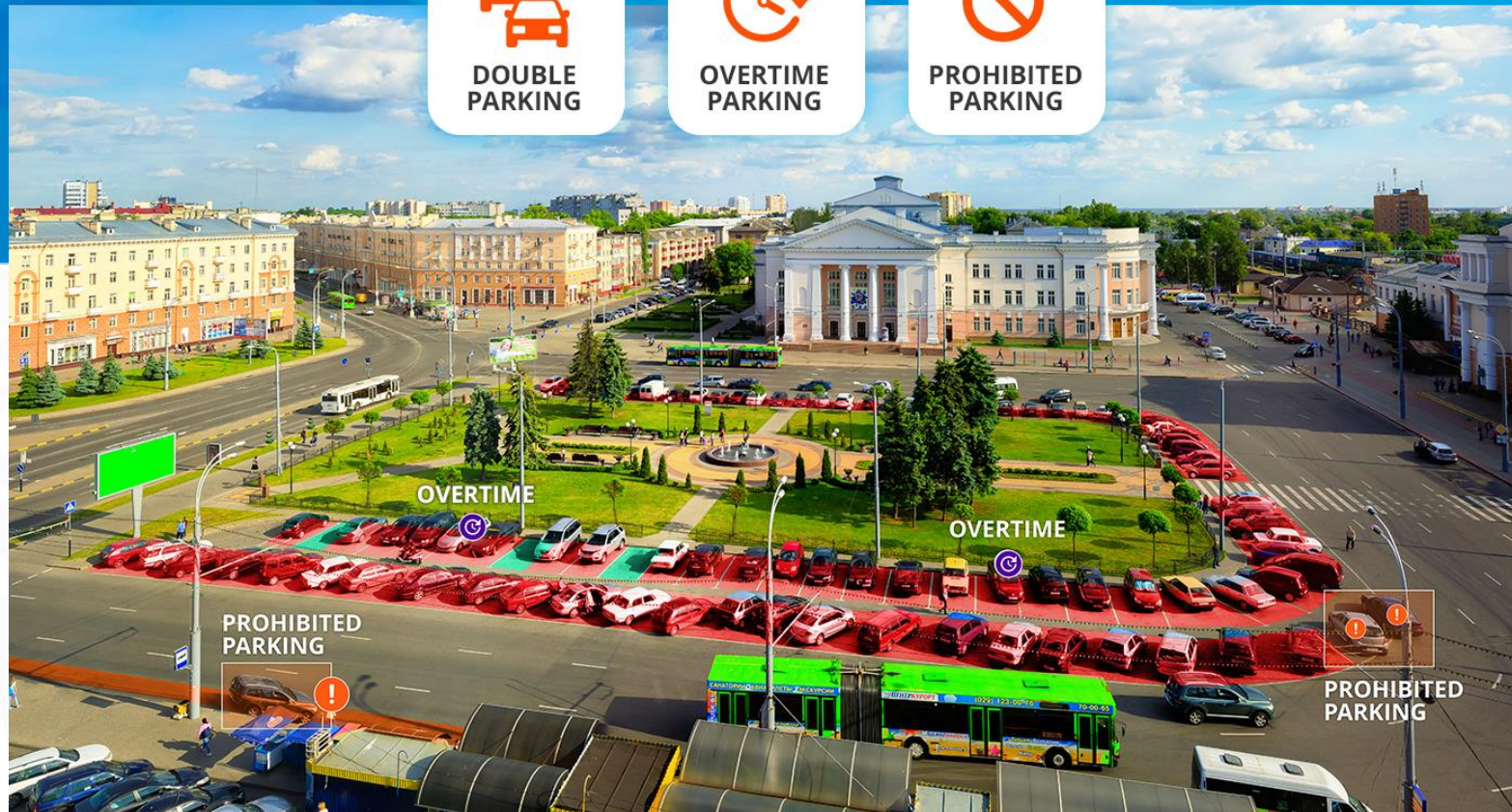
**DOUBLE
PARKING**



**OVERTIME
PARKING**



**PROHIBITED
PARKING**





ENFORCEMENT SYSTEM



- Enforcement-related data in the form of parking alerts when the system recognizes illegal parking
- This module transforms the system from expenditure to a revenue stream generator.




- Alerts are made visible to the parking officer on their mobile devices and displayed on the command & control room monitors, to assist in maintaining an orderly environment.
- Our enforcement solution delivers efficient usage of enforcement manpower.




Real-Time Alerts of Parking Violations







WELCOME,
Traffic Control




Dashboard



Parking



Enforcement



About

Traffic Control

All neighborhoods

Ongoing Violations

Recent Violations

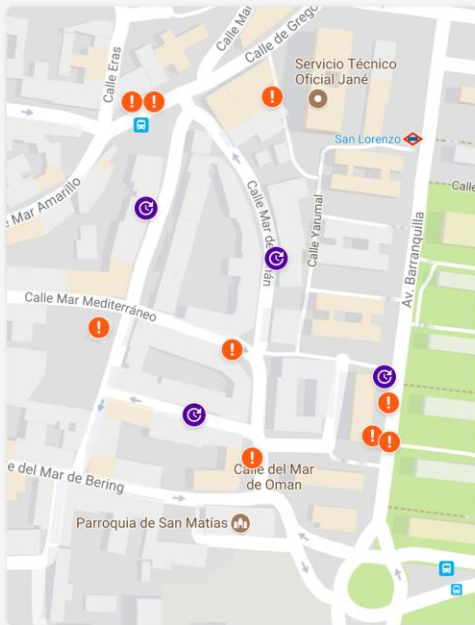
History

Reports

RECENT PARKING VIOLATIONS

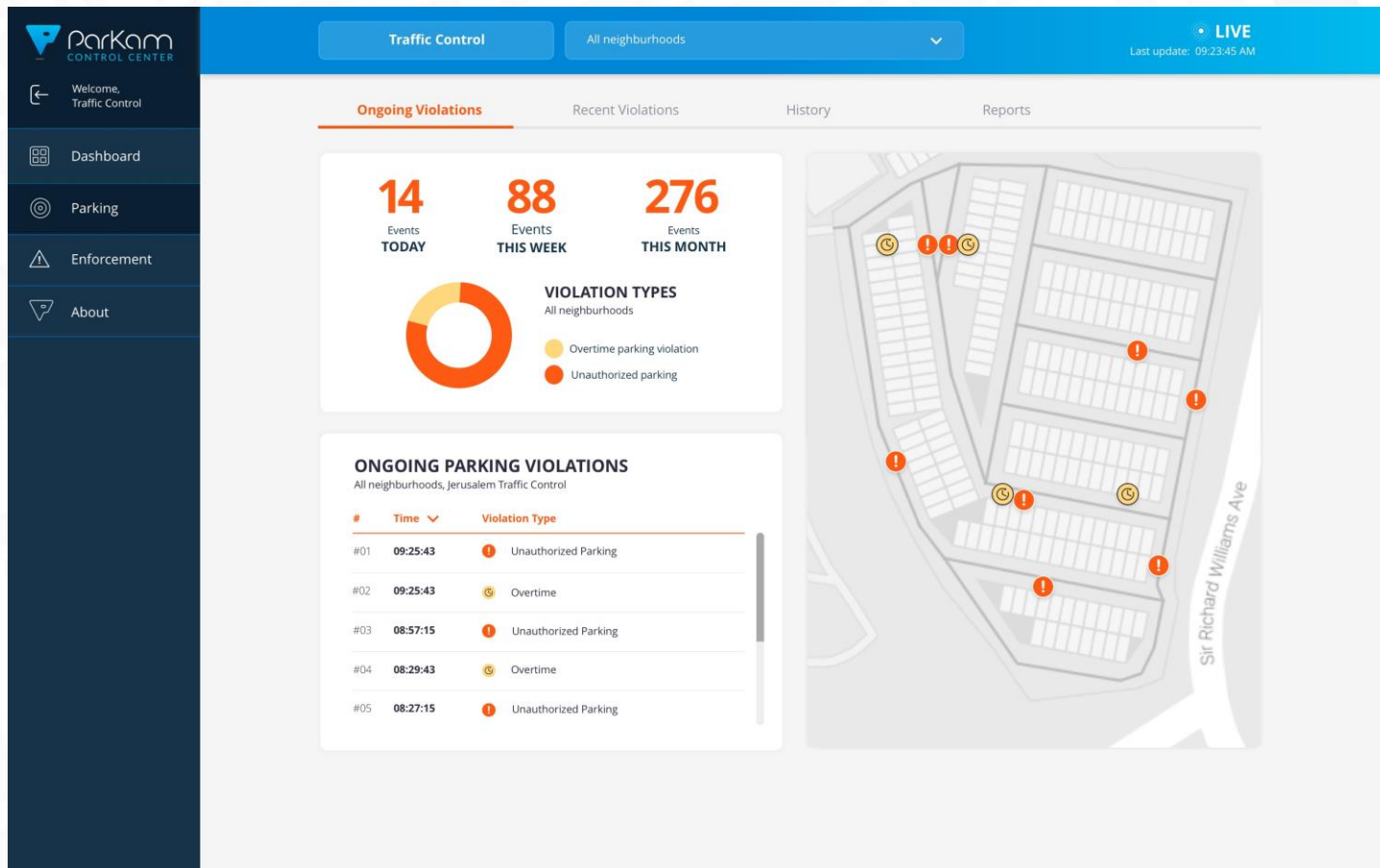
All neighborhoods, 01:00 PM - 02:00 PM

| # | Start | End | Violation Type |
|-----|----------|----------|----------------------|
| #01 | 09:25:43 | 11:42:13 | Unauthorized Parking |
| #02 | 09:25:43 | 11:42:13 | Overtime |
| #03 | 08:57:15 | 11:05:18 | Unauthorized Parking |
| #04 | 08:29:43 | 12:55:18 | Overtime |
| #05 | 08:27:15 | 12:15:44 | Unauthorized Parking |
| #06 | 08:15:43 | 11:42:13 | Unauthorized Parking |
| #07 | 08:12:22 | 11:42:13 | Overtime |
| #08 | 08:06:14 | 11:05:18 | Unauthorized Parking |
| #09 | 08:03:43 | 12:55:18 | Overtime |
| #10 | 08:01:15 | 12:15:44 | Unauthorized Parking |





Real-Time Alerts of Parking Violations





Enforcement Applications



- On- & off-street Enforcement for Cities, monitoring of overstay & prohibited parking
- City planning insights / BI
- Monitoring of loading zones in city centers
- Swift drop-off zones at Airports

SWIFT DROP-OFF for airports

Uniquely designed for the airports vertical market, our **SWIFT DROP-OFF** will resolve the traffic bottleneck near the terminal entrance. This is the world first solution to resolve the chaos facing travels entering the terminal.

The solution utilizes image processing algorithms and AI, which are fed of CCTV real-time streaming. The accurate availability is then **DISPLAYED ON CUSTOMISED VMS**.



The system communicates with Parkam's **BI TOOL** and delivers **HEAT MAPS** and dashboard reporting to management along with the enforcement module that will **SEND ALERTS TO THE OFFICER ON SITE** via their mobile devices.



CAMERA NO. 08252

DZWOLLO AND MAINE
CHICAGO, IL, USA

TUESDAY

07/21

LOCATION

News-Econ

News-Econ

News-Econ

News-Econ

FREE SPACE : 47.89

15:32 AM

SUMMARY



Summary



- Using camera technology and real-time alerts enhances enforcement operations.
- The order in city streets is maintained and the revenues from enforcement rise.
- At the same time, the service to drivers is improved with a mobile navigation App to find free parking spots.
- From an environmental perspective, the carbon emission from traffic in the city is reduced.





Thank You

For further details please contact us:

peter@parkam-ip.com

www.parkam-ip.com

+31 (0)6 11606257