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ASIA-PACIFIC INTELLIGENT DRIVING SEMINAR | 30 OCTOBER 2026

More Than Parking

The UTA Single-Tower Garage, Built for the Self-Driving Era

不只泊車：UTA單塔車庫，為FSD而生



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Parking is still part of the journey

Vehicles keep getting smarter on the road, but the last stretch often still depends on the driver.

Increasingly assisted | **Still largely manual in many car parks**



Drive
On the road

Arrive
At the destination

Search
Circle for a free space

Manoeuvre
Into a tight bay

Walk & return
Find the car, drive out

Searching

Time spent circling ramps and aisles for a free space.

Space

In conventional car parks, much floor area goes to ramps, aisles and turning room.

Walking & waiting

Getting back to the car means walking, remembering and driving out again.

Two kinds of automation, one parking journey

Each solves a different half of the problem. Neither does the whole job alone.

VEHICLE-SIDE INTELLIGENCE

Moves the vehicle

Drives itself between designated locations, in supported and permitted environments.

+

INFRASTRUCTURE-SIDE AUTOMATION

Stores the vehicle

Receives, stores and retrieves the vehicle mechanically: the UTA tower.

=

THE RESULT

An integrated parking experience

Hand over at one point. Collect at another.

Autonomous driving **changes how a vehicle reaches the car park.**
Automated parking **changes how it is stored and retrieved.**

Four decades of automation engineering

Hong Kong roots. Automated parking, vehicle transport and logistics automation.

40
YEARS SINCE 1986

1,000+
INSTALLED SITES

300+
PATENTS

5 + 3
PLANTS + R&D CENTRES

Parking portfolio

Aisle-stacker · shuttle-lift · tower · platform-lift · puzzle systems, with overseas references in Asia-Pacific, the Middle East and the Americas.



HONG KONG ICT AWARDS 2021

Smart Mobility Grand Award

Robotic Parking System
Gold Award, Smart Mobility (Smart Transport).

Overseas reference sites

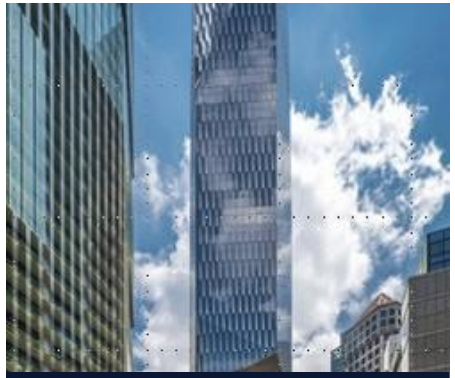
Singapore · Australia · UAE · Costa Rica · United States



Singapore ABM



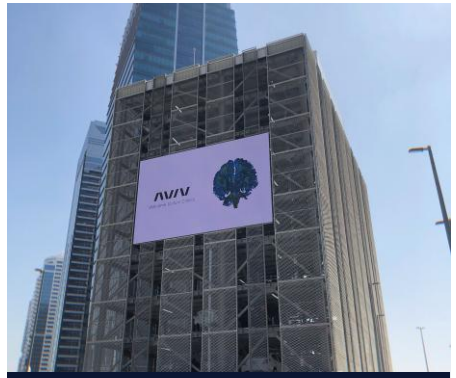
Singapore Ten Square



Singapore 18 Robinson



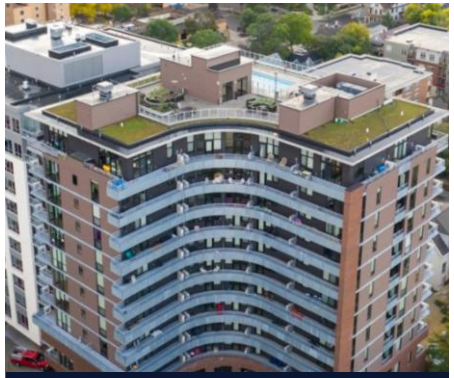
Sydney, Australia



JIT Dubai, UAE



Costa Rica



Madison, Wisconsin



Brooklyn, New York



Miami, Florida



San Francisco

What is UTA?

A compact, single-tower automated garage that stores vehicles vertically.



UTA towers in Shanghai (actual installations)

Vertical-lift parking equipment · pallet handling
Steel structure · one ground-level entry

24
SPACES PER TOWER
12 levels

< 56 sqm
FOOTPRINT
per standard tower

< 120 s
RETRIEVAL TIME
reference value

≈ 30 days
INSTALLATION
per tower

Ready today: Retrieval can be requested in advance.

DEMONSTRATION

UTA in action with an AVP vehicle

One ground-level entry. A vertical lift. Vehicles stored and retrieved mechanically.



01 Receive

Vehicle enters the ground-level receiving area

02 Lift

A vertical lift carries it to a storage level

03 Store

Transferred into an available bay

04 Return

Same path in reverse for retrieval

Why it matters: one clearly defined entry gives an autonomous vehicle a fixed destination.

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Clear roles: the vehicle drives, UTA parks

Complementary responsibilities. The coordination interface is defined project by project.

Compatible intelligent-driving vehicle

e.g. Huawei ADS with VPD valet-parking functions

- Drives itself between designated points
- Perceives and yields to people and vehicles
- Operates only in supported, permitted environments

Coordination

Integration concept

- Bay availability and readiness
- Hand-over status, vehicle ↔ UTA
- Driver requests via an app

UTA automated parking infrastructure

Yee Fung single-tower garage

- Receives the vehicle at its entry
- Stores it mechanically in the tower
- Retrieves it to ground level

UTA does not drive the vehicle

Vehicle software does not operate UTA machinery

The parking journey

Driver · Vehicle · Coordination · UTA

01 Arrive at drop-off

Driver stops at a designated drop-off point near UTA

02 Hand over

Driver exits the vehicle and is free to go

03 UTA ready

Bay free and UTA ready: movement initiated via the vehicle-side process

04 Drive to UTA

Vehicle travels autonomously on a designated route to the entry

05 Receive

UTA receives the vehicle in its ground-level receiving area

06 Store

UTA's mechanism transfers it to an available bay



4 · On the designated route



5 · Arriving at the UTA entry



6 · Parked in place

Photos: stills from Yee Fung's UTA & AVP demonstration video. Autonomous movement only within supported and permitted operating environments.

The retrieval journey

Driver Vehicle Coordination UTA



UTA ground-level entry / hand-over (demonstration)

01 Request in advance

Driver sends a retrieval request through an app

02 Retrieve

UTA retrieves the vehicle from its bay

03 Present at ground level

Vehicle is transferred to the ground-level hand-over area

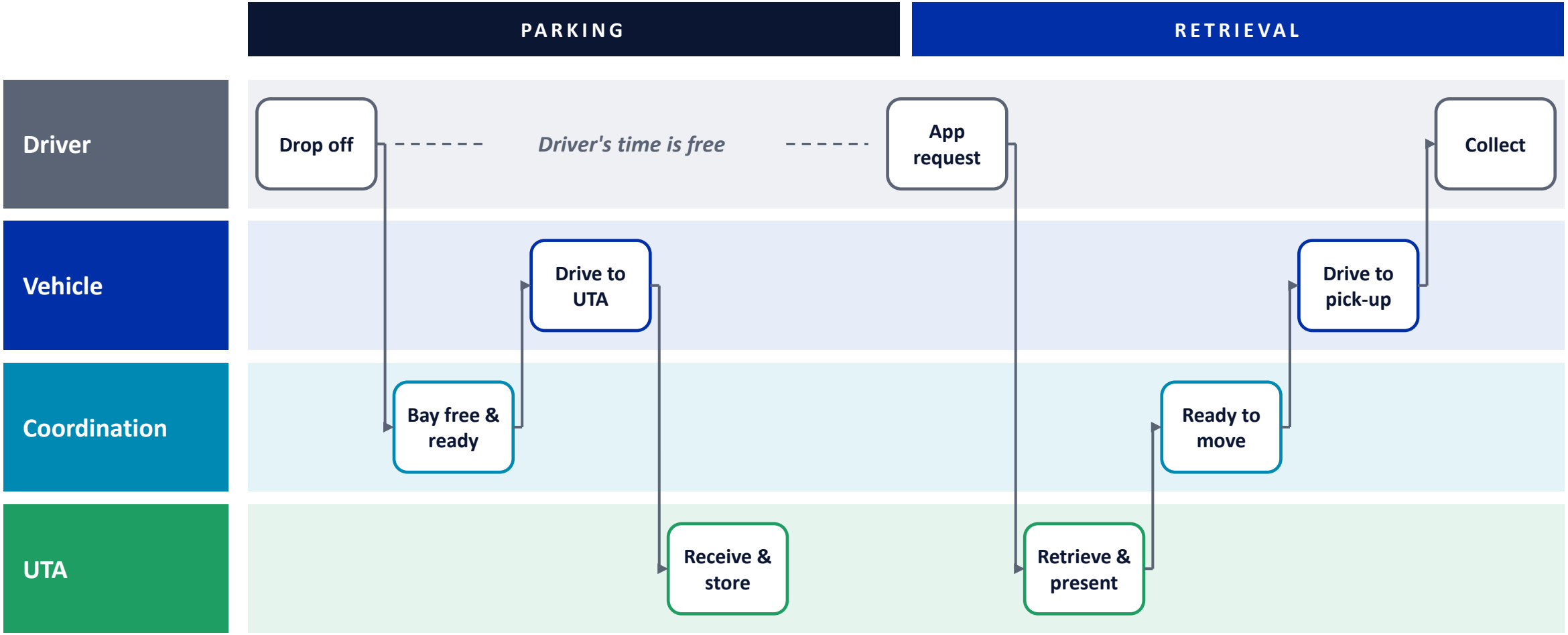
04 Drive to pick-up point

When ready, the vehicle moves autonomously to a designated pick-up point nearer the driver

05 Collect & go

Driver collects the vehicle, subject to supported environment and operating conditions

One experience: the driver only hands over and collects



Hand-over points are where the vehicle and the building coordinate: when a bay is free, and when the vehicle is ready.

POTENTIAL VALUE

Where the combination could add value

Potential benefits, to be validated site by site. No performance figures implied.

Less manoeuvring

Drivers don't need to drive into or out of a space themselves

Easier drop-off & collection

Designated points placed where they are most convenient

Automated storage

Mechanical storage and retrieval on a compact tower footprint

Ready for smart mobility

A defined interface point between vehicles and buildings

POTENTIAL SETTINGS

- Residential & mixed-use developments
- Offices & commercial buildings
- Transport hubs (airports, rail)
- Hospitals & public facilities
- Dense urban sites where land is scarce

Fit depends on site layout, vehicle mix, traffic and local regulations.

From compatible to coordinated

A realistic path toward closer vehicle–infrastructure cooperation.

TODAY

Building blocks exist

- Vehicle-side valet functions emerging
- Automated tower parking is established infrastructure
- UTA demonstrated with an AVP-enabled vehicle

NEXT

Defined hand-over

- Shared signals: availability, readiness, status
- Pilots at designated sites with operators and vehicle makers

FUTURE

Parking as a mobility node

- Links with EV charging (already offered in Yee Fung tower systems)
- Links with fleet and building management

Enablers: regulation & approvals · safety validation · OEM cooperation · common standards

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Where will driverless fleets rest and recharge?

Imagine streets full of autonomous robotaxis, and few privately driven cars.

Off-peak hours

Where do idle robotaxis wait?

Between trips

Where do they recharge?

Small urban plots, tall UTA towers. Use height instead of land.

Small footprint, high capacity

About 8.0 × 6.8 m per tower for 20 spaces

Idle vehicles off the street

Less cruising and kerbside waiting at off-peak hours

Charge while parked

Ready for the next peak, without a driver plugging in



Concept illustration, not an existing installation.

Thank you · Q&A

Autonomous driving gets the vehicle there.
UTA takes it from there.

Vehicle-side intelligence + infrastructure-side automation = an integrated parking experience.



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