Smart Mobility in Taiwan

Practical and Real-world Applications

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Smart City Taiwan
Delegated by Industrial Development Bureau,
Ministry of Economic Affairs of Taiwan
Smart City Taiwan

Top-Down
- Technology driven
- Policy focus
- Mayor’s vision
- PPP and urban planning
- ...

Bottom-Up
- Industry innovation
- Citizen needs
- Local features and cultures
- Outdated infrastructure
- ...

Field Trials for Fine Tuned Solutions

Over 200 Projects

Going Global!

Startups
Business Cooperation
Innovation
Jobs
Investment

Smart Mobility
Smart Education
Smart Healthcare
Smart Retail
Smart Governance
Smart Agriculture

Central Policy

Smart City Projects

Local Needs
Taiwan is known for:

- Night markets, food, Taipei 101, and natural beauty
- ICT manufacturing hub, industry chains, and electronics
- Semiconductor clusters and TSMC accounting for over 50% in the global semiconductor foundry market
- Widespread internet access and coverage
- Bunch of engineers?

Taiwan at a glance

- Area: 36,000 km²
- Population: 23 million
- Capital: Taipei
Difficulties & Concerns

- Geography limits
- Traffic congestion
- Environment protection
- Concentrated cities
- Outdated urban planning
- Decreasing labor force
- Changing consumer behavior
- ...
Practical and Real-world Applications – TIDC’s Smart Parking

Solution!

Step 1
Look up parking space on your phone

Step 2
Park your car

Step 3
Pole and geomagnetic sensor send signals back to control center

Step 4
Your car is under 24/7 and real-time management, monitoring and data analysis

Step 5
Choose your payment method among multiples

Step 6
Enjoy special deals, promotion event, and discounts

User

- Time-consuming
- Unnecessary waiting
- Extra congestion
- Troubles finding your car
- Single payment method
- ...

Management

- Not cost-effective
- Low efficiency
- Illegal parking and fines
- Lack of data
- Slow response
- ...

It takes forever to find parking space!

I can’t remember where I parked!
Practical and Real-world Applications – TIDC’s Smart Parking

Over 5 years of smart parking operation...

• + public parking lots
• + parking revenues
• + pay before due date
• + accuracy rate and efficiency
• + turn-over rate
• + environment protection
• + public and private cooperation
• + customer satisfaction
• ...

...
Practical and Real-world Applications – Turing Drive’s Autonomous for All

Needs and Concerns

- Driver fatigue
- Driver shortage
- Driver’s blindspots
- Driver’s latent response and anticipation
- Lack of data
- New technology testing and implementation
- Traffic control and accommodation

Solution!

Taoyuan Agriculture EXPO

Lihpao Amusement Park

Taoyuan MRT Shuttle

Taipei City Bus Line

Export to Thailand

Golf Carts and Course

2017-2018

2018-2020

2019-2020

2020-2021

2020-2021

2019-NOW
Since 2018...

- + more than 10 actual sites
- + more than 4 models of autonomous vehicles
- + more than 33,000 kilometers
- + more than 70,000 passengers
- + more than 50 scenarios
- + public and private cooperation
- + 5G & cloud
- + greener, safer, quieter, and smoother
- ...
Practical and Real-world Applications – Noodoe’s EV Charging

Trends to Needs

- Inadequate charging stations and the cost of infrastructure
- Availability and compatibility?
- Where are they?
- Risk of grid overload
- Charging station maintenance and management

Solution!

- 24/7 operation and management
- Peak-hour price adjustment
- Multiple payment methods and seamless transaction
- Intelligent energy management and optimization
- Automated diagnostic, alert, and self-recovery system
- Can be installed and operated anywhere
Practical and Real-world Applications – Noodoe’s EV Charging

Noodoe and its EV charging...

• + more than 6 countries
• + more international partners
• + more power
• + more EV
• + make us healthier
• + make the world greener
• ...
Smart Mobility – What’s Next for Taiwan?

From city, country, to the world:

• Smart town to city
• Smart city to city
• Smart city to country
• Cross-sector collaboration
• International cooperation!
• Go smart to the world!
• Innovation & sustainability!