Eurobike

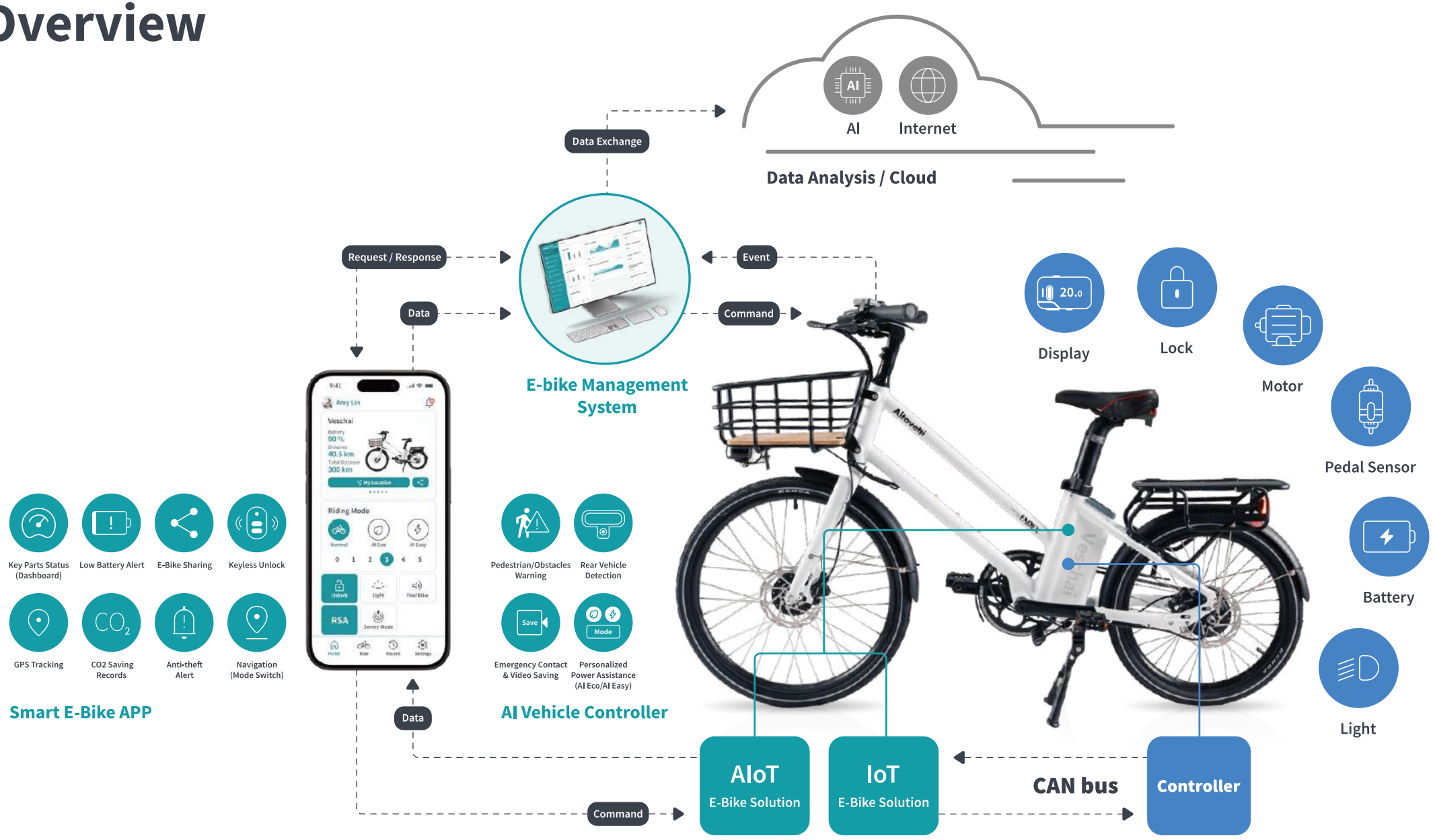
hti

Smart E-Bike System

Ride Smart, Ride Safe – with AI



Overview


AI
Internet
Data Analysis / Cloud
Data Exchange
Request / Response
Event
Data
Command
E-bike Management System
Display
Lock
Motor
Pedal Sensor
Battery
Light
Key Parts Status (Dashboard)
Low Battery Alert
E-Bike Sharing
Keyless Unlock
GPS Tracking
CO2 Saving Records
Anti-theft Alert
Navigation (Mode Switch)
Smart E-Bike APP
Pedestrian/Obstacles Warning
Rear Vehicle Detection
Emergency Contact & Video Saving
Personalized Power Assistance (AI Eco/AI Easy)
AI Vehicle Controller
Data
Command
AIoT E-Bike Solution
IoT E-Bike Solution
CAN bus
Controller

IoT Solution

IoT Module

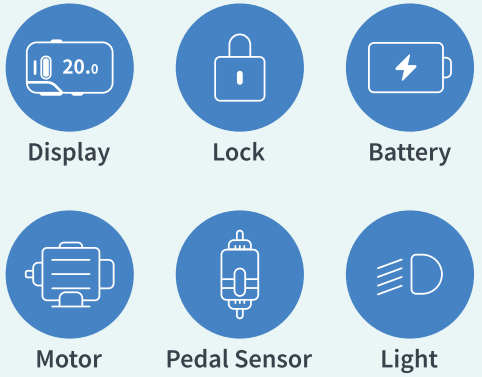


250W
S15-U(Uart)
S15-C(Canbus)



500W
S15P-U(Uart)
S15P-C(Canbus)





Custom Appearance



- Rental E-Bike



- E-Bike



- Cargo E-Bike

AIoT Solution

Software & Hardware
System Integration with AI Vision



App Function

Smart E-Bike App

- Key Parts Status
- Low Battery Alert
- E-Bike Sharing
- Keyless Unlock
- GPS Tracking
- CO2 Saving Records
- Anti-theft Alert
- Navigation (Mode Switch)



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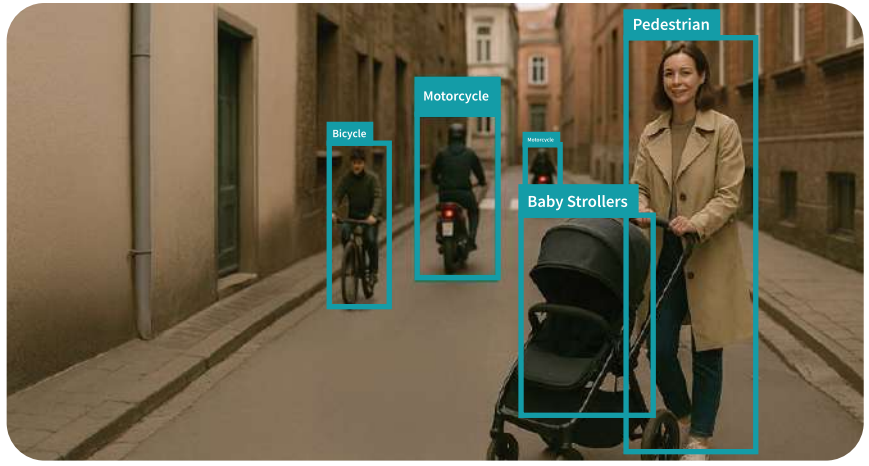
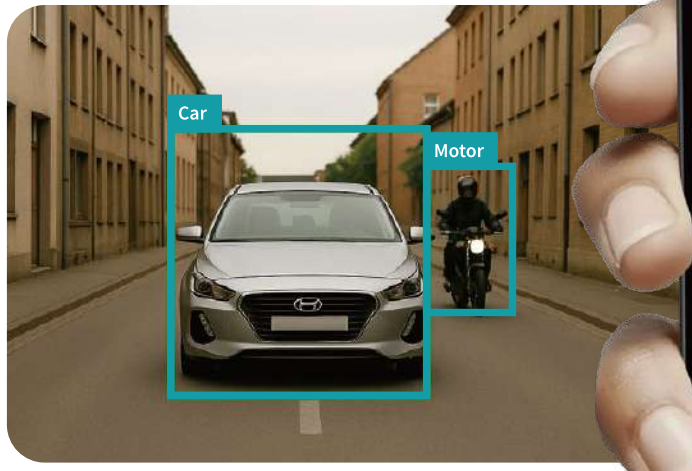
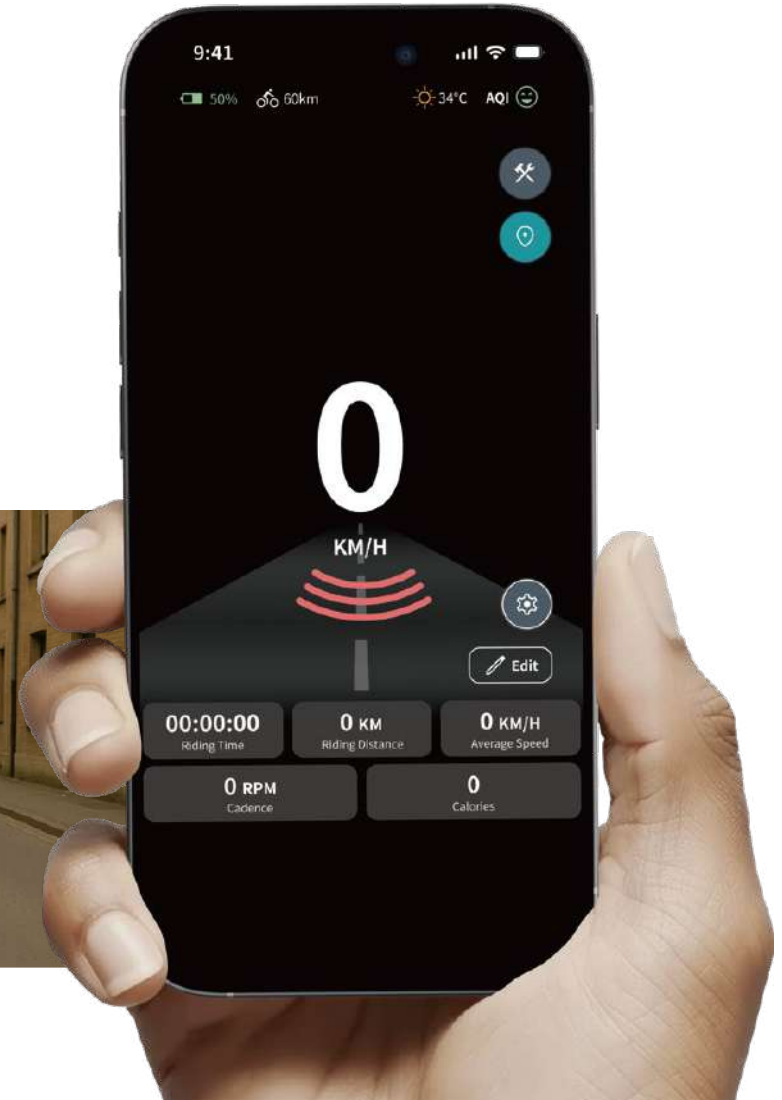
App Function

AI Vehicle Controller

- Pedestrian/Obstacles Warning
- Rear Vehicle Detection
- Emergency Contact & Video Saving
- Personalized Power Assistance (AI Eco/AI Easy)







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Bike Management System

Sales & Maintain Management

Dashboard

Gain instant insights with real-time data to make smarter decisions and optimize operations efficiently

E-Bike Management

Monitor E-Bike and key components' status , ensuring optimal performance and rider safety

Personalized Services

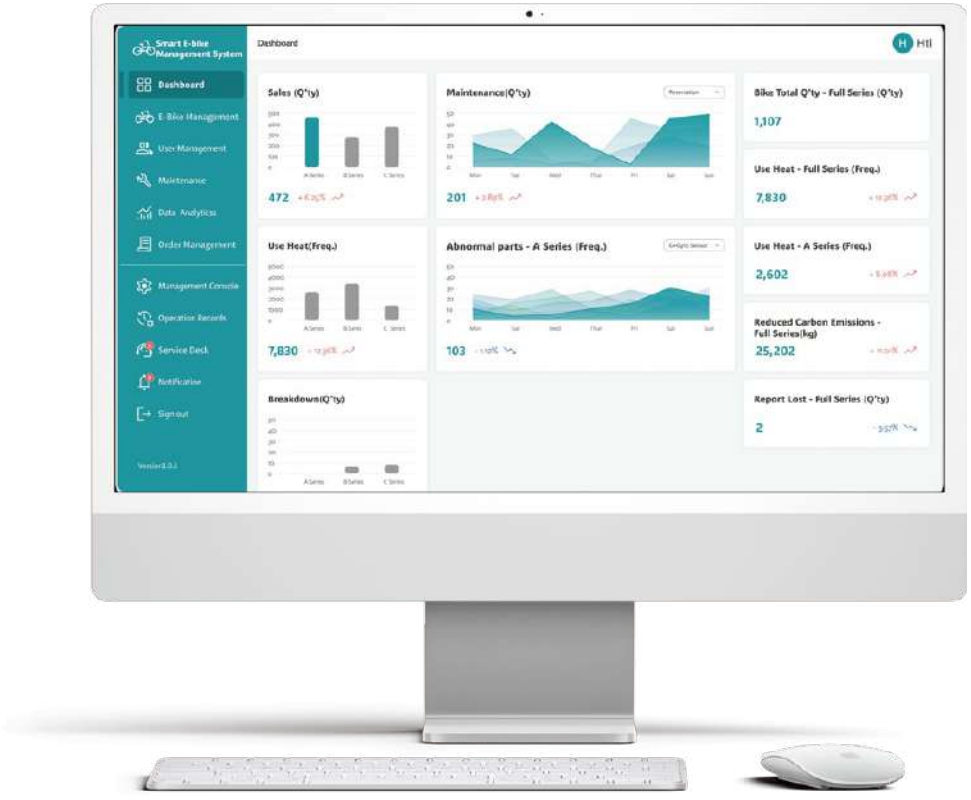
Data-driven insights to enhance user experience and promote sustainable mobility

Advanced Data Analytics

Leverage deep learning and predictive analytics for smarter decision-making and future strategies

AI-Powered Maintenance

Gain instant insights with real-time data to make smarter decisions and optimize operations efficiently



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Bike Management System

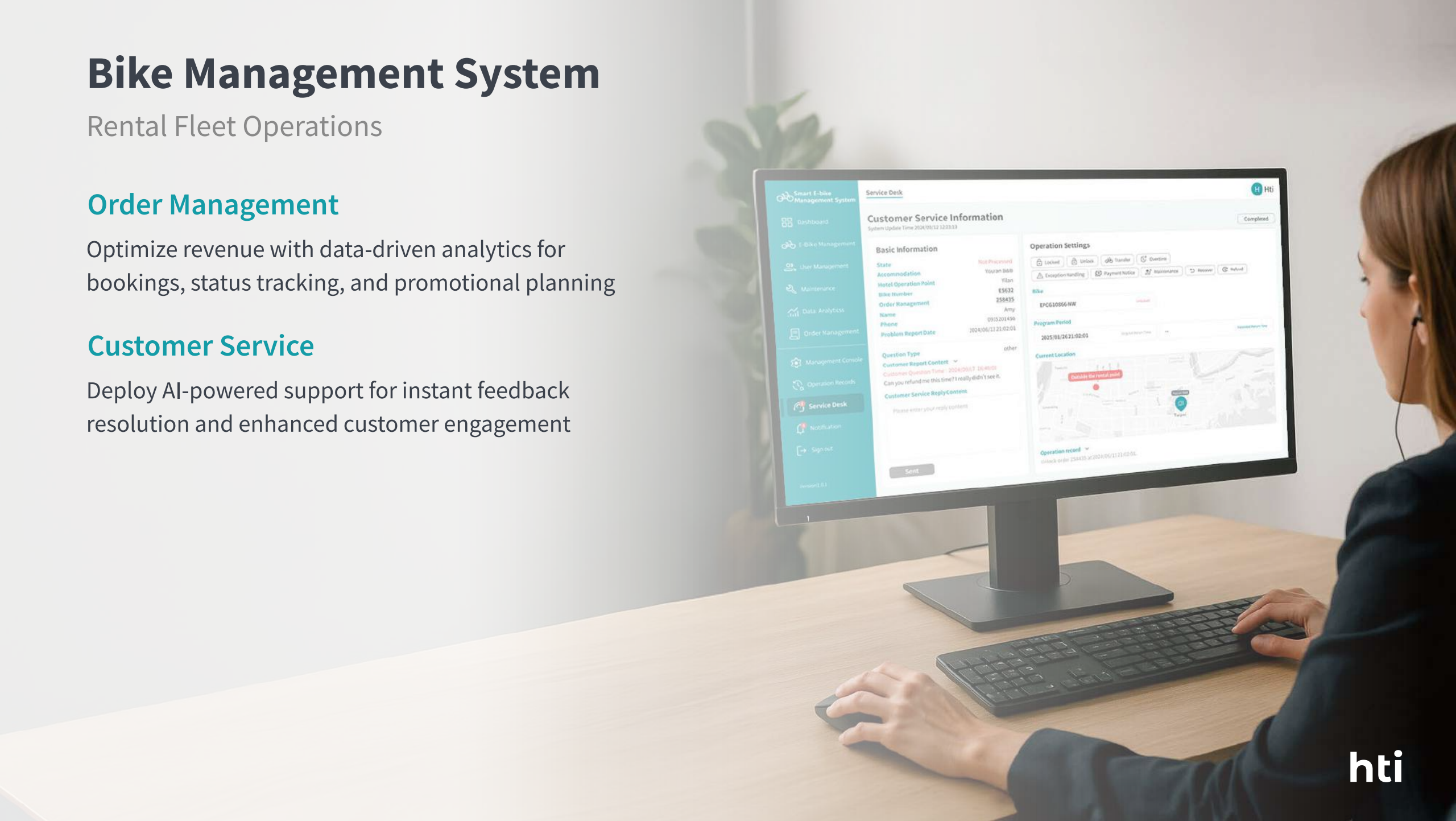
Rental Fleet Operations

Order Management

Optimize revenue with data-driven analytics for bookings, status tracking, and promotional planning

Customer Service

Deploy AI-powered support for instant feedback resolution and enhanced customer engagement



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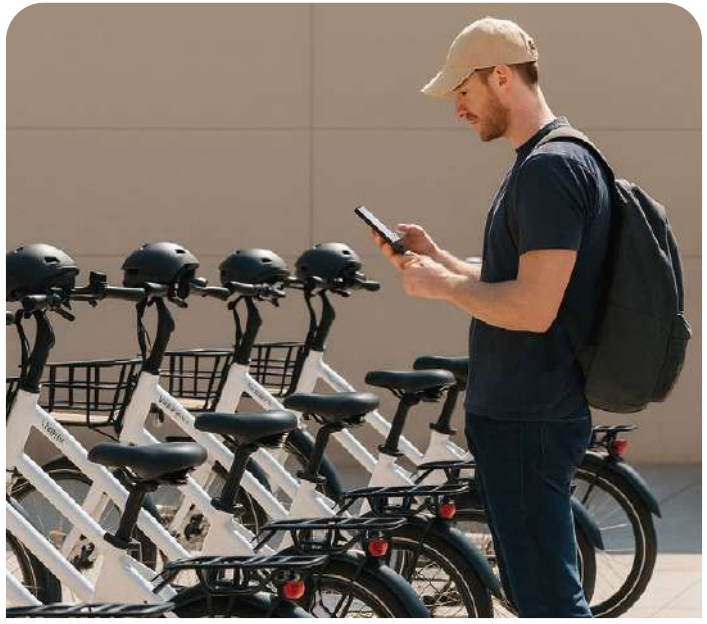
Versatile Applications of the Smart E-Bike System

Our smart system is modular and adaptable, enabling seamless integration across different types of electric mobility solutions.



E-bikes & E-scooters

- For personal urban mobility
- Speed & battery monitoring
- Theft prevention & GPS tracking
- Mobile app integration



Rental E-Bike

- Ideal for urban fleet sharing
- Keyless
- Real-time usage tracking
- Remote diagnostics



Cargo E-Bike

- For commercial delivery solutions
- Front and rear vehicle detection
- Route planning support
- Usage-based maintenance alerts

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Use Case – E-Bikes & E-Scooters

E-Bike Status Monitoring

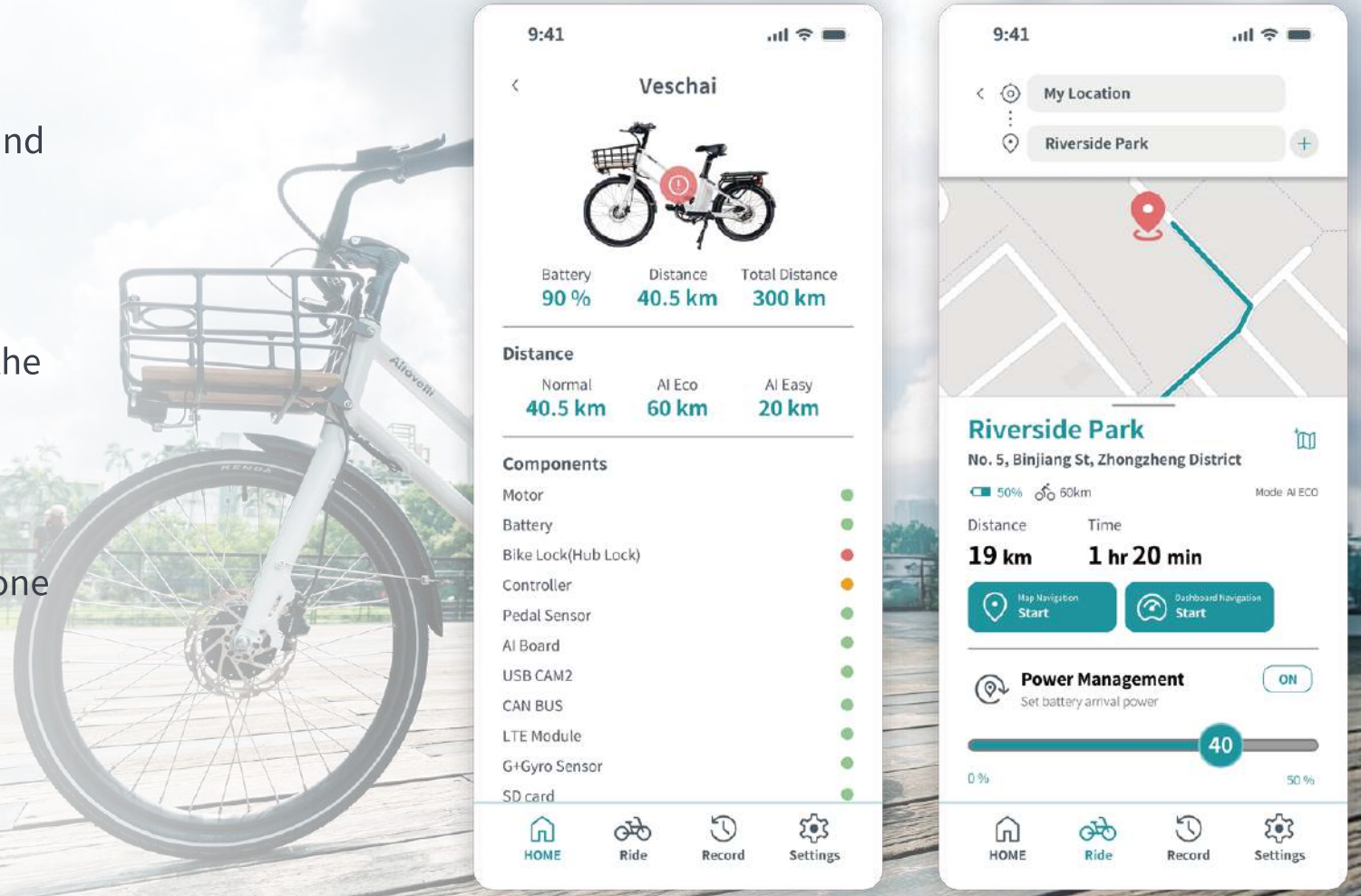
Monitors real-time bike status to ensure safe and reliable rides

Battery Power Management

Automatically adjusts power usage based on the route to prevent battery depletion

Keyless Smart Unlock

Automatically unlocks the bike when your phone is nearby

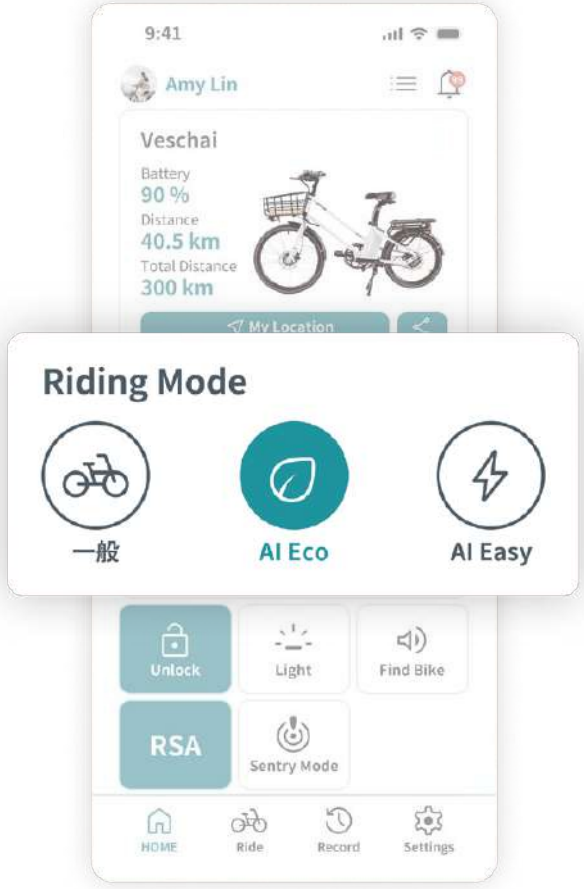


Use Case – E-Bikes & E-Scooters



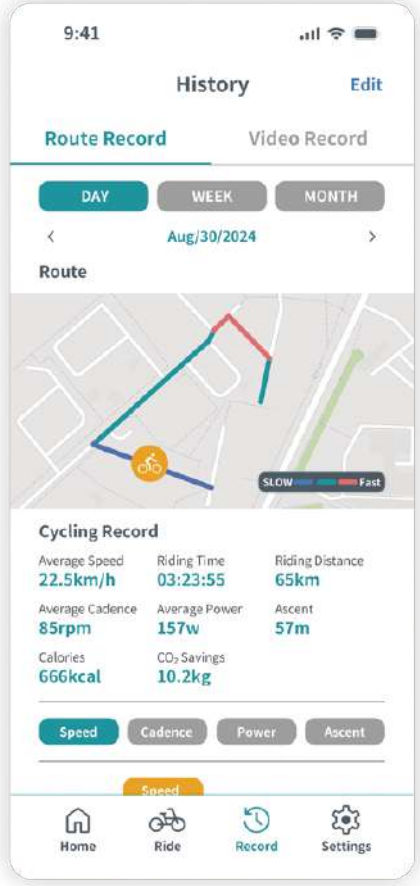
AI Vehicle Detection

Enhancing safety protection



AI Power Assist

Normal / AI Eco / AI Easy



Route Planning & Cycling Tracking

Cycling data and history

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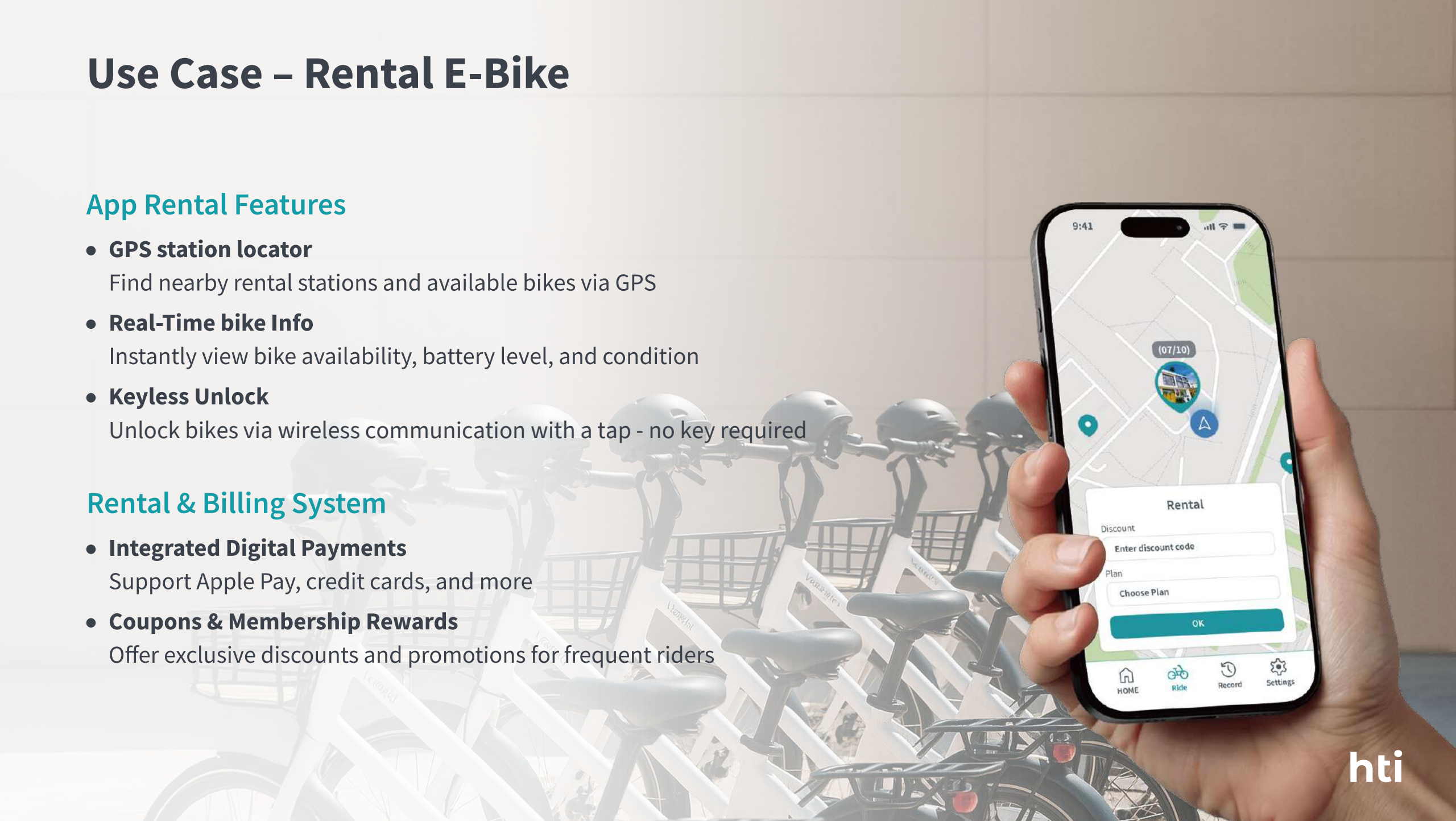
Use Case – Rental E-Bike

App Rental Features

- **GPS station locator**
  Find nearby rental stations and available bikes via GPS
- **Real-Time bike Info**
  Instantly view bike availability, battery level, and condition
- **Keyless Unlock**
  Unlock bikes via wireless communication with a tap - no key required

Rental & Billing System

- **Integrated Digital Payments**
  Support Apple Pay, credit cards, and more
- **Coupons & Membership Rewards**
  Offer exclusive discounts and promotions for frequent riders



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Use Case – Rental E-Bike

Smart Vehicle Management

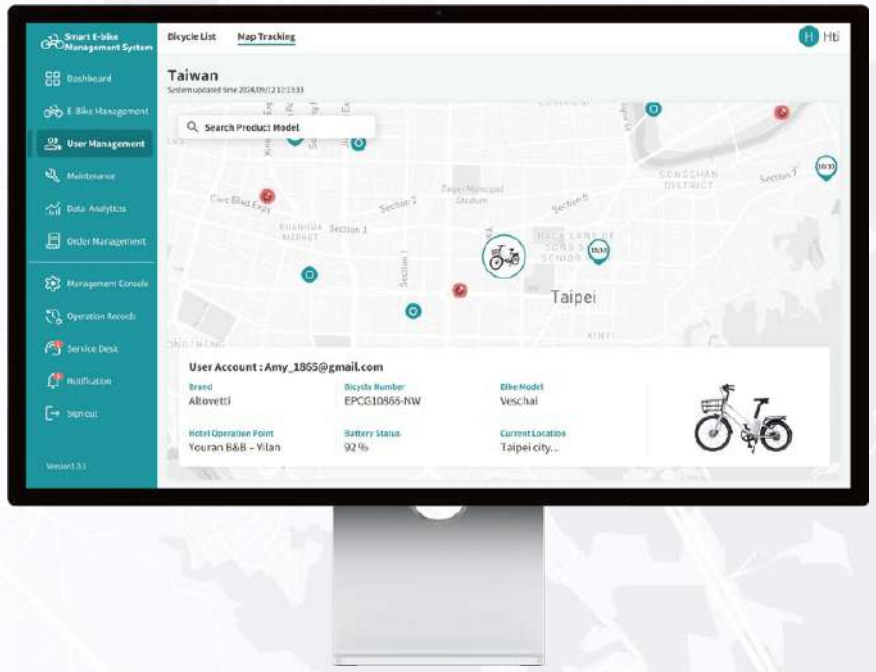
- **GPS Tracking**
  Monitor bike location, routes, and stop durations in real time
- **Battery Management System (BMS)**
  Track battery levels and receive health status alerts
- **Ride Behavior Analytics**
  Record trip history, distance, and speed for each ride

Safety & Risk Control

- **Anti-Theft Alerts**
  Get notified of abnormal movements; lock bikes remotely
- **Auto Condition Reporting**
  Detect and report impacts, falls, and other anomalies to the system

Maintenance Support

- **Repair Status Management**
  Flag bikes under maintenance — unavailable for rental
- **In-App Issue Reporting**
  Users can report issues with photos and GPS location



Use case - Cargo E-Bike



AI Power Assist & Ride Optimization

- Intelligent uphill gear shifting & downhill safety control
- Real-time trailer braking coordination
- Adaptive motor assist for consistent speed

AI-Based Safety System

- 360° real-time image detection (Front, Side, Rear)
- Pedestrian, vehicle, obstacle recognition
- Visual + audio alerts for blind spots & rear threats



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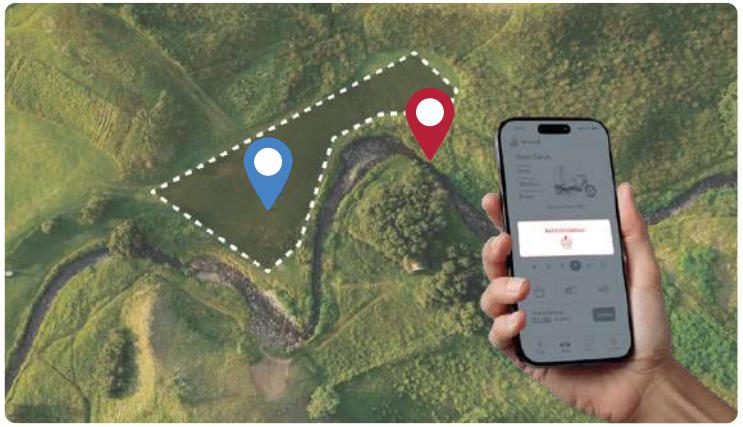
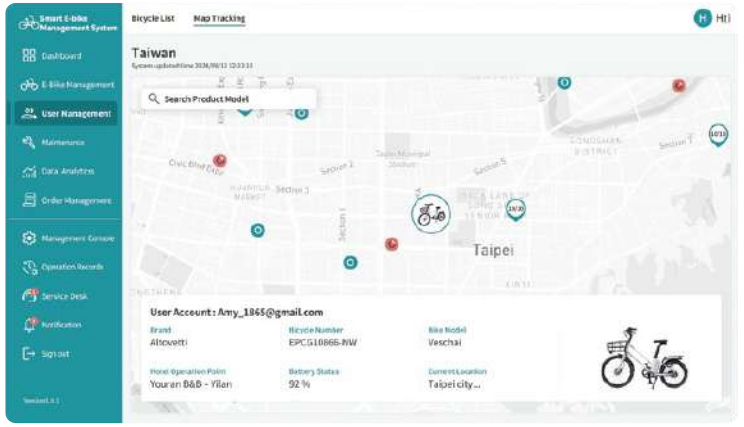
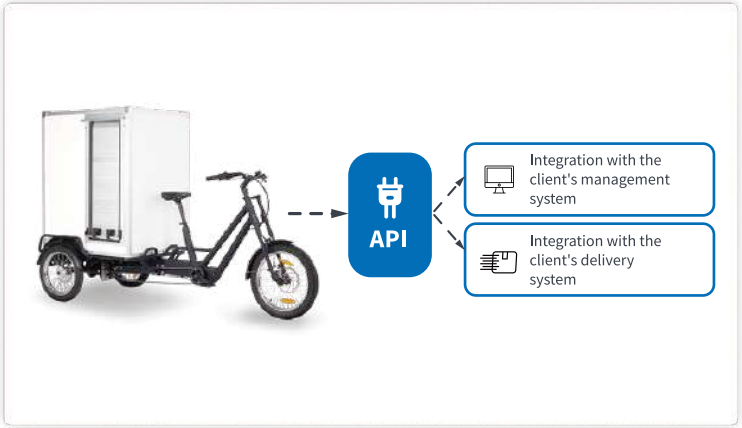
Use case - Cargo E-Bike







Remote Security & Emergency Handling

- Smart lock: Face ID, fingerprint, auto-lock/unlock
- Geo-fencing & motion alerts
- Crash video auto-upload + emergency notification system

Cloud & Data Analytics

- Real-time vehicle tracking, battery & motor diagnostics
- Rider performance insights (e.g., route deviation, efficiency)
- Predictive maintenance & ETA delay warnings

Seamless API & Logistics Integration

- Syncs with client delivery systems
- Real-time cargo & incident data sharing
- Supports fleet operations and logistics record keeping

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