wi.MOVE

Management for transport infrastructures -
Intelligent mobility services

1a. Structural Health

Monitoring

Assess structural health

Insights / Decisions

Early warning
Predictive maintenance

1b. Traffic Monitoring

Monitoring

Obtain traffic statistics
Assess driver behavior

Insights / Decisions

Early warning
Detection of potential dangers

2a. Parking

Monitoring

Availability / Utilization

Decisions

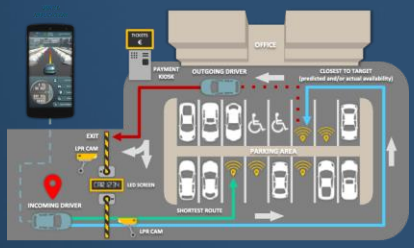
Scheduling / Booking

Policies

From stakeholders

Instructions

To drivers



Decision making
Data analysis
Data management
Forecasting

2b. Passengers

Monitoring

Crowd concentration estimation
Mobility patterns

Decisions

Maintenance
Operation tasks support
Instructions
User assistance
Incident handling
Insights to retail

3. Vehicle …"as a city sensor"

In vehicle aspects

Passenger transfer conditions
Vehicle aspects

Infrastructure

Status and Quality

City aspects

Air quality & environmental parameters

OBU based

On board processing unit for fleet management apps

2c. Marinas

Monitoring

Berth management & monitoring
Occupancy tracking
Water / Energy consumption
Air Quality & environmental parameters

Decisions

Scheduling & reservations
Payments
Operation tasks support
Instructions

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DATA SOURCES

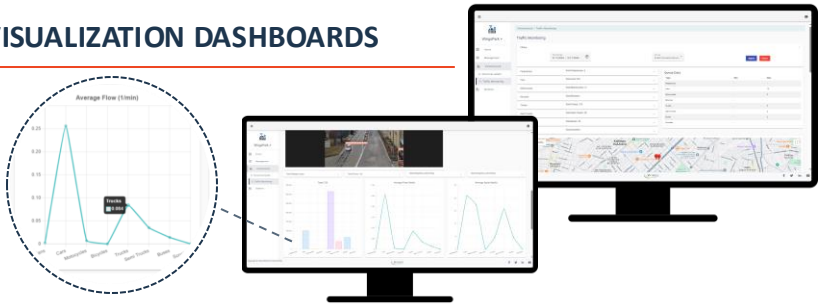
The system gathers data from a variety of sources and devices tailored to different applications. These include a Data Acquisition System with cameras installed in key infrastructures, capturing real-time video streams.

Additional data sources include fixed cameras, drones, occupancy sensors, municipal vehicles, autonomous ground vehicles (AGVs), and specialized optical and thermal cameras. Together, these devices provide comprehensive monitoring and analysis across multiple domains.

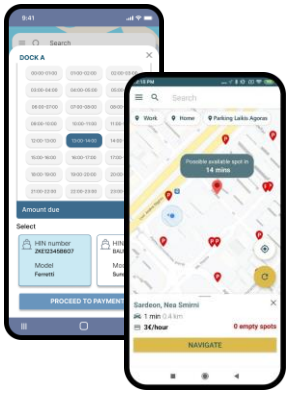
AI ALGORITHMS

The system employs advanced IoT and AI algorithms, including machine vision, video analytics, detection models, and predictive and optimization mechanisms, for real-time monitoring, data processing, and decision-making. Video streams are analyzed to extract key parameters, with machine vision tracking objects and predictive models forecasting patterns like traffic flow, damage severity, or infrastructure performance across domains such as transport, parking, and berth management.

VISUALIZATION DASHBOARDS



The system features advanced visualization dashboards that provide real-time access to video streams, camera feeds, real-time notifications, monitoring data, key insights, statistics & analytics, comprehensive views of outcomes across domains, etc. Administrators can filter data by date, source, or device, receive alerts, manage devices, and access analytics for optimized decision-making and infrastructure management.



The system includes a variety of apps designed for user convenience and efficiency. These apps enable real-time booking, navigation, and payment for services like parking, marinas, and transportation. They offer features such as live updates, occupancy predictions, safety alerts, and access to historical data. Users can also manage arrivals, departures, and service usage, ensuring smooth and seamless experiences across different domains.

APPLICATIONS

ABOUT WINGS

WINGS ICT Solutions provides comprehensive IoT solutions for smart cities, e-health, and public utility services, utilizing innovative technologies such as Artificial Intelligence, Big Data, advanced wireless networking, and security technologies.

wings.

Contact

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