



# AutoSense

## Analytics

*A data collection company utilizing vehicle  
mounted sensors*



# PROBLEM STATEMENT

A dark blue background featuring a faint, light-colored map of a city street grid. Four teal location pins are placed on the map, each containing a white letter: 'C' is in the lower-left, 'E' is in the upper-left, 'F' is in the upper-right, and 'G' is in the lower-right. A light gray path or road line runs diagonally from the bottom-left towards the top-right, passing near the 'C' and 'E' markers.

01

Lack of available data

02

Inflexible data collection

03

Data fragmentation

# OUR SOLUTION



## Vehicle Mounted Sensors

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Deploy sensors on vehicles to collect real-time data across various routes



## Data Sharing Partnerships



## Adoption of IoT Technology



## Centralized Data Integration Platforms



# UNIQUENESS

## Vehicle Utilization

Public transportation vehicles: established routes frequently

Private transportation vehicles (taxis): wide range of routes

Commercial Fleets: specific hours

## Enhanced Features

Low-cost and high-speed hardware

Plug and play h/w

Edge-AI

Application specific hardware design

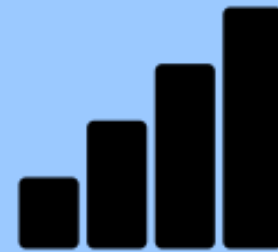
## Data Analysis

Customized data analysis per project

Friendly and readable data presentation

Covering a wide spectrum of applications

# CURRENTLY WORKING



## Signal RSSI Mapping

Measuring:

4G/5G  
LoRa  
Zigbee  
NB-IoT

Providing:

- Detection of **dead signal spots**
- Recommendation of new **access points placement**
- Creation of **signal coverage heatmap**
- Comparison of network service providers



UNIVERSITY OF  
**PATRAS**  
ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΑΣ



## WiFi Access-Point Mapping

Detecting:

Approximate detection of access point location, in campus

WiFi RSSI

Providing:

- A map of the campus **WiFi access points locations**
- A **heatmap** of the campus **WiFi signal**
- Recommendations for **access-points reallocation**

NAM  
Group



## Image Collection for 3D reconstruction

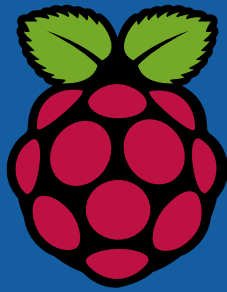
Collecting:

Images from 3 cameras looking in different angles

Providing:

- **Images** formatted for **3D-reconstruction** of the desired area
- Information from the images collected, using **EdgeAI**

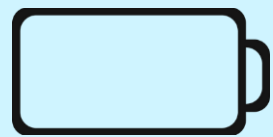
# HARDWARE SELECTION



Raspberry Pi 4 B+ 8GB

Raspberry Pi HATs  
selected depending on each business needs

## Extra Hardware



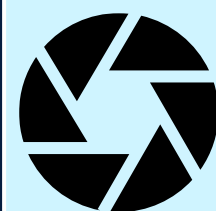
Battery or  
12V Car Lighter  
Power adapter



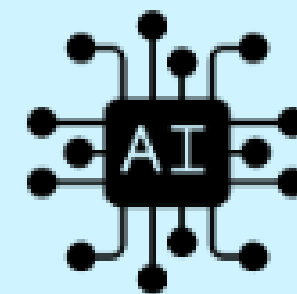
3D printed  
Vehicle Mount  
Case



GPS Antenna



RPi Camera



RPi AI HAT+

4G

5G

LoRa



NB-IoT™







## AutoSense Portal

Username

Password

OR

Sign in

[Create an account](#)

- Authorized User Login
- Login necessary in order to view the project updates



*Welcome username. Please choose the project below to view its progress.*

Access Points

Signal Coverage

3D Cameras



- For each connected user the list of the projects they are associated with, will be displayed.

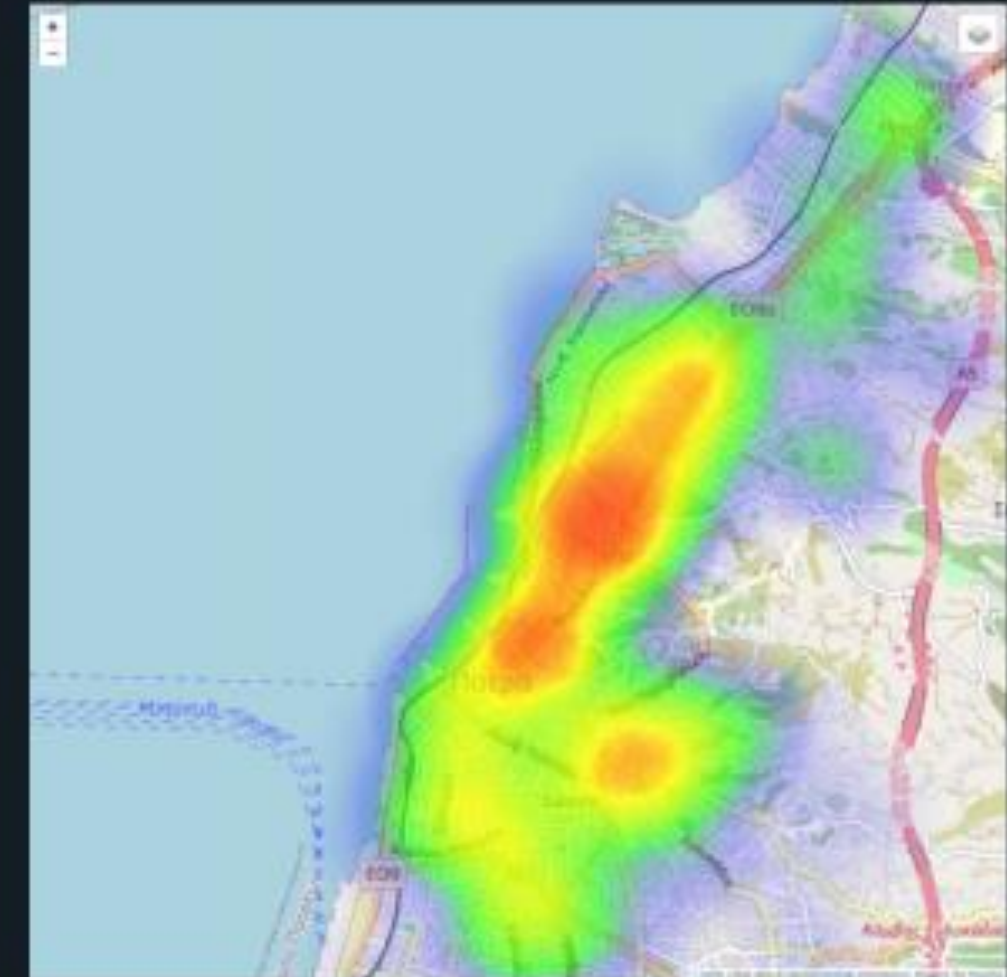
For every project:

- Customized Dashboard, depending on the users needs
- Heatmaps
- Graphana charts

## Signal Coverage 4G

### Heatmap

Last updated: 3 min ago



### Dashboard






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*AutoSense  
Analytics*

# Thank's For Watching

**Connect with us.**



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