
# Revolutionizing Public Transport in Hatay

Our project aims to develop an artificial intelligence-supported mobile application that will radically change the public transportation system in Hatay. Considering the difficulties experienced by citizens in transportation in the housing areas reshaped after the earthquake, we aim to offer innovative solutions to these problems thanks to this application.

# Addressing Post-Earthquake Needs

## Post-Earthquake Realities

The recent earthquake significantly impacted Hatay’s infrastructure, leaving residents grappling with transportation challenges. Displaced communities are spread across the city, creating a complex and diverse set of transport needs. Additionally, reconstruction efforts require efficient and accessible transportation for both residents and workers.

## Smart Solutions

We propose a comprehensive, AI-powered public transportation solution designed to cater to these needs. It provides real-time route tracking, dynamic route optimization, and integration with transport cards. The system enhances connectivity, improves route efficiency, and offers a more comfortable and reliable experience for commuters.

# A Solution Built for Hatay's Unique Needs

## Target Audience

Our system caters to all residents of Hatay who rely on public transportation for their daily needs. This includes families, workers, students, and visitors.

## Addressing Existing Deficiencies

The current system is hampered by inadequate routes, insufficient bus capacity, and ineffective route planning. This leads to long wait times, crowded buses, and delays.

## Innovative Solutions

Our system leverages cutting-edge technology to address these shortcomings. Live route tracking, dynamic route optimization, and seamless transport card integration enhance speed, reliability, and comfort.

# Leveraging AI to Optimize Hatay's Transport Network

## Data Collection and Analysis

Sensors and GPS integration are used to collect real-time traffic and passenger data, providing valuable insights into usage patterns and bottlenecks.

## AI & Machine Learning

This data is then analyzed using AI and machine learning algorithms to optimize routes, optimize bus schedules, and manage bus capacity effectively.

## Developing a User-Friendly Mobile App

A mobile app, built using the Flutter framework, provides a seamless user experience across both Android and iOS platforms, making it accessible to all users.

# Project Timeline: A Structured Approach to Implementation

1

## Analysis & Planning (Phase 1)

A comprehensive analysis of Hatay's existing transport system and user needs is conducted within the first three months to identify key areas for improvement.

2

## Sensor & GPS Integration (Phase 2)

Sensors and GPS technology are integrated within six months to initiate the collection of real-time data, building a robust foundation for analysis and optimization.

3

## AI & Mobile App Development (Phase 3)

Within nine months, AI algorithms are developed and integrated into the mobile app, laying the groundwork for intelligent route planning and optimization.

4

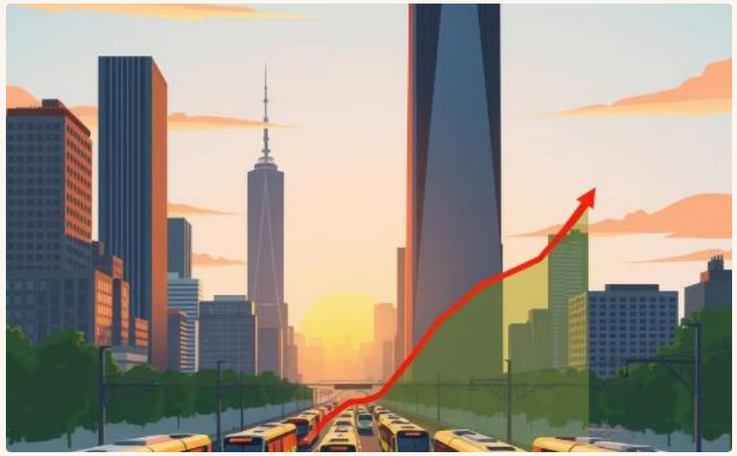
## Testing & Pilot Launch (Phase 4)

Extensive testing and a pilot launch of the system are conducted within a year, ensuring a smooth transition and successful implementation.

# Building a Sustainable Future

## Environmental Sustainability

Reduced traffic lowers air pollution and carbon emissions, creating a healthier, quieter environment.



## Economic Sustainability

Improved efficiency leads to fuel savings, reduced costs, and fewer economic losses from congestion.

## Social Sustainability

Increased accessibility ensures equal opportunities for all, fostering a more inclusive and safer society.

# Key Features Of The Application

## 1.Real-time Route Tracking

Users can track the location of public transport vehicles in real-time.

## 2.Dynamic Route Optimisation

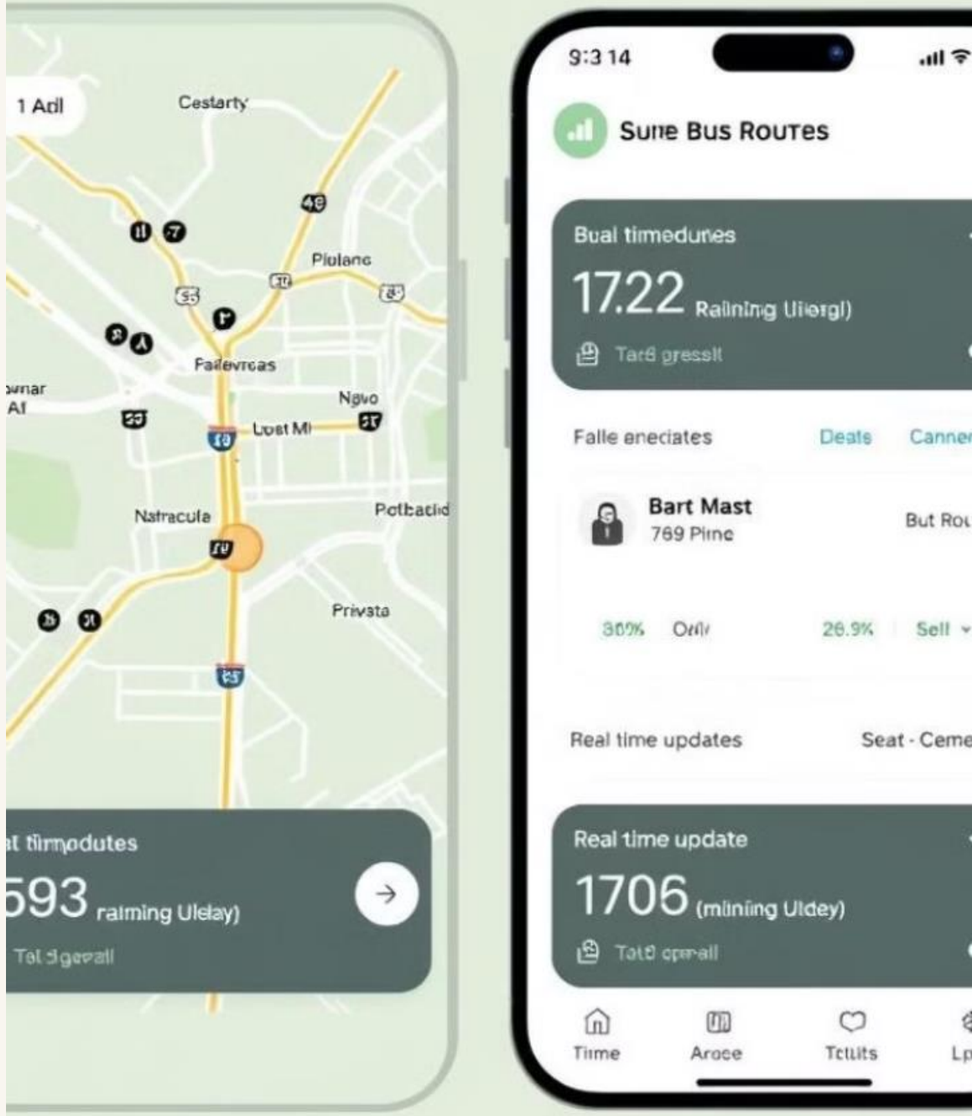
The app identifies the fastest and most efficient route based on real-time traffic conditions.

## 3.Transport Card Integration

Users can integrate their transport cards with the app for convenient payment.

## 4.QR Code Integration

Users can add new businesses, stops, and residential locations to the app using QR codes.




# Key Features: Delivering a Seamless User Experience

## Live Route Tracking

Users can track the real-time location of buses, allowing them to plan their journeys effectively and avoid delays.

## Dynamic Route Optimization

The system dynamically adjusts routes based on traffic conditions, ensuring the fastest and most efficient travel time for commuters.

## Transport Card Integration

Users can integrate their transport cards with the app for convenient and secure payment, making travel easier and more efficient.

## QR Code Integration

Users can use QR codes to add new businesses, stops, and residential locations to the app, enhancing its comprehensiveness and user-friendliness.

# User Experience: A Focus on Convenience and Efficiency

## Intuitive Navigation

The app offers a user-friendly interface, making it easy for users to navigate and find the information they need quickly and easily.

## Real-time Updates

Users receive timely notifications about any delays or changes in routes, ensuring they are always informed and prepared.

## User Feedback Integration

The app provides a platform for users to provide feedback and suggestions, contributing to continuous improvement of the system.

# A Brighter Future for Hatay

By building a smart public transportation system, we aim to significantly enhance the daily lives of Hatay's residents, creating a safer, more efficient, and sustainable urban environment. This initiative represents a bold step towards a brighter future for the city.

# Next Steps: From Vision to Reality

With a clear vision and a well-defined plan, we are confident in the successful implementation of Hatay’s smart transportation system. We are excited to collaborate with city officials, technology experts, and residents to bring this innovative project to life.

# ABOUT US

## GONCAGÜL KILINÇ

I am developing myself in software and design areas. I take part in projects as a developer and researcher. I am learning Python and C languages, I am new to Flutter. In the short term, I aim to improve my software knowledge and gain experience in projects, and in the long term, I aim to take on active roles.
My LinkedIn.


## MELİSA SAPAN

I am a sophomore in the Computer Programming department. I am confident in my interpersonal communication and persuasion skills. I'm learning C++ and C# languages and recently started exploring Flutter. I'm interested in AI and am trying to improve myself in this field. I enjoy taking an active role in project groups, especially in project management, reporting, and research tasks. I'm also interested in entrepreneurship and aim to start my own business in the long term.
My LinkedIn.

## LÜTFİYE BABAİBAN

I am a 3rd year management information systems student who aims to specialize in artificial intelligence and data analytics and improves her skills in programming development. I aim to produce innovative solutions using technology and contribute to data-driven decision-making processes
My LinkedIn.

## LEVENT GÜNAYDIN

I was born into the world of technology in 1997 and have been eager to embark on new adventures in this field ever since. I am passionate about contributing to the daily applications of technology and artificial intelligence.
My LinkedIn.