



# AI-BASED FIREFIGHTING VEHICLE

## PROBLEM

- The effectiveness of emergency responses plays a critical role in providing fast and reliable fire services. Fire trucks need to reach fire scenes quickly and safely amidst heavy urban traffic.



## FEATURES

- AI Navigation:** Autonomous route finding and obstacle avoidance.
- Real-Time Data:** Real-time traffic and road condition monitoring.
- Alert System:** Fire and emergency alerts.

1

**Data Collection:** Collecting environmental data with Lidar and camera sensors.

2

**Model Training:** Training the model using AI and machine learning algorithms.

3

**Simulation:** Testing in a simulation environment using Unity and ROS 2.

4

**Deployment:** Real-world testing and application.

CEREN ERDOĞAN  
EFEKAN KARAKOÇ  
ESRA YALÇIN  
ÖMER FARUK YILDIRIM  
ŞEYMA SERT

Advisor: Dr. ABDÜL KADİR GÖRÜR



for more info

