



TED UNIVERSITY

CMPE 491

Senior Project I

PROJECT NAME

Development of a Turkish Language Processing System with Integrated Speech
Recognition and Synthesis

Project Proposal

Submission Date: 25.10.2024

Team Members:

Doğa Paksoy 10078725538

Rana Çetinkaya 31726748334

Berrin Uzun 15982088236

Project Proposal has been changed upon FNSS' request for a change of topic.

Name of the project :

Development of a Turkish Language Processing System with Integrated Speech Recognition and Synthesis

The URL of the project web page: <https://master.d2uphh9x5nc17l.amplifyapp.com/>

Names of the team members:

1. Doğa Paksoy
2. Rana Çetinkaya
3. Berrin Uzun

Names of the supervisor and jury members

Supervisor : Deniz Cantürk

Jury Members:

1. Ayşe Yasemin Seydim
2. Eren Ulu

Description of the project:

The project aims to develop a comprehensive Turkish language processing system, encompassing both text-to-speech (TTS) and speech-to-text (STT) functionalities. Leveraging advanced machine learning techniques, it will not only transform written text into natural-sounding speech but also convert spoken language into accurate text. The system is designed to integrate seamlessly with FNSS services, improving operational efficiency and user experience. Offline fine-tuning will ensure that the models are optimized for Turkish, while performance and quality benchmarking, along with detailed reporting, will assess the system's effectiveness. Additionally, sound isolation techniques will be employed to deliver clear and noise-free results, contributing to an all-encompassing solution for voice-based interactions.