grafik, yazı tipi, grafik tasarım, logo içeren bir resim

Açıklama otomatik olarak oluşturuldu

OSTİM TECHNICAL UNIVERSITY

**2024-2025 SEMESTER**

**ELECTRICAL-ELECTRONIC ENGINEERING DEPARTMENT GRADUATION PROJECT PROPOSAL FORM**

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| **Lecture Code: EEE400** | **Lecture Name: Graduation Thesis** | | |
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| **Project Title / Number of Students:** | **Automated Retinal Image Analysis for Disease Detection Using Deep Learning Techniques /2 Students** |
| **WORKS AND PROCEDURES TO BE DONE IN THE PROJECT**  **(Put the item number on the left and write it in order)** | |
| **Item**   1. Data Collection and Preparation: Examining retinal image databases, selecting an appropriate dataset, and preparing the images for analysis. 2. Image Preprocessing: Enhancing image quality through techniques such as noise reduction, histogram equalization, and vessel structure enhancement. 3. Feature Extraction: Extracting important features such as retinal blood vessels, the optic disc, and the macular region. 4. Model Development: Training deep learning models (e.g., CNN, U-Net) for disease detection. 5. Model Training and Evaluation: Testing the accuracy and performance of the developed models using various evaluation metrics (accuracy, precision, recall, F1-score). 6. Result Analysis: Analyzing the results and the model's performance in detecting diseases. | |
| PROJECT AIMS | |
| **Item**   1. This project aims to reduce the workload of ophthalmologists and enhance healthcare accessibility, particularly in regions lacking specialized medical personnel. | |

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| **SUPERVISOR** | | |
| Title  Assit. Prof. Dr. | Name Surname  İclal ÇETİN TAŞ | Signature |