

OSTİM TECHNICAL UNIVERSITY

**ELECTRICAL-ELECTRONIC ENGINEERING DEPARTMENT**

**GRADUATION PROJECT PROPOSAL FORM**

**2024-2025 SEMESTER**

|  |  |
| --- | --- |
| **Lecture Code: EEE400/411** | **Lecture Name: Graduation Project** |
|  |  |  |  |

|  |  |
| --- | --- |
| **Project Title / Number of Students:** | Video Data Transfer in UAVs at Unlicenced Wi-Fi Band (Potential for TEKNOFEST)/ 4 students |
| **WORKS AND PROCEDURES TO BE DONE IN THE PROJECT****(Put the item number on the left and write it in order)** |
| **Item**1. Literature survey on image processing, modulations types, UAV structures, and 5G technology.
2. Develop an image processing algorithm to compress and prepare to real time data transfer.
3. Make a design for the overall system.
4. Select the required electronic components, payloads and UAV.
5. Procure the required electronic and mechanical components.
6. Develop and implement the required communication system’s hardware and software.
7. Implement UAV and ground control station, and data transfer structure.
8. Test the implemented system with real video data and evaluate its success.
 |
| PROJECT AIMS |
| **Item**1. The project's primary objective is to develop a video data transfer system for a UAV platform.
2. Students will work on developing a UAV air and ground station, communication system, and video compression.
3. The system will compress, modulate, send, receive, and demodulate the video data at an unlicensed Wi-Fi band.
4. The students will develop all the required software (both functional and embedded) and hardware.
5. The students will implement and test the overall system.
 |

|  |
| --- |
| **THE STUDENT TO WORK ON THE PROJECT** |
| Number | Name Surname | Signature |
| 1.2.3. |  |  |

|  |
| --- |
| **SUPERVISOR** |
| Title | Name SurnameAhmet Güngör PAKFİLİZ | Signature |