**MARMARA UNIVERSITY**

**FACULTY OF ENGINEERING**

**ENVIRONMENTAL ENGINEERING DEPARTMENT**

**ENVE 4197/4198 ENGINEERING PROJECT**

**PROPOSAL FORM**

**FALL 2025-2026**

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| **Instructor: Assoc. Prof. Kamil Erkan**  **Project Title: Hydrological characterization of Marmara University Maltepe Campus**  **Proposal No.: 1**  **Number of Students:** (Max 2 students) 2  **Requirements (from students):** Attendance to regular meetings. Familiarity and interest in geo-spatial data and maps. Working as a team. |
| **Scope of the Project:** In this project, students will analyze the hydrological properties of the recently settled campus of Marmara University in Maltepe, where our department is also located. Tasks include catchment settings, calculation of seasonal precipitation, evaporation, and runoff within the campus boundary. A water budget analysis will be made to calculate the available fresh water for storage. |
| **Hardware/Software/Lab/Equipment Requirements:**  Students will need to have a laptop with Windows OS. The students will learn using SURFER program for spatial data analysis in the beginning of the project. |
| **Development Plan:**   1. Surfer Tutorial 2. Watershed characteristics of the region 3. Calculating precipitation and evaporation 4. Calculation of runoff 5. Water budget model |