



**MARMARA UNIVERSITY  
FACULTY OF ENGINEERING  
ENVIRONMENTAL ENGINEERING DEPARTMENT**

**ENVE 4197/4198 ENGINEERING PROJECT  
PROPOSAL FORM  
SPRING 2020-2021**

**Instructor : Doç. Dr. Neslihan Semerci**

**Project Title : Assessment of Energy Efficiency in Wastewater Treatment Plants**

**Proposal No. : NSemerci\_2**

**Number of Students : 4**

**Requirements (from students) : -**

**Scope of the Project :** Evaluating different process scenarios to achieve energy neutral-positive wastewater treatment plants. Calculation of the energy consumption and potential energy production in each unit. Monte Carlo Method will be used for the assessment of the wastewater treatment plant operation work.

**Hardware/Software/Lab/Equipment Requirements :**

**MS Excel**

**Development Plan :**

- **Selection of different process configurations**
- **Calculation of energy consumption and production in the treatment plant.**
- **Use of Monte Carlo Method for modelling of WWTP operation work.**