



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

**ENVE 4197/4198 ENGINEERING PROJECT
PROPOSAL FORM
FALL 2023**

Instructor : Orhan Gökyay

Project Title : Treatment and Recovery of Activated Sludge from the Final Sedimentation Tank Using Water Hyacinth (Eichornia Crassipes)

Proposal No. : 2

Number of Students : 3 - 4

Requirements (from students) : None

Scope of the Project : By using water hyacinth, it is aimed to make the activated waste sludge from the final sedimentation tank less dangerous by using nature without being subjected to processes such digestion, dewatering and drying, and reuse the plant efficiently after the process.

Hardware/Software/Lab/Equipment Requirements : PC and internet, access to the Marmara University library, Enve Lab

Development Plan : In the first stage, carbon, nitrogen and phosphorus removals in waste sludge will be investigated according to the area covered by the water hyacinths grown (25%, 50%, 75% and 100%). Then, used water hyacinths will be harvested, they will be dried in the oven and turned into powder. Lastly the suitability of their use as animal feed will be checked by analyzing their protein content.