



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

**ENVE 497/498 ENGINEERING PROJECT  
PROPOSAL FORM  
FALL 2018**

**Instructor:** Assist. Prof. Dr. Deniz AKGÜL

**Project Title :** Inhibitory Effects of Nanoparticles on Anammox Bacteria

**Proposal No. :** *DenizAkgul2018-1*

**Number of Students :** 2 or 4

**Requirements (from students):** Enve 202 (Env. Eng. Chemistry II) course has to be completed.

**Scope of the Project:** In the scope of this project, the effects of nanoparticles on Anammox bacteria will be investigated. The Anammox reactor will be fed with synthetic wastewater and several nanoparticle dosages will be applied during the operation period.

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

Lab-scale Anammox reactor set-up

**Development Plan :**

- Learning the analytical techniques, adaptation to the laboratory
- Design and construction of bioreactors
- Operation of the bioreactors with synthetic wastewater
- Evaluation of the results and reporting