



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

**ENVE 497/498 ENGINEERING PROJECT
PROPOSAL FORM
FALL 2016**

Instructor : *Assoc. Prof. Dr. S. Sinan Keskin*

Project Title : *X-Ray Diffraction Patterns in a Tuz Lake sediment core*

Proposal No. : *S.SinanKeskin-1*

Number of Students : *One or Two*

Requirements (from students) : *Sample preparation for x-ray diffraction (XRD) measurements of sediment samples, data analysis, literature survey.*

Scope of the Project :

Approximately thirty sediment samples obtained from various depths of Tuz Lake bed will be used for mineralogical analysis using x-ray diffraction technique. Any possible change of sediment mineralogy with respect to depth (related to deposition time) will be determined. Possible sources, changes in source strengths, and climatic effects will be examined.

Hardware/Software/Lab/Equipment Requirements :

X-ray diffractometer, diffraction pattern analysis software.

Development Plan :

Detailed literature survey about the subject and XRD measurements of selected sediment samples will be performed within the Fall semester. XRD pattern analyses, data process, and evaluation of the results will be accomplished within the Spring semester.