HASAN KALYONCU UNIVERSITY
Civil Engineering Department

CE 499 Project Proposal Form

Part I. Project Proposer

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Part II. Project Information

Starting Term	2020 / 2021
Title of the Project	Evaluation of Geotechnical Properties of North Marmara Highway
Project Description	
In this project, the student will study and evaluate the geotechnical properties of North Marmara Highway. Through this project, the student will investigate Cone Penetration Test (CPT) and Pressuremeter Test. Then, the student will study and make the design calculations of the soil profiles according to the CPT and Pressuremeter test results. All design calculations for sellected sectios of the North Marmara Highway will be prepared by using suitable methods. The student will draw all the required figures and introduce them in his project.	
Project Justification	
Novelty	
New aspects	In this project, the student will be able to deal with the geotechnical tests which are done in the field such as Cone Penetration Test and Pressuremeter. The methods and techniques, which are required to connect between the soil profiles and calculations, will be also studied. In addition, result parameters will be used to make design.
Complexity	
Challenging problem and issues	The main challenge in this project could be addressed as how to make the student able to contact between his theoretical background, according to his previous undergraduate courses, and this practical project. The student should improve his skills to know how to collect all required information from separated resources and how to use it for study and design
Related civil engineering science fields and subfields	Geotechnical Engineering, Soil Mechanics, Engineering Geology, Field tests
Tools	ASTM, BS, and ASHTTO standards
Risk involved	
Potential problems and alternative solutions	The availability of computer programs. Alternatively, hand methods will be applied using equations according to geotechnical standards such as ASTM, ASHTTO and BS
Minimum work required	• Sufficient knowledge and skills related Soil Mechanics and the ASTM Test standards. Therefore, to accept the student in this project he should be passed in introduction to soil mechanics, soil mechanics and foundation engineering. • 1-2 Students can be accepted in this project.