**MARMARA UNIVERSITY**

**FACULTY OF ENGINEERING**

**ENVIRONMENTAL ENGINEERING DEPARTMENT**

**ENVE 4197/4198 ENGINEERING PROJECT**

**PROPOSAL FORM**

**FALL 2022-2023**

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| **Instructor : Nur H. Orak**  **Project Title :** Relationship Between Air Pollution, Meteorological Parameters, and the Spread of COVID-19  **Proposal No. : NurHOrak-1**  **Number of Students :** (Max 3 students)  **Requirements (from students) :** There is no prerequisites, but basic knowledge of air quality and statistics is recommended. |
| **Scope of the Project :**  The aim of this project is to examine the effects of air pollution and meteorological parameters on the occurrence of SARS-CoV-2 cases in the cities of Turkey. Within the scope of this research, air quality data (PM2.5, PM10, O3, SO2, CO) and the meteorological data (temperature, humidity, precipitation and wind intensity) will be obtained from authorities (The Ministry of Health, The Ministry of Environment, City and Climate Change, and General Directorate of Meteorology) and will be investigated by the geographic information systems program. |
| **Hardware/Software/Lab/Equipment Requirements :**  Hardware: A computer with internet connection  Software: MS Office and ArcGIS |
| **Development Plan :**  Students will advance their environmental engineering, communication and teamwork skills through hands-on experiences by investigating the air quality data by ArcGIS program. Students will also advance their understanding of the professional and ethical aspects of engineering projects. A student in this course must write a proposal and submit progress reports to the advisor. The student must also make a formal presentation of the project results and submit a final report to the department by the end of semester.    1. Literature review and exploring published methods  2. Learning ArcGIS program  3. Data mining for the selected regions  4. Statistical analysis  5. Final thesis writing  TÜBİTAK 2209 projesi: Ayşenur Kocamaz, Yekta Akkuş, Şeyma Babayiğit |