**MARMARA UNIVERSITY**

**FACULTY OF ENGINEERING**

**ENVIRONMENTAL ENGINEERING DEPARTMENT**

**ENVE 4197/4198 ENGINEERING PROJECT**

**PROPOSAL FORM**

**FALL 2021-2022**

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| **Instructor : Dr. Aslıhan Kerç**  **Project Title : Application of Decision Support Systems (DSS) for IWRM**  **Proposal No. :** (AslihanKerc-*1* )  **Number of Students :** 3  **Requirements (from students) : Familiar with computer models and data processing** |
| **Scope of the Project :**  Decision Support Systems (DSS) are used in many different engineering areas and are considered as useful tools in project management. Integrated Water Resource Management (IWRM) is the current methodology for water management in Turkey. Its implementation is relatively new and applied in accordance with EU Water Framework Directive. IWRM necessitates involvement of all stakeholders in the basin and data management is one of the important elements. Platforms that simplify data management, provide information flow among the stakeholders and create scenarios for decision makers are very useful for successful implementation of IWRM. In the literature examples for these DSS are available, and within the context of this project different DSSs will be evaluated in terms of their applicability to Turkey. In a selected pilot area DSS will be developed with the available data. Open source DSSs and open source data will be used in the project. |
| **Hardware/Software/Lab/Equipment Requirements :**  **Powerful Computer** |
| **Development Plan : - Literature review for IWRM, learning the basics of IWRM**   * **Literature review for DSSs , learning DSS concept** * **Learn how to use DSSs , compare different DSSs** * **Select a pilot basin in Turkey** * **Determine the required data sets** * **Run DSS for different scenarios in the selected basin** |
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