Faculty of Engineering and Technology

Cyprus University of Technology

Faculty of Engineering and Technology

Department of Computer Engineering and Informatics

Bachelor Thesis

RESTful API for Real Time Monitoring and Warning of Environmental Conditions

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ABSTRACT

CUT Environmental Monitoring Platform is an environmental data platform which allows users to access, extract and analyze the air quality, water quality as well as meteorology data. The data can be viewed or extracted through a table dashboard where users can make requests for specific measurements, time periods and locations. Additionally, the data can be viewed through a user-friendly live map. Finally the platform provides statistics about the data it collects through various graphs.

This thesis aims to add an additional functionality to the system. A REST API is to be implemented to provide the ability for programming access to all the environmental data collected by the platform. This thesis explains what an API is and its importance, the technologies surrounding it, the design process to implement it into the existing CUT AirQuality platform and its implementation.