

“NIXIE”
SELF-SUSTAINED WATER SOURCE MONITORING
PLATFORM

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Abstract

In the age of automation and information the utilizing real-time data for industrial and research applications has proven to increase the accuracy and efficiency compared to traditional data gathering techniques. One of the major restrictions to utilize real-time data is unavailability of prebuilt tools. Most of the industrial applications that utilize real-time data spend valuable resources to research and develop their own tools and this is not accessible for small scale industries or researchers. In some countries governments have handled the cost and developed advanced environmental data monitoring systems that researchers do get access once the required permission is acquired but the lack of research or industrial applications of real-time data suggests that the technology is not accessible for the most part.

NIXIE is meant to make real-time data monitoring more accessible for researchers and industries. Since a tool like this caters for a magnitude of use cases. A specific use case is selected to narrow down the scope to develop within the allocated timeline for this project.

The scenario selected for this project is water source monitoring. The importance of water source monitoring is at an all-time high due to increased industrial usages and urbanization.