

Water Quality Monitoring System using Machine Learning

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Goals

- Develop a Water monitoring system that obtain the Turbidity, Temperature, Conductivity, and Light Intensity.
- Send data wirelessly to a computer for storage and analysis.
- Use machine learning theories on obtained data to forecast and predict events.

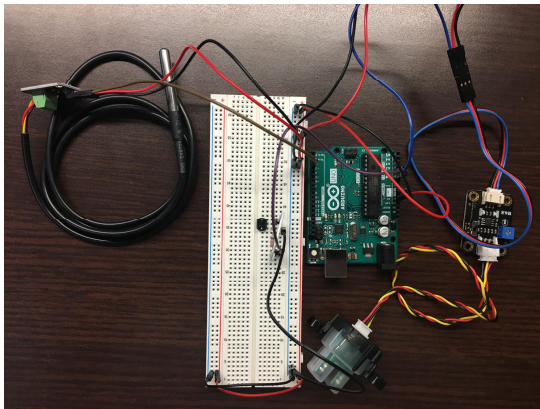
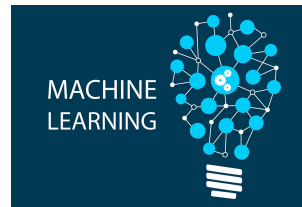
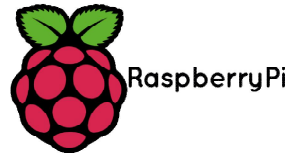


Figure 1. Current sensors.

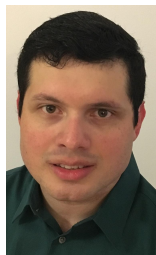
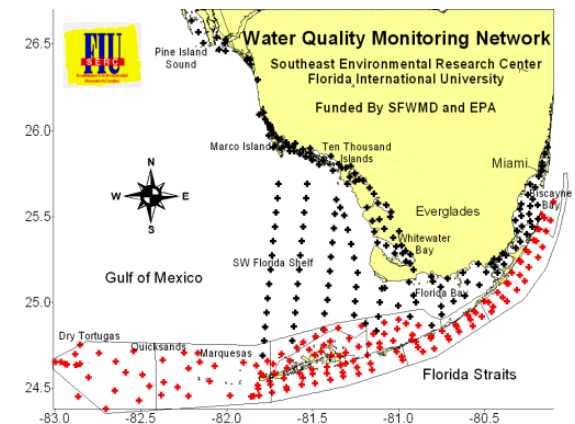
Research Methodology

- Install all the sensor in an Arduino board, and create a watertight case to contain all the system.
- Process and clean previously obtained data, and use machine learning theories to come with an hypothesis that represent the data.
- Deploy the system and test the sensor and the transmission of the data.
- Process the data obtained trough the machine learning algorithm.
- Test the algorithm to predict/forecast event of interest.



Expected Results

- Create a System that can retrieve data, and be able to send it to a computer for further analysis.
- Come with an hypothesis from old data, using current machine learning algorithms.
- Forecast probable events, and able to alert critical events.



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