**AQua: An Energy-Efficient Water Quality and Monitoring System**

Aquaculture is the world's fastest-growing food production method, with fish farms producing roughly half of all fish consumed by humans. Aquaculture is particularly popular in the Philippines at the farm level since it increases rural employment, livelihood, and food security, thus growing the production of the aquaculture industry. However, aqua farmers face several difficulties and concerns that have an impact on their output. With the integration of the Arduino, the project aims to build an energy-efficient water quality monitoring system that can transmit real-time data to aquaculturists and government officials' mobile phones in selected regions of Mindanao, Philippines. The water parameters to be measured are the pH, oxidation reduction potential, temperature, dissolved oxygen, total dissolved solid, and turbidity. The SMS contains information on all the parameters analyzed at a specific time interval and warning if any parameters' values exceed the permissible levels. The data collected from the sensors were recorded and analyzed using the PLX-DAQ software. The goal of this study is to increase yield production and reduce fish kills in the aquaculture industry.