ABSTRACT

Aquariums are complex built environments that require careful monitoring and maintenance to support the health and survival of fish and other aquatic organisms. In order to improve the efficiency and quality of aquarium management, an Internet of Things (IoT)-based automated system has been developed that combines sensor and control technology to monitor and manage aquarium environmental conditions in real-time. This system consists of several main components, including sensors- sensors installed in the aquarium to measure various important parameters such as water temperature, and water turbidity. Data from these sensors is then sent wirelessly to a control center connected to the internet. In the control center, the data received from the aquarium is analyzed using intelligent algorithms to monitor the environmental balance of the aquarium. If an abnormality or significant change in environmental parameters is detected, the system will notify the aquarium owner via a mobile app or text message. The application of an IoT-based automatic aquarium monitoring and maintenance system is expected to improve the health and success of living aquatic organisms in aquariums, as well as provide a more practical and intuitive aquarium management experience for owners. With this technology, aquarium maintenance can be more efficient and effective, helping aquarium enthusiasts to achieve success in their hobby without having to sacrifice a lot of time and effort.

Keywords : Aquarium, Internet of Things, Automatic, Users