ABSTRACT

SMART SYSTEM DEVELOPMENT: WATER TOWER CLEANING TOOL BASED ON IoT

Raihan Ashil Zaki. [1)], Prio Handoko, S.Kom., M.T.I. [2)]

[1)] Mahasiswa Program Studi Informatika, Universitas Pembangunan Jaya.

[2)] Dosen Program Studi Informatika, Universitas Pembangunan Jaya.

Water torrents as the main storage of clean water sources have a vital role in ensuring the availability of water for daily needs. Therefore, an efficient and smart solution is required for the maintenance and cleaning of water troughs. The industrial revolution 4.0, known as smart manufacturing, brings significant changes in technology integration. This research aims to develop an IoT-based toren cleaning intelligent system that is considered a progressive step to improve water toren management. The problem faced in this research is how to develop an intelligent system capable of cleaning the toren by integrating IoT technology. This research utilizes a turbidity device, ultrasonic HC-SR04, ESP32-CAM, servo motor, DC motor, and water pump. Through this research, the toren cleaning process can be completed and works well. The black box test results show that when the toren is dirty, the DC motor will move to clean the toren wall automatically. In addition, users can also view real-time data through the monitoring dashboard easily.

Keyword ***:*** *Smart System, Water Tank, Internet of Things*

Libraries *: 21*

Publication Years *: 2019-2024*