

Design of Temperature Detection System And Number Of People Based On Iot In Salt Therapy Pool

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ABSTRACT

This research is based on service improvement efforts in salt therapy pools at Jetis Beach, Patutrejo village, Grabag sub-district, Purworejo district. The temperature of the pool which tends to be hot and the number of visitors who are increasingly making it difficult for managers to provide services. To overcome the existing problems, the urgent solution needed is the problem of technology-based production and service. The solution to the technology-based service problem is to install a temperature sensor in the therapy pool, install a sensor for the number of people in the therapy pool, and install an electronic display for therapy information, namely the pool temperature, the number of people entering the pool and the number of queues. All sensors are integrated in one device that will be built based on IoT and can be connected to HP devices or computers connected to the internet. So that the research objectives can be formulated as follows: (1) Designing a temperature detection system and the number of people in the therapy pool, (2) Performing a functional test of a detection device, (3) Testing the application of the device. The tool consists of NodeMCU ESP8266, DHT-22 Temperature Sensor, PIR sensor for the number of people in a room, wifi router and an electric generator. The tools that are built are expected to go through a process from design to implementation. So that the level of technology readiness is expected to reach level 6. The method used in this study is the research and development method, with research steps using the waterfall method. Based on the solutions offered, the additional output target is 1 integrated IoT-based tool that can display the temperature of the therapy pool, the number of queues, and the number of visitors in the therapy pool. While the mandatory output is 1 article of the proceedings of the ICE ELINVO international seminar. The research steps to be carried out include: (1) the analysis phase, (2) the design phase, (3) the implementation phase, (4) the testing phase, and (5) the evaluation phase.

Kata Kunci: Temperature, Therapy Pool, number of people