

ABSTRACT

With the development of research and the use of nuclear energy as renewable energy, it is necessary to apply a technology that can assist these activities. The purpose of this research is to analyze and implement appropriate technology to encourage the development of nuclear energy in the field. The technology applied is IoT (Internet of Things). With the application of this technology, it can help workers in the nuclear industry to monitor and control effectively and efficiently. The system made is by making a device to capture radiation activity from a nuclear reactor and then entering it into a counter, to be forwarded to the microcontroller. After being processed by the microcontroller, the data will be sent to the MySQL database using the internet network. This internet network also acts as a liaison between the tool and software or application connectivity. This research focuses on the creation and development of an Android-based mobile application that is used as an interface to control and view radiation activity data in real time. Based on several tests that have been carried out, the application can be said to be running well, because functionally all the planned features can be run. Then based on user experience directly obtained a satisfactory experience. Apart from that, the performance test carried out also got a good score, where in conditions with quite a lot of user loads, the response time was 300 ms.

Keywords: Android Application, Database,Controlling, Internet of Things,
Monitoring