

ABSTRACT

Gedung Kuliah Umum (GKU3) is often used by severe entities to carry out teaching and learning activities. GKU3 has a lot of classes that are used in 1 working day, each class is equipped with 4 fluorescent lights and 2 fans. In addition, some classes are also equipped with 1 unit of Ceiling Air Conditioner. The behavior that often occurs when lecturers / students finish using the class, they forget to turn off the lights, fans, and / or air conditioners in the class, even though stickers have been installed urging them to save electricity. This results in waste which has an impact on increasing the costs to be paid. For this, research was conducted aimed at the preparation of the design of the Smart Home automatic control system in the GKU3 building using Arduino Leonardo technology using the SDLC Waterfall method. This tool is designed to reduce electricity use by means when teaching and learning activities in the classroom are finished, motion sensors will provide input to the system that the classroom is empty, after that the system will turn off electricity automatically.

Keywords: Waste, Smart Home Automatic Control System, SDLC Waterfall