ABSTRACT

Currently, futsal has worldwide and has become food for all ages and the young parents futsal not look rich or poor all merge into one here. Futsal can be played on the day or night. But to hold the match in the evening, we need a good lighting system installation. Currently, to be able to turn the existing lighting system, still using the switch. In this case, conventional lighting systems in most indoor soccer field when the game was usually held after the completion of the game, field lights are left on. This makes the use of electricity for lighting futsal very wasteful and inefficient due to the use of power that does little to illuminate every corner of the field.

In this final project has realized an integrated automation system with a futsal field lighting system, that is with technology. At the door of futsal field installed devices that can detect human presence when passing the door sensor futsal called PIR (Passive Infrared Receiver). PIR Sensor is active when there is an object that has a passive aura through the man. The lighting system will be turned on automatically by itself after PIR sensor detects at least six people in the field, then the PIR sensor is connected to the microcontroller will counter up data according to the number of people who are in the field a minimum of six people or more in accordance with applicable International futsal and activate the relay that turns futsal lamp lighting system.

The design and realization of automation systems futsal field lighting system prototype can be a solution for the power used more effectively and efficiently

Keywords: Futsal, Night, Microcontroller, PIR sensors