ABSTRAC

The increasing demand for comfort and efficiency in daily life has driven the development of automation technology, including in automatic door control systems. This research aims to develop and test an automatic door system based on the Internet of Things (IoT) using a Light Dependent Resistor (LDR) sensor. The LDR sensor was chosen for its ability to detect changes in light intensity through changes in resistance. The detected resistance is processed by an Arduino Uno microcontroller, which drives a servo motor to automatically open and close the door. The system is designed to respond to variations in lightintensity, making it suitable for use in various environments such as homes, garages, and offices. Testing was conducted under different environmental conditions to assess the system's accuracy and reliability. The results show that the system operates effectively, accurately detecting light changes and reliably controlling the door automatically. Additionally, the system offers energy efficiency benefits by reducing the need for manual intervention. The integration of IoT technology enables remote control, enhancing flexibility and security for users. This study makes a significant contribution to the innovation of effective, safe, and practical door automation technology.

Kata Kunci : *Esp32,Internet of Things, LDR, Automatic Door, Light Sensor*