

RANCANG BANGUN KUNCI PINTU OTOMATIS BERBASIS ARDUINO MENGGUNAKAN PIN (PERSONAL IDENTIFICATION NUMBER

¹Anton

Informatika, Universitas Ngudi Waluyo

Jl. Diponegoro No.186, Ngablak, Gedanganak, Kec. Ungaran Tim., Kabupaten Semarang, Jawa Tengah,
Indonesia

ABSTRACT

Current developments require more innovation in everyday life, one of which is home or office door security. Initially, home or office door security was only with ordinary padlocks or door keys found in most houses in Indonesia which had shortcomings in terms of security and effectiveness. In the current era of digitalization, almost every line of human activity is no exception, technology is currently continuously developing more rapidly. This can be observed through the many sophisticated equipment that utilizes technology so that the work system can run automatically. Of course, this makes it much easier for someone to carry out their activities and the work they do is also more efficient.

This research aims to design a door lock system that is able to increase security, effectiveness and comfort in accessing rooms, both home and office. This system utilizes an Arduino microcontroller as the brain of the system, a keypad as input for entering the PIN code. Users are allowed to open the door simply by entering a predetermined PIN code. The main advantage of this system is its ease of use and a better level of security compared to conventional door locks. The results of this research are a pin-based door lock system using Arduino and keypad. This system uses the Arduino IDE development application for writing program code and Proteus for work simulation.

Keyword: *Door locks, Pins, Arduino IDE Development Applications*