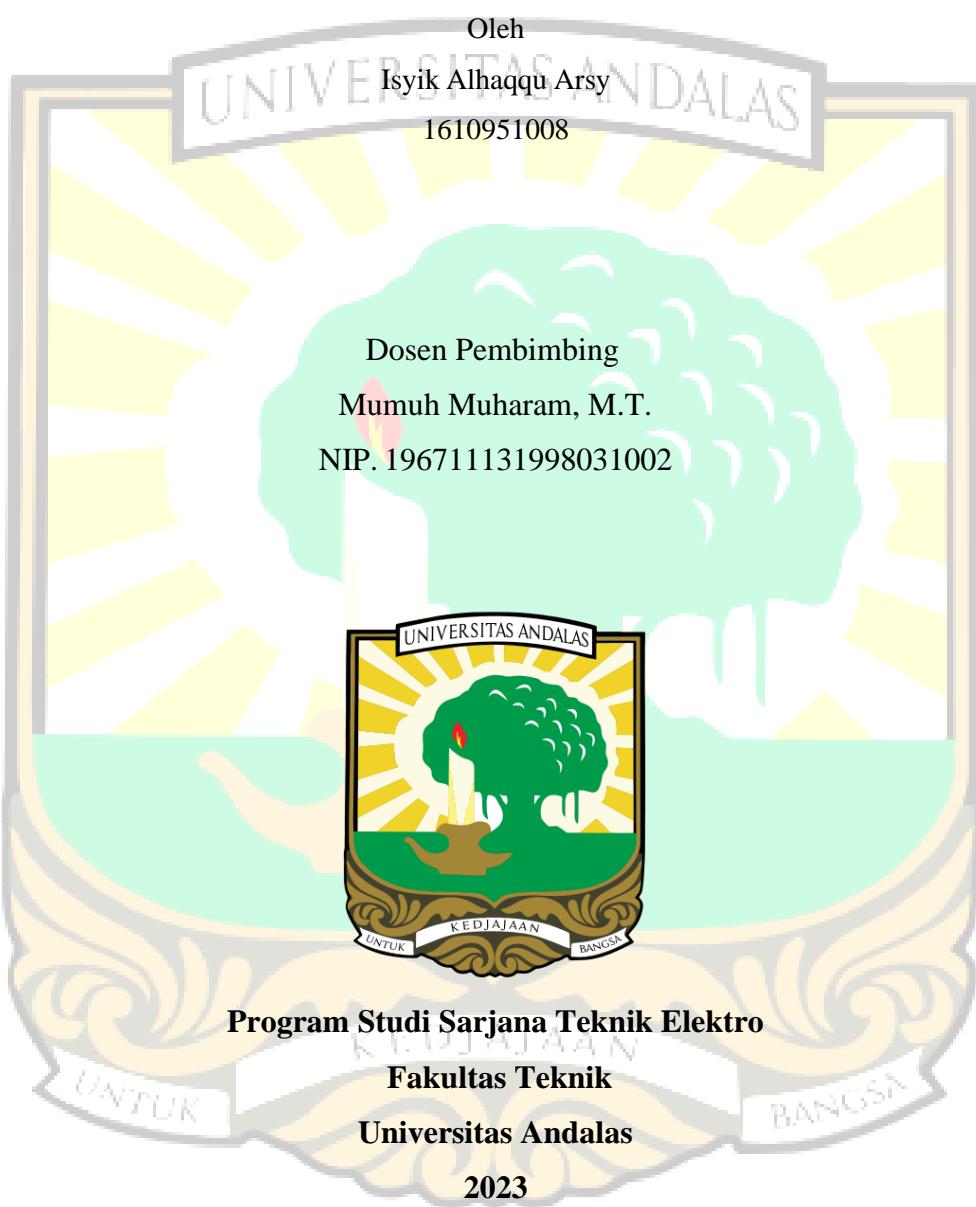**TUGAS AKHIR**

Karya Ilmiah sebagai salah satu syarat untuk menyelesaikan jenjang stratasatu (S-1) di Departemen Teknik Elektro, Fakultas Teknik, Universitas Andalas

Oleh

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Judul	PROTOTIPE ELEKTRONIK KOST (E-KOST) BERBASIS IOT	Isyik Alhaqqu Arsy
Program Studi	Teknik Elektro	1610951019
	Fakultas Teknik Universitas Andalas	

Abstrak

Penggunaan Kamar Kos pada saat ini sudah umum di gunakan terutama dikalangan mahasiswa dan pekerja yang bekerja di luar kota, dengan banyaknya penggunaan kamar kos saat ini banyak nya bermunculan oknum yang bisa menyebabkan kerugian bagi pengguna kamar kos maupun pemilik kamar kos. Permasalahan ini menunjukkan adanya ketidak tertiban penyewa kamar kos terhadap penggunaan kamar kos.Tujuan dari penelitian ini adalah membuat suatu sistem dan prototipe E-Kost yang bias melakukan monitoring akses kamar masing masing penyewa kamar kos, sehingga pemilik dan penyewa kamar kos bias memonitoring akses kamar tersebut.

Penelitian ini menggunakan konsep Internet of Thing dengan menggunakan webserver sebagai interface untuk pengguna. Prototipe E-kost Menggunakan E-KTP sebagai input pada RFID yang akan dikirm pada nodemcu selaku mickrocontroler dan akan memberikan perintah pada solenoid lock door untuk membuka pintu.IR obstacle digunakan untuk membuka pintu dari dalam. Lebih lanjut setiap adanya akses dari selain pengguna kamar akan dikirimkan notifikasi E-mail ke pada penyewa kamar kos. Setiap akses yang yang di lakukan akan dikirmkan oleh nodemcu pada database sehingga pengguna dan pemilik kos dapat memonitoring akses masuk kos yang terjadi secara realtime

Kata kunci: kunci pintu rumah pintar, sidik jari, *Internet of Things*, website, Telegram, *Quality of Service*

Title	PROTOTIPE ELEKTRONIK KOST (E-KOST) BERBASIS IOT	Isyik alhaqqu Arsy
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Abstract

The use of boarding rooms at this time is commonly used, especially among students and workers who work outside the city, with the many uses of boarding rooms currently many people are emerging who can cause losses to boarding room users and boarding room owners. This problem indicates the irregularity of boarding room tenants regarding the use of boarding rooms. The aim of this research is to create a system and prototype of an E-Kost that can monitor the room access of each boarding room tenant, so that the owner and tenant of the boarding room can monitor the access to the room. .

This study uses the Internet of Thing concept by using a web server as an interface for users. E-kost Prototype Using E-KTP as input to RFID which will be sent to nodemcu as a microcontroller and will give orders to the solenoid lock door to open the door. IR obstacle is used to open the door from the inside. Furthermore, every time there is access from other than the room user, an E-mail notification will be sent to the boarding room tenant. Every access that is made will be sent by nodecu to the database so that users and boarding house owners can monitor boarding access that occurs in real time

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Keywords: smart home door lock, fingerprint, Internet of Things, website,Telegram, Quality of Service