

ABSTRACT

JUDUL : SECURITY AND CONTROL OF SMART SAFE BOX USING EASYVR MODULE INTEGRATED WITH RASPBERRY BASED SURVEILLANCE CAMERA AND IOT

STUDENT NAME : SOPIAN ENDAH MORA

STUDENT NUMBER : 18101152620126

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ADVISERS : 1. Dr. Yogi Wiyandra, S.Kom, M.Kom

2. Romi Wijaya, S.Kom., M.Kom.

Voice recognition is a system that can identify a person through their voice. Apart from voice recognition, there is also speech recognition. Speech recognition is a process of capturing words spoken through a microphone or telephone and then converting them into digital data. The difference between the two is that voice recognition identifies who is speaking. Meanwhile, speech recognition identifies what is being said. We can find the implementation of speech recognition on Google Voice on Android devices. Google voice is an increasingly perfect implementation of speech recognition technology, it can even be compared to the human brain system which is inhabited by millions of nerves. Implementing voice recognition on the smart safe box to access the opening and closing of the safe box door, the system is also equipped with an ESP32Cam surveillance camera to monitor the safe box outside and inside the safe box, in controlling the entire system using a Raspberry Pi, the data received from voice recognition will be processed and if the data is received "open" then the Raspberry PI will activate the doorlock solenoid and servo motor to open the door, and if the "close" data is received then the system will activate the doorlock solenoid and servo motor to close the door.

Keyword: VOICE RECOGNITION, SIGNAL PROCESSING, SMART SAFE BOX, RAPBERRY PI, SELENOID DOORLOCK, MOTORT SERVO.

ABSTRAK

**JUDUL : PENGAMANAN DAN PENGONTROLAN
SMART SAFE BOX MENGGUNAKAN
EASYVR MODULE TERINTEGRASI
KAMERA PENGAWAS DAN IOT BERBASIS
RASPBERRY**

NAMA : SOPIAN ENDAH MORA

NO.BP : 18101152620126

PROGRAM STUDI : SISTEM KOMPUTER

JENJANG PENDIDIKAN : STRATA 1 (S1)

PEMBIMBING : 1. Dr. Yogi Wiyandra, S.Kom, M.Kom

2. Romi Wijaya, S.Kom., M.Kom.

Voice recognition adalah suatu sistem yang dapat mengidentifikasi seseorang melalui suaranya. Selain *voice recognition* juga terdapat *speech recognition*. *Speech recognition* merupakan sebuah proses menangkap kata-kata yang diucapkan melalui *microphone* ataupun telepon lalu mengubahnya menjadi data digital. Perbedaan diantara keduanya adalah jika *voice recognition* mengidentifikasi siapa yang berbicara. Sedangkan *speech recognition* mengidentifikasi apa yang diucapkan. Implementasi *speech recognition* bisa kita jumpai pada *google voice* di perangkat android. *Google voice* merupakan salah satu implementasi teknologi *speech recognition* yang semakin sempurna, bahkan bisa disetarakan dengan sistem otak manusia yang dihuni oleh berjuta-juta syaraf. Penerapan *voice recognition* pada *smart safe box* dalam mengakses buka dan tutup pintu *safe box*, sistem juga dilengkapi kamera pengawas ESP32Cam dalam memonitoring *safe box* diluar dan didalam *safe box*, dalam pengontrolan keseluruhan system menggunakan Raspberry pi, data yang diterima dari *voice recognition* akan diolah dan jika data diterima “buka” maka *Raspberry PI* akan mengaktifkan *solenoid doorlock* dan motor servo dalam membuka pintu, dan jika data “tutup” diterima maka sistem akan mengaktifkan *solenoid doorlock* dan motor servo dalam menutup pintu.

**Kata Kunci: VOICE RECOGNITION, SIGNAL PROCESSING, SMART
SAFE BOX, RAPBERRY PI, SELENOID DOORLOCK, MOTORT SERVO.**