VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 018

PROJECT REPORT ON

"FINGERPRINT BASED LOCKER SYSTEM"

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING

Submitted By

Name	USN
DHANYA KUMAR C A	4AL18EC014
PURUSHOTHAM H P	4AL19EC058
WAREPAM LENDO	4AL19EC088
RAGHAVENDRA B L	4AL19EC061

Under the Guidance of

K V SIDDAMAL
Associate Professor
Department of E&C Engineering

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
A+, ACCREDITATION BY NACC AND NBA, MIJAR – 574 225.
2022-2023

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI – 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

A+, ACCREDITATION BY NACC AND NBA, MIJAR – 574 225.

2022-2023

CERTIFICATE

Certified that the project work entitled **"FINGERPRINT BASED LOCKER SYSTEM"** is a bona fide work carried outby

DHANYA KUMAR C A	**4AL18EC014**
PURUSHOTHAM H P	**4AL19EC058**
WAREPAM LENDO	**4AL19EC088**
RAGHAVENDRA B L	**4AL18EC061**

in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2022–2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies theacademic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide
Mr. K V Siddamal

Signature of the H.O.D
Dr. Siddesh G K
H. O. D.
Dept. Of Electronics & Communication
Alva' Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 22

Signature of the Principal
Dr. Peter Fernandes
PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.

EXTERNAL VIVA

Name of the Examiners

1. Dr. SIDDESH GK

2. Harsha C J

Signature with date

Siddesh 25.5.23

25/5/23

ABSTRACT

The concept of a "fingerprint based locker system" refers to he advent of biometric technology has revolutionized security systems across various domains. In this abstract, we present an innovative fingerprint-based locker system designed to enhance security and convenience in personal storage applications.

The proposed system utilizes the unique biometric characteristics of an individual's fingerprint to grant access to lockers. By replacing traditional locks and keys with a biometric authentication mechanism, the system ensures heightened security, as fingerprints are virtually impossible to replicate or forge.

The implementation of the fingerprint-based locker system involves a combination of hardware and software components. The hardware includes a fingerprint sensor integrated into the locker mechanism, enabling real-time fingerprint recognition. The software component utilizes advanced algorithms to capture, process, and match fingerprints against a database of authorized users.

The key advantages of the fingerprint-based locker system lie in its simplicity and efficiency. Users can access their assigned lockers by simply placing their finger on the sensor, eliminating the need for carrying physical keys or remembering complex passcodes. Additionally, the system can be seamlessly integrated with existing infrastructure and easily scaled to accommodate a large number of lockers and users.

Furthermore, the system provides administrators with robust management capabilities. They can effortlessly add or remove authorized users, monitor locker usage, and generate activity logs for security auditing purposes. In case of unauthorized access attempts or security breaches.

The fingerprint-based locker system offers numerous applications in various environments, such as educational institutions, gyms, workplaces, and public facilities. Its implementation provides an effective solution for secure storage, minimizing the risk of theft or unauthorized access, while offering users a hassle-free experience.

ACKNOWLEDGEMENT

The project of any research work depends so much on: the quality of education received the quality of teachers, research resources and enabling and encouraging environment. Studying in **Alva's Institute of Engineering and Technology**, Mijar provides all these above-mentioned facilities which have made possible the successful outcome of this research work.

Firstly, our gratitude goes to our guide, **Mr. K V Siddamal** , Associate Professor, Department of Electronics and Communication, AIET, who is our source of encouragement and motivation throughout this project. Without his valuable guidance, this work would never have been a successful one.

We would like to express our hearty gratitude to our Project Coordinator,**Mr. Sudhakara H.M**, Associate Professor, Department of Electronics and Communication, AIET, for his consistent guidance, regular source of encouragement and assistance throughout this project

We would like to express our sincere gratitude to our Head of the Department of Electronics & Communication Engineering, **Dr. Siddesh G K** for his guidance and inspiration.

We would like to thank our Principal **Dr. Peter Fernandes** for providing all the facilities and a proper environment to work on the college campus.

We are indebted to the **Management of Alva's Education Foundation, Moodbidri** for providing an environment that helped us in completing our project.

We are thankful to all the teaching and non-teaching staff members of the Department of Electronics & Communication Engineering for their help and needed support rendered throughout the project.