

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-560014, Karnataka



A PROJECT REPORT ON

"Android Based Multi Model Student Attendance System"

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

Bachelor of Engineering
In
Information Science & Engineering

Submitted By

Hemanth Sangam M (1SV20IS005)

Keethana N (1SV20IS006)

Sudeep R V S (1SV20IS013)

Under the guidance of

Dr. Rekha H M.Tech., Ph.D., MISTE

Professor & HOD,
Dept. of ISE.



Department of Information Science and Engineering

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

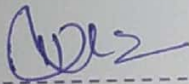
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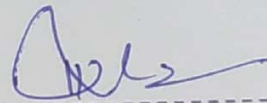
2023-24

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**CERTIFICATE**

This is to certify that, Project work Phase II entitled "ANDROID BASED MULTI-MODAL STUDENT ATTENDANCE SYSTEM" has been Successfully carried out by **HEMANTH SANGAM M [1SV20IS005], KEERTHANA N [1SV20IS006], SUDEEP R V S [1SV20IS013]**, in partial fulfillment for the award of **Bachelor of Engineering in Information Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2023-24**. It is certified that all the corrections/suggestions indicated for internal assessments have been incorporated in the report. The Project report has been approved as it certifies the academic requirements in respect of Project work Phase II prescribed for the Bachelor of Engineering Degree.


Signature of Guide

Dr. Rekha H Ph.D., MISTE.,
Prof. & HOD, Dept. of ISE


Signature of HOD

Dr. Rekha H Ph.D., MISTE.,
Prof. & HOD, Dept. of ISE


Signature of Principal

Dr. Narendra Viswanath M.E., Ph.D., MIE, MISTE, MIWS., FIV.,
Principal, SIET, Tumakuru

External Viva**Name of the Examiners**

1. **Dr. Shakunthala B. S**
2. **Venugopal. D**

Signature with date

Shakunthala B. S 27/5/24
Venugopal. D 27/5/24



Sri Shridevi Charitable Trust (R.)
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ESTD: 2002



DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

DECLARATION

We, **HEMANTH SANGAM M [1SV20IS005], KEERTHANA N [1SV20IS006], SUDEEP R V S [1SV20IS013]** student of VIII semester **B.E in Information Science & Engineering**, at Shridevi Institute of Engineering & Technology, Tumakuru, here by declare that, the Project work Phase II entitled "**Android Based Multi Model Student Attendance System**" embodies the report of our Project work carried out under the guidance of **Dr. Rekha H Prof. and HOD, Department of ISE, SIET, Tumakuru** as partial fulfillment of requirements for the award of degree in **Bachelor of Engineering in Information Science & Engineering of Visvesvaraya Technological University, Belagavi**, during the academic year **2023-24**. The Project has been approved as it satisfies the academic requirements in respect to the Project work Phase II.

Student Name & Signature

| | | |
|------------------|--------------|--|
| Hemanth Sangam M | [1SV20IS005] | |
| Keethana N | [1SV20IS006] | |
| Sudeep R V S | [1SV20IS013] | |

PLACE:TUMAKURU

DATE: 27/05/24



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BONAFIDE CERTIFICATE

This is to certify that the Project work Phase II entitled “**Android Based Multi Model Student Attendance System**” is a bonafide in the work of, **HEMANTH SANGAM M [1SV20IS005], KEERTHANA N [1SV20IS006], SUDEEP R V S [1SV20IS013]** of VIII semester of **B.E** in Information Science and Engineering carried out at Shridevi Institute of Engineering and Technology in partial fulfillment of requirements for the award of **Bachelor of Engineering in Information Science and Engineering of the Visvesvaraya Technological University, Belagavi** under my supervision and guidance. Certified to the best of my knowledge the work reported here is not a part of any other thesis on the basis of which degree or award was conferred on earlier occasion to these or any other candidates.

Guide :

Dr.Rekha H M.Tech., Ph.D., MISTE

Prof. & HOD, Dept. of ISE

ACKNOWLEDGEMENT

This Project will be incomplete without thanking the personalities responsible for this venture, which otherwise would not have become a reality.

We express my profound gratitude to **Dr.Narendra Viswanath**, Principal, S.I.E.T, for his moral support towards completing our Project work.

We would like to thank Head of Department **Dr.Rekha H** Prof. & HOD, Dept. of IS&E, S.I.E.T, for providing all the support and facility.

We would like to thank our guide **Dr.Rekha H** Prof. & HOD, Dept. of IS&E, S.I.E.T for his help, sharing his technical expertise and timely advice.

We would like to thank our Project coordinator, **Mr.Venugopal D** Assistant Professor, , Department of Information Science and Engineering, for his support.

We would like to express our sincere gratitude to all teaching and non-teaching faculty of the department of IS&E for guiding me throughout the course of this Project by giving valuable suggestion and encouragement.

I would like to thank my parents and friends who supported me for the successful completion of this Project work.

By,

Hemanth Sangam M [1SV20IS005]

Keethana N [1SV20IS006]

Sudeep RVS [1SV20IS013]

ABSTRACT

Modernizing and automating the attendance management process within educational institutions is paramount for efficiency and accuracy. In this project, we present an innovative Android-based solution that leverages the strengths of biometric recognition, geolocation verification, and unique QR codes to revolutionize student attendance tracking. Our system offers students the flexibility to mark their attendance using their smartphones' in-built fingerprint sensors or facial recognition technology. For devices lacking fingerprint sensors, facial recognition through the front camera provides an alternative, ensuring accessibility for all students. The biometric data is securely stored on the student's device, maintaining data privacy and security. To further bolster the attendance system's accuracy and integrity, geolocation verification is employed. A geofence is established around the classroom, confirming that the student is physically present at the designated location before recording attendance. This additional layer of security mitigates the risk of students attempting to mark attendance from remote locations. In cases where biometrics and geolocation may not suffice, a unique QR code is generated for each class or session. Students scan this code using the mobile app to verify their presence, offering a straightforward, foolproof method for attendance tracking. Attendance data is securely recorded and managed on the server-side, facilitating real-time monitoring and providing analytics for educators and administrators. Privacy concerns are addressed, and data security best practices are followed to safeguard student information. This project endeavors to create an intelligent, reliable, and scalable solution that minimizes administrative burden, reduces the risk of fraudulent attendance, and enhances the overall educational experience. By integrating multiple modes of authentication, our system caters to the diverse technological capabilities of students' devices while reinforcing the integrity of attendance records. In conclusion, the Android-based multi-modal attendance tracking system introduces a new era of efficiency, accuracy, and security in the educational realm, fostering an environment where educators can focus on teaching and learning while students can conveniently and securely mark their attendance.