****

**SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING**

MINI PROJECT REPORT

ON

**“PROJECT TITLE”**

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

**Bachelor of Technology**

**In**

**Electrical and Electronics Engineering**

Submitted by

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Under the guidance of

Dr/Mr./Mrs. Guide Name

DESIGNATION

REVA UNIVERSITY

**2022-2023**

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**DECLARATION**

We, **Ms./Mr. Student name1 (SRN 1) , Ms./Mr. Student name2 (SRN 1) Ms./Mr. Student name3 (SRN 3) Ms./Mr. Student name4 (SRN 4)** students of B. Tech, belongs to the School of Electrical and Electronics Engineering, REVA University, declare that this Project Report entitled **“TITLE OF THE PROJECT”** is the result the of project work done by me under the supervision of **Prof. Guide Name** in School of Electrical and Electronics Engineering.

We are submitting this Project Report in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Electrical and Electronics Engineering by the REVA University, Bengaluru during the academic year 2022-23.

We further declare that this project report or any part of it has not been submitted for the award of any other Degree / Diploma of this University or any other University/ Institution.

*(Signature of the Students)*

*Certified that this project work submitted by* ***student name1, student name2, student name 3, student name4*** ha*s been carried out under my / our guidance and the declaration made by the candidate is true to the best of my knowledge.*

*Signature of Guide Signature of Director Date ………. Date ……….*

*Official Seal of the School*



**SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**CERTIFICATE**

Certified that the project work entitled **“TITLE OF THE PROJECT”** carried out under my / our guidance by **STUDENT NAME1 (SRN1), STUDENT NAME2 (SRN2), STUDENT NAME3 (SRN3), STUDENT NAME4 (SRN4),** are bonafide students of REVA University during the academic year 2022-23, are submitting the project report in partial fulfillment for the award of  **Bachelor of Technology i**n **Electrical and Electronics Engineering** during the academic year **2022–23**. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

**Dr. Raghu C N, Deputy Director, School of EEE, REVA University**

**Mr/Mrs/Dr. Guide name**

**Asst. Professor, School of EEE**

**REVA University**

**­­­­­­­­­­­­­­­­­­­**

**Dr. M Dhanamjaya,**

**Vice Chancellor,**

**REVA University**

**External Examiner**

**Name of the Examiner with affiliation Signature with Date**

1.

2.

**ACKNOWLEDGMENTS**

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**ABSTRACT**

The conventional method of institutional management is manual and comprises a lot of drawbacks such as, time consuming, malpractice, human error and inaccurate reporting. Multimedia applications is a very common trend nowadays in classroom teaching learning application. For years, science fiction has been promising robotic servants to make our lives more interesting and easier and hence, the wants and desires of number of people who really believed that the future is now possible. In this project a combined solution for institutional monitoring is studied and hence it becomes a need to develop a next generation robot which is smart, interactive and uniquely mobile. This social robot will prove to be a helping hand around our work space. Integration of radio frequency identification technology and micro controller technology had shown wide applications in the automation of electronic systems.

In this project we have developed a robot which is capable of reducing manual work with its numerous smart applications. Imagine a college or school staff-attender on wheels which recognizes queries and adjust to individual preferences. The robot will be an all-in-one package that comes with the best of home automation, security, assistance, entertainment and much more. Additional functions such as projecting images onto walls, flashing beam of light, repair common operations, opening doors, and even reschedule your meeting. Manual attendance using pen-paper for students or staff members can be completely eliminated by using RFID and Proximity sensor module-based attendance system.  Audio cum video communication via TFT display screen and webcam (with inbuilt microphone) will be an advantageous step towards the inclination of a digital classroom and henceforth, quality classroom teaching will be lectured and monitored from a distant location, say, controller's cabin.

Also, database management for library books and e-notes facility onboard will simultaneously help the students for their academic development. The robot recognizes queries and adjusts to individual preferences as well as it's sound effects, graphics and movements are made for an interactive learning experience. Further advancements of the system include smart navigation via the line follower mechanism for guest’s solicitation. Automatic path following with obstacle detection and avoidance properties enables the robot to reach the destination, finish tasks and return to home within the stipulated time interval. The robot will use Android Bluetooth API (Application Program Interface) for command transmission and hence the complete system will be wireless, adaptable and cost-effective.

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