

A REPORT ON

**CONTROLLING ROBOT BY USING GOOGLE ASSISTANT,
BLUETOOTH AND VOICE COMMAND**

SUBMITTED TO THE SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE
IN THE PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE
OF

BACHELOR OF COMPUTER ENGINEERING

SUBMITTED BY

**KAWADE PAVAN HANUMANT
MAGAR SWAPNIL DHANAJI
PATIL NIKHIL SUDHAKAR
SAWANT SHIVAJI BALASAHEB**

**Exam No: B191104227
Exam No: B191104236
Exam No: B191104251
Exam No: B191104262**



DEPARTMENT OF COMPUTER ENGINEERING

ABMSP'S ANANTRAO PAWAR COLLEGE OF ENGINEERING & RESEARCH,

PARVATI, PUNE 411009

SAVITRIBAI PHULE PUNE UNIVERSITY
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Akhil Bharatiya Maratha Shikshan Parishad's
Anantrao Pawar College of Engineering & Research, Parvati, Pune
Sr. No. 103, Parvati, Pune - 411 009.
Tel.: 020-24218901/8959 Tele Fax: 020-24213929
Approved by AICTE & Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University
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Department of Computer Engineering



CERTIFICATE

This is to certify that the project report entitles

CONTROLLING ROBOT BY USING GOOGLE ASSISTANT, BLUETOOTH AND VOICE COMMAND

Submitted by

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Are bonafide students of this institute and the work has been carried out by them under the supervision of **Prof. Anil Lohar** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the degree of **Bachelor of Computer Engineering**

Prof. Anil Lohar.
Guide
Department of Computer Engineering

Prof. Rama Gaikwad
Head,
Department of Computer Engineering

Dr. S. B. Thakare
Principal,
Anantrao Pawar College of Engineering & Research. Pune – 09

Place: Pune

Date: /04/2024

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Certainly, controlling a robot using Google Assistant, Bluetooth, and voice command acknowledgment is an intricate process that demands the integration of various technologies and components. This project would involve using a microcontroller board like Arduino or Raspberry Pi for the robot's control, a compatible Bluetooth module, motors, motor drivers, and a power source. With deep sense of gratitude we would like to thank all the people who have lit our path with their kind guidance. We are very grateful to these intellectuals who did their best to help during our project work.

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**Sawant Shivaji Balasaheb
Kawade Pavan Hanumant
Magar Swapnil Dhanaji
Patil Nikhil Sudhakar**

ABSTRACT

The integration of contemporary technologies has led to the development of an innovative system for controlling a robot through the utilization of Google Assistant, Bluetooth, and voice commands. This project aimed to create a user-friendly and efficient mechanism for remote robot operation, enhancing the accessibility and convenience of controlling robotic systems in various categories. Through the seamless integration of Google Assistant, users were able to issue commands to the robot using natural language, simplifying the control process and enabling intuitive interaction. Leveraging the robust capabilities of the Google Assistant platform, users could effortlessly navigate the robot's functionalities, including navigation, manipulation, and various other tasks, all through simple voice commands. The implementation of Bluetooth technology facilitated a reliable and secure wireless communication channel between the controlling device and the robot, ensuring real-time transmission of commands and data without compromising on data integrity or security. This enabled a smooth and responsive control experience, empowering users to operate the robot from a distance with minimal latency.

Furthermore, the development of a sophisticated voice recognition system enabled the system to accurately interpret and execute a diverse range of voice commands, thereby providing users with a seamless and intuitive control interface. The voice recognition system's robust design and efficient processing capabilities enhanced the system's responsiveness and accuracy, enabling precise and prompt execution of user commands. The successful integration of these technologies culminated in a comprehensive and user-centric control system that revolutionizes the way robots are operated. This system not only simplifies the control process but also enhances the overall user experience, making robotic operations more accessible and intuitive for users across various domains, including home automation, industrial applications, and educational environment.