BLDEA'S

SB ARTS AND KCP SCIENCE COLLEGE VIJAYAPUR

BCA PROGRAMME

BCA FINAL YEAR STUDENTS ACADAMIC PROJECT LIST FOR THE YEAR 2023-24				
SLNO	UUCMS NO	NAME OF THE STUDENT	PROJECT TITLE	GUIDE NAME
1	U15KM21S0549	VEENA BIRADAR	FTK Imager and Autopsy Forensic Report	Prof.S.D.PATIL
2	U15KM21S0547	PREMA ANANTREDDY	IOT Smart Swatch Bharat Abhiyan	
	U15KM21S0535	BHAGYASHREE NAIKODI		
3	U15KM21S0530	DARSHAN HOSAMANI	File Sharing Platform Built with Django	
	U15KM21S0341	VISHWANATH SASATTI		
4	U15KM21S0483	VAISHALI BISANAL	Recommendation system for Books using Data Science	
	U15KM21S0543	ROOPA MARNUR		
5	U15KM21S0519	SHRUSTI BADAGANDI	Spam SMS Detection AI	
	U15KM21S0541	SHAKSHI AMBALI		
6	U15KM21S0406	MANOJ	Voice Recognition System using AI	Prof.S.G.BHAIRODAGI
	U15KM21S0550	PRAJAKTA SABOJI		
7	U15KM21S0531	PRAJWAL BIRADAR	AI in Skin Ccancer Detection	
	U15KM21S0527	ZAID BEPARI		
8	U15KM21S0475	SNEHA HATTI	Zoo Management System	
	U15KM21S0494	PRATHIBA MASALI		
9	U15KM21S0391	NIKIL KUMAR	Gesture Recognition System Using AI	
	U15KM21S0356	MAYUR SURYAVANSHI		
	U15KM21S0468	VIVEK RATHOD		
10	U15KM21S0368	HABIB DESAI	Online Banquet Management System	
11	U15KM21S0370	SOMESH HIREMATH	Hand Gesture System Using AI	
	U15KM21S0371	NAVEEN SURYA		
	U15KM21S0372	ROHIT GOTRALE		
12	U15KM21S0374	SIDDARAM ALOOR	Survey App. Development using Django	Prof.M.S.JEVOOR
	U15KM21S0375	OM		
13	U15KM21S05426	SANGEETA SAJJNASHETTY	Smart Cradle for Child Monitoring	
	U15KM21S0546	DEEPA SAJJAN		
14	U15KM21S0520	SUDHA MALEPPAGOL	Automated summarization of text using AI and ML	
	U15KM21S0318	SUNITA		
15	U15KM21S0383	RAKSHITA TORAVI	Digital Meeting	
	U15KM21S0384	ROHINI JAMAGOND		
16	U15KM21S0577	TEJASHWINI KORE	Image Digit from MNSIT using AI	
	U15KM21S0539	POOJA KASHATRI		
17	U15KM21S0389	SACHIN MAJJAGI	Clinic Management System	

18	U15KM21S0477	SACHIN CHAVAN	GPT Trainer	Prof. S. V. VAMBASE
	U15KM21S0490	KIRAN CHAVAN		
19	U15KM21S0398	NEEL SHAHA	AI Assistant using Speech Recognition	
	U15KM21S0576	PRATHAM PATIL		
20	U15KM21S0467	ANKUSH DARSHANKAR	Creating E Commerce Website	
	U15KM21S0364	VISHAL REDDY		
21	U15KM21S0545	NITISH PATTAR	Sentimental Analysis on Product Reviews	
	U15KM21S0478	MUSTAFA CHOUDRI		
22	U15KM21S0484	ASHIRWAD OBLEKAR	The Hangman Game	
	U15KM21S0486	P.JABIN ZADOK		
23	U15KM21S0523	ASHWINI BAGALI	GYM Management System	
	U15KM21S0525	ANKITA GIDDASHENNAVARA		
				Prof. S.S.GONAL
24	U15KM21S0551	SAHANA BALAGANUR	Suspicious activity detection using AI	
	U15KM21S0517	ROOPA SANKH		
25	U15KM21S0528	POOJA PUJARI	Detecting parkinson's disease using AI	
	U15KM21S0374	AKANKSHA MIRAJAKAR		
26	U15KM21S0574	ANKITA BADIGER	Traffic conditions prediction using AI	
	U15KM21S0542	ANUSHA MUCHANDI		
27	U15KM21S0461	HEENA DELWAI	Diabetes Prediction in AI	
	U15KM21S0524	AKSHATA HIREMATH		
	U15KM21S0485	BHAGYASHREE KALEKAR		
28	U15KM21S0540	SWETA HANCHINAL	Quiz Contest	
	U15KM21S0534	AKSHATA BADIGER		

Co-ordinator
BCA Programme
S.B.Arts & K.C.P.Science College,
Vijayapur.

IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijayapur.

Principal
S.B.Arts & K.C.P.Science College,
Vijayapur.

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.L.D.E ASSOCIATION'S
S.B ARTS & K.C.P SCIENCE COLLEGE VIJAYAPURA, 586103

BACHELOR OF COMPUTER APPLICATIONS

(Affiliated to Rani Channamma University, Belagavi)

A PROJECT ON

"HAND GESTURE SYSTEM USING AI"

Submitted in partial fulfilment of requirement for
The award of the degree

Internal Guide

PROF. S G BHAIRODAGI

Submitted by

SOMESH HIREMATH (U15KM21S0371)

NAVEEN SURYA (U15KM21S0462)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ

RANI CHANNAMMA UNIVERSITY, BELAGAVI

विद्वान् सर्वत्र पूज्यते

B.L.D.E ASSOCIATION'S
S.B ARTS & K.C.P SCIENCE COLLEGE VIJAYAPURA, 586103

नेतस्विनाव धीतमस्तु

Estd 1945 • ಸ್ಥಾಪನೆ 1945

BACHELOR OF COMPUTER APPLICATIONS

(Affiliated to Rani Channamma University, Belagavi)

A Project On

"HAND GESTURE SYSTEM USING AI"

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

Internal Guide

Prof. S. G. Bhairodagi

Submitted By

SOMESH HIREMATH (U15KM21S0371)
NAVEEN SURYA (U15KM21S0462)

2023-2024

RANI CHANNAMMA UNIVERSITY, BELAGAVI

ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ

RANI CHANNAMMA UNIVERSITY, BELAGAVI

विद्वान् सर्वत्र पूज्यते

B.L.D.E ASSOCIATION'S
S.B ARTS & K.C.P SCIENCE COLLEGE VIJAYAPURA, 586103

CERTIFICATE

This is to certify that the project work entitled "Hand Gesture System Using AI" is a bonafide work carried out by Somesh Hiremath (U15KM21S0371) and Naveen Surya (U15KM21S0462) submitted in the fulfillment for the award of the degree of Bachelor of Computer Application, prescribed by the Rani Channamma University, Belagavi during the academic year 2023-2024.

Guide	Co-Ordinator	Principal
Prof. S. G. Bhairodagi	Prof. S. D. Patil	Dr. R. M. Mirdhe

INTERNAL EXAMINER

EXTERNAL EXAMINATION

ACKNOWLDGEMENT

The successful presentation of this project is an acknowledgment of the immense support expended by S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPURA with has provided an opportunity to fulfill the most cherished desire to reach my goal.

We are extremely grateful to the Principal Dr. R.M. MIRDHE and Head of dept. Prof. S.D.PATIL, of Bachelor of computer application, for providing all the required resources for the successful completion of my Project.

Our heartfelt gratitude to our project guide Prof. S.G.BHAIRODAGI, of Department Bachelor of computer application, for their valuable suggestions and guidance in thepreparation and completion of the project report.

We thank our project co-ordinators for their constant encouragement and support rendered to us throughout the course of work and for all the help and co-ordination extended in bringing out this project successfully in time. We will be failing in duty if we do not acknowledge with grateful thanks to the authors of the references and otherliteratures referred to in this project.

Thanking You,

SOMESH HIREMATH

NAVEEN SURYA

INDEX

CHAPTER-1

INTRODUCTION

Sign language is a medium that is used in communication in the deaf and hearing impaired communities, which involves expressions and hand gestures. As reported in 2017, there were about 70 million deaf people that used sign language as their first language (Haj et al., 2017). According to a 2017 article on the United Nations website, sign language is very diverse, with more than 300 different sign languages available worldwide based on the geographical location and culture (United Nations, 2022). Commonly used sign languages include American Sign Language (ASL), Chinese Sign Language (CSL) and many more (Farooq et al., 2019). Despite the variety of sign languages out there, they share some common features such as hand movements, therefore the likeability of understanding between deaf/hard of hearing people of different countries still is high.

However, there is still a social barrier between the hearing people and the deaf/ or hard of hearing people. As most people are not familiar with sign language, therefore this makes real-time communication challenging. In such cases, the signers would need the external assistance of a translator to facilitate the conversation with the hearing, which might cost them some money. A Real Time Hand Gesture Recognition System To Interpret Sign Language would be a cheaper, long-term solution. To achieve this, it requires the knowledge of machine learning, sensing technologies as well as AI concepts (such as Deep Learning) and algorithms to build the system.

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.L.D.E ASSOCIATION'S
S.B ARTS & K.C.P SCIENCE COLLEGE VIJAYAPURA, 586103

BACHELOR OF COMPUTER APPLICATIONS

(Affiliated to Rani Channamma University, Belagavi)

A PROJECT ON

"SWACHCHA BHARAT ABIYAN USING IOT SMART DUSTBI

Submitted in partial fulfilment of requirement for
The award of the degree

Internal Guide

Prof. S. D. PATIL

Submitted by

PREMA ANANTAREDDI (U15KM21S0547)

BHAGYASHREE NAIKODI (U15KM21S0535)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

VIDYASANGAMA

B.L.D.E. ASSOCIATION's

S.B Arts & K.C.P Science College

Vijayapura

BACHELOR OF COMPUTER APPLICATIONS

(Affiliated to Rani Channamma University, Belagavi)

A PROJECT ON

"SWACHCHA BHARAT ABIYAN USING IOT SMART DUSTBIN"

Submitted in partial fulfilment of requirement for
The award of the degree

Internal Guide

Prof. S. D. PATIL

Submitted By

PREMA ANANTAREDDI(U15KM21S0547)
BHAGYASHREE NAIKODI(U15KM21S0535)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

VIDYASANGAMA

B.L.D.E. ASSOCIATION's

S.B Arts & K.C.P Science College Vijayapura

586103

A PROJECT ON

"SWACHCHA BHARAT ABHIYAN USING IOT SMART DUSTBIN"

CERTIFICATE

This is to certify that the project work entitled "SWACHCHA BHARAT ABIYAN USING IOT SMART DUSTBIN" is a bonafide work carried out by PREMA ANANTAREDDI (U15KM21S0547) and BHAGYASHREE NAIKODI (U15KM21S0535) submitted in the fulfilment for the award of the degree of Bachelor of Computer Application, prescribed by the Rani Channamma University, Belagavi during the academic year 2023-2024.

GUIDE	CO- ORDINATOR	PRINCIPAL
Prof. S.D.PATIL	Prof. S.D. PATIL	Dr. R.M. MIRDHE

19/8/24

ACKNOWLDGEMENT

The successful presentation of this project is an acknowledgment of the immense support expended by S.B ARTS AND K.C.P SCIENCE COLLEGE VIJAYAPURA with has provided an opportunity to fulfil the most cherished desire to reach my goal.

We are extremely grateful to the Principal Dr. R. M. MIRDHE and Head of department, Prof. S. D. PATIL, of Bachelor of computer application, for providing all the required resources for the successful completion of my Project.

Our heartfelt gratitude to our project guide Prof. S. D. PATIL, Bachelor of computer application of Department, for her valuable suggestions and guidance in the preparation and completion of the project report.

We thank our project co-ordinator Prof. S. G. BHAIRODAGI for their constant encouragement and support rendered to us throughout the course of work and for all the help and co- ordination extended in bringing out this project successfully in time. We will be failing in duty if we do not acknowledge with grateful thanks to the authors of the references and other literatures referred to in this project.

Thanking You,

PREMA ANANTAREDDI

BHAGYASHREE NAIKODI

INDEX

1.ABSTRACT

Nowadays numbers of actions are taken to improve the level of healthiness and cleanliness in the country. People are getting more and more active in doing all the things possible to clean and healthy their surroundings. Various actions are also taken by the government to increase cleanliness like "Swachch Bharat Abhiyan". By this project, we tried to build an IOT system which will notify the corporations continuously by sending data to server and to empty the bin/dustbin on time by SMS. In this IOT based system, we will put an Ultrasonic sensor with PIC18F4550microcontroller, on top of the garbage bin which will detect the different levels of garbage inside it according to the total size of the dustbin. When the garbage will reach the maximum level, a notification will be sent to the corporation's office by Text Message, and then the employees can take further actions to empty the dustbin. This IOT based system will help in cleaning the India in a better way.

Key Words: PIC Microcontroller; PIC18F4550; Dustbin; Ultrasonic Sensor; LCD Display; GSM; TCP; Thingspeak; ThingView.

2. INTRODUCTION

The idea of this project came from the current scenario of dustbin in our areas. Due to overflow of dustbin by garbage, the environment and our society will be unhealthy. To overcome from this, this project can be helpful. As a developing nation and as one of the most populous country in the world we in India face unique problems that require a unique solution such problem is that of waste management. As of there is no proper monitoring system on the working of labors whoever working in the corporations, if they are failed to clean the garbage bins within the stipulated time then there must be overflow and so as diseases and hazardous gases spreads easily which makes city or town unhygienic.

IoT or Internet Things refers to the network of connected physical objects that can communicate and exchange data among themselves without any human intervention. Any object in the physical world which can be provided with an IP address to enable data transmission over a network can be made part of IoT system by embedding them with electronic hardware such as sensors, software and networking gear.

This project **IOT based Garbage Management** System is a very innovative system which will help to keep the cities clean. This system monitors the garbage bins and informs about the level of garbage collected in the garbage bins via a web page.

For this the system uses ultrasonic sensors placed over the bins to detect the garbage level and compare it with the garbage bins depth. The system makes use of Arduino uno board, LCD screen, Wi-Fi modem for sending data. The system is powered by a 9V battery. The LCD screen is used to display the status of the level of garbage collected in the bins.

PIC is a microcontroller family developed by Microchip Technology and has wide range of uses in embedded systems. The "PIC" originally was referred to Peripheral Interface Controller [2, 3]. It is widely used in many applications like home automation, electric motor controlling, health monitoring, etc.Sensors are Electronic devices that detect and respond to some type of input from the physical environment. Sensor modules have extra electronic circuitry along with a sensor that helps interface them with microcontroller.

Where as a web page (thinkspeak IOT platform) is integrated to show the status to the user monitoring it. The web page gives a graphical view of the garbage bins and highlights the garbage collected in color in order to show the level of garbage collected. The LCD screen shows the status of the garbage level. Thus this system helps to keep the city clean by informing about the garbage levels of the bins by providing graphical image of the bins via a web page.