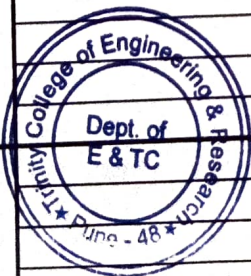


KJ'S EDUCATIONAL INSTITUTES
TRINITY COLLEGE OF ENGINEERING AND RESEARCH PUNE
 (Accredited by NAAC with B++ Grade Approved by AICTE & Affiliated to
 SPPU, Pune) Sr. No. 25 & 27, Near. Khadi Machine Chowk, Kondhwa Annexe,
 Pune-48, Maharashtra
DEPARTMENT OF E&TC

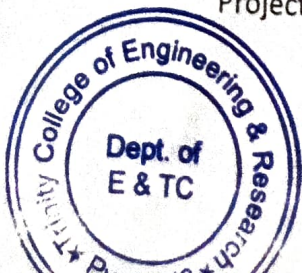
APF-24A	Project Base Learning List of Group Member and Project Name	Academic Year: 2022-23
Issue No.:01		SE Semester: II
Rev date 17/12/2018		Date-- 28/2/2023

All the students are informed to c the seminar presentation and report as per given guidelines.
 The report should be duly signed by guide and HOD and should submit to coordinator.

Group No.	Names of the Student	Project Title
1	Prajwal Deshpande Pratham Bhoire Aadesh Badade Abhay Audoba	Signal Jammer circuit
2	Vaibhav Jagtap Vishal Joshi Sumit Patil Pradip Rokade	Smart Light using Intensity Controller
3	Hrishikesh Tambe Rohan Tather Adarsh Gore Rohan Tathe om shete	Line following vehicles in factory optimisation
4	Dipali Shinde Ritesh Pokale Padir Avishkar manisha Tad Ghorpade Pradnya	smart blind stick for smart people
5	Dvkumar Bharti Tejaram Chaudhari chetan lambhade Aditya Joshi Ritesh Chhajed	F 450 DRONE using Pixhawk
6	Chaitanya Vaidya Chaitrali Barangle chandan angale amanulla nadaf pratamesh mane	Plant Moisture Monitoring System
7	akshay konaly prasad mane sashank kunwar	sound detector
8	rohit kale sahil tekawade abhishek G anjali shinde	Automatic solar tracker



9	makarand hawale	Motion sensor light
	saina khan	
	neha paytal	
10	punam samaik	Fire detection
	ajay lokhande	
	ranjeet kate	
11	rohit vaidya	Data transmission using Li-Fi
	abhijeet pawar	
	divya gandhi	
12	rajkumari gupta	automatic smoke detector alarm
	bhakti mundakar	
	bhagawat samiksha	
13	prachi jadav	USB LAMP circuit
	sashank kunwar	
	nisha kamble	
14	samrudhi dedhe	anti sleep alarm system
	Rushikesh Sawant	
	shivraj yewale	
15	piyush Nipane	Aurdino based hand gesture laptop
	nawaz qureshi	
	tamboli owaliz	
16	suraksha vedpathak	smoke detector with fire alarm system
	viraj varma	
	shubham nale	
17	rushi pol	LPG gas leakage detector
	junaid shaik	
	zakriya mulla	
18	arisha shaikh	Water level indicator
	adesh gaikwad	
	kothaly sashank	
19	jadhva prachi	Water level indicator
	ganesh Itikala	
	pratik khardil	
20	tirtesh pol	Water level indicator
	vishwajit chikane	
	tushar sul	
21	tanay kobragade	Water level indicator
	ovikar krishna	
	nadaf samulla	
22	karan jadhav	Water level indicator



Project Coordinator -- Prof. Pratibha Chavan
Prof. Radhika Bodhe

Radhika

HOD E & TC -- Dr. Shubhang Hande





TRINITY COLLEGE OF ENGINEERING AND RESEARCH

DEPARTMENT OF
ELECTRONICS & TELECOMMUNICATION

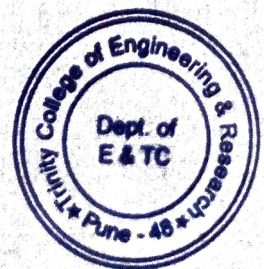
❖ GROUP MEMBERS

1. Gandhi Divya (EN2013)
2. Gupta Rajkumari (EN2015)
3. Bhagwat Samiksha (EN2005)
4. Mundkar Bhakti (EN2035)

TOPIC – Data Transmission using LI-FI

CLASS - SE(E&TC)

SUBJECT - Project Base Learning



❖ AIM

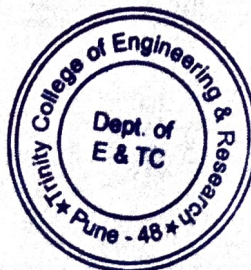
The main aim is designing and executing Li - Fi technology to provide a high-speed data communication using visible light spectrum.

❖ ABSTRACT

Li-Fi technology means Light Fidelity technology which was proposed by Harald Haas (a German Physicist). As the name suggests Li-Fi is a data transmission technique which uses illumination for sending the data or light as a medium of communication. It transmits data with the help of an LED bulb having variation in its intensity which has a speed of actually faster than which human eye can follow. It is also known as optical wireless technology or visible light communication. This paper focuses to explore this amazing technology and give a relative study of Li-Fi with other wireless communication technologies like W-Fi. Wi-Fi is perfect for transmission of data having a wireless coverage within buildings. But Li-Fi provides better efficiency, higher bandwidth, better security and availability with a very high speed.

❖ COMPONENTS REQUIRED

- 220ohm resistor
- Solar Panel
- Aux cable
- LED
- 9v Battery
- Connecting wires





TRINITY COLLEGE OF ENGINEERING AND RESEARCH

Department of Electronics & Telecommunication

➤ Group members :

Shubham Nale (EN2038)

Rushi Pol (EN2043)

Junaid Shaik (EN2048)

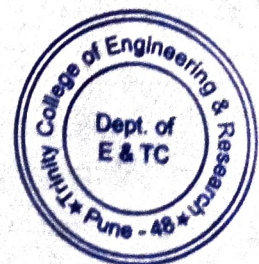
Zakriya Mulla (EN2034)

Arisha Shaik (EN2049)

TOPIC: Aurdino-Based Hand Gesture Laptop

CLASS - SE(E&TC)

SUBJECT - Project Base Learning



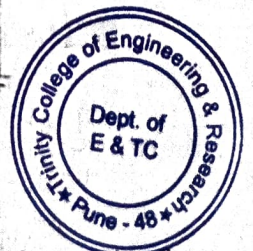
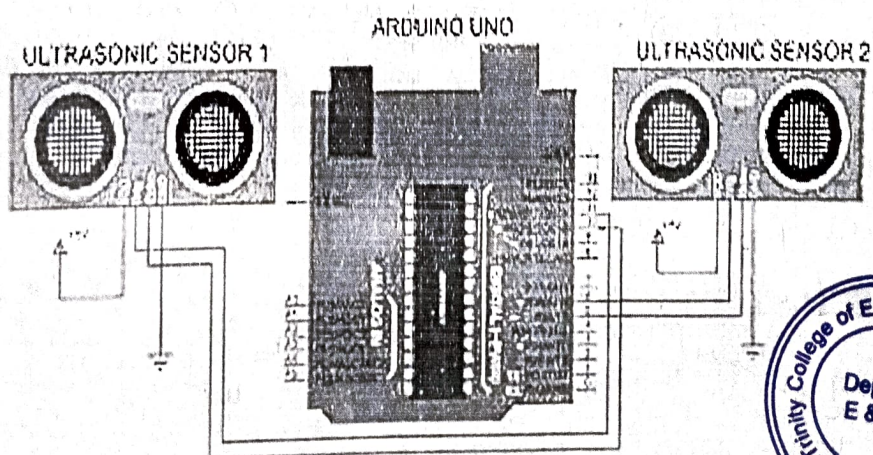
❖ Aim: The main Aim of this project is hand control using Arduino

❖ Abstract: The principle use behind this Project is using hands gesture for controlling PCs, Laptops, Computers, etc. With this project, our motto is to make technology more convenient for users while handling Computers and Laptops.

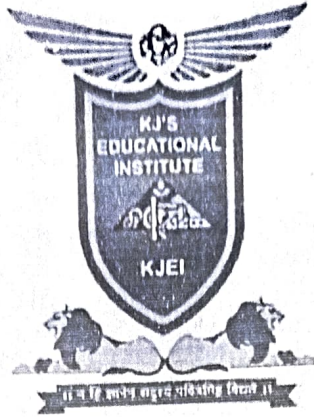
❖ Components Required:

SR.NO	Components	Qty
1)	Ultrasonic Sensor (HG-SR04)	2
2)	Arduino UNO	1
3)	Connecting Wires	As required

❖ Circuit Diagram:



In this Circuit, we used an Ultrasonic Sensor (HG-SR04) to detect a hand gestures from users. Arduino UNO used for action is given by the user and performs the specific action. Connecting wires are used for connection between the Ultrasonic Sensors and Arduino UNO.



KJ's TRINITY COLLEGE OF ENGINEERING AND RESEARCH

Department of
Electronics & Telecommunication
Academic Year 2022-2023



Savitribai Phule Pune University

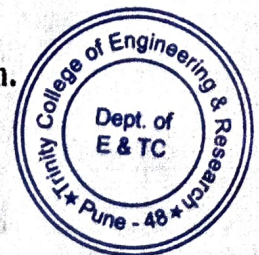
❖ GROUP MEMBERS

- 1) Hrishikesh Tambe (EN2054)
- 2) Rohan Tathe (EN2056)
- 3) Adarsh Gore (EN2070)
- 4) Ronak Tatar (EN2071)
- 5) Om Shete (EN2051)

TOPIC – Line Following Vehicles In Factory Optimization.

CLASS - SE(E&TC)

SUBJECT - Project Base Learning





KJ's TRINITY COLLEGE OF ENGINEERING AND RESEARCH

Department of
Electronics & Telecommunication
Academic Year 2022-2023



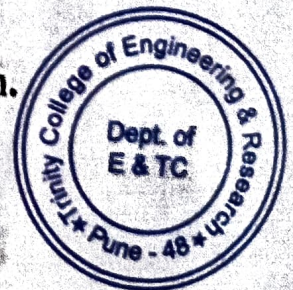
Savitribai Phule Pure University

❖ GROUP MEMBERS

- 1) Hrishikesh Tambe (EN2054)
- 2) Rohan Tathe (EN2056)
- 3) Adarsh Gore (EN2070)
- 4) Ronak Tatar (EN2071)
- 5) Om Shete (EN2051)

TOPIC – Line Following Vehicles In Factory Optimization.

CLASS - SE(E&TC)



SUBJECT - Project Base Learning

❖ AIM

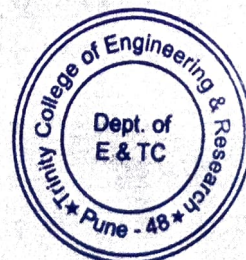
The main aim of the project is, An automated industry with line follower transport vehicle.

❖ ABSTRACT

Line follower robot is one kind of autonomous robot which follows a line until that line exists. Generally, the line is drawn on the floor. It can be either black or white. The line can also be normal visible color or invisible magnetic field or electric field. The robot follows the line by using Infra-Red Ray (IR) sensors. There are five IR sensors which makes it an IR sensor array. These sensors read the line and send that reading to Arduino and then control the robot movement. In this project, line following vehicles are autonomous robots that follow a predetermined path, or line, on the ground. They have been increasingly used in manufacturing and logistics industries to streamline processes and increase efficiency.

❖ Hardware Requirements: -

- 1) Arduino Uno R3 And IDE
- 2) Adafruit Motor Shield
- 3) IR Sensor Array
- 4) DC Power Adapter(9v,2A)
- 5) LED
- 6)Chassis Board
- 7) Power Supply (9v/12v DC)
- 8)Piezo Sensor
- 9)LDR Sensor
- 10) Servo Motor
- 11) On/Off Switch





TRINITY COLLEGE OF ENGINEERING AND RESEARCH

DEPARTMENT OF
ELECTRONICS & TELECOMMUNICATION

❖ GROUP MEMBERS

1. Vaibhav Jagtap (EN2020)
2. Vishal Joshi (EN2022)
3. Sumit Patil (EN2041)
4. Pradip Rokade (EN2045)

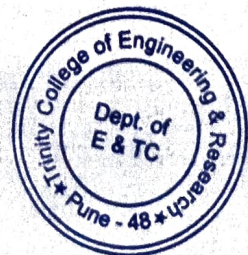
UNDER THE GUIDANCE OF

Ms. Radhika Bode

TOPIC - SMART STREET LIGHT USING INTENSITY CONTROLLER

CLASS - SE(E&TC)

SUBJECT - Project Base Learning



❖ AIM

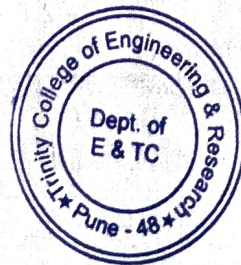
The main aims at designing and executing the advanced development in embedded systems for energy saving of street lights.

❖ ABSTRACT

We all know that street lights are one of the main city's assets. Currently, in the whole world, enormous electric energy is consumed by the street lamps, which are automatically turned on when it becomes dark and automatically turn off when it becomes bright. This is a huge waste of energy in the whole world and should be changed. Using Light Emitting Diode (LED) instead of conventional street lights reduces the power consumption. The main aim of this project is to design a system of street light controllers to reduce power consumption. The prototype is designed by using Light Dependent Resistor (LDR), Infrared sensor (IR), battery, and LED. The brightness of the lamp is controlled to reduce power consumption. The lights turn on before pedestrians and vehicles come and turn off or reduce power when there is no one. It will be difficult for pedestrians and drivers of vehicles to distinguish our smart street lamps and the conventional street lights since our street lamps all turn on before they come.

❖ COMPONENTS REQUIRED

- Arduino UNO(Microcontroller)
- PIR Sensor
- LDR Sensor
- LED
- IR Sensor
- Relay
- Resistor
- Jumper Wire





**TRINITY COLLEGE OF ENGINEERING AND
RESEARCH**

**Department of Electronics &
Telecommunication**

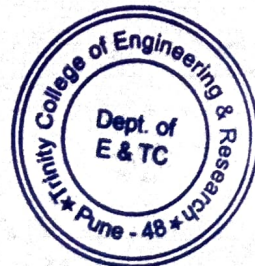
❖ GROUP MEMBER

Shinde Dipali Machindra (EN2072)
Pokale Ritesh Sandip (EN2067)
Tad Manisha Vitthal (EN2064)
Padir Avishkar Dinkar (EN2066)
Ghorpade Pradhyna Tanaji (EN2065)

TOPIC – SMART BLIND STICK FOR BLIND PEOPLE

CLASS – SE (E&TC)

**SUBJECT - Project Base
Learning**



❖ AIM

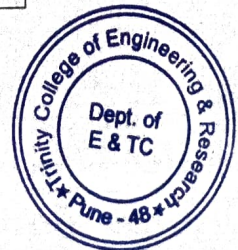
The main aim of this project to help walking for blind people. And provide an application for blind people to detect the obstacles in various directions, detecting pits and manholes on the ground to make free to walk.

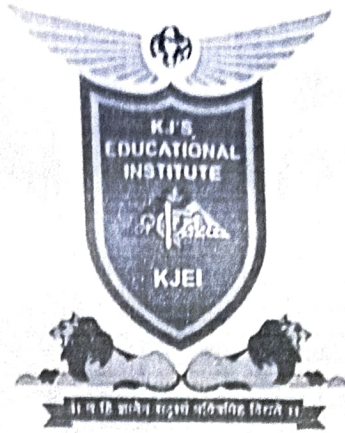
❖ ABSTRACT

This project describes ultrasonic blind walking stick with the use of Arduino. according to who, 30 million peoples are permanently blind and 285 billion peoples with vision impairment. if you notice them, you can very well know about it they can't walk without the help of other. one has to ask guidance to reach their destination. they have to face more struggles in their life daily life. using this blind stick, a person can walk more confidently. This stick detects the object in front of the person and give response to the user either by vibrating or through command. so, the person can walk without any fear. this device will be best solution to overcome their difficulties

❖ COMPONENTS REQUIRED

Sr. No	Component	Value	Qty
1	Arduino UNO		1
2	USB cable for uploading the code		1
3	Jumper wires		
4	Ultra-sonic Sensor		1
5	Buzzer		1
6	stick		1
7	Arduino software		
8	LED		1
9	Battery	20v	1





TRINITY COLLEGE OF ENGINEERING AND RESEARCH

DEPARTMENT OF
ELECTRONICS & TELECOMMUNICATION

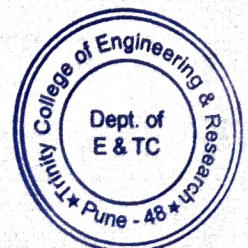
TOPIC – Fire Detection

† GROUP MEMBERS

1. Ranjeet Kate (EN2025)
2. Ajay Lokhande (EN2031)
3. Rohit Vaidya (EN2059)
4. Abhijeet Pawar (EN2069)

CLASS - SE(E&TC)

SUBJECT - Project Base Learning



✦ AIM

- limit the emission of toxic products created by combustion, as well as global-warming gases produced by the fire itself.

✦ ABSTRACT

A fire alarm system has a number of devices working together to detect and warn people through visual and audio appliances when smoke, fire, carbon monoxide or other emergencies are present. These alarms may be activated automatically from smoke detectors, and heat detectors or may also be activated via manual fire alarm activation devices such as manual call points or pull stations. Alarms can be either motorized bells or wall mountable sounders or horns. The primary thought in the present field advances are computerizations, power utilization, and expense adequacy. Automation is implied for the decrease risk of human neglect. Two sensors viz. The Temperature sensor and Air quality sensor which are utilized as a part of the Fire Detection System to recognize a fire. The temperature sensor records the temperature of the room. The Air quality sensor detects if there is any gas present in the room. Here we have utilized an Arduino Uno to control all the command from both the sensors and execute them legitimately. Fundamentally it acts as the mind of the entire framework.

