Jaihind Comprehensive Educational Institute's
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF F.E ENGINEERING
PROJECT EXHIBITION 2023
" Antisleep Alarm For Driver's "

● AIM :
i. Anti sleep alarm is an application to keep car driver awake.
ii. We can use it anywhere we need to stay.
iii. Using this project we reduce vehicle accident.

● OBJECTIVE :
i. To reduce the accident ratio of the truck driver
ii. Save lives not just drivers but also other people.
iii. Reduce the wealth burden on owner.

● ADVANTAGE :
i. To control car accidents.
ii. To save human life's and reduce wealth damage.
iii. Avoid vehicle damage.
iv. This detection method is applicable to any vehicle.

● DISADVANTAGE :
i. Driver need to wear specs while driving.
ii. Owner need to install the device after buying.
iii. Eye motion sensor need to clean on time to time because dust particles may difficult to read motion.

● APPLICATION :
i. This system is useful especially for people who travel long distance & people who travel late.
ii. This alerts the driver whenever he is getting into sleep, while driving the vehicle.

● CONCLUSION :
i. Whenever driver feel sleep and close his eyes for more than 1.5 sec the IR detects it trasmitte this data,
ii. To the ardunino, then buzzer is blown, LED glown up and and vehicle stops.

● CONSTRUCTION :
i. In this project we used arduino nano buzzer, IR sensor, spectacle, adapter, motor & wheel assembly.
ii. We used thin plywood to mount all components.
iii. The main component is arduino nano which we mounted on circuit board. It perform all function related to controlling embedded system circuit.
iv. Arduino nano is used for drowsiness detection and other eye blink related detections, we fixed buzzar which will start to buzz, if driver will not open his eyes in 2 sec. as result vehicle will stop & LED lights starts glow.
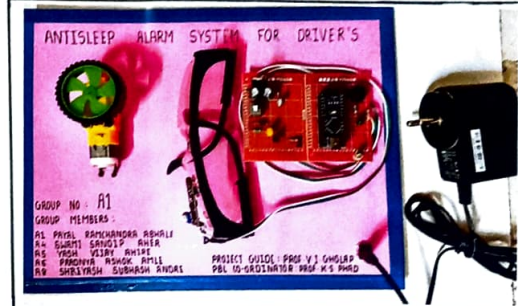
● PROJECT GROUP MEMBERS :
A01. ABHALE PAYAL RAMCHANDRA
A04. AHER SWAMI SANDIP
A05. AHIRE YASH VIJAY
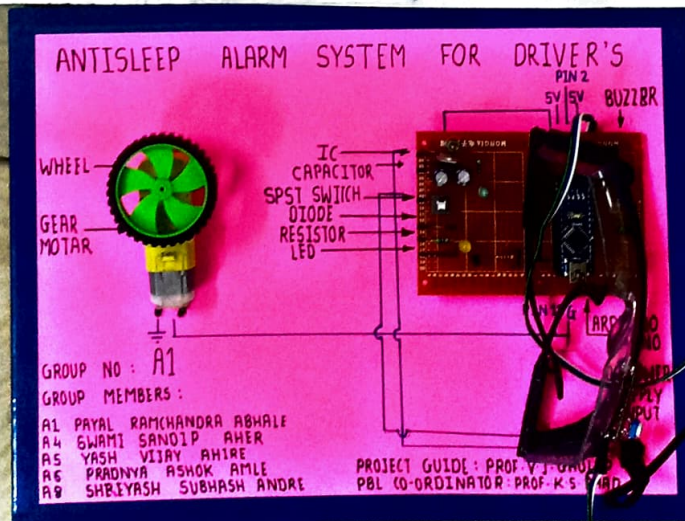A06. AMLE PRADNYA ASHOK
A08. ANDRE SHREYASH SUBHASH

GROUP NO.
A1

● PROJECT GUIDE
PROF. V.J. GHOLAP

● PBL COORDINATOR
PROF. PHAD K.S.

JAIHIND COMPREHENSIVE EDUCATONAL INSTITUTE'S
JAIHIND COLLEGE OF ENGINEERING. KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION 2023
ELECTRIC POWER FREE ENERGY GENERATOR USING (DC MOTOR)

AIM:- The aim of this project is a free energy genration using Flywheel system is a device that generates friendly energy which is called renewable power.

OBJECTIVE :- Objectives are how to use the battery and run the free power genrator using Flywheels and taking advantage of battery charged energy.
THIS INVOLVES THE DESIGN OF LOW-COST ELECTRICAL GENERATION SYSTEM.

Description

THIS CIRCUIT IS USED TO GENERATE ENERGY DUE TO HIGH LEVEL OF IDUSTRY IN DEVELOPING AND DEVELOED A COUNTRY OF EICTRICTY. HENCE, WE CAN SIMPILY GENRATE WIND ENERGY IS CONVERTED INTO ELECTRICAL ENERGY.

Advantages

- THE SYSTEM HAS AND/GENERATES ENERGY USING WIND WITHOUT REQUIRING ANY EXTERNAL ENERGY SOURCE.
- IT IS SIMPLE TO RUN AND MAINTAIN.
- THE SYSTEM HAS BETTER DYNAMIC PERFORMANCE.
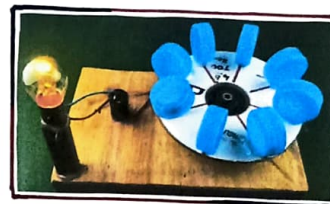- THE SYSTEM GENERATES ENERGY WITHOUT PRODUCING ANY BIOHAZARDS.

DISADVANTAGES

- THE ENERGY GENERATED DEPENDS ON THE WINDG SPEED.
- THE HIGH-CAPACITY IS HIGH REQUIRED FOR THE SYSTEM TO WORK.
- THE COST OF PERMANENT MAGNETS IS HIGH.
- MAGNET CORROSION AND POSSIBLE DIA MAGNOTION CAN BE A PROBLEM

CONSTRUCTION
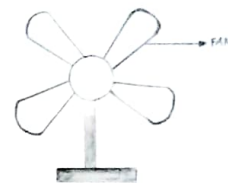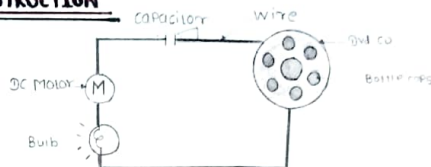
PROJECT MODEL PHOTO

PROJET GROUP MEMBERS

A02 AGRE PRATIK SUBHASH
A11 BANGAR SAKSHI VIJAY
A14 BANKHELE YASH DATTATRAY
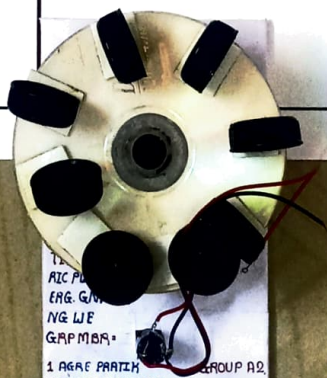A15 BELHEKAR VAISHNAVI GORAKSHA
A21 BHOR AJIT SHAMKANT

PROJECT GUIDE
Prof. P. R. Satpute

PBL COORDINATOR
Prof. K.S Phad

Group No.:-

A2

AIM:-

1. To describe and identify the essential system components.
2. Highlight important aspects when designing FGESS.
3. An overview of commercially available FGESS is given.

OBJECTIVE:-

1. Storage System for grid integration is a growing market of interest.
2. The main goal of this thesis to provide a market overview and technical description of a flywheel green energy storage system.

ADVANTAGE:

1. Fast power response.
2. Potentially high specific energy.
3. High cycle and calendar life.
4. Short recharge time.

DISADVANTAGES:-

1. Complexity of durable and low bearings.
2. Material stress and fatigue limits.
3. Material limits at ground 700M/sec tip speed.
4. Short discharge times.

APPLICATIONS:-

1. High-power flywheels are used in many aerospace and UPS.
2. Small size in relation to other energy storage systems.
3. Can be integrated into existing power points.
4. Ease of installation.
5. The price of batteries decreases with continued adoption and availability.

CONCLUSION:-

1. The use of new materials and compact designs will increase the specific energy and energy density.
2. To make flywheels more competitive to batteries.
3. Other opportunities are new applications in energy harvest, hybrid energy systems.
4. Flywheel's secondary functionality apart from energy storage.

CONSTRUCTION

1. In this project we used DC Motor, Flywheel, pulleys, Belt and Bulb.
2. We used thin plywood to mount all components.
3. FGESS use electric input which is stored in the form of kinetic energy.
4. The flywheel is connected to motor that interacts with the utility grid through the advanced power electronics.
5. The amount of energy stored in a flywheel is a function of square of the RPM making higher rotational speeds desirable.
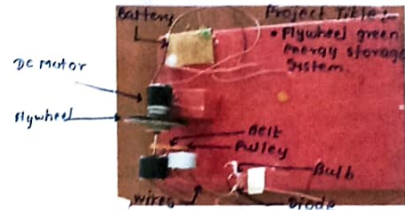
PROJECT GROUP MEMBERS :-

A03. AHER SIDDHESH DATTATRAY
A09. ARGADE ROHAN KISAN
A10. BAMHANE TANMAY ARUN
A19. BHAPKAR SAGAR SUDAM.

PROJECT GUIDE:
PROF. B.M. WARULE

PBL CO-ORDINATOR
PROF. PHAD K.S.

GROUP NO :
A-03

Group - A03

Project Name :- Flywheel Green Energy Storage System.

Group Members :-
A03 Aher Siddhesh Dattatray
A09 Argade Rohan Kisan
A10 Bamhane Tanmay Arun
A19 Bhapkar Sagar Sudam.

Project co-ordinator :- Prof. K.S. Phad
Project Guide :- Prof. B.M. Warule.

Jaihind Comprehensive Educational Institute

JAIHIND COLLEGE OF ENGINERRING KURAN.

Department Of First Year Engineering
Project Exhibition - 2023
Project Tittle :- VACUUM CLEANER

Aim :- Vaccum cleanear by using box. To remove dirt and dust from upholstery, carpets, velvetten furniture.

Objective :-
i) In save time and energy work.
ii) Satisfied direct cleaning by using vaccum.
iii) Clean benches, machines and floors.
iv) Store tools properly
v) Use shop cleaning equipment properly

Advantages :-
i) Vaccum cleanear is easy to use and hygienic.
ii) It Saves efforts, money and time.
iii) It is usually low cost and reliable.
iv) Short cleaning process.
v) Vaccum cleanear is excellent for cleaning dirt.

Disadvantages :-
i. Vaccum cleaner can be noisy.
ii. Vaccum cleaner can be wired.
iii. It cannot clean everything.
iv. In capable to clean stair.

APPlication :-
i) They are majority used to remove dirt and dust From upholstery, carpets, Velveteen Furniture and floors.
ii) They are also used to clean cars & stairs
iii) The dirt is collected by either dust-bag or a cyclone for later disposal.

Conclusion :-
i) To study Conducted how a vacuum cleanear could be designed and adapted to facilitate Compact and easy Storage for the user in modern home, without Compromising its current efficiency.
ii) By taking a human-centred design approach, needs, requirements from the user could be found before, during and after the actual cleaning experience.

Construction :-
i) Punch a hole in the plastic box on the same side.
ii) A dc fan is attached to one hole.
iii) Dc connected to the adapter.
iv) Again a suction pipe attached to the anoter hole.
v) Suction pipe Working to nozzle.
vi) The vacuum cleanear absorbs the dust

Project Model :-
Photo

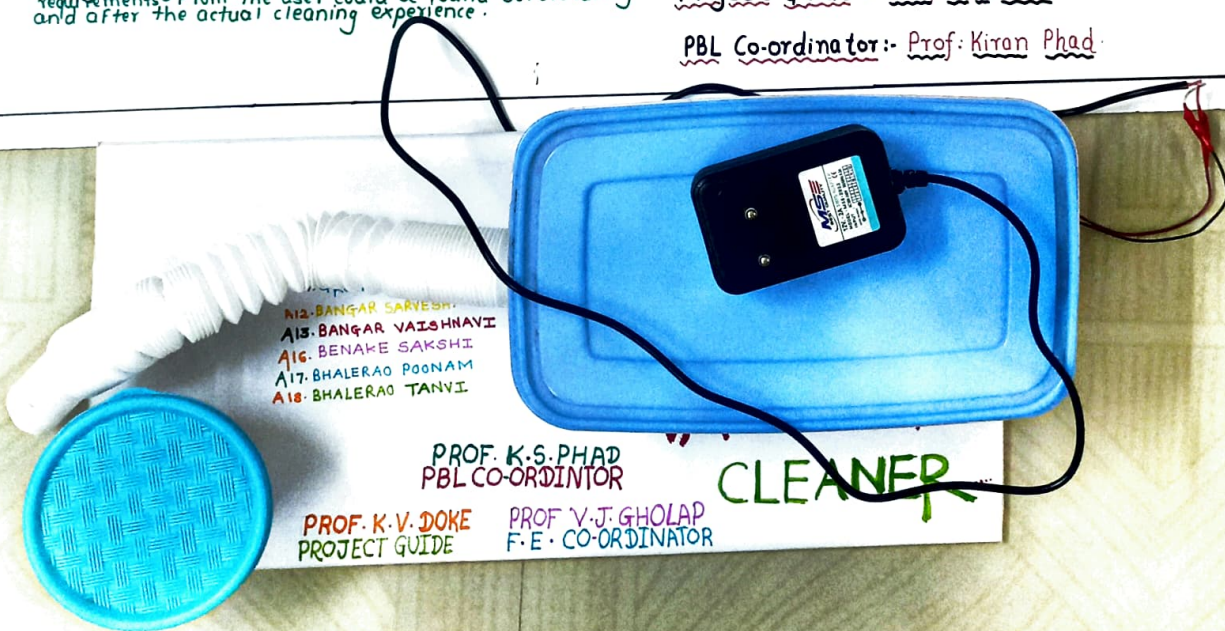**Project Group Member**

A.12 :- BANGER SARVESH PANDHARIN- ATH
A.13 :- BANGER VAISHANAVI RAMESH.
A.16 :- BENAKE SAKSHI SOPAN.
A.17 :- BHALERAO POONAM RAMDAS.
A.18 :- BHALERAO TANVI VITTHAL.

Group No. A4
Project Guide :- Prof. K.V. Doke.

PBL Co-ordinator :- Prof. Kiran Phad.

Jaihind Comprehensive Educational Institute's
Jaihind College of Engineering Kuran
Department of First Year, Engineering
Project Exhibition 2023

Project Name: Electronic Sensors & It's Types.

Aim: To Study of the Electronic Sensors and its types.

Objective:
i] To study how the sensors are work.
ii] To study the types of sensors.

Description: A sensor is a device that receives and responds to a signal. This signal must be some type of energy, such as heat, light, motion, electrical or chemical reaction. Once a sensor detects one or more of this signals (an input), it converts it into an analog or digital representation of the input signals.

Advantages:
i] Collect processes and asset data in real time.
ii] Monitor processes and assets accurately, reliably and continuously.
iii] Increase productivity and reduce total cost of ownership.
iv] Lower energy wastage.

Dis-advantages:
i] Sensors may be expensive, in particular, if they're excessive - precision.
ii] Sensors may be fragile and can want to be covered from bodily harm or severe temperature
iii] Sensors also require ordinary calibration to certain accuracy.

Application:
i] For Industrial use of control, monitoring and safety.
ii] Used in Farm / Field.
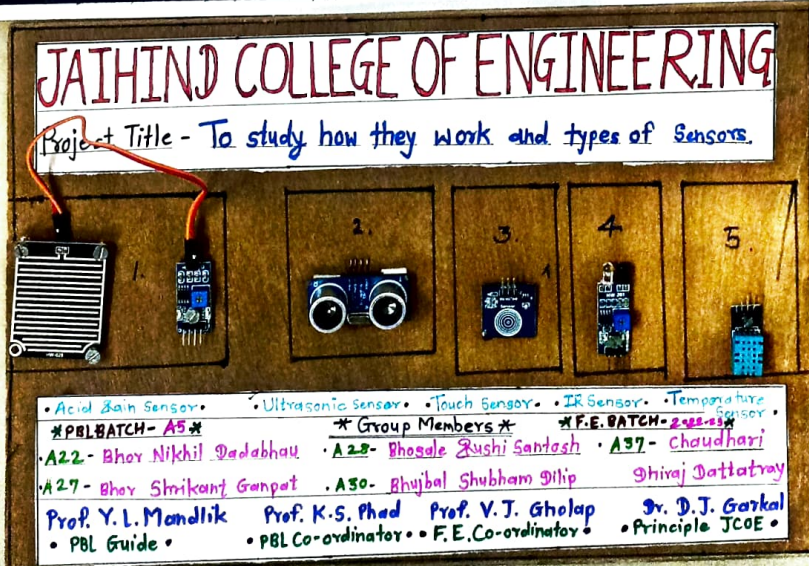iii] In electronics gadgets, such as Smartphone, Tablet, etc.

Conclusion: In conclusion, Sensors are powerful device that have many advantages such as providing real time data, high precision and working in harsh environments. However, They also have some disadvantages such as high costs. susceptibility to interference and damage and Limimited Life span. It's important to weigh the advantages and distdvantages of sensors before deciding their usage.

Project Model Photo:

Group Number.: A-05.

Group Members:
A22 Bhor Nikhil Dadabhau
A27 Bhor Shrikant Ganpat
A28 Bhosale Rushikesh Santosh.
A30 Bhujbal Shubham Dilip
A37 Chaudhari Dhiraj Dattatray.

Project Guide: Prof. Y.L. Mandlik
PBL Co-ordinator ~ Prof. K.S. Phad

JAIHIND COLLEGE OF ENGINEERING

Project Title - To study how they work and types of Sensors.

1. 2. 3. 4. 5.

• Acid Rain Sensor • • Ultrasonic Sensor • • Touch Sensor • • IR Sensor • • Temperature Sensor •

✱ PBL BATCH - A5 ✱ **✱ Group Members ✱** **✱ F.E. BATCH - 2022-23 ✱**

A22 - Bhor Nikhil Dadabhau • A28 - Bhosale Rushi Santosh • A37 - Chaudhari Dhiraj Dattatray

A27 - Bhor Shrikant Ganpat • A30 - Bhujbal Shubham Dilip

Prof. Y.L. Mandlik   Prof. K.S. Phad   Prof. V.J. Gholap   Sr. D.J. Garkal
• PBL Guide •   • PBL Co-ordinator •   • F.E. Co-ordinator •   • Principle JCOE •

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUDE
JAIHIND COLLEGE OF ENGINEERING KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION 2023

TITLE : CONTINUITY TESTER WITH BUZZER

Aim :
The aim of a continuity tester is to quickly and accurately determine whether a circuit or connection has continuity, meaning if it is unbroken and allowing current to flow through it

OBJECTIVE :
The objective of a buzzer in a continuity tester is to enchance the user's ability to detect continuity by providing an audible indication

DESCRIPTION :
A buzzer is a very important element of this continuity tester because you will know and identify a connection while checking the faulted circuit by hearing the buzzer sound So you don't have to look at the tester itself frequently To adjust the sensitivity of a circuit we have used a 50K variable resistor

ADVANTAGES :
1. Quick and convenient
2. User friendly
3. Cost efficient
4. Non-contact testing
5. Quick and easy testing

APPLICATIONS :
1. Circuit Testing
2. Wire Tracing
3. Component Testing
4. Fuse Testing
5. Automotive Electrical Testing

DISADVANTAGES :
1. Limited Functionality
2. Limited sensitivity
3. Lack of precision
4. Lack of visual feedback
5. Inability to check voltage or current

PBL GROUP : A6

FE BATCH (2022-2023)
FE COORDINATOR :
Prof. V. J. GHOLAP

CONCLUSION :
In conclusion, the project of continuity tester has provided a valuable tool for testing electrical circuits and components The continuity tester, equipped with a buzzer or audible indicator, offers advantages such as immediate feedback and quick testing

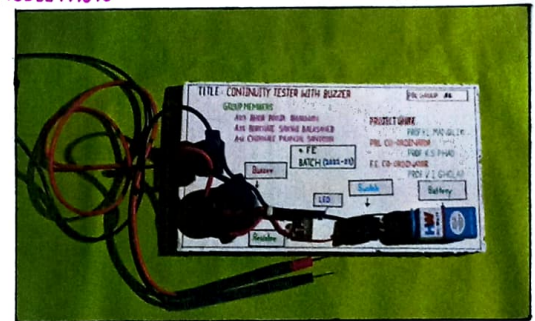**PROJECT GUIDE :**
Prof. Y. L. Mandlik

PBL COORDINATOR :
Prof Phad K S

CONSTRUCTION :
1. Gather the components as shown in figure
2. Prepare the circuit board
3. Mount the components
4. Check the connections
5. Enclosure Assembly
6. Final testing
7. Finalize and close the assembly
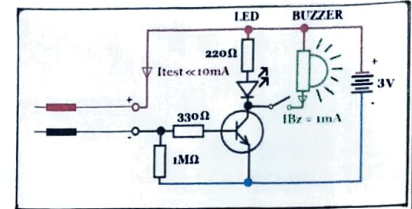
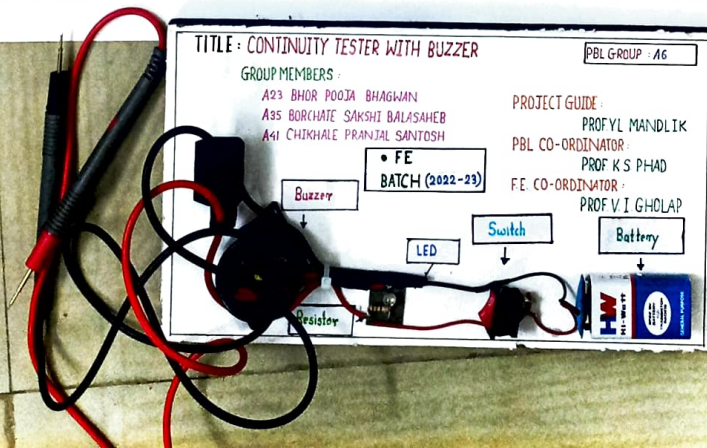### PROJECT MODEL PHOTO :

PROJECT GROUP MEMBERS :
A23 BHOR POOJA BALASAHEB
A35 BORCHATE SAKSHI BALASAHEB
A41 CHIKHALE PRANJAL SANTOSH

ALL DIMENSIONS IN MM

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE'S				
JAIHIND COLLEGE OF ENGINEERING				
Kuran, Tal Junnar, Dist Pune - 410 511				
NAME :				
YEAR & COURSE	SCALE	STARTED	ROLL NO.	YEAR
	APPROVED	COMPLETED	REMARK	
TITLE-			SHEET NO.	

TITLE : CONTINUITY TESTER WITH BUZZER — PBL GROUP : A6
GROUP MEMBERS :
A23 BHOR POOJA BHAGWAN
A35 BORCHATE SAKSHI BALASAHEB
A41 CHIKHALE PRANJAL SANTOSH
• FE BATCH (2022-23)
PROJECT GUIDE : PROFYL MANDLIK
PBL CO-ORDINATOR : PROF K S PHAD
FE CO-ORDINATOR : PROF V.I GHOLAP
Buzzer   LED   Switch   Battery   Resistor

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION 2023
PROJECT TITLE: AUTOMATIC SOLAR TRACKER

Aim / Objective

The main aim of the solar tracking system is to direct the solar PV panels perpendicular to the sun, to make the harnessing of solar energy more efficient. The objective of the project is to increase the energy output of solar panel which will improve the economy of the project. The system ensures that the direct beam of sun is incident normal to the surface of panels at all times.

Description

A solar tracing system for renewable energy is designed and built to collect free energy from the sun, store it in the battery, for further use. The system is tested for real time responsiveness, reliability, stability and safety.

Advantages

- Solar trackers generate more electricity than fixed system.
- Advancement in technology and eletronics have reduced maintanance concerns for tracking systems.

Disadvantages

- The tracking system requires a great deal of site preparation.
- The installation of solar tracker could be pretty expensive.
- This system is more complex than the fixed solar system.

Applications

- The energy produced by these systems can be used for various purposes like heating, charging gadgets and home appliances, etc.
- These large symtems, using solar panels feed power into municipal or regional grids.
- Automatic solar Tracker can be integrated into vehicles.

Conclusion

- The tested design model was able to achieve a complete tracking of sun light. The overall power collection efficiency increases from same panel on the tracking device. The efficiency of tracking is increased by 30-40% than the fixed system.

Construction

The single-axis solar tracking system uses a tilted PV panel mount and one electric motor to move the panel on an approximate trajectory relative to sun's position. After connecting the LDR's to arduino's pins connect the servo motor to arduino. Lastly, attach the solar panel to the arm of the servo motor using a suitable mounting mechanism.

Project Model Photo
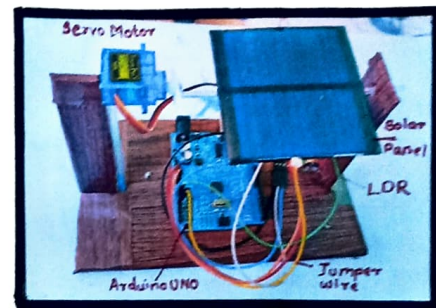
Project Group Members

- A24 Bhor Pranali Kundlik
- A25 Bhor Rutuja Bhausaheb
- A38 Chaudhari Vrushali Vijay
- A39 Chaugule Vaishnavi Raju

Project Guide PROF. K.V. Doke

PBL Coordinator PROF. K.S. Phad

Group No :- A.7

PROJECT TITLE :- AUTOMATIC SOLAR TRACKER
- GROUP MEMBERS :- A24 - PRANALI KUNDLIK BHOR.
  A25 - RUTUJA BHAUSAHEB BHOR
  A38 - VRUSHALI VIJAY CHAUDHARI.
  A39 - VAISHNAVI RAJU CHAUGULE.

GROUP NO :- A7

PROF. K.V. DOKE   PROF. K.S. PHAD   PROF. V.J GHOLAP
- PROJECT GUIDE   - PBL CO-ORDINATOR   - FE - CO-ORDINATOR.

Jaihind Comprehensive Educational Institute
Jaihind College of Engineering, Kuran
Department of First Year Engineering
Project Exhibition 2023

Project Title :- Arduino + IOT Technology Barcode Scanner.

Aim :- The aim of the project is overcoming the errors which are mistakenly made by human.

Objective :-
- The purpose of barcode scanner is to read, translate & transmit information contained in barcodes.
- It helps to improve inventory management, hasten checkout times, avoid software issues.
- To reduced pricing errors, increase accuracy & efficiency, improved customer service, reduced invent.

Description :- In this project, the barcode reader works by directing a beam of light across the barcode & measuring the amount & pattern of the light that is reflected. The scanner converts the input energy into electrical energy, which is then converted into data by the decoder & forwarded to a computer.

Advantages :-
- Barcode eliminate the possibility of human errors.
- It is highly accurate.
- A barcode reader saves time

Disadvantages :-
- Barcode readers may incure heavy expenses.
- It cannot scan scratch barcode.
- The barcode reader can bring a security risk.

Applications :-
- To capture product information.
- At the billing counter, the cashier scans the codes attached to item.
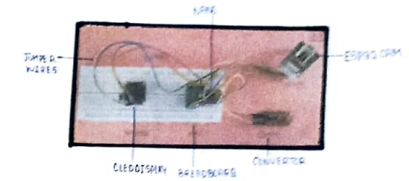
Conclusion :-
- Every field depending the automation for all work based on our project. We implemented the automation for automatic barcode scanning for billing & more over we don't need to use more worker in billing section.
- Our system take less time for the scanning comparing to hand held method.

Construction :-


Project Model Photo :-

Project Group Members :-
A26 Bhor Sawali Anil.
A29 Bhosale Srushti Govind.
A40 Chavhan Shruti Baliram.
A42 Choure Tanvi Vikram.

Project Guide :- Prof. V. J. Gholap.

PBL Coordinator :- Prof. K. S. Phad.

F.E. Coordinator :- Prof. V. J. Gholap.

A-8

Project Name :- Arduino + IOT Technology QR Code And Barcode Scanner.   A-8

OLED DISPLAY   NANO   CONVERTOR   ESP32CAM

Group Member
- A-26 Bhor Sawali Anil
- A-29 Bhosale Srushti Govind
- A-40 Chavhan Shruti Baliram
- A-42 Choure Tanvi Vikram

Prof. V. J Gholap
- Project Guide

Prof. K. S. Phad
- PBL Co-ordinator

Prof. V. J. Gholap
- FE Co-ordinator
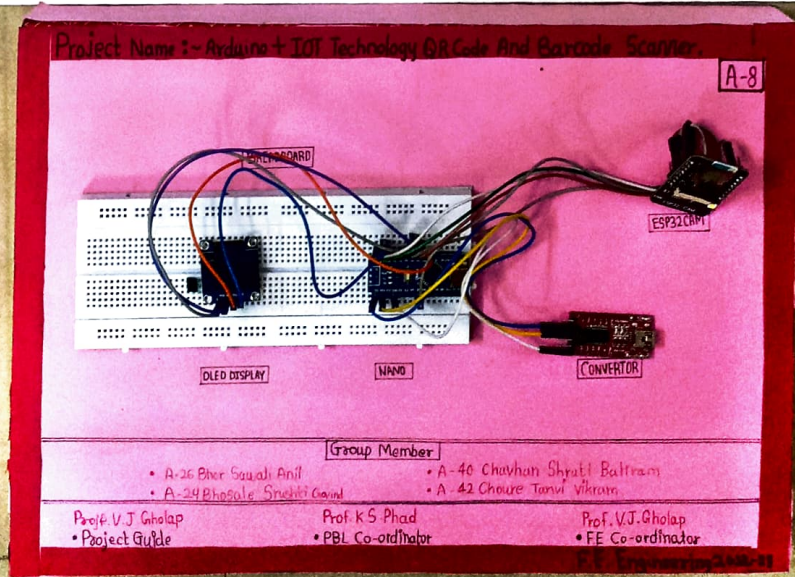
Jaihind Comprehensive Educational Institute.
JAIHIND COLLEGE OF ENGINEERING, KURAN.
Department Of First Year Engineering
Project Exhibition-2023
Project Title :- HYDRAULIC BRIDGE.

Aim :- Hydraulic Bridge is used to allow sea-side traffic through a ...

Construction :- There are several important fact... construction :- i) Hydrology :- Flow... ii) Geology :- Foundation and stabili... Design :-

Advantages :-
i) Less interference with Traffic.
Can carry varying loads.
iii) Aesthetically pleasing, attractive tourist destination.
iv) Pascal's Law is the main principle and positive locking in any condition is possible.
v) Low maintenance cost and it has improved roadways, and waterways access.

Disadvantages :-
i) High Machining Cost.
ii) Requires skilled labours and engineers.
iii) Limited applications.
iv) Highly Complex Structure and Design.
v) Requires Periodic intensive maintenance.

Applications :-
i) Tower Bridge, London; Gateshead Millenium Bridge
ii) Bascule Bridge, Swing Bridges and Lifting Bridges.
iii) Railway transportation.

Conclusion :-
i) Hydraulic bridges play an essential role in the design & construction of bridges.
ii) To ensure structures are of sufficient size, design must be simple, natural and harmonious with its surroundings.

Project Group Members.
A31 - BHUJBAL SIDDHESH SUNI
A32 - BHURE SANGMESHWAR DAT
A33 - BIBAVE ADITI LAXMAN.
A34 - BODKE SAHIL ARUN.
A36 - CHAPHALE JAI VILAS.

Project Batch No :- A9

Project Guide :- Prof. S.M. Nagargoje.

PBL Coordinator :- Prof. Kiran Phad.

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTES
JAIHIND COLLAGE OF ENGINEERING
PROJECT EXHIBITION 2023

• PROJECT NAME : "TESLA COIL"

• AIM : Tesla coil one of the most important invention of Nikola Tesla, aims to wirelessly transmit the electrical power by increasing the electrical voltage, with an output with high Frequency low current density.

• OBJECTIVE : With principle inversion of radi Tesla a antenna, Fluorescent and neon lamp and magnetic resonance (magnetic resonance- MR), x-ray the foundation of devices used in wireless data transfer was founded.

• DESCRIPTION : The Tesla coil is an air-core transformer with primary and secondary coils tuned to resonate. The primary and secondary function as a step-up transformer which converts relatively low-voltage high current to high voltage low current at high Frequency.

• ADVANTAGES : ❖ THE ADVANTAGE ORE :
- ■ Allow uniform distribution of voltage throughout the winding coil.
- ■ Build up the voltage at slow pace and hence no damage.
- ◆ The use of 3-phase rectifire for higher powers can be offer tremondous load sharing

• DISADVANTAGES : ■ Tesla coil poses seval helth hazards due to high voltage radio Frequency emission that Includes skin burn, damage to the nervous system and heart.
- ■ Involves high costs in buying large DC smothing capacitor.
- ◆ Construction of circuit consumes much time as it need to be Perfect to resonate

• APPLICATION : ❖ THE APPLICATION ORE :
- ◆ Aluminum welding.
- ◆ Cars use these coils for the spark Plug ignition.
- ◆ High vaccume system and arc lighters.
- ◆ vaccum system leak detectors.

• CONCLUSION :
- ■ We are able to generate high vaccume voltage with high Frequency and it can be use for testing the apparatus For switching surges
- ■ It can also be used For study of visual corona and ionization of gases under the electrical stress.
- ■ It can aslo transmit the electrical power wirelessly up to certain distance depends upon its rating.

• CONSTRUCTION :

Mini Tesla Coil circuit
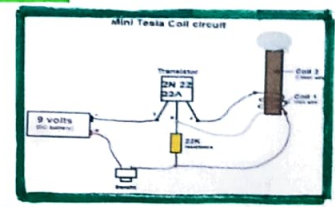
• PROJECT MODEL PHOTO :

• PROJECT GROUP MEMBERS :
A43 DAINE ROHAN
A52 DHOMALE OMKESH
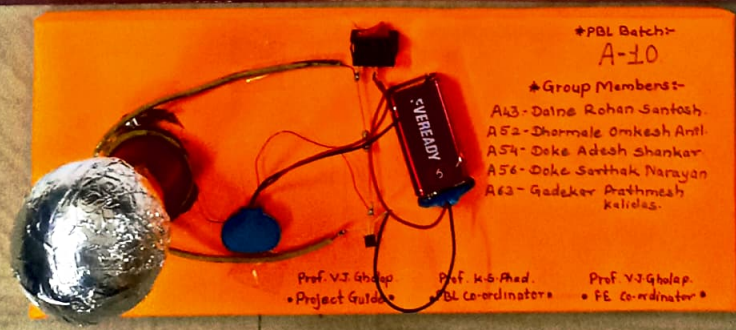A54 DOKE ADESH
A56 DOKE SARTHAK
A63 GADEKAR PRATHMESH

• GROUP NO : A10

PROJECT GUIDE :-
Prof. V.J. Gholap

PBL COORDINATOR :
Prof. K.S. Phad

*PBL Batch:- A-10
*Group Members:-
A43 - Daine Rohan Santosh.
A52 - Dhomale Omkesh Anil.
A54 - Doke Adesh Shankar.
A56 - Doke Sarthak Narayan.
A63 - Gadekar Prathmesh kalidas.
Prof. V.J Gholap. Prof. K.S. Phad. Prof. V.J Gholap.
•Project Guide. •PBL Co-ordinator. • FE Co-ordinator.

Project Name: Automatic Alcohol Detection And Vehicle Locking System

Aim:- The main aim of the project is to reduce road accidents related to drunk driving to the barest minimum by using Internet of Things (IOT) technology.

Objective:- The more ethanol in your blood, the more there is in the air on exhalation. This alcohol content gives a good indication to if a person is drunk or not.

Description:- The system utilizes sensors to detect alcohol levels in the driver's breath or within the vehicle. If alcohol is detected above a certain threshold, the system automatically locks the vehicle, preventing the driver from starting or operation it until they are sober.

Advantages:- i) Can help to prevent accidents due to drunk driving.
ii) Very helpful for police because if we add a GPS tracker in circuit, the system will send live location of drunk driver.
iii) Timely detection and prevention of drunk driving.

Disadvantages:- i) The MQ3 sensor cannot differentiate between alcohol molecules and perfumes due to presence of ethanol in both.
ii) This system will require regular maintainance to get accurate reading.

**Application:-** i) This technology can be used in making breath analyzers.
ii) This system can be used in various companies or organizations to detect alcohol consumption of employees and also used in various vehicles for detecting whether the driver has consumed alcohol or not.

Conclusion:- i) Drunken drivers can be controlled, so are the accidents due to drunken driving.
ii) A safe car journey is possible decreasing the accident rate due to drinking. Goverment must enforce laws to install such circuits in every car and must regulate all car companies to preinstall such mechanism while manufacturing the car itself.
iii) If this is achieved the deaths can be brought to a minimum level.

Construction:-
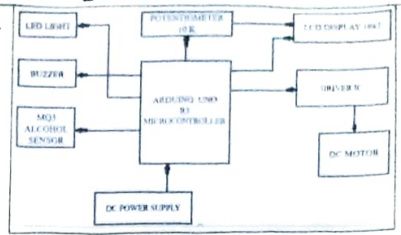
Project Model Photo:-

Project Group Members:-   **Group No:- A11.**
A44- Dakh Aakanksha Govindrao.
A46- Danave Atharv Santosh.
A50- Dhavale Omkar Ganesh.
A53- Dhumal Pratiksha Shivnath.
A55- Doke Sakshi Somnath.
A58- Dongare Shweta Santosh.

Project Guide:-
Prof. B.M. Warule.

PBL Coordinator:-
Prof. K.S. Phad.

Project Title:- Automatic Alcohol Detection and Vehicle Locking System

Arduino UNO — LED — Buzzer

PBL Batch: A-11

16*2 LCD display

5V Relay Switch — DC Geared Motor

MQ3 Sensor

Vehicle ignition Switch

F.E. Batch 2022-23

Group Members
A44 Dakh Aakanksha Govindrao   A46 Danave Atharv Santosh   A50 Dhavale Omkar Ganesh
A53 Dhumal Pratiksha Shivnath   A55 Doke Sakshi Somnath   A58 Dongare Shweta Santosh

Prof. B.M. Warule   Prof. K.S. Phad   Prof. V.J. Gholap
• Project Guide •   • PBL Co-Ordinator •   • F.E. Co-ordinator •

Jaihind Comprehensive Educational Institute's
Jaihind College of Engineering, kuran.
Department of First Year Engineering
Project Exhibition 2023
Project Name:- Two way Light Switch

Aim:- The ability to Control a single device (light bulb) from two different locations.

Objective:- i) To learn wiring of two switch.
ii) To Control device from different locations.

Description:- We can control a single device from two different places. All switches we use regularly to turn ON or OFF lights, fans, etc. are two terminals. But it is special switch called "Two Way Switch".

Advantages:- i) To control single device from two different places.
ii) Easily fitted any devices to control it.

Disadvantages:- i) More wiring is required for connection the terminals.
ii) Two-way switch is expensive as compare to one-switch.

Application:- i) Staircase wiring.
ii) Long corridor wiring.
iii) To control light in bed room.
iv) To control the lamps.

Conclusion:- A complete beginner's guide on two-way switch, working of two-way switch wiring, different types of wiring for two-way switch or staircase wiring and also the schematic for the wiring.

Construction:- i) L1 terminals of both switches are Connected together.
ii) L2 terminals of both switches are Connected together.
iii) COM terminal of first switch is Connected to phase.

Project Model Photo:-
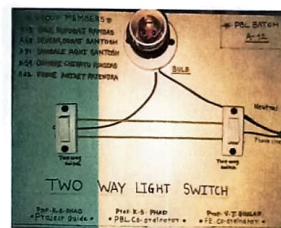
Group Members:- A45 Dale Ruturaj Ramdas.
A48 Deokar Suraj Santosh.
A51 Dhobale Abhishek Santosh.
A59 Dumbre Chirayu Rohidas.
A62 Fodse Aniket Rajendra.

Project Guide :-
PBL Coordinator:- Prof. K.S. Phad.
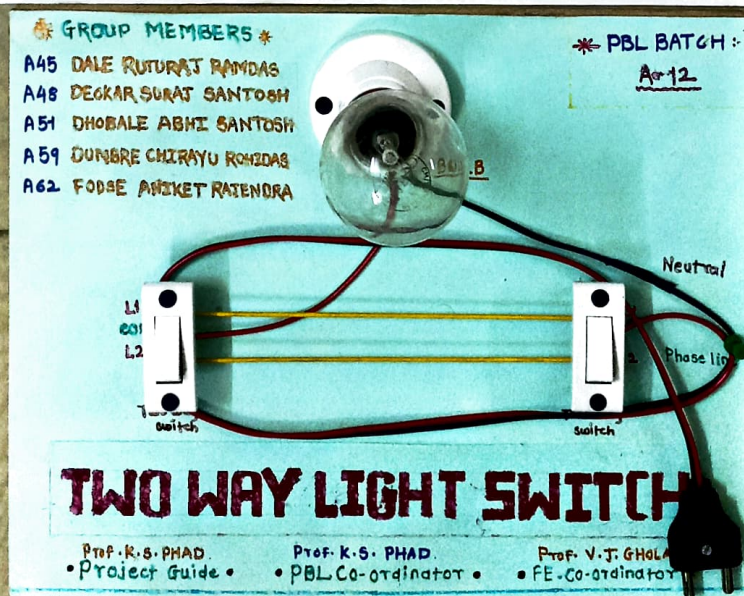
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JAIHIND COLLEGE OF ENGINEERING KURAN
DEPARTMENT OF F.E. ENGINEERING
PROJECT EXHIBITION

A-13

PROJECT TITLE :- HOME AUTOMATION OF BLUETOOTH VOICE CONTROL

Aim :- In this project using an android application to turn ON & OFF Switches through wireless communication Via Bluetooth devices, Bluetooth is connect to microcontroller.

Objective :- The concept of home automation is gaining popularity as it helps in reduction human effort & errors & thus increasing efficiency with help of home Automation system.
We can control different applications likes lights, fan, t.v, Ac etc

Advantages :-
1) Managing all of yours home devices from one place.
2) Flexibility for new devices and appliances.
3) Maximum home security.
4) Remote control of home function.
5) Increase energy efficiency.

Disadvantage :-
1) It can lose connection in certain condition
2) It has law bandwidth as compared to wi-fi.
3) It allows only short range communication between device.
4) Security is very key aspect as it can be hacked.
5) They have a small data range up to 50-meters.

Application :-
1) Home Security.
2) Personal and family health monitoring.
3) Energy Saving.
4) Turning lights down or off at nights.
5) operating outside lights.

Conclusion : This project us help to design low cost home automation using "ESP32" based home automation bluetooth voice control.
This system is easy to use has good realiability real time features

Future Scope :
1) Home Automation is creating new automation technology for houses that will make them smart using internate based technologies.
2) These home / houses that use home automation technologies are smartphone
3) This field of home automation is fastly emerging in technology making homes safer and better places to live.

Construction :- First, we will connect bluetooth module to arduino
- Next, we will connect relay to arduino
- Since we used readymade relay board with 4-channel
- For detail connection as shown in fig
- Automation system connect with smartphone through bluetooth
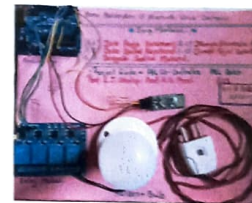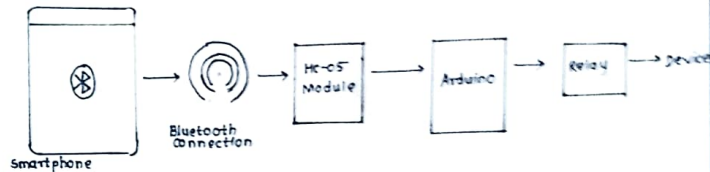
Project Group Members :
A47	DATE POOJA HANUMANT
A49	DHAMAK AKANKSHA AJIT
A 57	DOKE SNEHAL RAYCHAND
A 60	DURAFE SEJAL DATTATRAY
A 61	DURAGUDE SANIKA MUKUND

Project Guide : Prof. V. J. Gholap

Group No - A-13

Project Coordinate : Prof. K.S. Phad
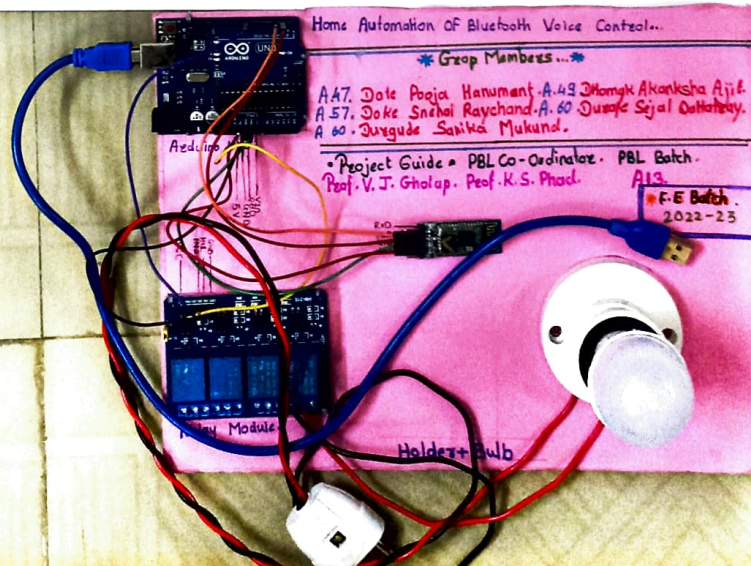
JAIHIND COMPRESIVE INSTITUTE
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF F.E ENGINEERING
PROJECT EXHIBITION
PROJECT TITLE: ECO-TOWN PLANNING

AIM:
To control Pollution, management of traffic of buildings, industries, roads, etc also to management of waste, management of transportation and increase in number of plants to make an eco-town planning of eco-town by use of solar (Clean Energy).

OBECTIVES:
1. Most of the items and products used in eco-town are eco-friendly.
2. Helps to reduce CO_2 emissions, to produce energy using renewable resources.
3. Support Environmentally friendly transport models.

SHORT DISCRIPTION:
1. On 16th July, John Healey M.P, Minister of Housing and Planning, published planning policy statement : eco-town.
2. In this project we have used solar plant to minimize the energy. It supplies electricity to wide areas.
3. Eco-town is a town designed and buit with a well consideration of environmental impact and inhabited.
4. It dedicated to minimization of required input energy.

ADVANTAGES:
1. Reduction of population stress and teaching urban biodiversity.
2. Increasing of the value of real estate.
3. Production of energy using renewable energy sources.
4. Reduces CO_2 emission.
5. Ex'

DISADVATAGES:
1. Limitade availability of resources.
2. Cultural and Social barriers.
3. Low supply of Solar energy at night.
4. Solar energy depents on solar radiation level.
5. Maintainance is difficult.

APPLICATION:
1. Pollution controlled with sensors.
2. Infrastructure assests arrangement.
3. Surveillance systems.
4. Waste and garbage management; transport system, Smart traffic management.
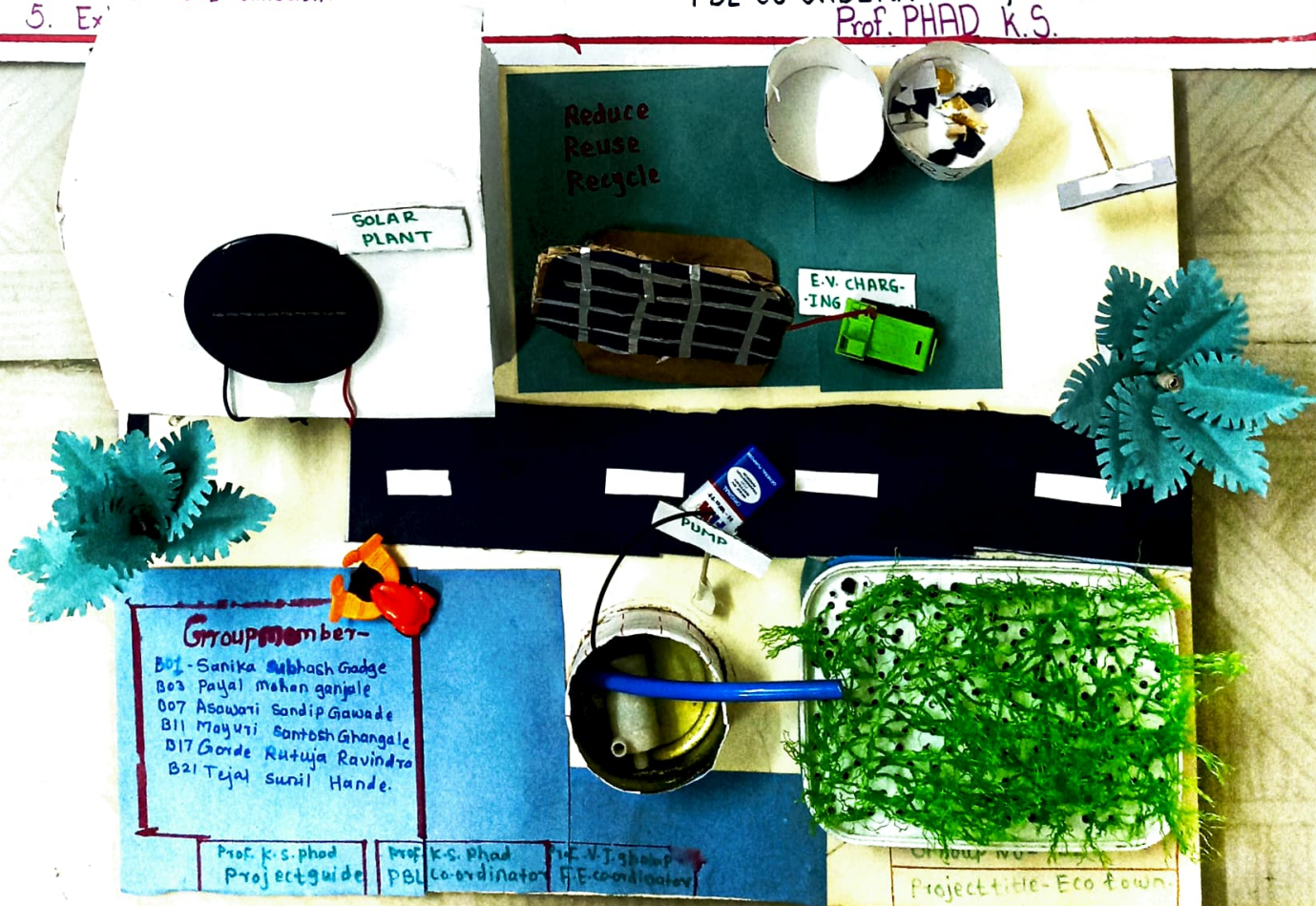
CONSTRUCTION:
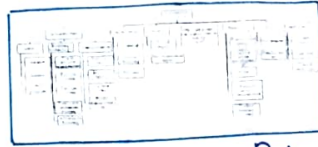
MODEL PHOTO:-

GROUP NO: B1
GROUP MEMBERS:
B03 GANJALE PAYAL MOHAN
B01 GADGE SANIKA SUBHASH
B07 GAWADE ASAWARI SANDIP
B11 GHANGALE MAYURI SANTOSH
B17 GORADE RUTUJA RAVINDRA
B21 HANDE TEJAL SUNIL

PBL CO-ORDINATOR & PROJECT GUIDE:
Prof. PHAD K.S.

Jaihind Comprehensiv Educational Institute's

JAIHIND COLLEGE OF ENGINEERING

◀ DEPARTMENT OF F.E ENGINEERING ▶

PROJECT EXHIBITON ~2023

HYDRAULIC POWERED JCB ARM

AIM -:

JCB excavator is a magnificent construction machine that we can use in building sites and also lift he heavy loads from one location to another locations in industries.

Objective -:

0 The Hydraulic Arm Will - Reach greatest distance to deliver a object.
0 Pick up the heaviest possible objects
0 Example include arms that lift heavy weights and arms that hold a load and unload them into a specific position.

Advantages -:

0 There are lots of advantages of this science experiment.
0 We know the knowledge about function of hydraulic manchines
0 Hydraulic excavator help to make our work easier and faster

Disadvantages -:

0 Wrong selection of hydraulic fluid for a system will damage the components
0 Proper maintenance is required

Application -:

0 The hydraulic arm that can grip or pick thinks in industrial purpose.
0 It's also use in earth movers to pick up heavy weight and keep where it's required place 0 Same principle being used in JCB's automobiles lifters

Conclusion -:

0 The prepared mechanism has been successfully constrained and erected to carry out the required work of picking up weight of object like table tennis ball and to placed at different location

Hydraulic JCB

Project Group Members:-
B-02: Godge Sumit Shankaram
B-06: Gaikal Nishant Sunil
B-08: Gawade Jaydeep Ganesh
B-18: Gunjal Saurabh Santosh
Group No:-
PBL-B02
Project Guide:-
Prof: Sakpule

Jaihind Comprehensive Educational Institute's
Jaihind College of Engineering Kuran
Department of First year Engineering
Project Exibition 2023

Project Name :- Stan gun

Aim: The primary aim of this device is that it was used as self defence tool.

Objective: 1] The main objective of stun gun is enhance personal safety
2] To control the attackers by giving them high volt shock.

Description:
A stun gun is handling device that is designed to immobilize or incapacitate an individual temporarily by delivering a high- voltage electric shock. it is typically used for self-defence purposes and is commonly carried by low enforcement officers security personal and individuals concerned about personal safety

Advantages
1] It does not affect the living being permanently.
2] This is very effective tool
3] It very easy to carry and also easy to use

Disadvantages:
1] The main disadvantages of this device is that it can be use inbad way too,
  i.e. For affecting innocent people or animals
2] High risk of miscuse
3] The battery of device is not Long Lasting

Application:
1] It can be used for security purpose for individuals from interciders
2] It can be used as protection from animals
3] It can be used as modern warfare equipment

Conclusion:
Effectivenes: stungun can be effective intemporarily incapacitating an individual by causing pain muscle contractions and disorientation However their effectiveness may vary depending on factor such as the targets pain tolerance clothing thickness and the contact area stun gun are generally considered non-level weapons as their purpose is to incopaciatate rather than causeperment harm or death.
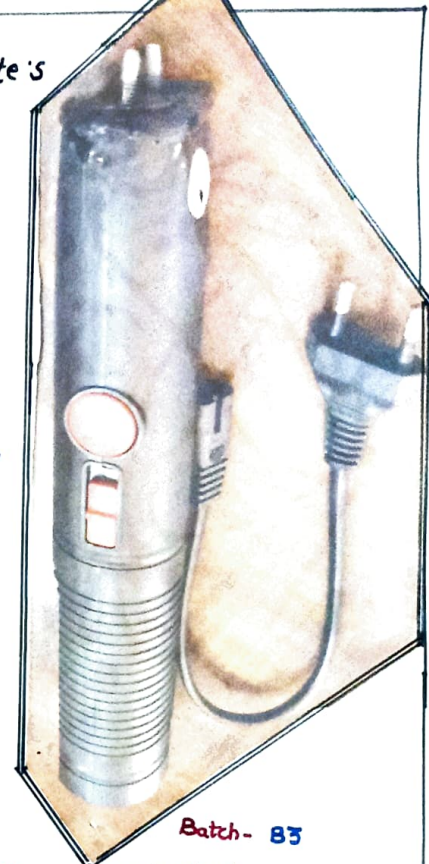
Batch- B3

Group member :-
1. ganjawe Sahil sandip
2. ghatul Sumit Vaman
3. Gopale prabhat tukaram
4. Hande atharva ganesh
project Guide :- prof. Amit kute
PBL co-ordinator: prof. K.S. phad

Title :- Stungun

Batch NO :- B3

B04 - Ganjawe Sahil Sandip
B13 - Ghatul Sumit Waman
B16 - Gopale prabhat tukaram
B20 - Hande Atharv Ganesh

Guide Name :- kute A.D.

PBL Co-ordinator - prof k.s.phad
F.E co-ordinator - prof V.J.Ghhayp

Group No :- B4
Project title :- Website develop-
-ment.

Remark :- Project is Run using
Computer Setup.

Jaihind Comprehensive Educational Institute's
Jaihind College OF Engineering , Kuran
Department Of First Year Engineering
Project name :- House Price Prediction

Aim :- To determine an effective price prediction model and to identify the important home price attributes which feed the model's predictive power

Objectives :- It help the developer determine the selling price of a house and can help the customer to arrange the right time to purchase a house

Advantages :-
   i) To buy House at right price.
   ii) Give right price to right house
   iii) Give relief to common man pocket.
   iv) It predict right price of house so anyone can get house at lower price.

Disadvantages :- i) It will affect the Brokers or commission agent of homes while purchasing it

Description :- There are four steps for prediction of houses firstly explore the data, then visualize it by graphical representation. afterwards, select the data and then it will predict by software.
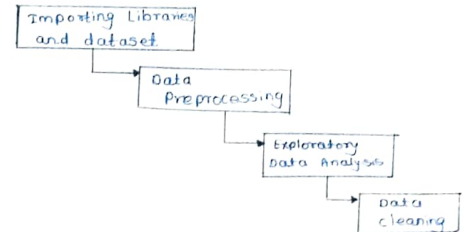
Application :- i) Use in all types of house prediction.

Conclusion :-
   So, our aim is achieved as we have successfully ticked all parameters in our aim column. Linear regression is the most effective model for prediction of houses.

Construction :-

Importing Libraries and dataset →
Data Preprocessing →
Exploratory Data Analysis →
Data cleaning

Project Model Photo :-

Project Group Members :-
   B 09 - Gawade Rushikesh Santosh
   B 10 - Ghadge Jay Santosh
   B 14 - Ghegade kartik Dattatray
   B19 - Hadawale Aniket Ashok

Group No :- B 05

Project Guide :-
   Prof. S.M. Nagargoje

PBL COORDINATOR :-
   Prof. K.S. Phad

Group No :- B5
Project title :- House Raise Prediction.

Remark :- Project is run using Computer Setup

Jaihind Comprehensive Educational Institute

Jaihind College Of Engineering, Kuran

Department Of First Year Engineering

Project Exhibition 2023

Project Title :- FIRE ALARM

Aim :- In the event that there is an immediate threat of life, property, or mission, the fire alarm system will sound the alarm, notifying occupants to escape, and letting the authorities know they need to respond.

Objective:-
1. Detect Fire
2. Alert Occupants
3. Manage Risks
4. Notify Authorities

Description:- A fire alarm system is a set of devices that detect and alert people to the presence of smoke, fire, carbon monoxide, or other fire-related emergencies. Fire alarms system are required in most commercial buildings and are installed to protect life and property. Examples includes, schools, churches, restaurant and corporate buildings. These devices may include smoke detector, heat detector and manual fire alarm activation devices which are all connected to a fire alarm control panel (FACP) normally found in an electrical room. The purpose of fire alarm system is to notify occupants and emergency forces. They do this so that they can take action to protect themselves & others. Fire alarm system also shutdown HVAC system to prevent the spread of smoke & shutdown elevators.

Advantages:-
1. High level Security
2. Easy to design
3. Easy to Modify
4. Speed of responce
5. Early Warning benefits

Disadvantages :-
1. Blinded by thick smoke
2. Senses near range heat only
3. False alarm
4. Uses continous power supply
5.

Applications-
1. Heat Detector used in kitchen
2. Smoke Detector used in bathrooms
3. Multi - Sensor Detector used in optical & heat detection
4. Carbon monoxide Detector used in monitoring indoor air quality

Conclusion :- 1. Electronics circuits can be designed for the fire based alarms and they provide very high efficiency & can be used for security reason.
2. Early fire detection is best achieved by the installation & maintainance of fire alarm equipment in all rooms & areas of house or building.

Construction:- The design of the fire Alarm circuit with siren sound is very simple. First connect the 10 kΩ Potentiometer to the inverting terminal of the LM555 Op-Amp. One end of POT is connected to GND and the wiper terminal is connected to Pin 2 of Op-Amp. We will now make a potential divider using 10 - Thermistor and 10 kΩ Register. The output of this potential divider, the junction point is connected to the non-inverting input of the LM555 Operational Amplifier.

Project Model Photo :-
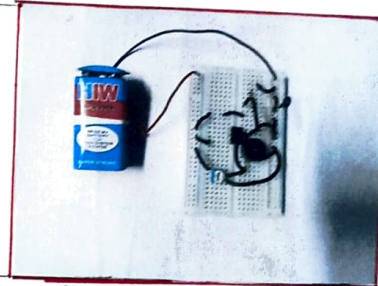
Group Member :-
B22-Hinge Shrawani
B25-Hule Samiksha
B28-Jadhav Pranita
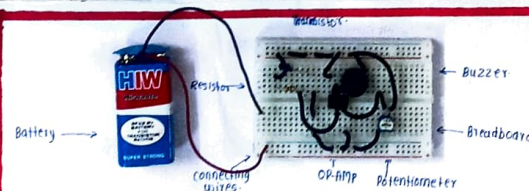B42-Joshi Samiksha

Group No :- B6

Project Guide :-
Prof. Y. L. Mandlik

PBL Coordinator :-
Prof. K. S. Phad

FIRE ALARM
F.E BATCH 2022-23
GROUP NO-B6
B22 Shrawani Hinge B28 Pranita Jadhav
B25 Samiksha Hule B42 Samiksha Joshi
PBL Guide   PBL Co-Ordinator FE CO-Ordinator
Prof. Y. L. Mandlik Prof. K. S. Phad   Prof. V. J. Gholap

JAIHIND COMPREHENSIVE EDUCATION INSTITUTE.
JAIHIND COLLEGE OF ENGINEERING, KURAN.
DEPARTMENT OF FIRST YEAR ENGINEERING.
PROJECT EXHIBITION :- 2023.
PROJECT TITLE :- ONLINE AUCTION BIDDING SYSTEM.

AIM:-
To provide a platform for buying and selling goods, and services that is efficient, transparent and convenient.

OBJECTIVES :-
i) Increase market reach.
ii) Improve efficiency and save time and money.

ADVANTAGES:-
i) Increase reach and access to a wider network.
ii) Reduced costs compared to traditional auction.

DISADVANTAGES:-
i) Technical issues causing disruption in auction process.
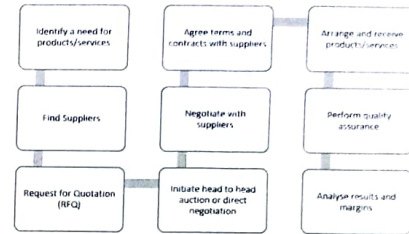ii) security concerns such as fraud and cyber attacks.

APPLICATION:-
Online auction system are used by business to sell products online.

CONCLUSION:-
Online auction transformed the buying and selling goods, offering a convenient and efficient platform for people to participate from anywhere.

CONSTRUCTION :-

Identify a need for products/services	Agree terms and contracts with suppliers	Arrange and receive products/services
Find Suppliers	Negotiate with suppliers	Perform quality assurance
Request for Quotation (RFQ)	Initiate head to head auction or direct negotiation	Analyse results and margins

PROJECT MODEL PHOTO :-

PROJECT GROUP MEMBER:-
B-23 - HIRE PIYUSH BALASAHEB
B-24 - HIWARKAR RISHIKESH SANTOSH
B-35 - JAGTAP ABHISHEK ASHOK
B-30 - JADHAV SANKET DATTATRAY

PROJECT GUIDE :-
Prof. P.P. DOKE.

PBL-CO-ORDINATOR :-
Prof. K.G. PHAD.

PBL Group NO:- B-07.

Group NO:- B7.
Project title :- Online Auction System

Remark :- Project is run using computer setup.

Rainwater Harvesting System
Group Members:-
B26: Jadhav Ankit Pandharinath
B29: Jadhav Sairaj Govind
B32: Jadhav Sumit Prakash
B37: Jagtap Pritam Baban
B41: Torvekar Sail Ramnath
B41: Joshi Pranav Ramdas
Guide Name:
Prof. Y L Mandlik
PBL Coordinator
Prof. K S Phad

Jaihind Comprehensive Educational Institute's.

Jaihind College of Engineering, Kuran

Department of First Year Engineering

Project Exhibition 2023

Project Name :- RAINWATER HARVESTING

Aim :- The aim of a rainwater harvesting project is to save water and use it wisely. By collecting rainwater we can reduce our dependence on other sources of the water. This helps to prevent water shortages and to protect the environment.

Objectives :- Objective of rainwater harvesting project is to collect and store water for future use. This help conserve water resources reduce dependence and external water sources and promote sustainabity by utilizing a free and abindent natural resources.

Description :- Rain water harvesting is the simple process or technology used to conserve rainwater by collections, storing, conveying and purifying of rainwater that run offs from roof of tops.
Parts, roads, open ground etc for later use
It is most ecofriendly

Advantages :-
i. Saves water
ii. Cost effective
iii. Reduces flooding and Soil erosion
iv. Improves Ground water level
v. Environmently friendly
vi. Supports gardening and irrigation
vii. Emergency water supply

Disadvantages :-
i. Initial cost is high
ii. Dependency on rain fall
iii. Limited supply

Applications :-
i. Water for gardening
ii. House hold use
iii. Irrigation for agriculture
iv. Ground water recharge
v. Flood prevention
vi. Drinking water
vii. Industrial uses
viii. Ecosystem conservation

Conclusion :-
i. Rainwater harvesting is a great way to collect and store rainwater for various uses
ii. It helps to conserve water reduce reliance on fresh water sources, and promote environment sustainability

Rainwater Harvesting

Project Group Member:-   **Group No:- B8**
- B26 - Jadhav Ankit Pandharinath.
- B29 - Jadhav Sairaj Govind.
- B32 - Jadhav Sumit Prakash.
- B37 - Jagtap Pritam Baban.
- B40 - Torvekar Sail Ramnath.
- B41 - Joshi Pranav Ramdas.

Project Guide :- Prof. Mandlik. Y. L.
PBL Coordinator:- Prof. Phad. K. S.

PBL PROJECT TITLE:-
FLOOD MANAGEMENT
PBL GROUP NO - B9
GROUP MEMBERS -
B27 - JADHAV PALLAVI
B31 - JADHAV SHRUTI
B34 - JAGDALE PRAJAKTA
B36 - JAGTAP DIKSHA
B38 - JAMBHALE ANJALI
PROJECT GUIDE   PBL CO-ORDINATOR.
Prof.y.L. MANDLIK   prof. K.S .PHAD.

JAIHIND COMPREHENSTVE EDUCATIONAL INSTITUTE.
JAI HIND COLLEGE OF ENGINEERING, KURAN
PROJET EXHIBITION-2023
PROJECT TITLE:FLOOD MANAGEMENT
DEPARTMENT OF FIRST YEAR ENGINEERING

AIM:-
• TO MAKE CITY FLOOD FREE.
• TO INCREASE CITY RANK IN SMART CITY.
  PROJECT RANKING.

OBJECTIVE :-
• TO MAKE CITY MORE SUSTAINABLE CITY.
• TO MAKE CITY MORE MOST WORLD DEVELOPED
  CITY.

DESCRIPTION:-
• FINANCIAL ECONOMIC LOSSES CAN BE REDUC.
• STOP THE SPREADING OF DISEASES.

ADVANTAGES :-
• SAME EMPLOYMENT OPPORTUNITIES WILL
  INCREASA.
• DUE TO FLOOD MANAGEMENT ROOD ARE FREE
  FROM WATER SO THERE IS NO PROBLEM OF TRAFIC.

DISADVANTAGES :-
• HIGH POWER BATTERY OR GENERATOR IS,
  REQUIRED.
• IMPLEMENTATION COST IS HIGH.

APPLICATIONS :-
• PROTECT SURROUNDING AREA FROM A CERTAIN
  LEVEL OF FLOODING.

CONCLUSION:-
• AS FLOOD CAUSES MAJOR DAMAGE TO LIFE AND
  PROPERTY EVERY YEAR SO IT IS IMPORTANT
  TO MANAGE FLOOD.
• HOWEVER, DUE TO CLIMATE CHANGE AND AS THE
  CITY GROWS, STRUCTURAL SOLUTIONS HAVE LIMIT.

CONSTRUCTION :-

• IT IS A CONCRETE STRUCTURE BELOW THE SURFACE IS IT WILL HIGH
  WATER HOLDING CAPACITY IT CONSISTS OF PUMPS AND MOTOR EM
  ORDER TO DISCHARGE WATER TO TO RAIN WATER TUNNEL OR TO
  DRAIN.
• IT HAS TWO OUTLET ONE IS CONNECTED TO THE RAIN WATER TUNNEL
  AND ANOTHER IS CONNECTED TO THE DRAINAGE SYSTEM.

PROJECT GROUP MEMBER:- GROUP NO-B9
B27 - JADHAV PALLAVI.
B31 - JADHAV SHRUTI.
B34 - JAGDALE PRAJAKTA.
B36 - JAGTAP DIKSHA
B38 - JAMBHALE ANJALI

PROJECT GUIDE :- PROF. Y. L. MNDALIK.
PBL COORDINATOR :- PROF. K.S. PHAD.

Group NO :- B-10

Project :- Automatic Plant
            Watering System

Remark :- Project is run using
          Computer Setup.

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JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION - 2023
PROJECT TITLE :- ELECTRONIC BICYCLE LOCK

AIM :-
E-BICYCLE LOCKING PROJECT WORKS WITH THE HELP OF AN ELECTRONIC CIRCUIT HAVING A SWITCH WHICH ACTS AS THE KEY TO THE BICYCLE LOCK.

OBJECTIVE :-
- SYSTEM WHICH CAN HELP PREVENT THE THEFT AVOIDANCE.
- TO DESIGN INTELLIGENT SECURITY SYSTEM FOR BICYCLE TO PREVENT THEFT.

DESCRIPTION :-
- A BICYCLE LOCK IS PHYSICAL SECURITY DEVICE USED ON BICYCLE TO PREVENT THEFT.
- LOCKING DEVICES VARY IN SIZE AN SECURITY.
- DUE TO THIS LOCK THE OWNER MAKE THEIR BICYCLE "INTELLIGENT" ot AT REASONABLE COST

ADVANTAGES :-
- EASY TO CARRY
- KEEPS BICYCLE AND BIKES SAFE.
- MAXIMUM SECURITY.

DISADVANTAGES :-
- BATTERIES COME WITH SHORT LIFE SPAN.
- NEED TO CHANGE BATTERY SEVERAL TIMES.
- IF SIREN GETS DAMAGE SOUND CANNOT BE PRODUCE.

APPLICATIONS :-
- A BICYCLE LOCK IS A SECURITY.
- IT IS USED TO DETER BICYCLE THEFT, EITHER BY SIMPLY LOCKING ONE OF THE WHEELS. EXAMPLE. A BIKE RACK.

CONCLUSION :-
- THE LOCK IS USEFUL TO DETECT AND MAKES ALERT ABOUT THE THEFT.
- THE SIREN WARNS ABOUT THE THEFT AND IT CAN AVOIDED.
- CYCLING IS WIDELY REGARDED AS A VERY EFFECTIVE AND EFFICIENT MODE OF TRANSPORTATION OPTIMAL FOR SHORT TO MODERATE DISTANCES AND THEREFORE MORE PEOPLE CAN MOVE TOWARDS IT IF THE THEFT IS AVOIDED USING LOCKS.

CONSTRUCTION :-

PROJECT MODEL PHOTO :-
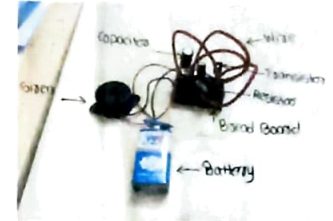
PROJECT GROUP MEMBER :-
B 43 KABADI SAVALI SANTOSH.
B 44 KACHARE SAKSHI SANDIP.
B 49 KALE AISHWARYA SANTOSH.
B 51 KALE DIPALI KAILAS.
B 54 KALE TANVI MANGESH.

PROJECT GUIDE :-   PROF. A.D. KUTE.

PBL COORDINATOR :-   PROF. K.S. PHAD.

GROUP NO :-   B-11

E BICYCLE LOCKING SYSTEM

B-43 Kabadi Savali
B-44 Kachare Sakshi
B-49 Kale Aishwarya
B-51 Kale Dipali
B-64 Kale Tanvi

GROUP NO:- B11

GUIDE NAME.
Prof. A.D. KUTE

PBL CO-ORDINATE
Prof. K.S. PHAD

FE-CO-ORDINATE
Prof. V.I. GHOLAP

Jaihind Comprehensive Educational Institute's
Jaihind College of Engineering, Kuran
Department of First Year Engineering
Project Exhibition 2023
Project Name :- Secure From Phishing Website

Aim :-
How to Secure yourself from phishing Website Chacked Gmail page, Fake Social media page, Fake bank links, any related to Web, etc.

Objective :-
Educate users about phishing risks and Common attack techniques

Description :-
The "secure from phishing" Web application is designed to provide users with an enhanced level of protection against phishing attacks, which are a Common from of Cyber Crime. The project aims to Create a user Friendly Web-based platform that educates users about phishing threats and empowers them to identify and avoid potential phishing attacks.

Advantages :-
Potential advantages of the project include
1. Protection of Sensitive data.
2. Prevention of Finacial Fraud
3. Avoidance of identity theft

Disadvantages :-
1. False positives.
2. difficulty Keeping up With evolving technique
3. Reliance on user adoption
4. Limited detection Scope AND techical limitations

Applications :-
Web Browsers :- Integrated as a browser extension / plugin For real-time phishing Protection.
Email Clients :- Detection and Warning of phishing links Within emails
Online Banking :- Safeguarding transactions and Preventing Phising attacts
Corporate Security :- Enhancing employee Protection and Safegurding Sensitive data.

Conclusion :-
Increasing protection against phishing attacts
Using advanced techniques to analyze URLs and Verify Website authenticity
Educating Users to recognize and avoid phishing Scams.

Construction :-
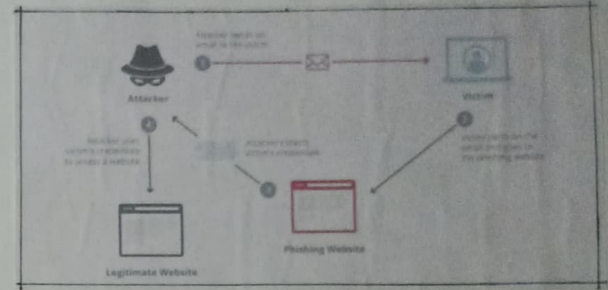
Project Group Members :-
B53 - Omkar Santosh Kale
B56 - Surendra Mohendra Kamble
B63 - Pratik Prakash Khandekar
B64 - Omkar Anil Khollam

Group No :- B12
Project Guide :-
Prof. S. M. Nagargoje
PBL Coordinator :-
Prof. K. S. Phad

Group No :- B-12
Project :- Secure from Phishi website

Remark :- Project is run using Computer Setup

JAIHIND COLLEGE OF ENGINEERING
DEPARTMENT OF F.E ENGINEERING
PROJECT EXHIBITION - 2023

Name : SKY HIGH DRONE

AIM

...ne can vary on its specific use case ...cation

Objective

Gen... :
...Resolution Orthimosaics & detailed 3D mode... ...reas where low quality & Outdated ...even... ...ata are available

Advantages

1) Cost is effective

2) fast speed operations

Disadvantages

1) Limited battery life

2) Privancy Concerns

Application

1) Photography & Videography

2) An Agriculture

Conclusion

Increasing popularity & accessibility of drones

Project Model Photo

Project Group Member

B47	Kakade Kartik Bhausaheb
B58	Kardile Pushkar Manoj
B60	Kasbe Adesh Amol
B61	Khan Saifali Nawab Mansoor Ali

Project Guide

Prof. S.M. Nagargoje

PBL Coordinator

Prof. K.S. Phad

Group No- B-13

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITON-2023
.PROJECT TITLE :- WATER LEVEL INDICATOR

Aim :-
To study about the Working of the Water level indcator using LED (Light Emitting Diode), Sensor, Transistor and Resistor

Objective :-
i] To learn the Watering and Working of the Water level indicator.
ii] To learn how to build simple circuits.
iii] Measure the Water level When the circuit indicates When the tank is Full or Half.

Description :-
When Water level increases and touches the Sensor the Red LED Will glow indicating that there is Water Within the tank.

Advantages :-
i] Sends an alerte let you know Water is too high or too Low.
ii] Save money by using less electricity and Water.

Disadvantages :-
i] Water level controls need to be replaced every three years.
ii] More difficult installation.

Application :-
i] Tsunami Worning and sea level monitroring.
ii] Can be used in Factories, Commercial, apprtments, complexes home.

Conclusion :-
The Water level indicator is best electronic stater device indicating the Water level and Save Water correspondingly.

Construction :-
The Water level indicator circuits are used in Factories, chemical plants and electrical substations and in other liquid storage systems. There are many possible used for this simple system. example include monitoring a sump pit.

Project Model Photo :-
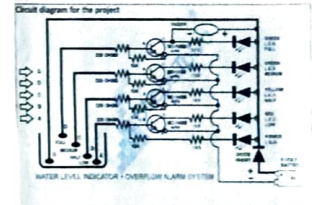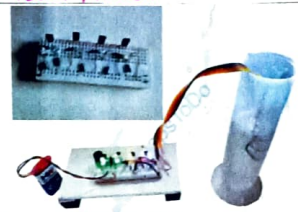
Project Group Members :-
B-45 Kad Akshada Santosh.
B-48 Kakade Purva Ravindra.
B-50 Kale Akanksha Sanjay.
B-57 Konitkar Mrunali Uday.
B-62 Khandagale Renuka Ashoka.

Group NO :-
   PBL-B14
Project Guide :-
   Prof. A. D. KUTE
PBL Coordinator :-
   Prof. K. S. PHAD.

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE

HIND COLLEGE OF ENGINEERING KURAN

DEPARMENT OF FIRST YEAR ENGINEERING

PROJECT EXHIBITON-2023

OJECT TITLE :- WATER LEVEL INDICATOR

bout the Working of the Water level indicator using
ght Emitting Diode) Sensor . Transistor and Resistor

Watering and Working of the Water level indicator
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the Water level When the circuit indicates When the tank
Half

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used In Factories . Commercial . appatments . complexes home

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Construction:

The Water level indicator circuits are used in Factories , chemical plants and electrical substations and in other liquid storage systems. These are many possible used for this simple system. example include monitosing a sump pit.

Project Model Photo:

Project Group Members:

B-45 Kad Akshada Santosh
B-48 Kakade Poova Ravindra
B-50 Kale Akanksha Sanjay.
B-57 Kanitkar Mrunali Uday.
B-62 Khandagale Renuka Ashoka.

Group NO :-
PBL-B14

Project Guide:-
Prof. A.D. KUTE

PBL Coordinator:-
Prof. K.S. PHAD.

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE

JAIHIND COLLEGE OF ENGINEERING KURAN

DEPARTMENT OF FIRST YEAR ENGINEERING

PROJECT EXHIBITION - 2023

PROJECT TITLE : RAIN DETECTOR

* AIM :- To Detect The Rain.

* Objectives:
1. Prevent the material from the rain.
2. Efficient Way to Stop irrigation.
3. Alert by triggering the alarm.
4. Shut up power such as Sprinkle System

* Description :-
Rain detector is simple but very important project. It detect the rain and trigger the alarm. It is important to save the water and also make proper usage. It inform us about rain so we can make same action for rain water harvesting.

* Advantages :-
1. Conserve Water.
2. Save money on fertilizers.
3. Increase life span of irrigation system.
4. Prevent ground water.
5. Operating Principle is very easy.
6. It consume less power for operation.

* Disadvantages :-
1. It doesn't tell about speed of the rain.
2. It works when rain falls on rain sensor.
3. If something is over that than the detector will not work until it gets wet.
4. It will send a signal or the led will be glowing until the detector will be wet.

* Applications :-
1. It used in irrigation field.
2. It used in home automation.
3. It used in normal household.
4. This can also used when there is chemical rain.

* Conclusion :-
• So We can conclued that this project is used for fertiliser and cottage industries.
• The main purpose of the project is to avoid mental stress and prevent material from rain.

* Construction :- This circuit can be designed with components like rain sensor module, 9V supply, buzzer, variable resistor, BC547, Transistor. In this circuit the BC547 is essential components that works like switch in this circuit. The rain sensor is very responsive to moter droped or rainfalls. Once the rain falls on the circuit or sensor strip then the circuit will be activated because water is great electricity connector.

* Project group members :-
C01:- Kolhe Akshada Anil
C09:- Lakare Vaishnavi Ramdas
C11: Madhe Pramila Shantaram
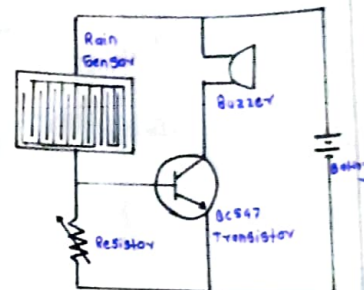C15: Mandale Vaishnavi Dattatray

* Project Model Photo

Fig:- circuit diagram

Project Guide :- Prof. K.S. Phad
PBL Co-ordinator :- Prof. K.S. Phad
Group No :- C-1

---

* Title - Rain Detection Alram

* F.E Batch 2022-23

Group No :- C.1

Group Membees :-
C1 = Kolhe Akshada   C11 = Madhe Pramila
C9 = Lakare Vaishnavi   C15 = Mandale Vaishnavi

Dr. D.J. Garkal — Principle
Prof. K.S. Phad — Project Guide
Prof. K.S. Phad — Project Co-ordinator
Prof. V.J. Gholap — F.E Co-ordinator

Transistor

Rain Sensor

BUZZER
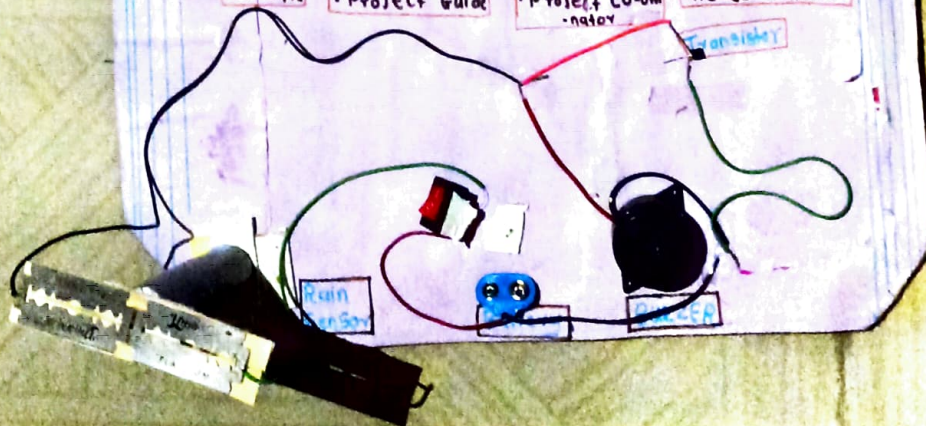
Group No :- C2

Project :- Solar Car

Remark :- Project is run using
Computer setup.

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING
DEPARTMENT OF FIRST YEAR ENGINEERING.
Project Exibition 2023.
Project Title:- Solar Panel Mobile Charger

Aim :- To charge the Mobile with the help of solar energy.

Objectives :- Act as a instant Charger. It can use on Petrol Pumps. Bus Stand. Etc. It can save nearly 6.4×10^8 Joule energy.

Description :- Where there is a problem of electricity we can use this device. Sun is the biggest Source of nergy so we construct device to charge mobile with help of solar energy.

Advantages :- 1. Cost Effective 2. Versatile. 3. Uninterrupted power supply 4. Small Size.

Disadvantages :- 1) Quite effective in colder region 2) Convinient and cheaper options are available 3) Smaller panels so very less energy. 4) Take long time to charge.

Applications :- 1) Low power portable electronic devices like calculators 2) Using over voltage protection charge discharge control exceeds above threshold voltage level.

Conclusion :- 1. Renewable energy concept. 2. Ecofriendly so save global warming. 3. We can use 5V and 1.5 amps for 4000 mah battery can charge within 2 to 2.5 hours.

CONSTRUCTION-
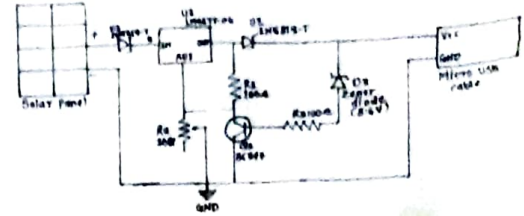
GROUP MEMBERS :- | **GROUP NO C-03**

C-03 KSHIRSAGAR NIKITA KESHAV
C-04 KUDALE OMKAR VIJAY
C-10 LOKHANDE AISHWARYA GULAB
C-17 MANKAR MANSI MAHESH.
C-20 MENGADE SHILPA BHAUSAHEB

Project Guide :- Prof. S. D. Dhobale.
PBL Coordinator :- Prof. K. S. Phad.
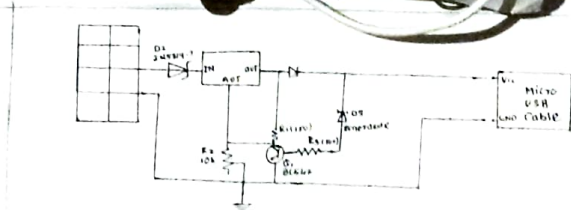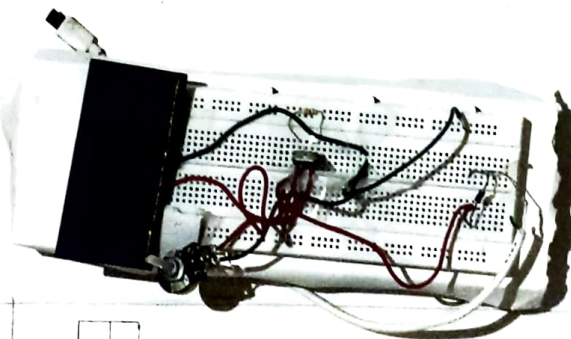
Solar Panel Mobile Charger.
PROJECT EXIBITION 2023
Group No C3 :-

C03 Kshirsagar Nikita Keshav.
C04 Kudale Omkar Vijay.
C10 Lokhande Aishwarya Gulab.
C17 Mankar Mansi Mahesh.
C20 Mengade Shilpa Bhausaheb.

PBL Guide- Prof. S. D. Dhobale
PBL Co-ordinator Prof. K. S. Phad.
F.E. Co-ordinator Prof. V. T. Gholap.

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE

JAIHIND COLLEGE OF ENGINEERING KURAN

DEPARTMENT OF FIRST YEAR ENGINEERING

PROJECT EXHIBITION-2023

PROJECT-TITLE -: ALCOHOL DETECTOR SENSOR.

Aim: Our aims to propose a solution to prevent drunk driving.

Objective: To test the potential benefits and limitation of an alcohol detector sensor in car.
To test and evaluate the performance of the alcohol detector sensor under different condition.

Description: An alcohol detector sensor in a car is a device designed to detect the presence of alcohol in drivers breath. The alcohol detector sensor purpose is discourage and prevent drunk driving promoting road safety & reducing the risk of accidents caused by impaired driving.

Advantages: People will avoid drunk and driving the car.
By this it will improve safety on road.
Road accidents will decreased.

Disadvantages: Cost of installing an MQ-3 Alcohol Detector Sensor is comparitively high than other alcohol detector sensor.
The accuracy of alcohol detector sensors is low because its range varies between 20 to 200 PPM.

Application: Drunk driving prevention.
Car rental industry
Ride sharing services

Conclusion: Alcohol detector sensors in car are innovative solution to reduce the number of road accidents caused drunk driving. The device can prevent the driver from starting the vehicle if they have exceeded the legal limit of alcohol consumption.

Construction: Firstly take a wooden plank plane a DC motor at corner with help of glue gun. Then fix the plastic wheel on shaft motor.
1) Then take the IRF540N MOSFET and solder black wire of the DC motor at the drain pin of that MOSFET.
3) After that take sensor the sensor has three ends connect one wire of that sensor to red wire on motor. At that joint connect buzzer wire to & connect the remaining wire of that buzzer to sensor wire.
4) Then connect the third wire of that sensor to switch & battery.
5) Then connect the last remaining wire to MOSFET attach the 10k resistor on that MOSFET.
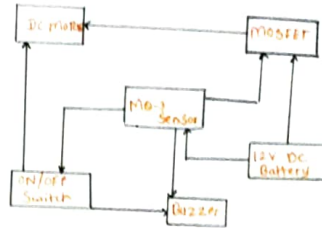
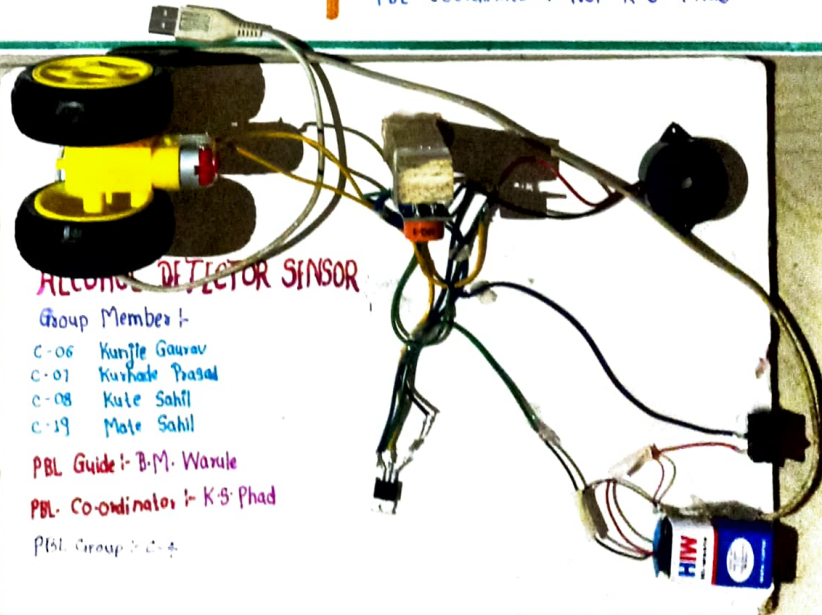**Group No :- C-4**

Project Group Members :-
C06 Kunjie Gaurav Balu.
C07 Kurhade Prasad Santosh.
C08 Kute Sahil Khan.
C19 Mate Sahil Dilip.

Project Guide :- Prof. B. M. Warule.

PBL Coordinator :- Prof. K. S. Phad.

ALCOHOL DETECTOR SENSOR

Group Member :-
C-06 Kunjie Gaurav
C-07 Kurhade Prasad
C-08 Kute Sahil
C-19 Mate Sahil

PBL Guide :- B.M. Warule

PBL Co-ordinator :- K.S. Phad

PBL Group :- C-4

Jaihind Comprehehensive Educational Institute's:
Jaihind College of Engineering Kuran
Dept. of F.Y. Engineering
Project Exhibition: 2023.
Title: USB Rubber Ducky.

Aim:- To provide a tool for security proffesionals to test and asses the security of computer systems, networks and software applications.

Objectives:-
i] Security Assessment.
ii] Education & Awareness.
iii] Social engineering.
iv] Automation.

Description:- It is a small programable device that looks like a USB flash drive. But instead of storing files, it s primary function is to automatically enter pre-programmed code into a computer.

Advantages:-
i. Rapid automation of tasks.
ii. Highly customizable.
iii. Educational tool.
iv. Plug- & play convenience

Disadvantages:- i. Malacious use. ii. Security risks iii. Limited physical access.

Applications:-
i) Penetration testing.
ii) Task automation.
iii) Security awareness training.
iv) Social engineering.

Construction:-
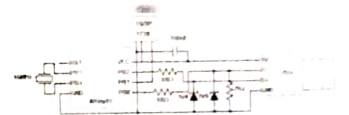
Project model photo:-

Group No: C-5.

Members :-
C-13, Malik Manav Gaurang.
C-14, Malkunaik Pranav Vijay.
C-21, Mhargude Atharv Ankush.

Project Guide:-
Prof. P.P. Doke.

P.B.L Co-ordinator:-
Prof. K.S. Phad.

Group No :- C5
Project :- USB Rubber Ducky

Remark :- Project is run using Computer setup

JAIHIND COMPREHNSIVE EDUCATIONAL INSTITUTE

JAIHIND COLLEGE OF ENGINEERING, KURAN

DEPARTMENT OF FIRST YEAR ENGINEERING

PROJECT EXHIBITION - 2023.

PROJECT TITLE -: IR SENSOR / MOTION DETECTOR

Aim : IR Sensor are used in Motion dectors, which are use to Switch on lamps or in alarm Systems.

Objective : An infrared (IR) sensor is an electronic device that measures and detects IR radiation in its surrounding.

Description : IR sensor use infrared radiation of wavelength between 0.75 to 1000 um which falls between visible and microwave regions of electromagnetic spectrum. IR sensor are widely used in motion detectors, which are used in alarm systems to detect unwelcome guests.

Advantages : i. Low power use. ii. It provides high reliability iii. They are physically smaller in size. iv. No corrosion can affect

Disadvantages : i. Range is limited. ii. It can control only one device at one time iii. Infrared waves at high power can damage eyes. iv. Infrared frequencies are affected by hard objects.

Application : i. Moisture Analyzer. ii. Missile Guidance. iii. Flame Monitors. iv. Alarm System & other crime prevention devices.

Conclusion : In this system the energy consumption is developed. User comes into the Hall or leaves the hall the lights and fans are automatically on/off user can reduce their electricity bill. This system is easy to operate & control And also a cost effective system. It reduces the human efforts. For future scope we can add camera to the system.

Construction : The basic concept of an infrared sensor which is used as obstacle detector is to transmit an infrared signal, this infrared signal bounces from the surface of an object & the signal is received at infrared receiver. IR Receiver detected radiation is then furthe Processed based on it intensity.

IR sensor consist of : i. IR sensor pinout. ii. Hardware connections iii. IR Transmitter. iv. IR Receiver. v. Battery

Block Diagram of IR Sensor

Model of IR Sensor
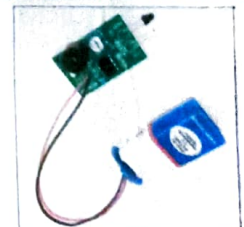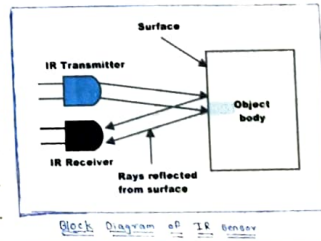
Group Number : C06

Project Group Member :
C24   Morde Siddi Sunil.
C25   More Athary Anil.
C31   Naikodi Anuj shailendra.
C36   Naykodi shubham shivaji.

Project Guide : Prof. P. R. Satpute.

PBL Co-ordinator : Prof. K. S. Phad.

Project Title : IR Sensor
circuit →   ← Battery

GroupNo	*Group Members*			
C-06		C31 Anuj Shailendra Naikodi		
		C36 Nakodi Shubham Shivji		
Prof. P.R. Satpute	Prof. K.S Phad	Prof. V.J Ghatap	DR. D.J Garkal	
PBL Guide	PBL co-ordinator	F.E Coordinator	Principal	

JATHIND COMPREHENSIVE EDUCATIONHL INSTITUTE
JATHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION - 2023

PROJECT TITLE : PHOTOVOLTAIC SOLAR CELL

AIM : To Convert Solar Energy Into Electrical Energy.

Objectives : 1. Energy Saving.
2. Solar Energy System Installations Dedicated Power Harnesses Energy.

Description : A PV Cell is a nanomechanical device that converts sunlight into electricity. Sunlight is composed of photons, or particles of Solar Energy.

Advantages : 1. Long Term Energy.
2. Green Energy 3. Infinite Energy.
4. Free Raw Material.

Disadvantages : 1. Weather Dependent.
2. Energy Storage. 3. More Space Required.
4. Depends on Sunlight.

Application : 1. Agriculture Pumping.
2. Industrialisation. 3. Solar Farms.
4. Transportation.

Conclusion : Solar → Electricity

Construction : The individual solar cells are connected together to make PV module to increase current and the modules are connected in a PV Array. Depends on the current or voltage requirements. Solar arrays are connected in Variety.

Project Model Photo :

Project Group Members :   (C7)
1. More Devika Deepak.
2. Mundhe Akash Sunil.
3. Nalawade Ashish Chandrakant.
4. Nalawade Mandar Ajit.
5. Ozarkar Kadambari Chandrakant.

Project Guide - Prof. P.R. Satpute.
PBL Coordinator - Prof. K.S. Phad.

Photovoltaic Cell

Solar plate →
← connecting wires
Led Bulb →
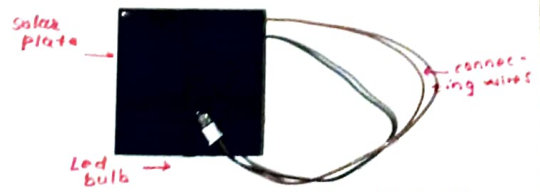
Group Members -
1) More Devika - C26
2) Mundhe Akash - C27
3) Nalawade Ashish - C32
4) Nalawade Mandar - C33
5) Ozarkar Kadambari - C39

Project Guide -
Prof. Satpute P.R.

PBL Co-ordinator -
Prof. Phad K.S.

Group No.
(C7)

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION - 2023
PROJECT TITLE - MAKING OF WATER ALARM

Aim - To detect the water level by using buzzer.

Objectives -
i) To prevent the wastage of energy
ii) To learn how to build a simple circuit.
iii) To learn the working of an water alarm.
iv) To detect the water level.

Description - The water alarm project is to detect and alert the system for the perticular water tank level. A buzzer sound helps to alert the system when water reaches at perticular level.

Advantages -
i) Efficient use of water.
ii) It is reliable electronic device.
iii) They tell you about water level.

Disadvantages -
i) No LED indicator lights.
ii) It can get rusty & deteriorate.
iii) Power failure.
iv) Electronics parts have to be installed separately

Applications -
i) Water alarm is used in hotels, home appartments, commercial complex and in factories.
ii) We can also measures the fuel level in motor vehicle.
iii) It is used to indicate the water level in tanks.
iv) In chemical plants and other electrical substations, rainfall detection, leakage detection.

Conclusion - It is the best electronic starter device that indicate the water level. This is one of our effort to save the water.

Construction -

In these water alarm we use a buzzer which is connected to the battery. The construction of an wateralarm system is to monitor the water level. Being an electronic device, it is highly sensitive to water.
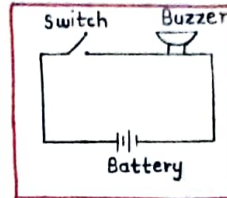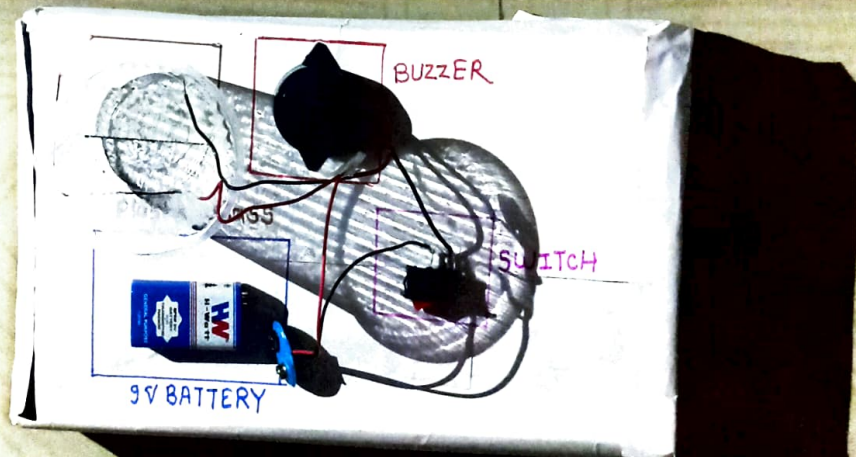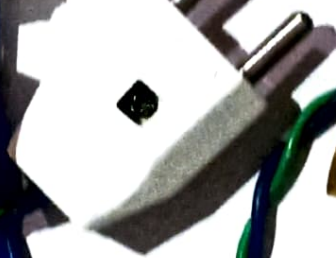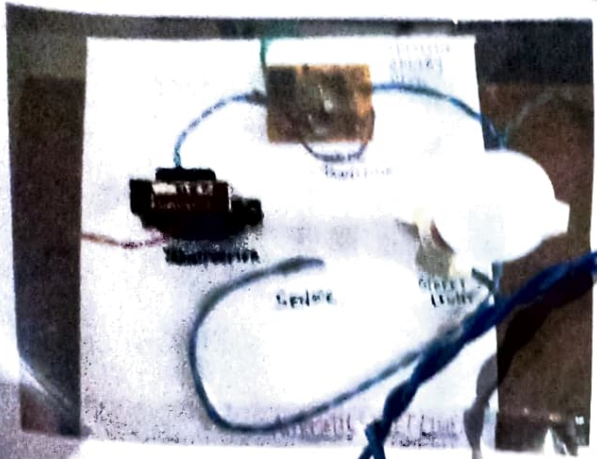
Project model photo-

Project group members - c-8
c35 Naykodi Sakshi Bhimaji
c37 Neharkar Ankita Mahadev
c42 Pachpute Saloni Genbhau
c43 Pachpute Suhani Genbhau

Project Guide - Prof. K. S. Phad   GROUP No - C-08

PBL Coordinator - Prof. K. S. Phad

1) RESISTOR
2) RELAY
3) LED

TRANSI...

TRANSFORMER

Vox :0-12

DIAMOND Transformer

TRANSFORMER

SENSOR

STREET LIGHT

Group No - C9
Mohol Rohini Prashant
Mangase Kshitij Suresh
Nahier Manish Vasant
Navale Vaishnavi Prakash
Nikam Shreya Rajendra

AUTOMATIC STREET LIGHT
CONTROLLER

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING , KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION 2023

PROJECT TITLE :- SMART BATTERY PROTECTOR

AIM

The aim of the Smart Battery Protector is to prolong the lifespan of rechargeble batteries While ensuring their Safe.y opparation.

DESCRIPTION

The Smart Battery Protector is disconnects the battery form non-essential loads before it is Completely discharged.

OBJECTIVE

Increased battery Life. Prevent overcharging Life.
- Improved Safety help to regulate charging process
- Help to Reduce energy Waste

ADVANTAGES

- Easy to install
- Energy efficient

DISADVANTAGES

- Cost more expensive   - limited Control option
- Size Can be bulky

APPILCATION

- Mobile Devices   - Renewable Energy System.
- Power Tools   - Medical Devices

CONCLSION

The Smart Battery Protector is a great tool to help prolong life of your batteries. It is advanced features. Such that a ensure that your batteries are kept Safe and in good Condition.

CONSTRUCTON

The Construction of Smart Battery Protector of Several Components inducing a microcontroller is the brain of the System and responsible for monitoring and analysing the battery Voltage and Current levels.
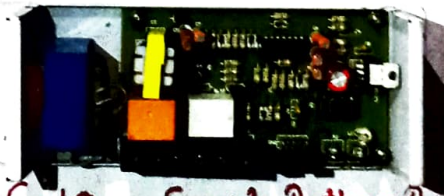
PROJECT MODEL PHOTO
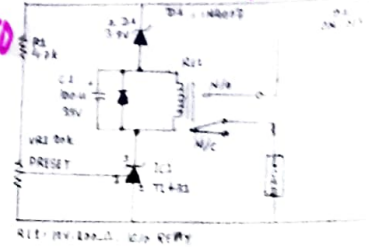
G-No- C-10 PROJECT GROUP MEMBERS

C23   MONDAL RUFAT ASHROF
C29   NGARGOJE AMAR GANGADHAR
C40   PABALE VAISHNAVI NIVRUTTI
C41   PACHPUTE AVANTIKA DNYANESHWAR

PROJECT GUIDE :- PROF. P.P. DOKE

PROJECT CO-ORDINATAR :- PROF. PHAD. K.S

Guide Name :- P.P. Doke
Project Co-ordinator :- K.S.Phad.

C-10   Smart Battery Protection

C29   NAGARGOJE AMAR
C23   Mondal Rufaɤ
C40   Pabale Vaishnavi
C41   Pachpute Avantika

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION - 2023

PROJECT TITLE - Impact Of Electric Vehicle

AIM - Impact Of Electric Vehicle

OBJECTIVE -
1. Low Maintenance Cost
2. Tax and financial Benefits
3. No Noise Pollution
4. Save Petrol & Diesel
5. Decreased Air Pollution

DESCRIPTION - Electronic Vehicle includes both a Vehicle That can only be Powered by an electric motor that draws Electricity from a battery.

ADVANTAGES -
1. Fuel Price Saving
2. No Gas is Required
3. No CO2 Emissions
4. Reduce Noise Pollution

DISADVANTAGES -
1. Recharge points are Less
2. Limited Driving Range
3. Longer Recharge Time
4. Battery Replacement cost is high

APPLICATION -
- Reduce your Carbon Footprint
- Reduce Pollution
- Cost Saving Economic Growth Increase Sales in EV Trends

CONCLUSION -
1. We Conclude that the growth of Electrical Vehicle Increases Day by Day
2. Electrical Vehicles produce zero emission.

CONSTRUCTION -

PROJECT MODEL PHOTO -

PROJECT GROUP MEMBERS -

1. Tushar Dilip Padwal (Roll No. C44)
2. Sagar Laxman Palve (Roll No. C46)
3. Aryan Suahinsing Pandeshi (Roll No. C49)
4. Avinash Santosh Pingole (Roll No. C64)
5. Chaitanya Manjesh Pingle (Roll No. C65)

GROUP No = C14

PROJECT GUIDE - Prof. Dhobale S.D

PBL COORDINATOR - Prof. Phad H.S

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE
JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION – 2023
PROJECT TITLE- FIRE DETECTION ALARM

Aim:- To detect fire for security Purpose.

Objectives:- • To detect fire
- • To security of human life.
- • To manage risk that happen in future.
- • To notify the fire development.
- • To protection of life and property.

Description:- • A fire system has several devices working together to detect fire & warn people through visual & audio appliances.
- • These alarm may be activated automatically from smoke & heat detector or may also it activated via manual fire alarm activation devices.

Advantages:- • Low cost.
- • Reliable
- • High level security.
- • Easy to design.
- • Low power consumption.
- • Circuit can be easily constructed.
- • Easy to modify.

Disadvantages:- • Fake alarm.
- • Blinded by thick smoke.
- • Sensor near range heat only.
- • Use continuous power supply.

Applications:- • In kitchens.
- • In restaurant.
- • In quest room.
- • In loundries.
- • In parking garages.

Conclusion:-
- • Thus we can conclude from this fire alarm is used for safety and emergency purpose.
- • This is not only use in houses but also any type of building.

Group No.- C-12.

Construction:- • In this fire alarm circuit we have used an IR LED.
- • The IR emitted from fire is detected by IR LED & voltage across the infrared LED. changed.
- • The anode of the infrared LED is connected with the base of the BC (547) NPN transistor.
- • Due to positive pulse in the base the transistor turns on and current can flow in through.
- • Buzzer → Collector → Emitter.
- • If there is no fire then no positive pulse fed to the transistor base so the BC (547) transistor remains in off mode.
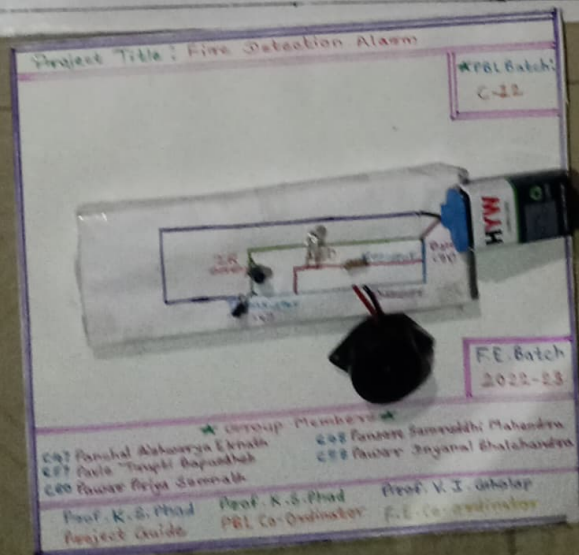- • So that time current cant flow through the buzzer.

Project model photo:-

Fire Alarm with BC547
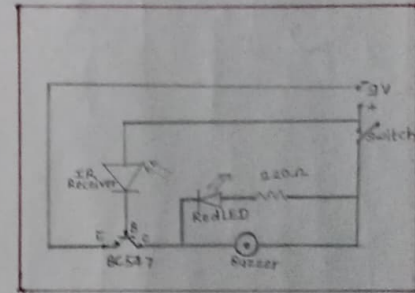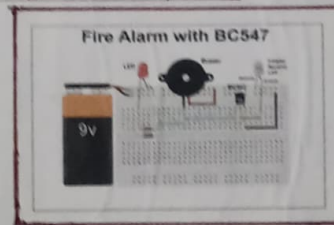
Project group members:-

C 47 Panchal Aishwarya Eknath.
C 48 Pansare Samruddhi Mahendra.
C 57 Pavle Trupti Bapusaheb.
C 58 Pawar Dnyanai Bhalchandra.
C 60 Pawar Priya Somnath.

Project Guide:- Prof. Phad K.S.

PBL Coordinator:- Prof. Phad K.S.

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE

JAIHIND COLLEGE OF ENGINEERING KURAN

Department of first Year Engineering

Project Exibition 2023

Project Title: Smart Dustbin With Arduino

Aim: To make an evolution change towards cleanliness or to create clean, safer and hyginic environment.

Objective: The main objective of the project is to design an eco-friendly smart dustbin which will help in keeping our environment clean.

Description: Smart Dustbin works on the principal of object detection using an ultrasonic sensor. The ultrasonic sensor transmits sound waves. These waves get reflected whenever an object comes into the vicinity of the sensor. This generates an electrical signal which is used to open the dustbin lid.

Advantages:
1) Maintain environment hygiene.
2) It will help in bringing evolution by technology in terms of cleanliness.
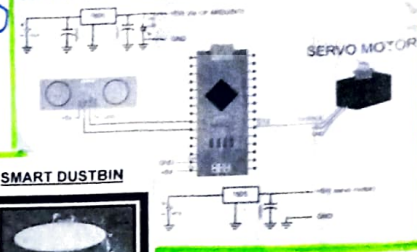3) User friendly design.

Disadvantages: 1) High operating cost. 2) High building cost.

Application: 1) House purpose. 2) Office 3) Schools/College

Conclusion: The smart dustbin project is going to make an evolution change towards cleanliness. This project will help toward health and hygiene.

Construction:-

CIRCUIT DIAGRAM AND CONNECTIONS: SERVO MOTOR

Project model photo:

SMART DUSTBIN

Group No:- C13

Project group members:-
C50 - Patel Aqsa Zuber.
C63 - Phapale Dnyaneshwari Santosh.
C52 - Patel Kaif Zuber.
C54 - Pathan Saif Abdul Raheman
C59 - Pawar Kiran Bhausaheb
C45 - Pawale Mayur Sha dev.

Project Guide:- Prof. A.G. Hejib

PBL Coordinator:- Prof K.S.Phad

PBL Project Title: Smart dustbin Arduino
PBL Group No: C13
Group Members:
C63 - Phapale Dnyaneshwari
C50 - Patel Aqsa
C52 - Patel Kaif
C54 - Pathan Saif
C59 - Pawar Kiran
C45 - Pawale Mayur
Guide Name: Prof. A.G. Hejib
PBL Co-ordinator: Prof. K.S. Phad
FE Co-ordinator: Prof. V.J. Ghole

Project Name :- RFID ATTENDANCE SYSTEM

Aim: To Provide organization with an efficient and automated method for tracking and managing attendance.

Objectives:- Improve security by providing individualized identification and minimizing the risk of of Fraudulent practices.

Description:- RFID attendance system offers an efficient and reliable solution for managing attendance records. in various settings, bringing convenience & accuracy to the process

Advantages :- i) Quick and automated attendance tracking saves times.

ii) RFID technology ensures accurate attendance data, minimizing errors.

iii) Immediate and up-to-date information on who is present or absent

Disadvantages:- i) Cost:- Implementation can be expensive.

ii) Regular maintenance and occasional tag replacement may be needed.

iii) Requires technical knowledge and can be complex.

Application :- i) Education : Tracking student and faculty attendance.

ii) Access Control:- Granting authorized entry to secure areas.

iii) Public Transportation :- Contactless ticketing and fare collection.

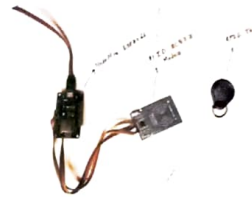iv) Work places :- Monitoring employee attendance and managing payroll.

Conclusion :- i) RFID attendance system provide efficient and accurate tracking across various industries.

ii) They offer real-time tracking, allowing for immediate access.

iii) RFID attendance system are scalable and can handle large volumes of attendees.

Construction :-
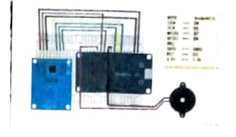
Project Model Photo:-

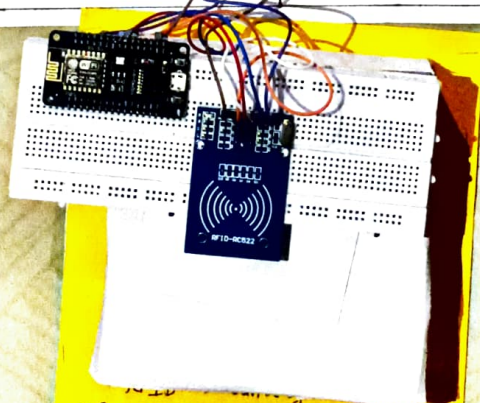**Project Group Members:-**

Group No:- C14

C51 :- Faheem Faruk Patel.

C 53 :- Pathan Rizwan Yusuf.

C 55 :- Patil Parth Pawan.

C 56 :- Varun Vijay Patil.

C 61 :- Pawar Sumit Suresh.

Project Guide:-

Prof. V·J Gholap

PBL Coordinator:-

Prof. k·S Phad

* Group Members   F.E. Batch
C·51 Faheem Faruk Patel.   2022-23
C·63 Pathan Rizwan Yusuf
C·55 Patil Parth Pawan
C·56 Varun vijay Patil   F.E.
C·61 Pawar Sumit Suresh   -i/c Co-ordinator
* Project Guide   * PBL co-ordinate * Prof. V·J
Prof. V·J Gholap - Prof. k·S phad.   Gholap

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE'S

JAIHND COLLEGE OF ENGINEERING

DEPARTMENT OF. FE ENGINEERING
PROJECT EXHIBITON-: 2023
WIRELESS CHARGING

AIM-:

Aim of wireless charging is to provide a more convenient and clutter-free charging experience for electronic devices

Objectives -:

The objective of wireless charging project is develop a widdely compatible, safe, and efficient method of charing electronic devices without the need for physical connectors.

Advantages -:
- Convenient and easy to use.
- Safer than traditional charging methods.
- Can extend the lifespan of the device
- Provides a cleaner and more minimalist look.

Disadvantages -:
- Slower charging speed.
- Energy loss and lower efficiency.
- Device placement limitations
- Compatibility issues with different devices.
- Potential heat generation during charging

Application-:

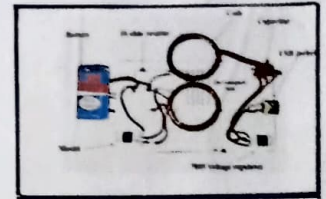Smartphones, Game Smart speakers, Security cameras, Electric vehicles, Smart home devices.

Conclusion-:
- Wireless charging offers cable-free convenience.
- It used in smartphones, tablets, electric vehicles, public spaces, and medical devices
- Ongoing advancements aim to improve efficiency and expand its applications.

Construction-:
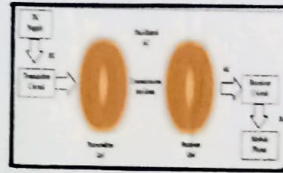
Project Model Photo -:

Project Group Members -:
- D01) Pingale Dipak Sanjay
- D02) Pingat Kishor Anil
- D03) Pohakar Rohan Bhausaheb
- D12) Rathod Omkar Dilip
- D13) Rode Dhananjay Bhausaheb

Project Guide -:
Prof. P J Game

PBL Coordinator -:
Prof K S.Phad

Group- D-1

* PBL Batch - D-1
F.E. Batch 2022 - 23

Project Title :- Wireless Charging

Battery
Resistor
Capacitor
Coils
USB
Mosfet
7805 Voltage regulator

* Group Members *
D-1- Pingale Dipak Sanjay
D-2- Pingat Kishor Anil
D-3- Pohakar Rohan Bhausaheb
D-12 - Rathod omkar Dilip
D-13 - Rode Dhananjay Bhausaheb

| Prof. P.J Game Project Guide | Prof. K.S. Phad PBL CO-ordinator | Prof. V.J. Gholap F.E - Coordinator |

Project Name: Automatic Room Light Controller With Visitor Counter

Aim : Controlling the room lights as well as counting number of persons / visitors in the room very accurately.

Objectives :
i. Controlling the room light
ii. Counting number of persons/visitors in the room very accurately.
iii. Helps in energy conservation

Description : This project has two modules: i. Visitor Counter ii. Automatic Room Light Controller. Main concept behind this project is to measure and display the number of persons entering in any room like Seminar hall, Conference room. And when number of persons inside the room is zero. power supply inside the room will be turned off. This will help to save electricity.

Advantages :
i. Implement in single door.
ii. Helps in energy conservation.
iii. Completely automatic system.

Disadvantages :
i. Badly designed and set up system can be difficult to use.
ii. IR sensors can not detect if lots of people are entering at one time.
iii. If there are multiple doors for the same room the project becomes quite complex.

Application :
i. For Counting purpose
ii. For automatic room light control
iii. It is used in class rooms, conference room, and study rooms in Colleges.

Conclusion :
i. The project "Automatic Room Light Controller with Visitor Counter" has been successfully designed.
ii. This device has been introduced keeping in mind the energy conservation and thus reducing cost of living.
iii. The device displays the number of people inside the room and automatically switches off lights when last person leaves the room.
iv. This device can be implemented in homes, seminar halls, class rooms, conference room, and study rooms in colleges.

Construction :
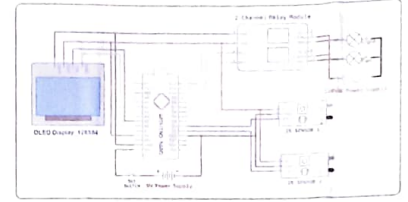
Project Model Photo :
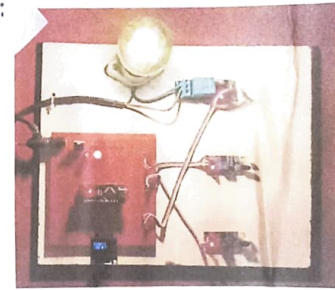
Group Members :
D04. Pokharkar Aditi Baban.
D06. Pokharkar Tejashri Santosh.
D09. Rajguru Jaya Mahendra.
D10. Randhe Taniksha Eknath.
D17. Said Mansi Suresh.

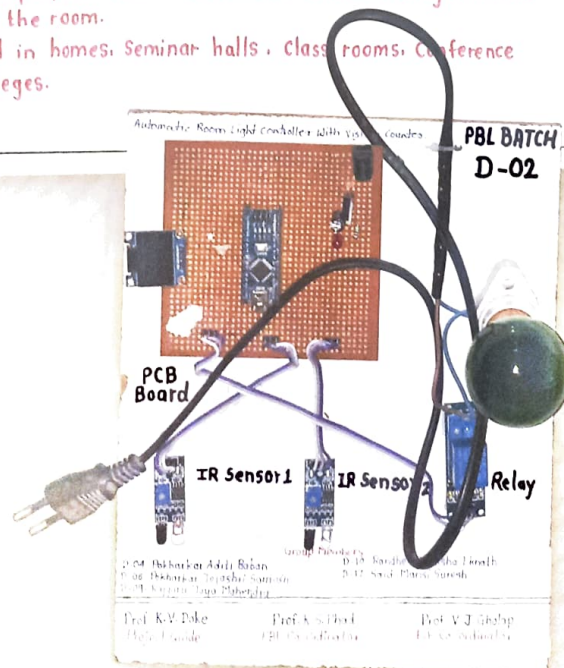**Project Guide :**
Prof. K. V. Doke.

PBL Coordinator :
Prof. K. S. Phad.

Group No - D-02

PCB Board

PBL BATCH D-02

IR Sensor 1   IR Sensor 2   Relay

Jaihind Comprehensive Educational Institute

Jaihind College of Engineering, Kuran

Department of First Year Engineering

Project Exhibition 2023

Project Title – Automatic Street Light

Aim –
Controlling the street lighting depending on the outside lighting conditions and save the power

Objective –
1. The Project aims to design an automatic street light works in both conventional as well as Non-conventional energy resources using LDR and other components we can make the model of this project

Description –
The Project Automatic Street light is related to Mechanical and ENTC department. The Motive of the Project is to save the energy and also reduce the human efforts. Due to this invention when the sun goes down the light gets ON automatically and when it light gets off automatically which is really useful for all the peoples also reduces the accident during night

Advantages –
1. Automatic system of street light Design is attractive
2. Possible to manual error avoided
3. The risk of overheating and accident should be minimize

Disadvantages –
1. Risk of vandalism and theft
2. It need sufficient volt of electricity
3. There may be some issues with sensor.

Application –
1. Used in street light application
2. Used in domestic application
3. It is also use for charging stations for electrical vehicle
4. Controlling the street lighting defending outside conditions

Conclusion –
The Street light controller using LDR based light intensity and traffic density in today's up growing countries will be more effective incase of cost manpower and security as compare with today's running complicated and complex light controlling systems

Construction –

Project Model Photo –

Group No-D03

Project Group Members –
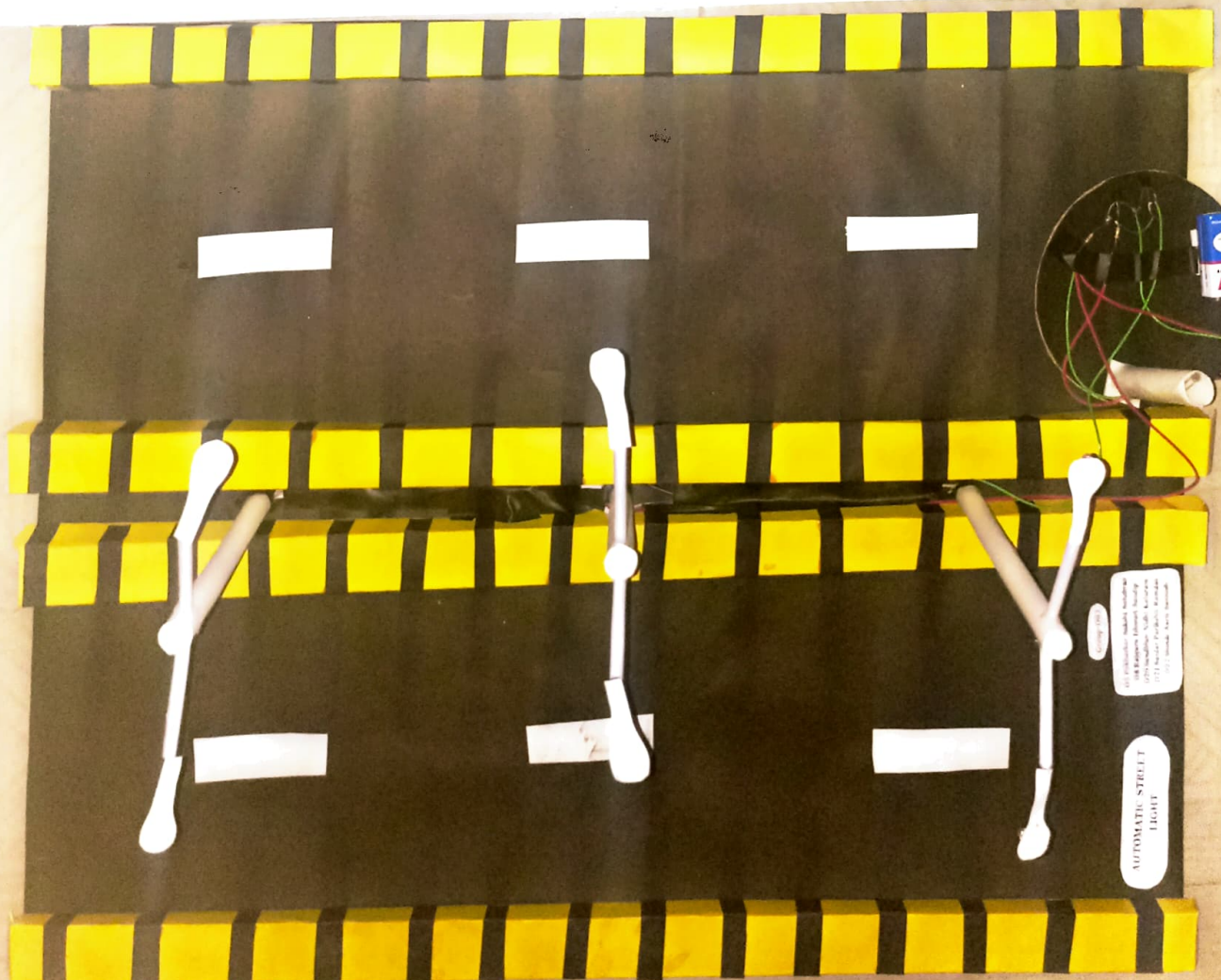D.05 Pokharkar Sakshi Sahebrao
D.08 Rajguru Ishwari Sandip
D.10 Sahdbhor Nidhi Kaluram
D.21 Sardar Parikshit Ramdas
D.22 Shinde Aarti Santosh

Project Guide –
Prof. P.J Game

PBL Coordinator –
Prof K.S Phad

Jaihind Comprehensive Educational Institute's

Jaihind College of Engineering, Kuran
Department of First Year Engineering
Project Exhibition 2023

Project Name :- Regenerative Braking System

Aim :- To recover, Store and re-use some of the vehicle's Branking System Energy to improve Fuel Efficiency or boost the range of Electric and hybrid Vehicles.

Objectives :-

The purpose of the brake or brake System is safety and reliably decelerate the vehicle, regardless of its speed. The brakes also needs to keep the vehicle stationary when the driver is not there and When the vehicle is located on a slope.

Advantages :-

1) Energy Conservation.
2) Fuel Economy.
3) Recharging the battery.
4) Wear Reduction.
5) Reduced Brake Costs.

Disadvantages :-

1) Added weight- Extra component can increase weight
2) Cost of component, engineering, manufacturing is high.

Conclusion :-

Regenerative Braking conserve Energy lost conventational Braking and this Braking conserve System can operate at high temperature operating range and Efficient than other braking System.

Construction :-
1) Cut Wooden pieces for Stand and spindle
2) Fix the main motor to the stand using a clamp and screws.
3) Attach the braking motor to the spindle using a clamp and screws.
4) Connect the main stand to the base and attach a spindle stand to base.
5) Attach the spindle to the spindle stand
6) Connect LEDs to the braking motor using wires.
7) Support the main motor with an additional spindle
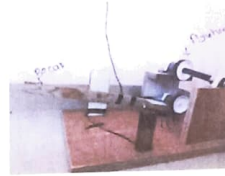8) Attach the brake wheel to the motors.

fig 5.1 when RBS brake is not applied

fig 5.2 when RBS brake is applied

Project Group Members :-
D-07 - Rajeshirike Satej Mahendra
D-11 - Rathod Deepak Rajalu
D-14 - Rokade Siddhesh
D-16 Sadhaphal Grajanan Laxman
D-18 - Sakhare Chaitanya Navnath
D-19 - Sambherao Eshwar mahadev

GROUP-NO :- D-4

PROJECT GUIDE :-
Prof. Hejib. A.G.

PBL Co-ordinators -
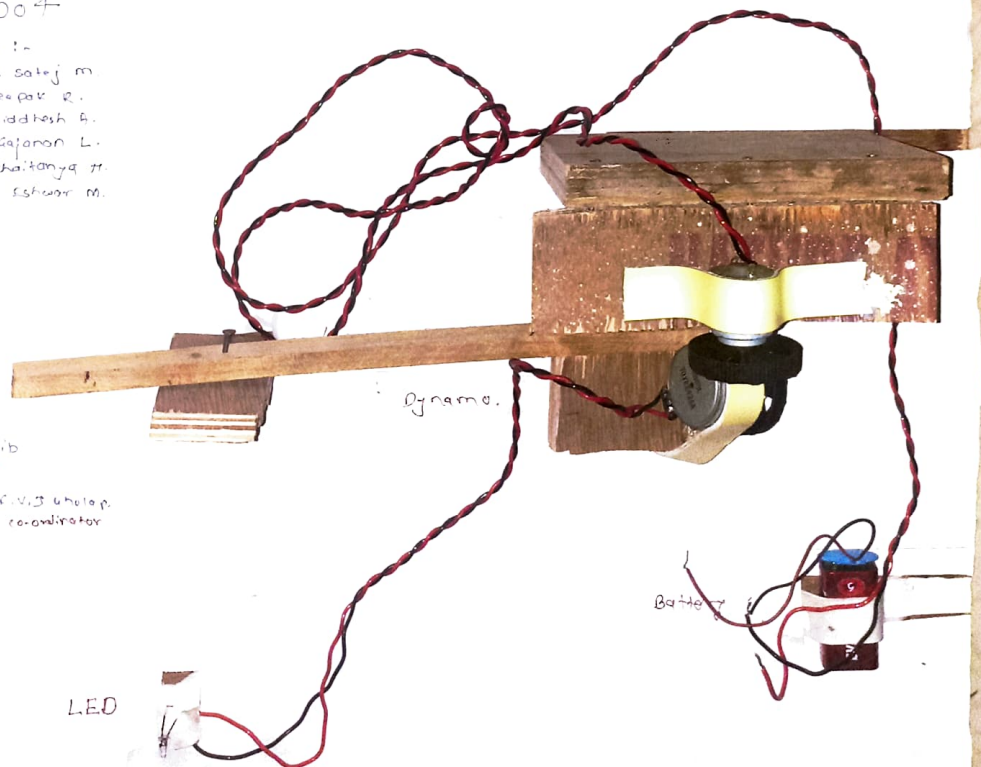Prof. K.S. Phad

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Title :- Regenrative Braking system

Group No :- D07

Group members :-
D07 Rajeshirike Satej M.
D11 Rathod Deepak R.
D-14 Rokade Siddhesh A.
D16 Sadaphal Gajanan L.
D18 Sakhare Chaitanya H.
D19 Sambherao Eshwar M.

Dr. D.J Garkal   Prof. A.G Hejib
Principle.   Project Guide

Prof. K.S Phad   Prof. V.J Gholap.
Project co-ordinator F.E co-ordinator

F.E Batch
2022-23

Dynamo.

Battery

LED

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JAIHIND COLLEGE OF ENGINEERING, KURAN

DEPARTMENT OF FIRST YEAR ENGINEERING

PROJECT EXHIBITION 2023

PROJECT NAME:- LI-FI TECHNOLOGY

AIM:- The main Aim of the project is to Audio communication using Li-Fi technology.

OBJECTIVES:-
i) To achieve high speed wireless connections.
ii) For communication under water with high speed.
iii) To Achieve unbeatable securety.

DESCRIPTION:-
i) Li-Fi technology is a wireless communication system that uses light waves instead of radio waves to transmit data.
ii) Offering high speed connectivity and alternative to traditional WiFi.

ADVANTAGES:-
i) High speed data transfer :- Li-Fi can Achieve several gigabits per second, with more efficient compare to Wi-Fi.
ii) Enhance security : Li-Fi offers enhance security feature compare to WiFi.
iii) Li-Fi signals are less suspectible to electromagnetic interference to make unhackable.

DISADVANTAGES:-
i) Internet cannot be accessed without a light source.
ii) Light waves don't pass through walls so Li-Fi has Short range than wifi.
iii) Obstacle on pathways can affect data transmission.

APPLICATION:-
i) Li-fi can be use in various areas like hospital.
ii) Automation because operating rooms do not allow Wifi, since WiFi radiates harmful signals.
iii) Li-fi audio transmission can be used in petrochemical industries automation where use of radio spectrum is very dangerous.
iv) Li-Fi can also used in underwater systems for audio communications and device control.

CONCLUSION:-
i) Every bulb might be utilized as Wifi hotspot to sent wireless signals if this method can be made to work in practicals.
ii) We move forward towards a cleaner, safer, and brighter future.
iii) Li-Fi is a notion that is now generating a lot of interest, not least because it might provide a true and highly effective replacement for radio-based wireless.
iv) This may address problems like the lack of radio - frequency bandwidth and enable in internet acess where conventional radio-based wireless isn't allowed, such as aircraft or hospitals.

CONSTRUCTION:-
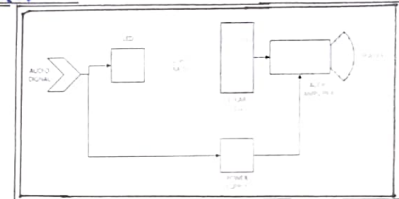
PROJECT MODEL PHOTO:-
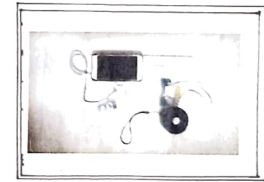
PROJECT GROUP MEMBERS:-   **GROUP No:- D5**

D-23 :- SHINDE AYUSH SUDAM.
D-28 :- SHINDE NISHANT SANTOSH.
D-35 :- SONAVNE SUYOG VILAS.
D-40 :- TANPURE ATHARV RAMDAS.
D-42 :- THAKARE MAYUR SHASHIKANT.

PROJECT GUIDE:-
Prof. K. S. PHAD

PBL CO-ORDINATOR:-
Prof. K. S. PHAD

Jaihind Comprehensive Educational Institute
Jaihind Collage of Engineering kuran
Department of First Year Engineering
Project Exhibition 2023
Project Title – 5 Speed Gearbox Mechanism

Aim
To provide better fuel economy and better performance

Objectives
1. Increase the speed of car
2. Helpful in day to day life styule
3. Save time of traveling

Description
1. The first gear box mechanism was invented in 1921 buy a Canadian steam engineer "alfred honi Mumo"
2. Alfred Mumo design his device to compressed air rather than hydraulic fluid
3. The fuel five speed gearbox mechanism occasionally used in sports car such as that
4. The 1366 Ferrari-166 Gears were invented by the Greek mechanic of Alexandria in the third century B.C were considerably developed by the great Archimedes, and saw wide use in the Roman world
5. Gear 5 is actually based on the true nature of Luffy's Devil Fruit, the real name of which is the Hito no Mi, models Nika. In the Wano Country arc, Luffy managed to awaken his Devil Fruit after being defeated by kaido for the third time.

Advantages
1. It is convenient to operate hence it reduced driving stress considerably
2. It improve the life of the clutch components
3. Accurate gear shift helps to reduce fuel consumption by up 5 do

Disadvantage
1. Those who are new to drive with using a manual gearbox can expect the early few rides to be a bit jerky and stalling while becoming used to the clutch and shaft timing
2. Braking and stopping on a hill can cause be both messy and scenes there are changes of getting role into trafic in shilled
3. Prolong constant use of the left leg where it comes to driving a stick of missing up the brake joints and car result in leg injuries

Application
1. Paper Industry
Gearboxes made from aluminum alloy, steel, and cast iron are being used for the smooth working of the machines in the paper industry
2. Cement Industry
Gearboxes that carry high torque find their need in this field. The bevel helial gearbox and paralled shaft are used for functionalities like
3. Engine thrust generation reduction in speed etc
4. Gum Industry
Is one of the biggest industries with a huge variety of machines using gearboxes such as planetary helical etc..
5. Steel Industry
Heavy duty machines are involved in the steel industry planetary, Pinion and other types of gearboxes are used.

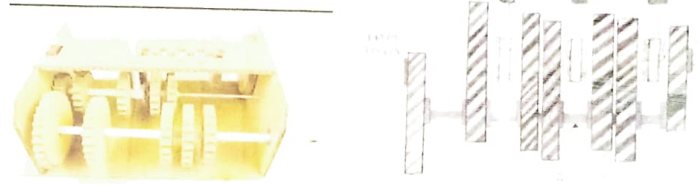**Conclusion**
1. In order to reduce problems such as mass production and cost optimization, essential methods to reduce the problems to effectively provide services to customers have been adopted from the above literature surveys and the methods used for the design and the development of gear box and in order to the impreve the application area, the design of gear box is based on the custom of the satisfaction and the affordable cash.
2. The gearbox must be the lightweight and the compact in the accordance with the design standards
3. Shifting mechanism with the gear boxes are effect on the vario of the aspects the such as mass of production, cost of the savings and the overall the performance.

Constructioin
The 5 speed Gearbox aims to the present at the mechanism of a gearbox having at different sizes are placed on three different shaft the gears on the shaft are located at a specific distance from each other the the top most shaft is driven with the help of a motor the 2nd shaft on the middle shaft act as an the intermediary between the first and third shaft this shaft is manually operated and can be set in the 6 positions. The first position is the idle position, i.e. none of these driven shaft rotating. The other 5 positions causes of the other two shaft to rotate on different speed

Project model photo

Group No – D-06

Project group members
D24 Shinde Dnyaneshwari Rajendra
D30 Shinde Tejal Ganesh
D31 Shinde Vaishnavi Narendra

Project Guide
Prof. A.G. HEJIB

PBL Coordinator
Prof. K.S. PHAD

"5 SPEED GEARBOX MECHANISM"

GROUP NO. :- 06

PROJECT GUIDE :-
PROF. A.G. HEJIB.

GROUP MEMBARS :-
D24 - D.R. Shinde.
D30 - T.G. Shinde.
D31 - V.N. Shinde.

Jaihind Comprehensive Educational Institute

Jaihind College of Engineering, Kuran
Department of First Year Engineering
Project exhibition 2023

Project Title - Earthquake Alarm.

Aim — To rapidly detect the initiation of an earthquake, estimate the level of ground shaking to be expected, and issue a warning before significant ground shaking starts.

Objectives - Eearthquake is a natural disaster, which unavoidable, that sometimes damage to lives and property causes- Every year more than 1 lakh people lose lives due to earthquake.

Description —

Advantages - The Gift of time.
Shaking sense
Seofty in numbers
Shelding Insights

Disadvantages - The Fasle alarm mystery
The cost coundrum
Limitations in scope
power play

Application —

Conclusion - The material used in this project is very cheap and easily available at market. so of every city and town had an equarthquake detector alarm device then people will alert and they will move to state place.

Construction -

Project model Photo-
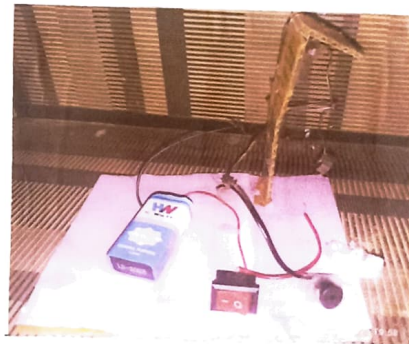
Project group members-

D25 Shinde Gauri Vijay
D27 Shinde Manisha Rajendra
D39 Tambade Namrata Navnath
D41 Tavhare Ruchita Sharad
D45 Thorat Aishwarya Uttam.

Project Guide —
  PROF S D DHOBLE

PBL Coordinator -
  Prof. K S Phad

Group No - D-07

D 7

AIM :- Detect noises to turn the LED on.

OBjective :- The main objective of clap switch is that on off any electrical equipment by a sound of clap.

ADVANTAGES :-
i. Energy efficient
ii. Reliable circuit
iii. Complete elimination of manpower
iv. High accuracy
v. Detect noise to turn the LED ON
vi. Man power is not required

DISADVANTAGES :-
i. Activate any sound
ii. If one the devices does not work the Properly, the Complete Connection is lost.
iii. A switch is more expensive than network bridge

APPLICATION :- i. Fan   ii. Light   iii. Tv   iv. Motor   v. AC

CONCLUSION :-
i. The device has good relliability and expensive.
ii. Both are low frequency sound.
iii. It can be used in security with a noise and also used a the place silence needed.
iv. Three to Four meter away and finger tap sound at very Closed range.
v. The clap activated switching device function Properly by responding to both hand claps.

CONSTRUCTION :-
i. Connect Resitance 1, 2, 3, 4.
ii. Resistance 1- look, 2-220k, 3-1k, 4-47k.
iii. Connect 1ouf Capacitance
iv. Connect LED.
v. Connect condenser mic.

PROJECT MODEL PHOTO :-

GROUP MEMBER :-
D26 - Shinde Karan Laxman
D 29 - Shinde Prathamesh Chhatrapati
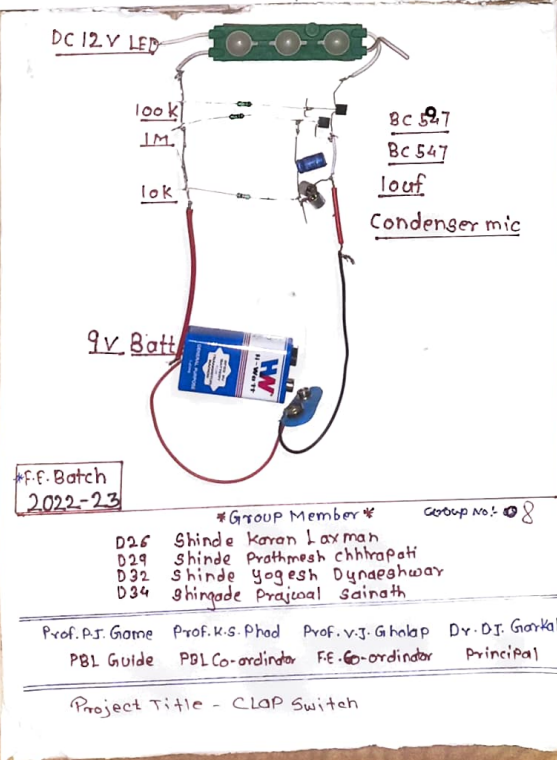D 32 - Shinde Yogesh Dnyaneshwar
D 34 - Shingade Prajwal Sainath

PROJECT GUIDE :-
Prof. P.J. Game

PBL CO-ORDINATOR :-
Prof. K.S. Phad

Group No :- D8

DC 12 V LED
100k
1M
10k
BC 547
BC 547
1ouf
Condenser mic
9 V Batt

*F.F. Batch
2022-23

Group Member   Group No :- D8
D26   Shinde Karan Laxman
D29   Shinde Prathmesh chhtrapati
D32   Shinde Yogesh Dynaeshwar
D34   Shingade Prajwal Sainath

Prof. P.J. Game   Prof. K.S. Phad   Prof. V.J. Gholap   Dr. D.J. Garkal
PBL Guide   PBL Co-ordinator   F.E. Co-ordinator   Principal

Project Title - CLAP Switch

JAIHIND COMPREHENSIVE EDUCATIONAL INSTITUTE

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DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION 2023

PROJECT TITLE – SMOKE DETECTION ALARM USING ARDUINO

Aim :- To detect the Smoke.

Objectives :-
i. To detect the Smoke
ii. To secure the human life
iii. To notify the smoke development
iv. To protection of life & property.

Description :-
i. A Smoke system has Several devices working together to detect smoke & warn people through audio.
ii. These alarm is activated automatically with the help of IOT using embedded C language.

Advantages :-
i. User friendly : We can edit the code whenever we want to change the tone.
ii. Efficiency : it uses less power of only 5V.
iii. Portable : it is very small to carry.
iv. Future enhancement.

Disadvantages :-
i. False alarm
ii. They are slower than photoelectric sensors
iii. Use of radioactive material is concern

Application :-
i. It is used in Computer lab, Chemistry lab
ii. It is used in Hospital
iii. It is used at Public place

Conclusion :- The project is "Smoke detection alarm using Arduino".
We are group members learned from this project :
i) This is simple model to detect the Smoke.
ii) It is smoke detecting alarm.
iii) It is used to reduce the loss of lives during fire accident.
iv) We can easily detect the Smoke.

Construction :-
i. In this Smoke Detector Circuit with Arduino, we have used a MQ2 Gas Sensor to detect smoke in the air.
ii. A 16x2 LCD is used for displaying the ppm value of smoke.
iii. A buzzer is placed as an alarm. circuit connections for this project are very simple.
iv. Smoke sensor output is connected at an analog pin of Arduino.
v. Buzzer is connected at pin 09. Remaining connections are shown in the circuit diagram.

Project model photo :-
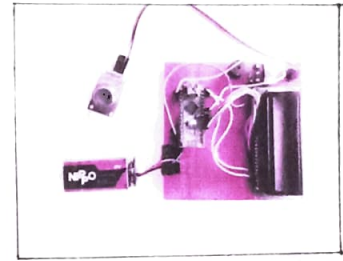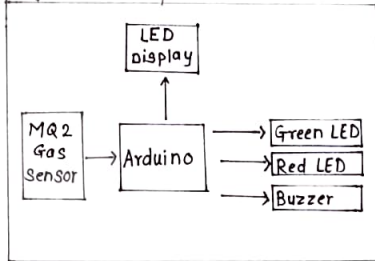
Project group members :-
D36 – Suryawanshi Jagruti Avinash.
D37 – Suryawanshi Sonal Sanjay
D38 – Tagad Chaitali Mohan
D43 – Thakurdesai Priya Prasad

Project Guide :-
prof. Dhobale S.D.

PBL Coordinator :-
prof. Phad K.S.

Project No. :-
D09

Jaihind Comprehensive Educational Institute's
JAIHIND COLLEGE OF ENGINEERING, KURAN.
Department of F.E. Engineering
PROJECT EXHIBITION 2023
"FIRE SENSOR"

AIM:- The aim of fire sensor is to detect the presence of fire or smoke in an environment and to provide an early warning.

OBJECTIVE:-

i. To detect the presence of a fire or smoke as early as possible.
ii. To minimize the damage caused by the fire.
iii. To notify emergency services of the fire.

ADVANTAGE:-

i. Early detection of fire.
ii. Easy installation.
iii. Continuous monitoring of environment.

DISADVANTAGE:-

i. Fire sensors can sometimes trigger false alarms due to cooking smoke.
ii. Limited coverage area
iii. Require regular maintenance.

APPLICATION:-

i. It is used in offices, factories and warehouses.
ii. It is used in public spaces, such as school, hospital.
iii. It is used in cars, buses and airplanes.

CONCLUSION:-

The development and implementation of fire sensor technology has significantly improved fire safety in both residential and commercial settings.

CONSTRUCTION:-

i. **Components:-** It consists Thermistor, resistor, capacitor, transistor and alarm device.
ii. **Power supply:-** Circuit are connected to DC power supply because it circuit need stable power supply.
iii. **Sensor Connection:-** The fire sensor module is connect to the circuit through appropriate connections.
iv. **Signal Conditioning:-** The output of the fire sensor module conditioned by operational amplifiers or transistors-based amplification stages.
v. **Alarm activation:-** The conditioned output from the sensor is fed into the alarm circuit. When the sensor detects a fire and activate buzzer.

PROJECT MODEL PHOTO:-
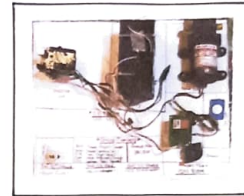
GROUP MEMBER:-

D-45 : Thorat Nikhil Ganpat.
D-48 : Thorat Sarthak Anil.
D-53 : Tope Mayur Sandip.
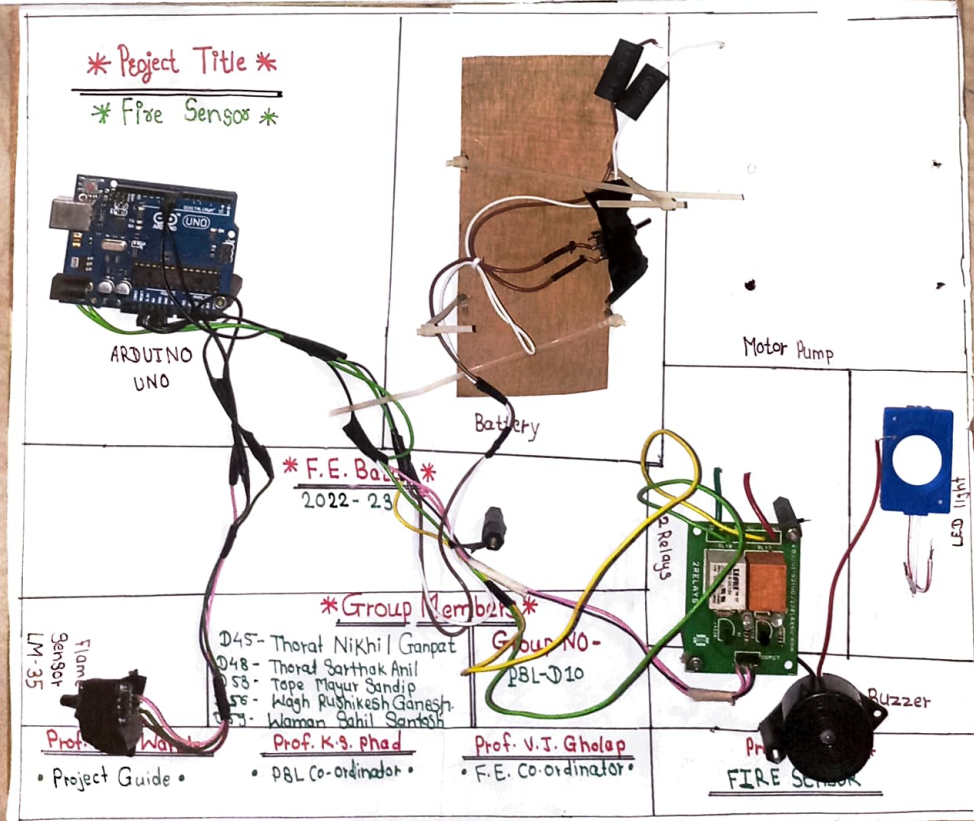D-56 : Wagh Rushikesh Ganesh.
D-59 : Waman Sahil Santosh.

GROUP NO: D10

PROJECT GUIDE:-
Prof. Warule B.M.

PBL CO-ORDINATOR:-
Prof. Phad K.S.

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JAIHIND COLLEGE OF ENGINEERING, KURAN
DEPARTMENT OF FIRST YEAR ENGINEERING
PROJECT EXHIBITION 2023
PROJECT TITLE - ATM SIMULATION IN PYTHON

AIM: "The ATM Simulation System" Project is Model internet banking act. This site enables the costomer topper from the basic banking transactions.

Objective :- 1) To develope a Project for sloving Financial Application of castomer in banking Enviroment
2) To perform bank transaction task.

Description: ATM simulation Project is writter in python, the Project tile contains a python script. This is very easy console based system whish is very easy to Used. Talking about the system it contains various function which include Account statement, withdrawing Depositing amount and changing pin
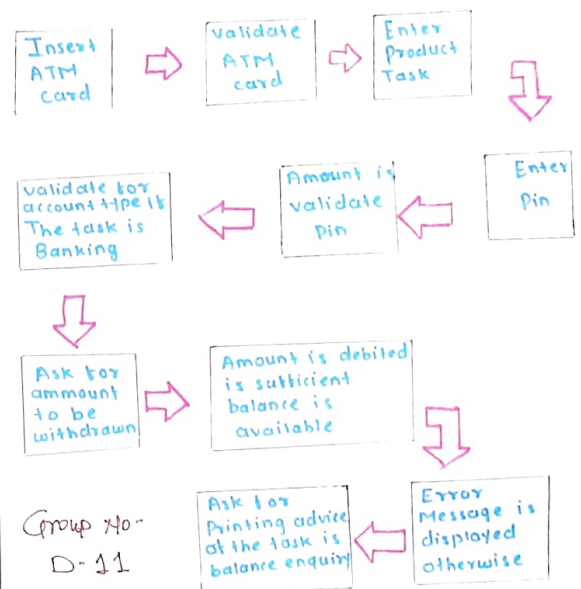
Advantages :- 1) ATM Machine provide the transaction To know the balance of account holder
2) ATM provides 24×7 service
3) Maximum security

Disadvantages: 1) Runs out of cash sometimes
2) Limit to withdrawol
3) Chances of robbery of machines as such

Applications :- 1) This is simple console based system which is very easy to use various functions includes account statement
2) for easy quick and less time consuming Money withdrawal
3) Depositing amount and changing pin.

Conclusion:- 1) The project on 'ATM SYSTEM' has been developed as the best Flexible and efficient Project which within available resources and time.
2) In future we are planning to add new features like fingerprints reader & Eye Detection system for Authentication of User Security Purpose.

Construction :-

Insert ATM card → Validate ATM card → Enter Product Task ↓

Enter Pin ← Amount is validate Pin ← Validate for account type if The task is Banking

↓ Ask for ammount to be withdrawn → Amount is debited is sufficient balance is available ↓

Group No- D-11   Ask for Printing advice of the task is balance enquiry ← Error Message is displayed otherwise

Project Group Member :-
i) Thorat Sakshi Sachin
ii) Thorat Srushti Sandip
iii) Wajage Swara Vasant
iv) Tendhe Gauri Sandip
v) Erande Dnyaneshwari Somnath

Project guide
Prof. P.P. Doke

PBL cordinator
Prof. K.S. Phad

Group No :- D11
Project :- ATM Simulation in Python

Remark :- Project is run using Computer Setup

Department of first Year Engineering

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Jaihind College of Engineering Kuran.

Project Exhibition 2023

[Project Title :- Hydraulic Lift]

Aim — The aim of project is to provide a safe and efficient mechanism for lifting heavy loads or transporting individuals between diff" levels or floors.

Objectives — Hydraulic lifts with large platforms & high load capacities are ideal for safely lifting & transporting materials and heavy equipment at construction sites.

Description — The core principle behind a hydraulic vertical lift project lies in the utilization of hydraulic fluid pressure to extend or retract a hydraulic cylinder, which in turn raises or lowers the load or platform.

Advantages — Space Efficiency : Hydraulic vertical lifts require less floor space.
Ease of installation : Hydraulic vertical lifts are relatively easy to install.
Energy efficiency : Hydraulic systems are generally energy-efficient.

Disadvantages — Regular maintenance Required : Hydraulic systems required regular maintainance to ensure acceleration proper functioning.
Limited speed & acceleration : Hydraulic vertical lift generally have slower speeds & accl" rate.

Applications — Automotive Industry : Hydraulic vertical lifts are commonly Utilized in the automotive industry for vehicle maintainance and repair operations.

Conclusion — Hydraulic vertical lift project can significantly enhance work-flow, maximize storage capacity, improve safety and provide easy access to elevated platforms or level

Construction — • Design the lift structure, including the syringe mechanism, support frame, and control system
• Connect the control system to the hydraulic valves and other components to enable remote or automated operation of the lift

Project Model Photo

Project Group Members —
• D49 Thorat Siddhi Kerbhau.
• D51 Thorve Samiksha Hitendra
• D62 Wavhal Dipti Dattatraya.
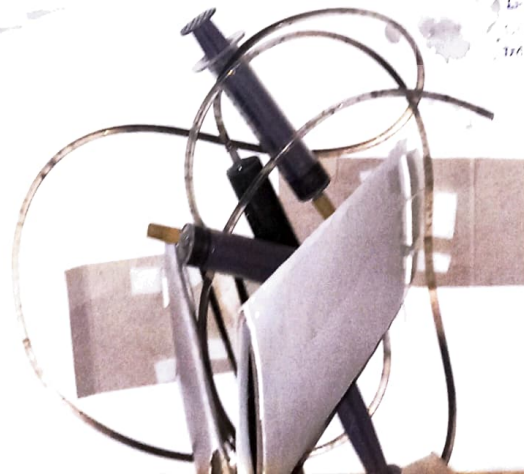
Group No - D12

Project Guide — PROF. A. G. HEIIB

PBL Co-ordinator — PROF. K. S. PHAD

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Department of F.E Engineering
PROJECT EXHIBITION 2023

Project Title - "DOOR BELL"

AIM:-

We all have a doorbell at our homes. When a visitor comes to our house, he searches for the doorbell switch and them the rings it to let us know his presence.

OBJECTIVE:-

i. The ultrasonic receiver module the power at the frequeny same as that of the transmitter's so that noise will be eliminated and we get less false triggering.

ii. The sensitivity of the receiver can be tuned by using the 350 k ohm variable resistor arranged as a pot in the circuit.

iii. By tuning this properly, we can achieve the desired and put results.

DESCRIPTION:-

A smart doorbell is an internet connected doorbell that the notifies the senser or other electronic device of the home owner when a visitor arrives at the door.

ADVANTAGES:-

i Safety-conscious homeowners have been snatching up smart doorbells.

ii. The smart doorbell then notifies you through your the smartphone or smart Bell buzzer.

iii. Smart doorbell have charged all that. When the unexpected guest rings the doorbell.

DISADVANTAGES:-

i. Power Supply:- Electric bells require a power supply to operate, which mean that they are not suitable for use in areas without electricity.

ii. Risk of shock:- Electric bell carry a risk if they are not ing water proof.

APPLICATION:-

i. Having a smart doorbell allows for more security as it use by the bank.

ii. Smart door bell is also use in the security place.

CONCLUSION:-

The diagram is complete for a two-chime solenoid drive doorbell.

It doesn't need a diode. Whe the doorbell button is depressed, the solenoid in energized, driving the plunger in one direction to strike the first chime and simultaeously storing energy in a spring.

This system can also be reconfigured to detect the intruder who are not pressing the doorbell.

CONSTRUCTION

PROJECT MODEL PHOTO:-
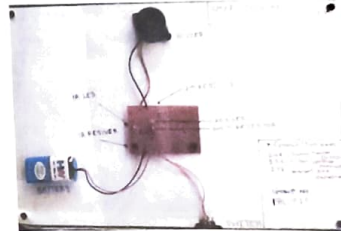
PROJECT GROUP MEMBERS

D-46: Thorat Pranav Suresh.
D-52: Titar Sarthak Somnath.
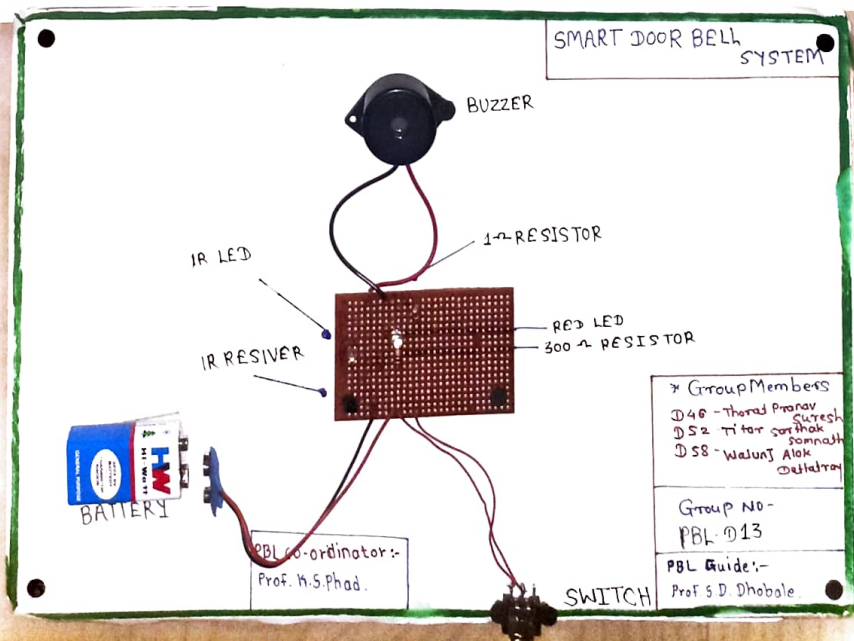D-58: Walunj Alok Dattatray.

PROJECT GUIDE	project Group No.	PBL CO-ORDINATOR
Prof. S.D. Dhobale.	D-13	Prof. K.S. Phad.

D 15

Jaihind Comprehensive Educational Institute

Jaihind College of Engineering, Kuran

Department Of First Year Engineering

Project Exhibition 2023

Project Title - Weather Forecasting APK using Python

Aim – To examine the applicability of Neutral Network approach by developing effective and efficient predictive models for weather Analysis.

Objectives - To compare and evaluate the performance of above models and the programming was carried out using MATLAB as a tool.

Description - Weather Forecasting is the application of science and technology to predict the condition of the atmosphere for a given location and time.

Advantages - i) Safety and Preparedness. Weather Forecast play a crucial role in Public safety and emergency preparedness.
ii) Resource mangement : Weather Forcast aid in the efficient. management of natural resources

Disadvantages - i Inaccuracy: Weather Forecasting is inherently complex, and despite advancements in technology and modeling techniques, it can still be inaccurate.

Application – i) Aviation: Weather Forecast are crucial for safe and efficient air travel.
ii) Energy Industry : Weather Forecast assist the energy sector in planning power generation and distribution.

Conclusion – Weather Forecasting plays a crucial role in our daily lives and has significally improved over the years due to advancement in technology, data collection, and modeling techniques.

Construction: The circuit of the system can be divided to two where first circuit as weather station that displaying all the value of weather parameters. other circuit is control unit circuit for controlling all the sensor data

Project model Photo –

Project group members –

D64	Vaidya mitali Rakesh
D55	Wagh Dhanshri Ankush
D60	Wankhade Prem Bhaskar
D64	Yendhe Saiprasad Gorakshnath
D65	Yewale Amruta Sanjay

Project Guide –

PROF. P. P. DOKE

PBL Coordinator -

Prof. K. S. Phad

Group No :- D15
Project :- Weather Forecasting APP

Remark :- Project is run using computer setup