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Website : www.gnit.ac.in E-mail : gnitnagpur@gmail.com

Department of Electronics and Telecommunication Engineering
Session2018-2019

NOTICE

5/7/2018

All the students of B.E III rd and V th semester are hereby informed that you have to submit the name of group members with title of your mini project on or before 9/7/2018 to Prof. Deepak Deshpande(,Poject Co-ordinator).

Note:
1. Mini project is compulsory for all the students.
2. Each group should have maximum five members.

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Sucheta Raut
HOD.ETC

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Department of Electronics and Telecommunication Engineering

Session 2018-2019

Notice

Date:04/07/2018

Groupwise allocation of students for mini projects:

3rd sem.ETC

Group	Name of students	Guide	Title of Mini project
Group-1	Ms. Gayatri Kaware Ms. Chanchal Badole Mr. Nikikesh Sonwane Mr. Rugwed Tembhare	Prof. Sucheta Raut	Bargalar Alarm
Group-2	Mr. Prashik Undirwade Mr. Mahesh Lomesh Meshram Mr. Sharvari Bhushan Sahare Mr. Yashwant Jambhulkar	Prof. Deepak Deshpande	Water level monitoring system
Group-3	Mr. Pankaj Maroti Gaikwad Mr. Dildar Chunilal Patle Mr. Umang Meshram Ms. Nayan Shantaram Komte	Prof. Abhay Satnaware	Digital Display
Group 4	MS. Pradnhya Khachane Mr. Vaibhav Shrivastava Ms. Pragati Fulzale Mr. Nilhil Ramchandra Tonge	Prof.Neha Chourasia	LED Display

Prof. Deepak Deshpande
Coordinator

Prof. Sucheta Raut
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Department of Electronics and Telecommunication Engineering

Session 2018-2019

Notice

Date:03/07/2018

Groupwise allocation of students for mini projects:

5 TH sem.ETC

Group	Name of students	Guide	Title of Mini project
Group-1	Mr. Abhijeet S. shende Ms. Ankita Sunil Rangari Ms. Damini R. Doifode Mr. Prajwal N Kamdi	Prof.Sucheta Raut	Digital Filter
Group-2	Mr.Rohini Vijay Turkar Mr.Yogesh Shyamrao Khadse Ms.Divya Datta Dhote Ms. Supriya P. Kumbhare	Prof. Deepak Deshpande	Burglar Alarm
Group-3	Mr. Nikhil Arvind Potdar Mr. Simpal R. Varagade Mr. Sajjad D. Shaikh Ms. Kalyani D. Chaudhary	Prof. Neha Chourasia	Home security system
Group-4	Ms. Gaytri Bhaskarrao Mahalle Ms. Samrudhi Bhaskar Randive Ms.Neha Hruday Parate Mr. Pranay Gopal Kolhe	Prof Abhay Satnaware	IC based counter

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Group 5	Ms. Kiran Umakant Wanjari Mr. Dushyant Chhagan Sahare Mr. Saurabh Purushottam Wankhede Ms Neha M. Kalbande	Prof. Neha Chourasia	4:16 Decoder Circuit
Group 6	Ms .Dipti Shende Ms. Khitij Chavan Ms. Priyanka Longade Mr. Eshvarya Rangari	Prof . Amar Banmare	Vehicle to Vehicle Communication using Light Fidelity
Group 7	Ms . Komal Ambaskar Mr. Akshay Waghmare	Prof. Amar Banmare	VHDL Environment for floating point Arithmetic logic unit- ALU Design &Simulation

Prof. Deepak Deshpande

Coordinator of Mini Project

Prof. Sucheta Raut

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Department of Electronics and Telecommunication Engineering
Session : 2018-2019

NOTICE

17/2/2019

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Time :IIIrd sem 11.00 am onwards
Vth sem 2.00 pm onwards
Venue: ETC Seminar Hall

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Sucheta Raut
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(Session 2018-2019)

Notice

Date:10/04/2019

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Prof. Deepak Deshpande
Coordinator of Mini Project

Prof. Sucheta Raut
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Department of Electronics and telecommunication Engineering

Session2018-19

Project Report on

Home Security System

Date: 13/4/2019

Guided by Professor Neha Chourasia

Submitted by Nikhil Potdar , Simpal Varagade,Sajjad Shaikh,Kalyani Choudhary

1. Introduction

The project aimed to develop a comprehensive home security system utilizing modern technology to enhance safety and provide peace of mind to homeowners. Guided by Professor Neha Chourasia, the project was undertaken by Nikhil Potdar and Simpal Varagade, with a focus on integrating various components such as sensors, cameras, and alarms into a unified system.

2. Objectives

compromising on functionality and reliability. Design and implement a robust security system capable of detecting and alerting occupants of potential threats.

Incorporate smart features for remote monitoring and control via mobile devices.

3. System Architecture

The home security system consists of the following key components:

Sensor Network: Utilizes motion sensors, door/window sensors, and glass break detectors to detect unauthorized entry or suspicious activities.

Surveillance Cameras: Strategically placed cameras provide real-time video surveillance, enabling homeowners to monitor their property remotely.

Alarm System: Integrates sirens, strobe lights, and notification alerts to deter intruders and notify occupants of security breaches.

Central Control Unit: Acts as the brain of the system, processing sensor data, managing alarms, and facilitating communication between components.

Mobile Application: Allows users to remotely monitor their home, receive notifications, and control security settings from anywhere with internet access.

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4. Implementation

The system was implemented using a combination of hardware and software components:

Hardware: Selected high-quality sensors, cameras, and alarm devices from reputable manufacturers to ensure reliability and performance.

Software: Developed custom software for the central control unit and mobile application, leveraging modern programming languages and frameworks for efficiency and scalability.

5. Testing and Validation

Rigorous testing was conducted to ensure the system met performance standards and addressed potential vulnerabilities:

Functional Testing: Tested each component individually and in conjunction with others to verify proper functionality under various scenarios.

Security Testing: Evaluated the system's resistance to hacking attempts, tampering, and false alarms to enhance overall security posture.

User Acceptance Testing: Solicited feedback from end-users to identify usability issues and make necessary adjustments for improved user experience.

6. Results and Conclusion

The implemented home security system successfully achieved its objectives by providing comprehensive protection and advanced features for homeowners. Key outcomes include:

Enhanced Security: Effectively detects and responds to security threats, minimizing the risk of intrusion and unauthorized access.

Remote Monitoring: Enables users to monitor their home remotely and receive instant alerts on their mobile devices, enhancing peace of mind and convenience.

Scalability: Designed with scalability in mind, allowing for easy integration of additional sensors or devices to meet evolving security needs.

In conclusion, the project demonstrates the effectiveness of modern technology in creating innovative solutions for home security. Under the guidance of Professor Neha Chourasia, the collaboration between Nikhil Potdar , Simpal Varagade,Sajjad Shaikh and Kalyani Choudhary have resulted in a robust and reliable security system poised to make a positive impact on residential safety.

7. Future Enhancements

Potential future enhancements to the home security system include:

Integration with smart home devices for seamless automation and control.

Implementation of artificial intelligence algorithms for advanced threat detection and predictive analytics.

Expansion of mobile application features to include home automation and energy management capabilities.

Prof Neha Chpurasia

Project Guide

Prof. Suchita Raut

HOD, ETC

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Department of Electronics and Telecommunication Engineering
Session 2018-2019

Notice

Date:6/5/2019

Research and Development Cell (R&D),GNIET is going to organise mini project competition on 15/5/2019 for students of EE,ETC,CSE & ASH department. All the interested students of 4TH Sem and 6th Sem ETC should enroll their names to Prof. Deepak Deshpande before 10/5/2020.

Prof. Deepak Deshpande
Co ordinator

Prof. Sucheta Raut
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Session 2019-2020

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3/7/2019

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Prof. Deepak Deshpande
Mini Poject Co-Ordinator

Prof. Sucheta Raut
HOD,ETC

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Notice

Date:03/08/2019

Groupwise allocation of students for mini projects:

3rd sem.ETC

Group	Name of students	Guide	Title of Mini project
Group -1	Ms. Papiha Ravimdrarao Ajmire Ms. Vrushali Meshram Mr. Anshu Sharma MS. Divya Tahalramani	Prof.Suchet a Raut	Fire Alarm
Group -2	Ms. Ankita Tiwari Mr. Ajay Choudhary Mr. Shubham Suresh Bhiwapure Mr. Saurabh Rajkumar Shambharkar	Prof. Deepak Deshpande	Smoke detector
Group -3	Mr. Shobhit Yashwant Bisen Mr. Rohit Pramod Bobade Ms. Shraddha Rajesh Khobragade Ms. Prajakta Umakant Band	Prof. Neha Chourasia	Light control system

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Group -4	Ms. Pragati Narendra Dahat Mr. Saurabh Ajay Mishra Mr. Nitin Devidasrao Bute Ms. Gaytri Bhaskarrao Mahalle	Prof Abhay Satnaware	Digital counter

Prof. Deepak Deshpande

Coordinator of Mini Project

Prof. Sucheta Raut

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Department of Electronics and Telecommunication Engineering

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Group-2	Mr.Rohini Vijay Turkar Mr.Yogesh Shyamrao Khadse Ms.Divya Datta Dhote Ms. Supriya P. Kumbhare	Prof. Deepak Deshpande	Burgalar Alarm
Group-3	Mr. Nikhil Arvind Potdar Mr. Simpal R. Varagade Mr. Sajjad D. Shaikh Ms. Kalyani D. Chaudhary	Prof. Neha Chourasia	Home Security System

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Group-4	Ms. Gaytri Bhaskarrao Mahalle Ms. Samrudhi Bhaskar Randive Ms.Neha Hruday Parate Mr. Pranay Gopal Kolhe	Prof Abhay Satnaware	IC based Counter
Group 5	Ms. Kiran Umakant Wanjari Mr. Dushyant Chhagan Sahare Mr. Saurabh Purushottam Wankhede Ms Neha M. Kalbande	Prof. Neha Chourasia	Weather monitoring System

Prof. Deepak Deshpande

Coordinator of Mini Project

Prof. Sucheta Raut

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Department of Electronics and Telecommunication Engineering
Session2019-2020

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Time :III rd sem 11.00 am onwards
Vth sem 2.00 pm onwards

Venue: ETC Seminar Hall

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Sucheta Raut
HOD,ETC

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Department of Electronics and Telecommunication Engineering

(Session 2019-2020)

Notice

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Prof. Deepak Deshpande
Coordinator of Mini Project

Prof. Sucheta Raut
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Department of Electronics and Telecommunication Engineering

Session 2019-20

Report on

Smoke Detector

Date:18/5/2020

Objective:

The objective of the mini project "Smoke Detector" was to design and develop a reliable and cost-effective smoke detection system aimed at enhancing fire safety measures. Under the guidance of Prof. Deepak Deshpande, the team comprising Ankita Tiwari, Ajay Choudhary, Shubham Bhiwapure, and Sourabh Shambarkar set out to create a functional smoke detector capable of early detection of smoke and triggering timely alarms to mitigate fire hazards.

Outcomes:

During the course of the project, the team achieved the following outcomes:

Research and Analysis: The team conducted thorough research on existing smoke detection technologies and analyzed various methods employed for smoke detection. They studied different sensor types, including photoelectric, ionization, and heat detectors, to determine the most suitable approach for their project.

Hardware Development: Based on their research findings, the team designed and assembled a prototype smoke detection system using readily available electronic components. They incorporated a smoke sensor, microcontroller, alarm module, and power supply unit to form a compact and efficient smoke detector.

Software Integration: The team developed firmware to interface the hardware components, enabling the smoke detector to monitor environmental conditions and detect the presence of smoke. They implemented algorithms for analyzing sensor data and triggering appropriate alarm signals in case of smoke detection.

Testing and Calibration: Rigorous testing procedures were conducted to evaluate the performance and reliability of the smoke detector prototype. The team calibrated sensor sensitivity levels, conducted smoke simulation tests, and assessed alarm responsiveness to ensure accurate and timely detection of smoke.

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Documentation and Demonstration: Detailed documentation was prepared, documenting the design specifications, implementation details, and testing results of the smoke detector project. Additionally, the team delivered a demonstration showcasing the functionality and effectiveness of their smoke detection system.

Conclusion:

In conclusion, the mini project "Smoke Detector" provided the team with valuable hands-on experience in designing and implementing a critical safety device. Through collaborative efforts and guided mentorship, they successfully developed a functional smoke detection system capable of early warning and alerting in case of fire incidents. The project not only enhanced their technical skills but also instilled a sense of responsibility towards promoting fire safety in various environments. Moving forward, the team aims to further refine their smoke detector design and explore opportunities for real-world deployment to safeguard lives and property against fire hazards.

Prof.Deepak Deshpande

Project Guide

Prof. Sucheta Raut

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Session 2019-20

Project Report on

Light control system

Date:23/5/2020

Guided by Prof.Neha Chourasia

Objective:

The objective of our mini project, under the guidance of Professor Nehs Chourasia, was to design and implement a light control system that effectively manages the illumination levels in a given space. Our aim was to create a system that could automatically adjust the brightness of lights based on ambient light conditions, thereby optimizing energy consumption and providing comfortable lighting for users.

Team Members:

Shobit Bisen

Pramod Bobade

Shradhdha Khobragade

Prajakta Band

Outcomes:

Through diligent effort and collaboration, our team successfully developed a light control system that met our project objectives. The key outcomes of our project include:

Hardware Development: We designed and assembled the necessary hardware components, including light sensors, microcontrollers, and relays, to create a functional light control system prototype.

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Software Implementation: Utilizing programming languages such as C/C++ and Arduino IDE, we developed the software logic required to interface with the hardware components and control the lighting system effectively.

Automatic Brightness Adjustment: Our system can autonomously adjust the brightness of connected lights based on real-time ambient light levels. This feature ensures optimal illumination while minimizing energy consumption.

User Interface: We designed a user-friendly interface that allows users to manually override the automatic control system if needed, providing flexibility and convenience.

Testing and Validation: Extensive testing was conducted to ensure the reliability and accuracy of our light control system. Through rigorous validation procedures, we verified the system's functionality and performance under various conditions.

Documentation and Presentation: Comprehensive documentation, including project reports, circuit diagrams, and software code, was prepared to facilitate understanding and future development of the system. Additionally, we delivered presentations to demonstrate our project outcomes and share our insights with peers and faculty members.

In conclusion, our mini project on the light control system has been a rewarding experience, allowing us to apply theoretical knowledge into practical implementation. We are grateful for the guidance and support provided by Professor Nehs Chourasia throughout the project duration. Our system showcases our ability to innovate and address real-world challenges in the field of electronics and automation.

Prof.Neha Chourasia

Project Coordinator

Prof.Sucheta Raut

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Session 2019-2020

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Prof. Deepak Deshpande
Co ordinator

Prof. Sucheta Raut
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Session2020-2021

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Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Neha Courasia
HOD,ETC

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Department of Electronics and Telecommunication Engineering

Session 2020-2021(online)

Notice

Date:03/08/2021

Groupwise allocation of students for mini projects:

5 th sem.ETC

Group	Name of students	Guide	Title of Mini project
Group-1	Ms. Papiha Ravimdrarao Ajmire Ms. Vrushali Meshram Mr. Anshu Sharma MS. Divya Tahalramani	Prof.Neha Chourasia	Seven Segment Display
Group-2	Ms. Ankita Tiwari Mrr. Ajay Choudhary Mr. Shubham Suresh Bhiwapure Mr. Saurabh Rajkumar Shambharkar	Prof. Deepak Deshpande	Solar tracker
Group-3	Mr. Shobhit Yashwant Bisen Mr. Rohit Pramod Bobade Ms. Shraddha Rajesh Khobragade Ms. Prajakta Umakant Band	Prof. Neha Chourasia	Automatic Light control system

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Group–4	Ms. Pragati Narendra Dahat Mr. Saurabh Ajay Mishra Mr. Saurabh Ajay Mishra Mr. Nitin Devidasrao Bute Ms. Gaytri Bhaskarrao Mahalle	Prof Abhay Satnaware	Design of eco friendly toilet

Prof. Deepak Deshpande
Raut

Coordinator of Mini Project

Prof. Sucheta Raut

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Department of Electronics and Telecommunication Engineering
Session2020-21

NOTICE

23/2/2021

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Time :III rd sem 11.00 am onwards

Vth sem 2.00 pm onwards

Venue: ETC Seminar Hall

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Neha Chourasia
HOD,ETC

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Session 2020-2021(online)

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Prof. Deepak Deshpande
Coordinator of Mini Project

Prof. Neha Chourasia
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Session2021-2022

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Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Neha Courasia
HOD,ETC

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Dahegaon, Kalmeshwar Road, Nagpur -441501

Department of Electronics and Telecommunication Engineering

Session 2021-2022

Notice

Date:04/09/2021

Groupwise allocation of students for mini projects:

3rd sem.ETC

Group	Name of students	Guide	Title of Mini project
Group-1	ANIKET S. NERKAR ANJALI S. VARMA APEKSHA S. SAKHARE ARPANA JIVAN LAMSE	Prof. Neha Chourasia	Temperature monitoring system
Group-2	ASHWINI RAHANGDALE ASHWINI S. MESHRAM DIKSHA G. WADHONE GAYATRI TULSIRAM NAGPURE	Prof. Deepak Deshpande	Water level monitoring system
Group-3	HONEY TARUN RAJPUT KALYANI ARUN DATE KAMINI SUDAM BAGDE KANCHAN P BHAJGAWARE	Prof. Kajal Dhawale	Digital Display

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Group-4	KAREENA RAJU PASWAN PRADNYA BAGADE PAYAL LIKHAR PAYAL DUDHBAYALE ASHOK SANJAY DANGA ASHUTOSH LANKESH NARNAWARE	Prof. Deepak Deshpande	Automatic Valve Control system
Group-5	PRAJAKTA VARDHAN CHAWARE PRANALI ANANT KHACHANE PRATIKSHA BHIMRAO SARPATE PRIYANKA AKARAM BANSOD AMEYA DILIP MENDHE ANURAD VIJAY MESHRAM	Prof. Kajal Dhawale	Light monitoring system
Group-6	RAKHI RAMAJI KUMRE RANI CHANDANSING PATEL RITIKA VITTHAL GOKHALE RUPAL DINESH GAWALI YAMUNA MADHUKAR RAUT AJAY SHRIKRUSHNA THAWARE	Prof.Neha Chourasia	Water level indicator
Group-7	SAKSHI VINOD AMBHORE SHITAL MORESHWAR WAKODIKAR SHRADDHA LILADHAR DORLIKAR SIDRA KAUSAR ASHFAQUE SHEIKH AKASH KULDEEP SOMKUWAR AKSHAY DEVIDAS RAUT	Prof. Kajal Dhawale	IOT based temperature monitoring system

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Group-8	SWITI VIJAY DHOTE CHAITANYA SANJAY KHANDEKAR DHANANJAY GOPALRAO RAUT GAURAV SANJAY BHAJNI HIMANSHU MADHUKAR GADKAR KETAN MURLIDHAR GABHANE	Prof. Yashvant Devade	MIMO decoder
Group-9	KUNAL ANIL KUREKAR MOIN MOHAMMAD HANIF ANSARI NIKHIL VITTHAL NANDEKAR OMPRAKASH CHAGDEO KHUBALKAR PADMAKANT LAXMIKANT KHARKATE PRADIP SHANKAR GEDAM	Prof. Nayan Shambharkar	Home lighting system
Group-10	PRASHIL GUNWANT GAVHANKAR ROHIT DHARMENDRA BELDAR ROHIT SUBALAK WADHAI SHUBHAM GAUTAM MESHRAM SWAPNIL RAHUL KAMBLE TANVEER SATTAR SHEIKH	Prof. Yeshwant Devade	Weather monitoring system
Group-11	TEJAS RAVINDRA RODEKAR UTKARSH SHISHUPAL SAHARE VIRENDRA ZADE VIVEK Y, BISEN YASH SURESH BIMEN	Prof. Kajal Dhawale	IOT based seven segment display

Prof. Deepak Deshpande

Coordinator

Prof. [illegible]

HOD ETC

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Department of Electronics and Telecommunication Engineering

Session 2021-2022

Notice

Date:03/09/2021

Groupwise allocation of students for mini projects:

5 th sem.ETC

Group	Name of students	Guide	Title of Mini project
Group -1	Ms. Adiba Sadaf Mohd Ms. Darshana V Vaidya Ms. Bhavika Tandekar Ms. Nilima G. Jarad	Prof. Neha Chourasia	Temperature monitoring system

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Group -2	Ms. Pooja Nilkanthrao Sayam Ms. Poonam Bargat Ms. Prachi Damodhar Tibole Ms. Pradnya Raju Madankar	Prof. Deepak Deshpande	Water level monitoring system
Group -3	Ms. Shifa Mohammad Zafar Ms. Tasneem M.Riyaz Rafat Mr. Nilesh Raut	Prof. Kajal Dhawale	Digital Display
Group -4	Mr. Rajkamal D. Bagde Mr. Pratik Mohije	Prof. Deepak Deshpande	Automatic Valve Control system
Group 5	Ms. Shifa Thaha	Prof. Sandip Buradkar	Fire Sensor Project
Group 6	Mr.Vaibhav Giradkar	Prof. Sandip Buradkar	Automatic Swiching Light in the Dark
Group 7	Ms. Darshna Vaidya	Prof. Sandip Buradkar	Traffic Light Control System

Prof. Deepak Deshpande
Coordinator

Prof. Neha Chourasia
HOD,ETC

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Department of Electronics and Telecommunication Engineering
Session2021-22

NOTICE

25/2/2022

All the students of B.E III rd and V th semester ETC are hereby informed that their seminar of mini project is scheduled on 28/2/2022 . All are requested to check synopsis and PPTs of presentation from their respective Guide till 22/2/2019.

Time :III rd sem 11.00 am onwards

Vth sem 2.00 pm onwards

Venue: ETC Seminar Hall

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Neha Chourasia
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(Session 2021-2022)

Notice

Date:13/04/2022

All the students of B.E 4th & 6th semester ETC are hereby informed that they have to submit their mini projects before 19/4/2022 to their respective Guides. Your mini projects should be in working condition and the project synopsis should be duly checked by project Guides.

Prof. Deepak Deshpande
Coordinator of Mini Project

Prof. Neha Chourasia
HoD (ETC, GNIET)

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Session 2021-22

Project Report on

Water Level Indicator

Date:13/04/2022

Objective:

The objective of the project is to design and implement a simple water level indicator system using basic electronic components. The project aims to provide a cost-effective solution for monitoring water levels in tanks or reservoirs, which can be particularly useful in areas facing water scarcity or for efficient management of water resources.

Outcomes:

Understanding of Basic Electronics: Through this project, the students gained a deeper understanding of basic electronic components such as transistors, resistors, LEDs, and sensors, as well as their roles in circuit design and operation.

Practical Application of Theory: The project provided an opportunity for the students to apply theoretical knowledge gained in their electronics courses to a real-world problem. They learned how to translate theoretical concepts into practical solutions by designing and building a functional water level indicator.

Problem-Solving Skills: Throughout the project, the students encountered various challenges and obstacles, such as circuit troubleshooting and component selection. They developed problem-solving skills by identifying issues and finding solutions through experimentation and collaboration.

Teamwork and Collaboration: Working in a group allowed the students to leverage each other's strengths and skills. They learned how to effectively communicate ideas, delegate tasks, and work together towards a common goal, fostering teamwork and collaboration.

Hands-on Experience: Building the water level indicator provided the students with valuable hands-on experience in electronics prototyping, soldering, and circuit assembly. This practical experience complemented their theoretical learning and enhanced their overall understanding of electronic systems.

Conclusion:

In conclusion, the water level indicator project was a successful endeavor that not only helped the students reinforce their theoretical knowledge of electronics but also provided them with practical skills and experience. Under the guidance of Prof. Deepak Deshpande, the students of 3 rd sem ETC Ashwini Rahangadale,Ashwini Meshram ,Diksha Wadhone,Gayatri Nagpure effectively designed and

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implemented a functional solution for monitoring water levels, demonstrating their ability to apply classroom learning to real-world problems.

Prof. Deepak Deshpande

Project Guide

Prof. Neha Chourasia

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Session 2021-22

Report on

Digital Display

Date:13/5/2022

Objective:

The objective of the mini project "Digital Display" was to design and develop a digital display system capable of showcasing various forms of multimedia content. Under the guidance of Prof. Kajal Dhawale, the team consisting of Shifa M, Jafar, Tanseen Rafat, Nilesh Raut, and Pratik aimed to create a versatile display system that could be utilized in different contexts such as advertising, informational displays, and entertainment purposes.

Outcomes:

Throughout the course of the project, the team successfully achieved the following outcomes:

Research and Planning: The team conducted extensive research on existing digital display technologies, including LED screens, LCD monitors, and projection systems. Based on their findings, they formulated a comprehensive plan outlining the specifications and functionalities required for their digital display system.

Hardware Selection and Integration: After careful consideration, the team selected the necessary hardware components such as display panels, microcontrollers, and input/output devices. They successfully integrated these components to create a functional digital display prototype.

Software Development: The team developed custom software to control the digital display system, allowing for the seamless playback of multimedia content such as images, videos, and text. They implemented features for scheduling content playback, remote management, and interactive user interfaces.

Testing and Optimization: Rigorous testing procedures were conducted to ensure the reliability and performance of the digital display system. The team identified and addressed any hardware or software issues, optimizing the system for efficient operation.

Documentation and Presentation: Comprehensive documentation was prepared, detailing the design, development, and implementation process of the digital display system. Additionally, the team delivered a professional presentation showcasing the features and capabilities of their project.

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Conclusion:

In conclusion, the mini project "Digital Display" proved to be a valuable learning experience for the team members. Through collaboration and diligent efforts, they successfully designed and developed a versatile digital display system capable of running various multimedia display reels. The project not only enhanced their technical skills but also provided practical insights into project management and teamwork. Moving forward, the team looks forward to further refining their digital display system and exploring potential real-world applications.

Prof. Rajat Dhawale
Project Guide

Prof. Neha Chaurasia
HOD,ETC

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Department of Electronics and Telecommunication Engineering

Session 2021-2022

Notice

Date:7/5/2022

Research and Development Cell (R&D),GNIET is going to organise mini project competition on 15/5/2022 for students of EE,ETC,CSE & ASH department. All the interested students of 4TH Sem and 6th Sem ETC should enroll their names to Prof. Deepak Deshpande before 10/5/2022.

Prof. Deepak Deshpande

Co ordinator

Prof. Neha Chourasia

HOD,ETC

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Session2022-2023

NOTICE

5/7/2022

All the students of B.E III rd and V th semester are hereby informed that you have to submit the name of group members for mini project on or before 9/7/2022 to prof. Deepak Deshpande

Please take a note that,

1. mini project is mandatory
2. Each group should have maximum five members.

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Neha Courasia
HOD,ETC

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Department of Electronics and Telecommunication Engineering

Session 2022-2023

Notice

Date:03/09/2022

Groupwise allocation of students for mini projects:

3 rd sem.ETC

Group	Name of students	Guide	Title of Mini project
Group 1	AASHTHA RAVINDRAKUMAR RAULKAR ACHAL GANGADHAR KALAMBE DHAMMADIP NILESH GONDANE HARSHAL GULABRAO NAGPURE KARAN DEEPAK PARATE	Prof. Kajal Dhawale	IOT based Door Alarm

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Group 2	LAXMI AMAR MESHRAM MEGHA YOGIRAJ SONTAKKE NIKHIL NARESHRAO BALANSE POOJA CHANDRAKANT SHRIWAS	Prof. Kajal Dhawale	Low power Inverter
Group 3	PRACHI MOHAN BAHAD PRATIKSHA RAJU UNPANE RITIK KRISHNA LOKHANDE ROSHAN DHARAMLAL TURKAR KHUSHI KELWADE KARAN PARATE	Prof. Neha Chourasia	PC BASED GPS
Group 4	SEJAL KAILASH WAGHMARE SHRUTI PRAVIN KOLHE SHRUTIKA KISHOR WADIBHASME THARUN RAMAKRISHNA IRAGAVARAPU YASH GULAB CHARPE	Prof. Sandeep Buradkar	MIMO Decoder

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Group 5	RITIK JITENDRA KHOBRAGADE ADITY VINAYAK BALKI AKANSHA ROSHAN BHAISARE AKASH MANAK KRUPAL ANIKET LAXMANRAO GAHANEWAR	Prof, Akansha Kale	Design of PLA
Group 6	ASHISH VILASRAO KARANGALE ASHWINI MURLIDHAR MANDLIK ASHWINI VILAS BHONDE GANESH VITTHAL MADEWAR GOVIND BANDUJI KHAPEKAR	Prof Minakshi Dhage	Design of M-S JK F/F
Group 7	HARSHAL NARENDRA DEOTALE HITESH SHIVAJI BHOYAR ISMAIL IBRAHIM SHAIKH JANVI ASHOK RAUT LAXMI RAJU KOHARE	Dr Sushama Telrandhe	Design of Priority encoder

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Group 8	NIDHI GAUTAM SHELARE PANKAJ SUDHAKAR MADANKAR PRAGATI BABARAO BANSOD PRITI RAJKUMAR TURKAR ROSHANI R BANIYA	Prof. Deepak Deshpande	Design of ADDER and SUBTRACTOR using LABVIEW
Group 8	RUCHI PRAMOD RAMTEKE RUCHIKA SUNIL DANGE SARVESH GOPAL GOUR SHIVALESH KESHAV NIMJE	Prof. Minakshi Dhage	Design and simulation of Miller circuit
Group 9	SHUBHAM AMRUT PATLE SUPRIYA P LOKHANDE VISHAL PRADIP MADANKAR YASH SHIVRAJ WANKHEDE GOURAV pALKAR	Prof. Kajal Dhawale	Transistor as an Audio Amplifier

Prof. Deepak Deshpande
Coordinator of Mini Project

Prof. Neha Chourasia
HOD (ETC, GNIET)

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Session 2022-2023

Notice

Date:03/09/2022

Groupwise allocation of students for mini projects:

5 TH sem.ETC

Group	Name of students	Guide	Title of Mini project
Group 1	ANIKET SUDHAKAR NERKAR ANJALI SANJAY VARMA APEKSHA SUNIL SAKHARE ARPANA JIVAN LAMSE ASHWINI RADHESHYAM RAHANGDALE	Prof. Kajal Dhawale	IOT based Soil moisture detector

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Group 2	ASHWINI SUKHRAM MESHRAM DIKSHA GANESH WADHONE GAYATRI TULSIRAM NAGPURE HONEY TARUN KUMAR RAJPUT KALYANI ARUN DATE	Prof. Yogesh Meshram	Class Monitoring system
Group 3	KAMINI SUDAM BAGDE KANCHAN PRAKASH BHAJGAWARE KAREENA RAJU PASWAN KARISHMA IQBAL SHEIKH PAYAL JANARDHAN LIKHAR PAYAL RAMBHAU DUDHABALE	Prof. Neha Chourasia	IOT based Valve control system
Group 4	PRADNYA BHOLESHWAR BADGE PRAJAKTA VARDHAN CHAWARE PRANALI ANANT KHACHANE PRATIKSHA BHIMRAO SARPATE PRIYANKA AKARAM BANSOD RAKHI RAMAJI KUMRE RANI CHANDANSING PATEL	Prof. Sandeep Buradkar	Fire Alarm

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Group 5	RITIKA VITTHAL GOKHALE SAKSHI VINOD AMBHORE SHITAL CHANDRASHEKHAR BAGDE SHITAL MORESHWAR WAKODIKAR SHRADDHA LILADHAR DORLIKAR SIDRA KAUSAR ASHFAQUE SHEIKH	Prof, Akansha Kale	Design of PLA
Group 6	SWITI VIJAY DHOTE YAMUNA MADHUKAR RAUT AJAY SHRIKRUSHNA THAWARE AKASH KULDEEP SOMKUWAR ASHAY DEVIDAS RAUT AMEYA DILIP MENDHE ANURAD VIJAY MESHRAM	Prof Minakshi Dhage	Design of M-S JK F/F

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Group 7	ASHOK SANJAY DANGA ASHUTOSH LANKESH NARNAWARE CHAITANYA SANJAY KHANDEKAR DHANANJAY GOPALRAO RAUT GAURAV SANJAY BHAJNI HIMANSHU MADHUKAR GADKAR RITIK kHOBRAGADE	Dr Sushama Telrandhe	DC Power Supply 9v Using Diode
Group 8	ASHUTOSH LANKESH NARNAWARE CHAITANYA SANJAY KHANDEKAR DHANANJAY GOPALRAO RAUT GAURAV SANJAY BHAJNI HIMANSHU MADHUKAR GADKAR MOIN MOHAMMAD HANIF ANSARI	Prof. Deepak Deshpande	Design of ADDER and SUBTRACTOR using LABVIEW

Group 8	OMPRAKASH CHANGDEO KHUBALKAR PADMAKANT LAXMIKANT KHARKATE PRASHIL GUNWANT GAVHANKAR ROHIT DHARMENDRA BELDAR ROHIT SUBALAK WADHAI SHUBHAM GAUTAM MESHRAM	Prof. Minakshi Dhage	Design of Miller circuit
Group 9	SWAPNIL JAYANDRA RAUT TANVEER SATTAR SHEIKH TEJAS RAVINDRA RODEKAR MR..UTKARSH SHISHUPAL SAHARE MR .VIRENDRA TEJRAM ZADE MR. VIVEK YOGRAJ BISEN MR. YASH SURESH BEMAL	Prof. Neha Courasia	Design of Hartley oscillator
Group 10	MR.ANIKET GAHANEWAR MR ..LAXMI KOHARE	Prof.Deepak Deshpande	Clap switch Circuit

Prof. Deepak Deshpande

Coordinator of Mini Project

Prof. Neha Chourasia

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Department of Electronics and Telecommunication Engineering
Session2022-23

NOTICE

23/2/2023

All the students of B.E III rd and V th semester ETC are hereby informed that their seminar of mini project is scheduled on 27/2/2023 . All are requested to check synopsis and PPTs of presentation from their respective Guide till 22/2/2019.

Time :III rd sem 11.00 am onwards

Vth sem 2.00 pm onwards

Venue: ETC Seminar Hall

Prof. Deepak Deshpande
Poject Co-Ordinator

Prof. Neha Chourasia
HOD,ETC

Copy to

1. Principal,GNIET
2. . Vice Principal GNIET (For information)

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Department of Electronics and Telecommunication Engineering

(Session 2022-2023)

Notice

Date:11/05/2023

All the students of B.E 4th & 6th semester ETC are hereby informed that they have to submit their mini projects before 20/5/2023 to their respective Guides without fail. Your mini-projects should be in working condition and the project synopsis should be duly checked by project Guides.

Prof. Deepak Deshpande
Coordinator

Dr. Sushama Telrandhe
HOD,ETC

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Department of Electronics and Telecommunication Engineering

Session 2022-23

Project Report on

Automatic Clap Switch

Date:12/4/2023

Objective:

The objective of this mini project was to design and develop an automatic clap switch that can control electrical appliances based on sound input. The project aimed to provide a hands-free solution for turning on/off devices, enhancing convenience and efficiency in daily activities.

Outcomes:

Under the Guidance of Dr. Sushama Telrandhe, the team consisting of Ashok Danga, Honey Rajput, Himanshu Gadkar, Nikhil Nandekar, Prajakta Chawre, and Yamuna Raut successfully completed the project 'automatic clap switch'.

The outcomes of the project include:

Circuit Design: The team designed a circuit using microcontrollers and sound sensors to detect claps and trigger the switching mechanism.

Prototype Development: A functional prototype of the automatic clap switch was built, demonstrating its ability to control electrical appliances such as lights or fans based on sound input.

Testing and Calibration: Rigorous testing and calibration were conducted to ensure the reliability and accuracy of the clap switch in different environments and noise conditions.

User Interface: The team implemented a user-friendly interface for easy setup and customization of the clap sensitivity and appliance control.

Documentation: Comprehensive documentation including circuit diagrams, code explanations, and user manuals was prepared to facilitate understanding and replication of the project.

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Overall, the project not only fulfilled its objective of creating an automatic clap switch but also provided valuable hands-on experience in circuit design, programming, testing, and documentation for the participating students.

Dr. Sushama Telrandhe

Project Guide

Prof. Neha Chourasia

HOD,ETC

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Session 2022-23

Project Report on

PC Based GPS

Date:13/04/2023

Guided By: Prof. Neha Chourasia

Students: Karan Parate, Khushi Kelwade(Fourth sem ETC)

Introduction:

The PC Based GPS project aims to develop a system that utilizes the Global Positioning System (GPS) to track the location of a device and display it on a computer interface. GPS technology has become ubiquitous in various applications ranging from navigation to asset tracking. This project focuses on implementing a cost-effective solution for location tracking using readily available components and software.

Objectives:

To design a GPS module interfaced with a microcontroller.

To establish communication between the microcontroller and a PC.

To develop software for displaying the real-time location data on a computer interface.

To ensure accuracy and reliability of location tracking.

Methodology:

Hardware Design: The project involves designing a circuit that incorporates a GPS module, microcontroller, and necessary interfacing components. The GPS module receives signals from satellites and provides latitude and longitude data to the microcontroller.

Software Development: Programming is done to interface the microcontroller with a PC using suitable communication protocols such as UART or USB. Additionally, software is developed to parse the received GPS data and display it on the computer interface in a user-friendly manner.

Testing and Calibration: Rigorous testing is conducted to ensure the accuracy and reliability of the system. Calibration procedures are implemented to fine-tune the system for optimal performance.

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Results:

Upon completion, the PC Based GPS system successfully tracks the location of the device and displays it on the computer interface in real-time. The system provides accurate positioning information, thus fulfilling the project objectives.

Conclusion:

The PC Based GPS project demonstrates the feasibility of developing a location tracking system using GPS technology and microcontroller-based hardware interfaced with a PC. The project not only enhances our understanding of GPS technology but also provides a practical solution for various applications requiring real-time location tracking.

Outcomes:

Successful development of a GPS tracking system interfaced with a Cereal-time display of location data on a computer interface achieved. Enhanced understanding of GPS technology and microcontroller interfacing. Potential applications in navigation, asset tracking, and location-based services.

Prof. Neha Chourasia

Project Guide & HOD,ETC

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Session 2022-23

Report on

Low Power Inverter

Date:12/04/2023

Guided By: Kajal Dhawale

Students: Laxmi Meshram, Megha Sontakke(Fourth sem)

Introduction:

The Low Power Inverter project aims to design and develop an inverter system that operates efficiently while consuming minimal power. Inverters play a crucial role in converting DC power to AC power, and optimizing their power consumption is essential for energy conservation and sustainability.

Objectives:

To design an inverter circuit capable of converting DC power to AC power.

To minimize power consumption during the conversion process.

To ensure reliability and stability of the inverter system.

To explore potential applications of the low power inverter.

Methodology:

Circuit Design: The project involves designing an inverter circuit using semiconductor devices such as MOSFETs or IGBTs. Emphasis is placed on optimizing the circuit for low power consumption while maintaining efficiency.

Component Selection: Careful selection of components such as capacitors, inductors, and transformers is done to ensure compatibility with the low power requirements of the system.

Efficiency Enhancement: Techniques such as pulse width modulation (PWM) control and feedback mechanisms are implemented to enhance the efficiency of the inverter and minimize power loss.

Testing and Evaluation: The performance of the low power inverter is evaluated through rigorous testing under various load conditions to ensure reliability and stability.

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Results:

The Low Power Inverter successfully converts DC power to AC power while consuming minimal power. The efficiency of the system meets the project objectives, and it demonstrates reliable operation under different load conditions.

Conclusion:

The Low Power Inverter project showcases the feasibility of designing an inverter system that operates efficiently while minimizing power consumption. The project contributes to the advancement of energy-efficient technologies and offers potential applications in areas where low power consumption is critical.

Outcomes:

Design and implementation of an inverter system optimized for low power consumption.

Efficient conversion of DC power to AC power demonstrated.

Contribution to energy conservation and sustainability efforts.

Potential applications in low-power electronic devices and renewable energy systems.

Prof. Kajal Dhawale

Project Guide

Prof. Neha Chourasia

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Session 2022-23

Project Report on

Fire Alarm

Date:12/4/2023

Objective:

The objective of the project is to design and develop a fire alarm system using sensors and microcontrollers. The primary goal is to create a reliable and efficient mechanism for detecting the presence of fire or smoke in indoor environments, thus enhancing safety measures in residential and commercial buildings.

Outcomes:

Understanding of Sensor Technology: Through this project, the students gained a deeper understanding of sensor technology, particularly smoke and heat sensors, and their applications in fire detection systems. They learned about different types of sensors, their working principles, and how to integrate them into electronic circuits.

Microcontroller Programming Skills: The project provided an opportunity for the students to enhance their programming skills by working with microcontrollers such as Arduino or Raspberry Pi. They learned how to write code to interface with sensors, process data, and trigger alarm signals in response to detected fire or smoke.

System Integration: Building the fire alarm system involved integrating various components such as sensors, microcontrollers, alarm indicators, and power sources into a cohesive and functional unit. The students gained experience in system integration by designing and assembling the hardware components and ensuring their proper operation.

Safety Awareness: Developing a fire alarm system required the students to research and understand safety standards and regulations related to fire detection and prevention. They gained awareness of the importance of fire safety measures in indoor environments and the role of technology in mitigating fire hazards.

Problem-Solving and Troubleshooting: Throughout the project, the students encountered challenges related to sensor calibration, circuit design, and software debugging. They developed problem-solving and troubleshooting skills by identifying issues, conducting experiments, and implementing solutions to ensure the reliable operation of the fire alarm system.

Principal
Guru Nanak Institute of Engineering & Technology Nagpur- 441501

Result Conclusion:

In conclusion, the fire alarm project provided the students with valuable hands-on experience in sensor technology, microcontroller programming, and system integration. Under the guidance of Prof. Sandeep Buradkar, students Pratiksha Sarpate,Kareena Paswan ,Priyanka Bansod, Sradhdha Dorlikar,Karishma shaikh and Moin Ansari successfully designed and implemented a functional fire detection system, demonstrating their ability to apply theoretical knowledge to practical applications. The project not only enhanced their technical skills but also raised awareness about the importance of fire safety in indoor environments.

Prof. Sandip Buradkar

Project Guide

Prof. Neha Chourasia

HOD,ETC

Principal

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Department of Electronics and Telecommunication Engineering

Session 2022-23

Project Report on

Automatic Clap Switch

Objective:

The objective of this mini project was to design and develop an automatic clap switch that can control electrical appliances based on sound input. The project aimed to provide a hands-free solution for turning on/off devices, enhancing convenience and efficiency in daily activities.

Outcomes:

Under the guidance of Dr. Sushama Telrandhe, the team consisting of Ashok Danga, Honey Rajput, Himanshu Gadkar, Nikhil Nandekar, Prajakta Chawre, and Yamuna Raut successfully completed the project 'automatic clap switch'.

The outcomes of the project include:

Circuit Design: The team designed a circuit using microcontrollers and sound sensors to detect claps and trigger the switching mechanism.

Prototype Development: A functional prototype of the automatic clap switch was built, demonstrating its ability to control electrical appliances such as lights or fans based on sound input.

Testing and Calibration: Rigorous testing and calibration were conducted to ensure the reliability and accuracy of the clap switch in different environments and noise conditions.

User Interface: The team implemented a user-friendly interface for easy setup and customization of the clap sensitivity and appliance control.

Documentation: Comprehensive documentation including circuit diagrams, code explanations, and user manuals was prepared to facilitate understanding and replication of the project.

Overall, the project not only fulfilled its objective of creating an automatic clap switch but also provided valuable hands-on experience in circuit design, programming, testing, and documentation for the participating students.

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Notice

Date:8/5/2023

Research and Development Cell (R&D),GNIET is going to organise mini project competition on 15/5/2023 for students of EE,ETC,CSE & ASH department. All the interested students of 4TH Sem and 6th Sem ETC should enroll their names to Prof.Deepak Deshpande and Prof. Soniya Milmile before 12/5/2023.

Prof. Deepak Deshpande
Co ordinator

Dr. Sushama Telrandhe
HOD,ETC

Principal
Guru Nanak Institute of Engineering & Technology Nagpur- 441501