AUTOMATED SOIL MOISTURIZER

A Socially Relevant Project Report submitted in partial fulfilment of the

requirements for the award of the Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

LEKKALA TARUNKUMAR	20U45A0233
ANAKAPALLI NAGENDRA	20U45A0203
UPPILI JAYANTH	20U45A0221
GALLA DEEPTHI	19U41A0201
MUMMINA LOWKYA	20U45A0238

Under the Esteemed Guidance of
Mr. A Krishna Nag
Associate professor & HOD, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY
(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution
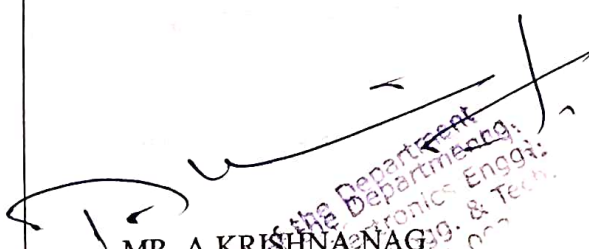NH-5,Anakapalle-531002, Visakhapatnam, A.P.
2022

DADI INSTITUTE OF ENGINEERING &TECHNOLOGY
(Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution
NH-5, Anakapalle-531002, Visakhapatnam, A.P

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled "AUTOMATED SOIL MOISTURIZER" is a being submitted by L TARUNKUMAR (20U45A0233), ANAKAPALLI NAGENDRA (20U45A0203), UPPILI JAYANTH (20U45A0221), GALLA DEEPTHI (19U41A0201), MUMMINA LOWKYA (20U45A0238) in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2021-22.

MR. A KRISHNA NAG

(ASSOCIATE PROFESSOR & HOD)

DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY

ABSTRACT

Planting a tree in an environment where the seed or the plant would not get water adequately through natural sources like rain or ground water in its initial phases has been always a matter of concern for tree planters.

This is where an autonomous moisture monitor for plants system can help.

This project on "Automated Soil Moisturizer" is intended to create an automated irrigation mechanism which turns the pumping motor ON and OFF by detecting the dampness/moisture content of the earth. In the domain of farming, utilization of appropriate means of irrigation is significant.

The benefit of employing these techniques is to decrease human interference and still make certain appropriate irrigation.

The proposed model consists of three stages: Firstly, sensing the land's moisture levels. Second stage is the determination of its status: dry or wet. The last and third stage is Motor control.

This project proposes the development of Automatic Soil Moisturizer(ASM) capable of detecting loss of moisture in soil using the soil moisture sensor. Specifically, ASM utilizes the Soil Moisture Sensor to detect water content level in soil and give appropriate responses to the system based on detected condition. Using this response, ASM determines whether or not the land needs to be irrigated.

In the current version, ASM is capable of detecting and irrigating a small area that can be considered to be under a single pump's coverage. Implemented using IC 555 TIMER, APIS uses live input data to determine the conditions. ASM represents our most basic step towards automated farming to improve turnover and reduce the impact of draught or loss due to irrigation issues.

In this system we use a timer IC to time the monitoring process. A moisture level sensor is used to detect the moisture level of the soil. An LED is used to give visual alarm and a Buzzer is used to give audio alarm to the care taker of the plant.

Thus in this project with the help of a simple combinational circuit and a sensor we can help save a plant by maintaining the moisture level of the soil of the plant, thus keeping the plant healthy.

DETECTION OF RASH DRIVING ON HIGHWAYS

A Socially Relevant Project Report submitted in partial

fulfilment of the requirements for the award of the Degree

of

BACHELOR OF TECHNOLOGY

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

1.	A. VIJAY KUMAR	20U45A0201
2.	K. PAVANI	20U45A0225
3.	K. DILEEP KUMAR	20U45A0226
4.	K. SYAM KUMAR	20U45A0227
5.	M. GANGESHWRAO	20U45A0268

Under the Esteemed Guidance of
Mr. B V SIVA PRASAD M.Tech,(P.h.D)
Assistant professor, EEE,DIET.

DADI INSTITUTE OF ENGINE ERING &TECHNOLOGY
{Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 900 I:2008; ISO 14001:2004 & OHSAS 1800 I:2007 Certified Institution
NH-16, Anakapalle-531002, Visakhapatnam, A P .
2022

DADI INSTITUTE OF ENGINE ERING &TECHNOLOGY
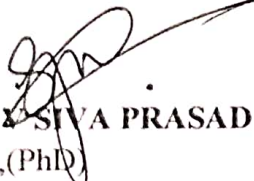
{Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 900 I:2008; ISO 14001:2004 & OHSAS 1800 I:2007 Certified Institution

NH-16, Anakapalle-531002, Visakhapatnam, A P .

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled **"DETECTION OF RASH DRIVING ON HIGHWAYS"** is a being submitted by A. VIJAY KUMAR (20U45A0201), K. PAVANI (20U45A0225), K .DILEEP KUMAR (20U45A0226), K .SYAM KUMAR (20U45A0227), M. GANGESWARA RAO (20U45A0268) in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for **ELECTRICAL & ELECTRONICS ENGINEERING** during the academic year 2021-2022.

Mrs. B & SIVA PRASAD

M.Tech,(PhD)

(ASSISTSNT PROFESSOR,EEE.)

(SOCIALLY RELEVANT PROJECT GUIDE)

MR.A KRISHNA NAG

M.Tech, (PhD)

(ASSOCIATE PROFESSOR,EEE)

(HEAD OF THE DEPARTMENT)

Head of the Department
Electrical & Electronics Engg.
Institute of Engg. & Tech.
Anakapalle - 531 002

EXTERNAL EXAMINER

ABSTRACT :

The aim of this project is to develop a device to detect rash driving on highways and to alert the traffic authorities in case of any speed violation.Accidents due to rash driving on highways are on the rise and people are losing their lives because of others mistakes.While driving on highways, drivers should not exceed the maximum speed limit permitted for their vehicle.However, accidents keep on occurring due to speed violations as drivers follow their speedometers and control their speed according to them, and reduce the speed if they find it to be exceeding and beyond their control.

A highway speed checker comes handy for the traffic police, especially against the speed limit violators because it provides the digital display as well as buzzing sound or alarm to detect any vehicle speed if the vehicle exceeds the permitted speed limit.To overcome this problem, we have implemented a circuit called as a speed checker for highways. This kit is inexpensive and it is used for considering the average and high speed of vehicles that move on the highways or roads.By taking all these considerations in mind, we have designed a highway- speed checker circuit to detect the rash driving by using different electronic components such as timer, counter, logic gates, microcontroller , seven segment display and all other components. There is one death in every 4 minutes due to road accident in India.

As we know, each and every life is important so to stop this rush driving control is needed.In previous years, many people has worked on it or still working to stop this life taking accident.This speed checker will come handy for the highway traffic police asit will not only provide a digital display in accordance with a vehicle's speed but also sound an alarm if the vehicle exceeds the permissible speed for the highway.The system displays the time taken by the vehicle in crossing this 100m distance from one fixed point to the other in 6 second, from which the speed of the vehicle can be calculated.Thus we can also get a idea of the speed of each and every vehicle that is crossing over that road.This speed checker will come handy for the highway traffic police as it will not only provide a digital display in accordance with a vehicle's speed but also sound an alarm if the vehicle exceeds the permissible speed for the highway.

AUTOMATIC SCHOOL/COLLEGE PERIOD BELL

A Socially Relevant Project Report submitted in partial
fulfilment of the requirements for the award of the Degree

of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

SALAPU SAI GANESH	:	20U45A0246
CHIKKALA SAI SIRISHA	:	20U45A0210
THUMPALA AKSHAYA DEVI	:	19U41A0206
ARJILLI KONDA BABU	:	20U45A0204
MALLA SAI	:	20U45A0236

Under the Esteemed Guidance of

Mrs. K. ALFONI JOSE

Assistant Professor, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P.

2022

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled **"AUTOMATIC SCHOOL /COLLEGE PERIOD BELL"** is a being submitted by Salapu Sai Ganesh (20U45A0246),Chikkala Sai Sirisha (20U45A0210),Thumpala Akshaya (Devi 19U41A0206),Arjilli Konda Babu (20U45A0204),Malla Sai (20U45A0236) in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for **ELECTRICAL AND ELECTRONICS ENGINEERING** during the academic year 2021-2022.

Mrs. K ALFONI JOSE

(ASSISTANT PROFESSOR)

(SOCIALLY RELEVANT PROJECT GUIDE)

MR. A KRISHNA NAG

(ASSOCIATE PROFESSOR)

(HEAD OF THE DEPARTMENT)

Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tech.
Anakapalle - 531 002

EXTERNAL EXAMINER

ABSTRACT

I still remember my school and college days and I am sure you too remember. In almost 90% school and colleges the classes are organized in periods. A school period is a block of time allocated for lessons, classes in schools. They typically last between 30 and 60 minutes, with around 3-10 periods per school day.

The ringing of a school bell is a signal that tells a school's students when it is time to go to class in the morning or afternoon and when it is time to change classes during the day as well as when students are dismissed from school.

A teacher typically rang a handheld bell to signal students to come inside or to begin and end class; it may be used for other purposes such as getting students' attention for special announcements. The first bells are believed to be from the 3rd century BC and were made of pottery.

Conventionally, the school bell is rang by a peon or multi-tasking assistant. What if there would be a microcontroller based automatic school bell which rings itself according to a fed timetable. This project is the implementation of same functionality.

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH5, Anakapalle-531002, Visakhapatnam

A Mini Project Report on

WATER LEVEL INDICATOR USING 555 TIMER

Submitted in partial fulfillment for the award of the degree of

Bachelor of Technology

in

ELECTRONICS AND ELECTRICAL ENGINEERING

Submitted By

BH.SAI PRAVEEN	- 20U45A0207
K.SANJAY	- 20U45A0224
P.PAVAN KUMAR	- 20U45A0243
S.SOMESH MAHA LAKSHMI NAIDU	- 20U45A0254
G.GANESH	- 20U45A0263

Under the Esteemed Guidance of

Mr.BV SIVA PRASAD

(Assistant Professor,EEE)

CERTIFICATE

This is to certify that the project work entitled **"WATER LEVEL INDICATOR USING 555 TIMER"** is being submitted by BH. Sai Praveen (20U45A0207), K.Sanjay (20U45A0224),P.PavanKumar(20U45A0243),S.S.M.NAIDU(20U45A0254),G.Ganesh (20U45A0263) in a partial fulfilment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL AND ELECTRONICS ENGINEERING during the academic year 2021-22.

Signature of Project guide
Mr. B.V. SIVA PRASAD (M. Tech ,PhD)

Assistant professor
DIET

Signature of Head of the Department
Mr.A. Krishna nag (Ph.D)

Associate professor & HOD of EEE
DIET

signature of the External Examiner

ABSTRACT

water tank overflow is a common problem which leads to the wastage of water. Though there are many solutions to it like ball valves which automatically stop the water flow once the tank gets full.but being electronics enthusiastic wouldn't you like an electronic solution for it so here is a simple and handly that will guide you to make a circuit which will detect the water level and will raise an alarm upon getting the water tank full or a preset level .water level indicator is a modern way of measuring the water level using latest technologies like sensors ,arduino the main aim of the project is to calculate the water level at any instant of time and to buzz the buzzer if the tank is filled completely.I would like to use arduino and ultrasonic sensor to make it possible. this may be useful to conserve water and waste water.

MINI INVERTER 12V-240V

A Socially Relevant Project report submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY

In

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

D.SRI TEJA	(20U45A0215)
K.GANESH	(20U45A0223)
P.MURARI	(20U45A0242)
SK.JALALUDIN	(20U45A0252)
V.SYAM KUMAR	(20U45A0258)

Under the Esteemed Guidance of

Mr.G.JAGADEESH

Assistant Professor, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P.

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled **"MINI INVERTER 12V-240V"** is being submitted by D.SRI TEJA (20U45A0215), K.GANESH (20U45A0223), P.MURARI (20U45A0242), SK.JALALUDDIN (20U45A0252), V.SYAM KUMAR (20U45A0258) in partial fulfillment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2021-2022.

Mr.G.JAGADEESH

ASSISTANT PROFESSOR, EEE Dept.

(PROJECT GUIDE)

Mr.A.KRISHNA NAG

ASSOCIATE PROFESSOR, EEE Dept.

(HEAD OF THE DEPARTMENT)

Head of the Department
Electrical & Electronics Engg.
Institute of Engg. & Tech,

EXTERNAL EXAMINER

D.SRI TEJA   (20U45A0215)

K.GANESH   (20U45A0223)

P.MURARI   (20U45A0242)

SK.JALALUDIN   (20U45A0252)

V.SYAM KUMAR   (20U45A0258)

ABSTRACT

Inverters are widely used in domestic as well as industrial environments to serve as second line of source in case of power cut form the electricity utility grids. Inverter is the device the power the electric appliances in the event of the power failure. Inverter as the name implies first converts AC to DC for charging the battery and then inverts DC to AC for powering the electric Gadgets. So here is the power efficient inverter which is small in size and which can give output voltage of 220V-230V/150W. This power efficient mini inverter can be used to power up devices such as Wi-Fi routers, mobile chargers, Lights etc.

Key words: Battery, rectifier unit, inverting unit, energy Conservation, efficient usage of power.

ENERGY AUDITING IN RURAL AREAS

A Project Report submitted in partial
fulfilment of the requirements for the award of the degree

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL & ELECTRONICS ENGINEERING

Submitted By

E.KUMAR	20U45A0217
M.VENKATESH	20U45A0237
K.NAVEEN	20U45A0265
Y.VENKATESH	19U41A0208
C.MANIKANTA	20U45A0261

Under the Esteemed Guidance of

Mr. K SRINIVAS RAO
Deputy Head of Department
Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi & Affliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008: ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5,Anakapalle-531002, Visakhapatnam, A.P.

2019

CERTIFICATE

This is to certify that the project work entitled "ENERGY AUDITING IN RURAL AREAS" is being submitted by E.KUMAR M.VENKATESH K.NAVEEN Y.VENKATESH C.MANIKANTA in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2021-22.

Mr.K.SRINIVAS RAO

DEPUTY HEAD OF DEPARTMENT

(PROJECT GUIDE)

Mr. KRISHNA NAG

ASSOCIATE PROFESSOR

(HEAD OF THE DEPARTMENT)

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be in complete without the mention of people who made it possible and whose constant guidance and encouragement crown all the efforts with success.

First and for most, we would like to thank our project guide Mr.K.SRINIVAS RAO, Department of Electrical and Electronics Engineering for giving us an opportunity to work on this challenging topic and providing us guidance. Her encouragement, support and suggestions are most valuable for the successful completion of our course.

We feel elated to extend our floral gratitude to Head of the department, Mr. A. KRISHNA NAG, Department of Electrical and Electronics Engineering for his encouragement all the way during analysis of the project. His annotations, insinuations and criticisms are the key behind the successful completion of during project and for providing us all the required facilities.

Our thanks and appreciations also go to our colleague in developing the project. Thank you to all the people who have willingly helped us out with their abilities.

Batch :- 7

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P.

2020

AUTOMATIC WATER TANK INDICATOR

A Socially Relevant Project Report submitted in partial

fulfilment of the requirements for the award of the

Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

K. VENKATESH	19U41A0202
N. VENKAT SAI	19U41A0209
G. LAXMAN	20U45A0219
H. K. KESAVA	20U45A0262

Under the Esteemed Guidance of
Mr.T. Ramesh Babu
Professor, Department of EEE

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled
"AUTOMATIC WATER TANK INDICATOR" is a being submitted by
K. VENKATESH (19U41A0202), N. VENKATA SAI (19U41A0209), G.
LAXMAN (20U45A0219), K. KESAVA (20U45A0262) in partial
fulfillment of the Requirement for the award of the degree of
BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS
ENGINEERING during the academic year 2021-2022.

Mr. T . RAMESH BABU

ASST. **(PROFESSOR)**

(SOCIALLY RELEVANT PROJECT GUIDE)

Mr. A. KRISHNA NAG

Assoc. **(PROFESSOR)**

(HEAD OF THE DEPARTMENT)

EXTERNAL EXAMINER

II

ABSTRACT

This project is taken up as India is an agriculture oriented country and the rate at which water resources are depleting is a dangerous threat hence there is a need of smart and efficient way of irrigation. In this project we have implemented sensors which detect the humidity in the soil (agricultural field) and supply water to the field which has water requirement. The project is PIC16F877A microcontroller based design which controls the water supply and the field to be irrigated. There are sensors present in each field which are not activated till water is present on the field. Once the field gets dry sensors sense the requirement of water in the field and send a signal to the microcontroller. Microcontroller then supply water to that particular field which has water requirement till the sensors is deactivated again. In case, when there are more than one signal for water requirement then the microcontroller will prioritize the first received signal and irrigate the fields accordingly.

This project uses PIC16F877A Microcontroller. It is programmed in such a way that it will sense the moisture level of the plants and supply the water if required. This type of system is often used for general plant care, as part of caring for small and large gardens. Normally, the plants need to be watered twice daily, morning and evening. So, the microcontroller has to be coded to water the plants in the greenhouse about two times per day. People enjoy plants, their benefits and the feeling related to nurturing them. However for most people it becomes challenging to keep them healthy and alive. To solve this problem we made a project for those who cannot water the plant due to their busy schedule or when they go outside for long time. The system automation is designed to be assistive to the user. We hope that through this project people will enjoy having plants without the challenges related to absent or forgetfulness.

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH5, Anakapalle-531002, Visakhapatnam

A Mini Project Report on

Design of COVID preventive

Temperature and Mask Scan Entry system using IoT

Submitted in partial fulfillment for the award of the degree of

Bachelor of Technology

in

ELECTRONICS AND ELECTRICAL ENGINEERING

By

J.VISWASWARA RAO	-20U45A0220
D.RAVI TEJA	-20U45A0211
B.BENARJEE VAMSI	-20U45A0206
R.JAYARAM	- 19U41A0203
R.SATYA JAGADEESH	-20U45A0244

Under the Esteemed Guidance of

CH. RAVI KUMAR

(Associate Professor)

Department Of EEE

CERTIFICATE

This is to certify that the project work entitled **"DESIGN OF COVID PREVENTIVE TEMPERATURE AND MASK SCAN ENTRY STSTEM USING IOT"** is being submitted by J.Viswaswara Rao (20U45A0220), D.Ravi teja (20U45A0211), B.Benarjee Vamsi (20U45A0206),R.Jaya Ram (19U41A0203), R.Satya Jagadesh (20U45A0244) in a partial fulfilment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL AND ELECTRONICS ENGINEERING during the academic year 2021-22.

Signature of Project guide
Mr.Ch.Ravi kumar (M.Tech)
Assistant professor
DIET

Signature of Head of the Department
Mr.A.Krishna nag (Ph.D)
Associate professor & HOD of EEE
DIET

Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tech.
Anakapalle - 531 002

Signature of the External Examiner

ABSTRACT

This project is designed in inspired with real life scenario which our team-mate gone through

Currently humans are employed for temperature screening and mask identification in public places to prevent the spread of COVID-19. We have temperature testing systems for all scanning entrances, but manual temperature scanning has numerous drawbacks. The staff isn't well-versed in the use of temperature scanners. When reading values, there is space for human error. People are often allowed entry despite higher temperature readings or the lack of masks. For large crowds, a manual scanning device is ineffective. Hence there arises a need to have an automatic system that checks for temperature and mask. We propose a fully automated temperature scanner and entry provider system to solve this issue. The system uses a contactless temperature scanner and a camera to capture image. If a high temperature or the absence of a mask is observed, the scanner is connected to a gate like structure that prevents entry. To monitor the entire process, the device uses a temperature sensor and camera connected to a Raspberry Pi system. The main theme of this paper is to automate the entire covid scanning process for reducing risk of spread COVID-19 in highly crowded places such as malls, schools and colleges.

AUTOMATIC STREET LIGHTS DESIGN

Automatic Streetlights that Glow on Detecting Night and Object using Arduino

A Socially Relevant Project Report submitted in partial fulfilment

of the requirements for the award of the Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

B . MUSILI NAIDU	(20U45A0208)
B. LAKSHMI NARAYANA MANIKANTHA	(20U45A0209)
K. CHANDU	(20U45A0222)
V. VARAHA VENKATA SATYA NARENDRA	(20U45A0257)
V. CHARAN SAI TEJA	(20U45A0259)

Under the Esteemed Guidance of

J. Deleep Kumar

Assistant Professor, Department of E.E.E

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-16, Anakapalle-531002, Visakhapatnam, A.P.

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled **"AUTIO MATIC STREET LIGHTINGS DESIGN IN PUBLIC PLACES"** is a being submitted by B. MUSILI NAIDU [20U45A0208], B. LAKSHMI NARAYANA MANIKANTHA [20U45A0209], K. CHANDU [20U45A0222], V. VARAHA VENKATA SATYA NARENDRA [20U45A0257], V. CHARAN SAI TEJA [20U45A0259].

In partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for COMPUTER SCIENCE & ENGINEERING during the academic year 2021-2022.

J. DELEEP KUMAR   **A. KRISHNA NAG**
(Assistant PROFESSOR)   **(Assistant PROFESSOR)**
(SOCIALLY RELEVANT   (HEAD OF DEPARTMENT)
PROJECT GUIDE).

Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tec
Anakapalle - 531 002

EXTERNAL EXAMINER

ABSTRACT

Our manuscript aims to develop a system which will lead to energy conservation and by doing so, we would be able to lighten few more homes. The proposed work is accomplished by using Arduino microcontroller and sensors that will control the electricity based on night and object's detection. Meanwhile, a counter is set that will count the number of objects passed through the road. The beauty of the proposed work is that the wastage of unused electricity can be reduced, lifetime of the streetlights gets enhance because the lights do not stay ON during the whole night, and also helps to increase safety measurements. We are confident that the proposed idea will be beneficial in the future applications of microcontrollers and sensors etc.

INDEXED TERMS : Automation, Switching, Energy conservation, Arduino, Sensors.

A MULTIFACTOR STUDENTS ATTENDENCE SYSTEM

A Socially Relevant Project Report submitted in partial fulfilment of the requirements for the award of the Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

S. UDAY KIRAN	(20U45A0255)
L. SUNIL	(20U45A0234)
D. SAI	(20U45A0213)
D. ARUNA	(20U45A0216)
V. SIRISHA	(20U45A0266)

Under the Esteemed Guidance of

Mr. A. CHIRANJEEVI

Assistant Professor, Department of EEE

Diet

DADI INSTITUTE OF ENGINEERING &TECHNOLOGY

(Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled "A MULTIFACTOR STUDENT ATTENDES SYSYEM " is a being submitted by S. UDAY KIRAN (20U45A0255), L. SUNIL (20U45A0234), D. SAI (20U45A0213), D. ARUNA (20U45A0216), V. SIRISHA (20U45A0266) in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2020-2023.

Mr. A. CHIRANJEEVI

(ASSISTANT PROFESSOR)

(SOCIALLY RELEVANT PROJECT GUIDE)

Mr. A. KRISHNA NAG

(ASSIOCIATE PROFESSOR)

(HEAD OF THE DEPARTMENT)
Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tech.
Anakapalle - 531 002

ABSTRACT

Attendance is an important factor for measuring eligibility, commitment and record keeping for assessment of students and employees. Several automated attendance systems have been developed. These systems are mostly based on single factor template based, which pose a security fault line. This paper presents the development of a multifactor attendance system that employs the flexibility of RFID technology and the security of fingerprint biometrics to manage students' attendance record. Performance evaluation in terms of response time and event using 10 students shows that average execution time of approximately 4.61 seconds could be achieved. Likewise, the system recorded zero percent (0%) of false reject, which tries the system reliability and integrity of the result.

Keywords- RFID; Fingerprint Biometric; Cryptography; Authentication; Security.

WATER LEVEL INDICATOR USING ARDUINO AND ULTRA SONIC _ _ SENSOR

A Project Report submitted in partial fulfilment of the requirements for the award of thedegree

BACHELOR OF
TECHNOLOGYIN
ELECTRICAL & ELECTRONICS ENGINEERING

Subbmitted By

G GOWTHAM KUMAR	20U45A0218
S PADMA	20U45A0251
A HEMANTH	20U45A0202
K V CHAITANYA	20U45A0230
D SIVA	20U45A0214

Mr.G. JAGADEESH
ASSISTANT Professor, Department of

Diet

EEE

DADI INSTITUTE OF ENGINEERING &TECHNOLOGY
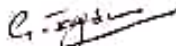
DADI INSTITUTE OF ENGINEERING &TECHNOLOGY
(Approved by A .I,C.T.E, New Delhi & Affilated to JNTU,Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 9001:9008: ISO 14001:2004 & OHSAS 18001:2007 Certified Institution
NH-5, Anakapalle-531002, Visakhapatnam, A.P.
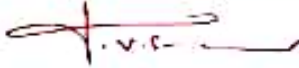
CERTIFICATE

This is to certify that the project work entitled "WATER LEVEL INDICATOR" is being submitted by G Gowtam kumar, S Padma, K V Chaitanya, A Hemanth,B shiva in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2021-22.

Mr. G JAGDEESH
ASSISTANT PROFESSOR
(PROJECT GUIDE)

Mr. KRISHNA NAG
ASSOCIATE PROFESSOR
(HEAD OF THE DEPARTMENT)
Engg-
Institute of Engg. & Tech.
Anakapalla - 531 002

EXTERNAL EXAMINER

WATER LEVEL INDICATOR USING ARDUINO AND ULTRASONIC SENSORS

G Jagadeesh[1], K V Chaitanya[2], S Venkata padmavathi[2], A Hemanth[2], G Gowtham kumar[2], BShiva[2]

[1]Faculty, [2]student, Dadi Institute of Engineering and Technology, Anakapalle

Abstract:

The facility requirements in many industries, farms, hostels, hotels, offices include an overhead tank for water which is usually feed through an electric pump that is switched off when the tank is filled up and switched on when it is empty. So, the most common way of knowing when the tank is filled is by observing when it overflows the brim. Depending on the type of liquid being handled, overfilling of such a tank could lead to a great liquid material losses ranging in the order of thousands of naira per week depending on the extend of such applications. These losses can be prevented the tank is moniterd automatically by incooperating a feed back. Water level indicator using ultra sonic sensors and Arduino is an amazing and very useful project. The objective of this project is to notify the user the amount of water that is presenting the overhead water tank. This project can be further enhanced to control the water level in the tank by turning it on. When the water level is low, turing it off. When the water level is high. Thus, the Arduino circuit of a water level indicator helps in the preventing of water wastage of in overhead tank. A transmitter circuit and receiver circuit. The transmitter circuit makes use of an ultrasonic sensors to measure the water level in terms of distance. This data is sent to the receiver circuit using of RF communication.

KEYWORDS: Arduino, Ultra sonic sensors, water level indication.

PLASTIC RECYCLING

A Socially Relevant Project Report submitted in partial
fulfilment of the requirements for the award of the Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

K.MADHU	(20U45A0231)
K.SWETHA	(20U45A0228)
L.VIJAY KUMAR	(20U45A0232)
O.LOKESH	(20U45A0239)
S.PADMANABHAM	(20U45A0246)

Under the Esteemed Guidance of
Mr. MOHAN
Assistant Professor, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P.

2022

DADI INSTITUTE OF ENGINEERING &TECHNOLOGY
(Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified
Institution
NH-5, Anakapalle-531002, Visakhapatnam, A.P

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled "PLASTIC RECYCLING" is a being submitted by K.MADHU (20U45A0231), K.SWETHA (20U45A0228), L.VIJAY KUMAR (20U45A0232), O.LOKESH (20U45A0293), S.PADMANABHAM (20U45A0246) in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL AND ELECTRONICS ENGINEERING during the academic year 2021-22.

SUPERVISOR

Mr. MOHAN
Assistant Professor (EEE)
Dept. of EEE, DIET

HEAD OF THE DEPARTMENT

Mr. KRISHNA NAG
Associate Professor & HOD (EEE)
Dept. of EEE, DIET

Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tech.
Anakapalle - 531 002

EXTERNAL EXAMINER

PLASTIC RECYCLING

GUIDE : Mr. M.MOHAN [M.Tech]

Assistant professor, EEE.

K. MADHU	20U45A0231
K. SWETHA	20U45A0228
L. VIJAY KUMAR	20U45A0232
O. LOKESH	20U45A0239
S. PADMANABHAM	20U45A0245

ABSTRACT :-

The aim of the project is to protect marine and many living organisms from plastic, now a days plastic is became one of the main role in our life most of those plastic were dumping into the oceans and other dumping places. Plastic takes many years to decompose and it may pollute the earth and water, so we are trying to recycle the plastic which are found in bulk amount of stationary plastics from many educational institutions like pens, pencils, scales, and many other objects, which are used by students. So we are trying to collect those plastic objects which are used by the students by giving complimentory things to them and trying to convince them and explaing them what are the harmfull impacts which are going to be held on us in further upcoming days on many other living organisms. we will collect many pens from every class by estimate we can collect around tones of pens from every institute with those pens we can recycle into plastic bags, toys many other useful things.

SINGLE AXIS SOLAR TRACKING SYSTEM

A Socially Relevant Project Report submitted in partial

fulfilment of the requirements for the award of the

Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

19U41A0205: SINGAMPALLI VENKATA KALYANI
20U45A0229: KASREDDI CHANDRIKA
20U45A0240: PAMALA LOHITH KUMAR
20U45A0247: S SANTHOSH SANDEEP
20U45A0248: SEETHINI MOUNIKA
20U45A0253: SIRASAPALLI SAI KUMAR

Under the Esteemed Guidance of

Mr. P. RAGHAVENDRA RAO

Assistant Professor, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P 2022

I

DADI INSTITUTE OF ENGINEERING &TECHNOLOGY
(Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified
Institution
NH-5, Anakapalle-531002, Visakhapatnam, A.P

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled
"**SINGLE AXIS SOLAR TRACKING SYSTEM**" is a being submitted by
(19U41A0205) VENKATA KALYANI, (20U45A0229) CHANDRIKA,
(20U45A0240) LOHITH KUMAR,(20U45A0247) S SANTHOSH
SANDEEP , (20U45A0247) MOUNIKA ,(20U45A0253) SAI KUMAR in
partial fulfilment of the Requirement for the award of the degree of
BACHELOR OF TECHNOLOGY for **ELECTRICAL AND ELECTRONICS
ENGINEERING** during the academic year 2021-2022.

Mr.P RAGHAVENDRA RAO

(Assistant Pofessor)

(SOCIALLY RELEVANT PROJECT GUIDE)

MR. A Krishna Nag

(Associate Professor)

(HEAD OF THE DEPARTMENT)

EXTERNAL EXAMINER

ABSTRACT

Solar panel has been used increasingly in recent years to convert solar energy to electrical energy. The solar panel can be used either as a stand-alone system or as a large solar system that is connected to the electricity grids. The earth receives 84 Terawatts of power and our world consumes about 12 Terawatts of power per day. We are trying to consume more energy from the sun using solar panel. In order to maximize the conversion from solar to electrical energy, the solar panels have to be positioned perpendicular to the sun. Thus the tracking of the sun's location and positioning of the solar panel are important. The goal of this project is to design an automatic tracking system, which can locate position of the sun. The tracking system will move the solar panel so that it is positioned perpendicular to the sun for maximum energy conversion at all time. Photo resistors will be used as sensors in this system. The system will consist of light sensing system, microcontroller, gear motor system, and a solar panel. Our system will output up to 40% more energy than solar panels without tracking systems.

IOT BASED HOME AUTOMATION SYSTEM

A Socially Relevant

*A Project Report submitted in partial
fulfilment of the requirements for the award of the degree*

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL & ELECTRONICS ENGINEERING

Subbmitted By

S. BHANU SREE	20U45A0267
S. SAI	20U45A0249
S. NARENDRA	20U45A0250
Y. ARVIND	20U45A0260
B. PAPI NAIDU	20U45A0205
P. SAI KONDAYYA	19U41A0210

Under the Esteemed Guidence of

Mr.K. Vijay Kumar
Assistant Professor, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi & Affliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008: ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5,Anakapalle-531002, Visakhapatnam, A.P.

2022

CERTIFICATE

This is to certify that the project work entitled "IOT BASED HOME AUTOMATION SYSTEM" is being submitted by S. BHANU SREE, S.SAI, S. NARENDRA, Y. ARVIND, B. PAPI NAIDU, P.SAI KONDAYYA in partial fulfilment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2021-22.

Mr. K. VIJAY KUMAR

ASSISTANT PROFESSOR

(PROJECT GUIDE)

Mr. KRISHNA NAG

ASSOCIATE PROFESSOR

(HEAD OF THE DEPARTMENT)

HOME AUTOMATION USING INTERNET OF THINGS

Under the Esteemed Guidence of

Mr. K. Vijay Kumar

S. BHANU SREE	:	20U45A0267
S. SAI	:	20U45A0249
S. NARENDRA	:	20U45A0250
Y. ARVIND	:	20U45A0260
B. PAPI NAIDU	:	20U45A0205
P. SAI KONDAYYA	:	19U41A0210

ABSTRACT

The main objective of this project is to develop a home automation system using an Arduino Board with Bluetooth being remotely controlled by any Android OS smart phone. As Technology is advancing so houses are also getting smarter. Modern houses are gradually Shifting from conventional switches to centralized control system, involving remote controlled Switches. Presently, conventional wall switches located in different parts of the house makes it Difficult for the user to go near them to operate. Even more it becomes more difficult for the Elderly or physically handicapped people to do so. Remote controlled home automation system Provides a most modern solution with smart phones. In order to achieve this, a Bluetooth Module is interfaced to the Arduino board at the receiver end while on the transmitter end, a GUI application on the cell phone sends ON/OFF commands to the receiver where loads are Connected. By touching the specified location on the GUI, the loads can be turned ON/OFF Remotely through this technology. The loads are operated by Arduino board through optoisolators and thyristors using triacs

Automatic Plant Watering System

A Socially Relevant Project Report submitted in partial fulfilment of the requirements for the award of the

Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

R. KURMA KAPOOR	19U41A0204
V. NOOKA RAJU	19U41A0207
D. MAHESH	20U45A0212
M. PREM KUMAR	20U45A0235
V. SHANKAR DINESH	20U45A0256
G. HARSHA VARDHAN	20U45A0264

Under the Esteemed Guidance of
Mr.K. Srinivas Rao
Assistant Professor, Department of EEE

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi &Affiliated to JNTU, Kakinada)

NAAC ACCREDITED INSTITUTE

ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle-531002, Visakhapatnam, A.P.

2020

I

DADI INSTITUTE OF ENGINEERING &TECHNOLOGY
(Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)
NAAC ACCREDITED INSTITUTE
ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified
Institution
NH-5, Anakapalle-531002, Visakhapatnam, A.P

CERTIFICATE

This is to certify that the Socially Relevant Project work entitled "AUTOMATIC PLANT WATERING SYSTEM" is a being submitted by R.KURMA KAPOOR (19U41A0204), V.NOOKA RAJU (19U41A0207), D.MAHESH (20U45A0212), M.PREM MUMAR (20U45A0235), V.SHANKAR DINESH (20U45A0256),G.HARSHA VARDHAN (20U45A0264) in partial fulfillment of the Requirement for the award of the degree of BACHELOR OF TECHNOLOGY for ELECTRICAL & ELECTRONICS ENGINEERING during the academic year 2019-20.

Mr.K. SRINIVAS RAO

(ASSOCIATE PROFESSOR)

(SOCIALLY RELEVANT PROJECT GUIDE)

Mr.A.KRISHNA NAG

(ASSOCIATE PROFESSOR)

(HEAD OR THE DEPARTMENT)
Head of the Department
Electrical & Electronics Engn.
Dadi I... ...002

EXTERNAL EXAMINER

III

ABSTRACT

This project is taken up as India is an agriculture oriented country and the rate at which water resources are depleting is a dangerous threat hence there is a need of smart and efficient way of irrigation. In this project we have implemented sensors which detect the humidity in the soil (agricultural field) and supply water to the field which has water requirement. The project is PIC16F877A microcontroller based design which controls the water supply and the field to be irrigated. There are sensors present in each field which are not activated till water is present on the field. Once the field gets dry sensors sense the requirement of water in the field and send a signal to the microcontroller. Microcontroller then supply water to that particular field which has water requirement till the sensors is deactivated again. In case, when there are more than one signal for water requirement then the microcontroller will prioritize the first received signal and irrigate the fields accordingly.

This project uses PIC16F877A Microcontroller. It is programmed in such a way that it will sense the moisture level of the plants and supply the water if required. This type of system is often used for general plant care, as part of caring for small and large gardens. Normally, the plants need to be watered twice daily, morning and evening. So, the microcontroller has to be coded to water the plants in the greenhouse about two times per day. People enjoy plants, their benefits and the feeling related to nurturing them. However for most people it becomes challenging to keep them healthy and alive. To solve this problem we made a project for those who cannot water the plant due to their busy schedule or when they go outside for long time. The system automation is designed to be assistive to the user. We hope that through this project people will enjoy having plants without the challenges related to absent or forgetfulness.