Smart Electronic Voting Machine Using Arduino & LCD Display

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communications Engineering from the Maulana Abdul Kalam Azad University of technology"

Submitted by:-

Jayeetri Kar(26300320040)

SoumyadipDAS(23600119002)

Sohini DAS(26300320021)

Under the guidance

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(Affiliated to Maulana Abul Kalam Azad University of Technology formerly known asWBUT, West Bengal)

BARRACKPORE, KOLKATA – 700121

**REGENT
EDUCATION &
RESEARCH FOUNDATION**

Certificate of Approval

This is to certify that this report of B. Tech final year project, **"Smart Electronic Voting Machine Using Arduino & LCD Display"**entitled is a record of bona-fide work, carried out by **Jayeetri Kar , Soumyadip Das, Sohini Das** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the *Regent Education and Research Foundation* and as per regulations of the *Maulana Abul Kalam Azad University of Technology*. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

Guide / Supervisor

Himeli Chakrabarti
27/5/2023

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Head of the Department

**Electronics and Communication
Engineering
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Foundation**

ACKNOWLEDGEMENT

I would want to convey my heartfelt gratitude to Dr. Himeli Chakrabarti Irving, my mentor, for his invaluable advice and assistance in completing my project. He was there to assist me every step of the way, and his motivation is what enabled me to accomplish my task effectively. I would also like to thank all of the other supporting personnel who assisted me by supplying the equipment that was essential and vital, without which I would not have been able to perform efficiently on this project.

I would also want to thank the University of Maulana Abdul Kalam Azad University of Technology for accepting my project in my desired field of expertise. I'd also like to thank my friends and parents for their support and encouragement as I worked on this assignment.

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NAME: Sohoni Das   Roll: 2630032002I   Regmo: 20263010032002

Name: Soumyadip Das   Roll: 26300119002   Reg No: 023224

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Project Report On
IOT BASED HEALTH MONITORING SYSTEM

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad   University of Technology"

Submitted by

Samyadeep Roy Chowdhury and 26300320022
Pragati Roy and 26300320035
Sourav Basu and 26300320029

Under the guidance of
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Department of Electronics and Communication Engineering
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Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled **"iot based health monitoring system"** is a record of bona-fide work, carried out by **Samyadeep Roy Chowdhury, Pragati Roy, Sourav Basu** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the **_Regent Education and Research Foundation_** and as per regulations of the **_Maulana Abul Kalam Azad University of Technology_**. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

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27.05.23

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Head of the Department

**_Electronics and Communication Engineering
Regent Education and Research Foundation_**

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ACKNOWLEDGEMENT

We/I would like to thank our Principal and Dean for their enthusiasm and helpful nature for making our/my education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one. We/I are/am also highly grateful and would like to express our/my deep sense of gratitude to Mr. Pulak mazumder. For his/her immense contribution, valuable guidance, suggestions, advice and Continuous encouragement are helped us/me in successful completion of theproject on "iot based health monitoring system ".

We/I also have great pleasure in expressing our/my gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

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<u>LIST OF FIGURES</u>

<u>ABSTRACT</u>

The main concept of this project is to create a low cost affordable health monitoring system forpeople in remote locations where availability of specialist doctors is not possible. This system isportable. Low cost and can be easily operated by anyone with limited knowledge. Also thisconcept is developed using IoT, so that we can send the data to a remote server from which it can be accessed by doctors. This project is designed using Arduino mega 2560 micro controller development board, ADS1292r ECG shield, LM35 industrial grade temperature sensor, ESP8266 Wi-Fi controller chipset, 16X2 LCD Display. The ECG shield and LM35 are generating analog output, so they are interfaced to the analog pins of Arduino Mega. Using the Pulseoximeter, we can get the Pulse rate and BP. All the above readings (ECG graph, Blood pressure, Heartbeat, temperature) are read through respective pins and are stored in various variables along with displaying on LCD locally. An account has to be created in any one of the IoT platforms like Allthingstalk, Thingspeak, Smartliving, IBM Bluemix etc. The credentials of the IoT account like Username, Device-Id, Asset-Id, Secret key etc., has to be noted down to beadded in the Arduino program. In the Arduino program, the above credentials are added alongwith unique pin numbers for assets (Parameters) to be differentiated. The parametric readingsfrom above procedure which are stored in various variables along with their respective pinnumbers (to identify them) are transmitted to the IoT account using ESP8266 Wi-Fi interface. Thenthe IoT platform processes them and adds to the previously stored values to log data. Thelogged parametric data can be accessed from anywhere by accessing our IoT account. Also, wecan add multiple users to a single account to monitor data like remote specials-t doctors etc.

Project Report On
FINGERPRINT BASED ATTENDENCE SYSTEM.

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad University of Technology"

Submitted by

Rakhi Mallick – 26300320014
Sonju Aich – 26300320019
Sahelee Das – 26300319015

Under the guidance of
Miss. Suparna Panchanan

Department of Electronics and Communication Engineering

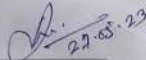## Regent Education and Research Foundation

Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled **"Fingerprint based attendence system"** is a record of bona-fide work, carried out by **Rakhi Mallick , Sonju Aich , Sahelee Das** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the *Regent Education and Research Foundation* and as per regulations of the *Maulana Abul Kalam Azad University of Technology*. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

Guide / Supervisor

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ACKNOWLEDGEMENT

We would like to thank our Principal MAHUA DAS and Dean ASHOK KUMAR SHAW for their enthusiasm and helpful nature for making our education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We are also highly grateful and would like to express our deep sense of gratitude to our respected ma'am Miss. SUPARNA PANCHANAN for her immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us/me in successful completion of the project on **"FINGERPRINT BASED ATTENDENCE SYSTEM"**

We also have great pleasure in expressing our gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

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Project Report On
SMART HOME SMART CONNECTION

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad University of Technology"

Submitted by

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Under the guidance of
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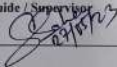BARRACKPORE, KOLKATA – 700121
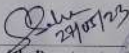
Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled **"SMART HOME SMART CONNECTION"** is a record of bona-fide work, carried out by **RINKESH SARKAR, GOURANGA MAJUMDER & MRINMOY ROY** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the *Regent Education and Research Foundation* and as per regulations of the *Maulana Abul Kulam Azad University of Technology*. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

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ACKNOWLEDGEMENT

We/I would like to thank our Principal and Dean for their enthusiasm and helpful nature for making our/my education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We/I are/am also highly grateful and would like to express our/my deep sense of gratitude to Mr. SUKDEB SAHA. For his/her immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us/me in successful completion of the project on "SMART HOME SMART CONNECTION".

We/I also have great pleasure in expressing our/my gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

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2630320015 - Mrinmoy Roy
2630320031 - Rinked Sarkar

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ABSTRACT

It is a project based on smart home system where we can use our mobile phone to turn on or off our daily home appliances by using an app name "Arduino Bluetooth Controller" which is available on Google Playstore for android users and applestore iOS users.

In this app we have options to switch our daily home appliances by voice control where we can say fan on/off TV on/off or something else electronics gadgets name as I desired also we can select terminal option where we can type TV on/off or fan on/off or something else electronics gadgets name as I desired. When this system is ready to use and installed successfully in house first we have to open the app on mobile and turn it on by connecting Bluetooth when it is successfully connected it's ready to use by using voice control or typing control to switch our daily home appliances. In this way we can make our home smarter with the help of this wireless system which is easy to use and very pocket friendly budget.

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Project Report On
Automatic Street Lights with Solar Power Source

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad   University of Technology"

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Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled **"Automatic Street Light with Solar Power Source"** is a record of bona-fide work, carried out by **Rupsha Mitra, Sovan Sarkar, and Shaibal Ram** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the **_Regent Education and Research Foundation_** and as per regulations of the **_Maulana Abul Kalam Azad University of Technology_**. Infact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

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2

ACKNOWLEDGEMENT

We would like to thank our Principal **Dr. Rajorshi Bandyopadhyay** and Dean for their enthusiasm and helpful nature for making our/my education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We also highly grateful and would like to express our deep sense of gratitude to Mr. **Chintan Roy**. For his/her immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us in successful completion of the project on **"Automatic Street Lights with Solar Power Source"**.

We also have great pleasure in expressing our/my gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

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ABSTRACT

This project is based on the idea of maintaining maximum utilization and minimum loss of available energy. The plenty of solar energy available during the day time is stored in a solar cell and the stored energy is used to glow the street lights during the whole night. Also the system provides a power saving mode of operation by adapting the method of automation. A dark sensor and a light sensor provides the automatic "ON"/"OFF" facility to the street lights, so that it will glow automatically when it is required(i.e. when the surrounding will be dark) and it will be turned "OFF" automatically if sufficient light is available in the surrounding. Again the auto intensity control mechanism has been applied by the help of a microcontroller to control the light intensity of the luminaries as per the requirement. Hence the loss of energy due to unnecessary glow of the street lights can be avoided.

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Project Report On
LENGTH MEASUREMENT USING LASER

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad   University of Technology"

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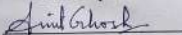BARRACKPORE, KOLKATA – 700121

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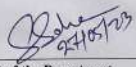RESEARCH FOUNDATION**

Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled **"LENGTH MEASUREMENT USING LASER"** is arecord of bona-fide work, carried out by **Shaswata Mukherjee (26300320041), Soubhik Bayen (26300320027), Soshovan Routh (26300320042)** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the **_Regent Education and Research Foundation_** and as per regulations of the **_Maulana Abul Kalam Azad University of Technology_**. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

Guide / Supervisor

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27/05/23

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Regent Education and Research Foundation_**

ACKNOWLEDGEMENT

We/I would like to thank our Principal and Dean for their enthusiasm and helpful nature for making our/my education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We/I are/am also highly grateful and would like to express our/my deep sense of gratitude to Mr. ....(Name of the Guide) . For his/her immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us/me in successful completion of the project on "LENGTH MEASUREMENT USING LASER".

We/I also have great pleasure in expressing our/my gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

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1. Shaswata Mukherjee
2. Sohoram Rouyth.
3. Soubhik Bayen

CONTENTS

ABSTRACT

The accurate measurement of length plays a critical role in various scientific, industrial, and engineering applications. This project focuses on the development of a Length Measurement System using Laser technology. The objective is to design a reliable and precise method to measure distances using laser beams and associated sensors.

The proposed system utilizes a laser emitter and a sensor unit. The laser emits a focused beam towards the target object, and the sensor unit detects the reflected laser light. By analyzing the time it takes for the laser light to travel to the target and back, the distance can be calculated using the speed of light. This principle, known as time-of-flight measurement, forms the basis of the system.

To ensure accuracy, the system incorporates advanced signal processing algorithms and calibration techniques. These techniques compensate for factors such as environmental conditions, sensor noise, and system errors. Additionally, the system provides real-time feedback and visualization of the measured distances through a graphical user interface.

The Length Measurement System using Laser offers numerous advantages over traditional measurement methods. It provides non-contact measurement, eliminating the need for physical contact with the target object. It offers high precision and accuracy, enabling measurements at the micron level. The system is versatile and can be employed in various industries, including manufacturing, construction, and research laboratories.

In conclusion, the Length Measurement System using Laser offers a reliable and accurate solution for distance measurement. Its non-contact nature, high precision, and adaptability make it an invaluable tool for a wide range of applications.

OBJECTIVE

The objective of the "Length Measurement Using Laser" project is to develop an accurate and efficient method for measuring distances using laser technology. By utilizing lasers, this project aims to overcome the limitations of traditional measurement techniques and provide a non-contact, precise, and reliable solution. The project will focus on designing and implementing a laser-based measurement system that can accurately determine the length or distance between two points. The resulting system will have applications in various fields such as engineering, manufacturing, construction, and research, where accurate length measurements are crucial for ensuring quality and precision in operations.

Project Report On
Smart Dustbin

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam

Azad University of Technology"

Submitted by

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<u>Certificate of Approval</u>

This is to certify that this report of B. Tech final year project, entitled **"Smart Dustbin"** is a record of bona-fide work, carried out by **Shayak Dey, Utso Bhattacharya and Amijul Mondal** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the *Regent Education and Research Foundation* and as per regulations of the *Maulana Abul Kalam Azad University of Technology*. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

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II

ACKNOWLEDGEMENT

We would like to thank our Principal and Dean for their enthusiasm and helpful nature for making our education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We are also highly grateful and would like to express our deep sense of gratitude to Mr. Sukdeb Saha. For his immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us in successful completion of the project on "Smart Dustbin".

We also have great pleasure in expressing our gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

	Name	Roll No.
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	VISO BHATTACHARYA	26300319008
	AMIJUL MONDAL	26300319031

ABSTRACT

The main objective of the project is to design a smart dustbin which will help in keeping our environment clean and also eco friendly. We are inspired from Swaach Bharat Mission. Nowadays technologies are getting smarter day-by-day so, as to clean the environment we are designing a smart dustbin by using Arduino.

This smart dustbin management system is built on the microcontroller based system having ultrasonic sensors on the dustbin. If dustbin is not maintained than these can cause an unhealthy environment and can cause pollute that affect our health. In this proposed technology we have designed a smart dustbin using ARDUINO UNO, along with ultrasonic sensor, servo motor, and battery jumper wire.

After all hardware and software connection, now Smart Dustbin program will be run. Dustbin lid will when someone comes near at some range than wait for user to put garbage and close it. It's properly running or not. For social it will help toward health and hygiene, for business for we try to make it affordable to many as many possible. So that normal people to rich people can take benefit from it.

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PROJECT REPORT ON
IOT BASED WOMEN SECURITY SYSTEM

A dissertation submitted in partial fulfillment of the requirements for the Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS & COMMUNICATION ENGINEERING

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Submitted by

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2023

Certificate of Approval

This is to certify that this report of B. Tech final year project, **IOT BASED WOMEN SECURITY SYSTEM** *is a bona fide work carried out by*

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AKASH SINGH   ROLL NO-26300320044

MADHUMITA MAITY   ROLL NO-26300320032

under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the Regent Education and Research Foundation and as per regulations of the **Maulana Abul Kalam Azad University of Technology.** *In fact, it has attained the standard necessary for submission. To the best of my knowledge, the results embodied in this report are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.*

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Head of the Department
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ACKNOWLEDGEMENT

We/I would like to thank our Principal and Dean for their enthusiasm and helpful nature for making our/my education in **REGENT EDUCATION & RESEARCH FOUNDATION** a memorable one.

We/I are/am also highly grateful and would like to express our/my deep sense of gratitude to **Mr.**

PULAK MAZUMDER. For his/her immense contribution, valuable guidance, suggestions, advice and continuous encouragement have helped us/me in successful completion of the project on *"IOT BASED WOMEN SECURITY SYSTEM"*.

We/I also have great pleasure in expressing our/my gratitude to all faculty members of the Electronics & Communication Engineering department as well as Library.

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ABSTRACT

As far as women safety is concerned. Especially in our country the standards are going to decrease day by day. According to the National Crime Records Bureau (NCRB) the incidents of kidnapping and abductions rose to 64 per million to 74 per million which is devastating. If it goes on increasing like this, In the coming years there will be a tremendous rise in crime rate especially against women. It is our responsibility to protect our mothers, sisters, friends and each and every woman in our family.

There are many devices in the market for this application that are sending locations and alert messages to the family of the user. But, all the devices need the response from the user when they are in danger to send the alert messages or such to their family or emergency services. But there might be situations where the user has zero chances to respond or send any alert messages to their family. We came up with a solution where the alert messages and current location of the user are sent automatically to their family when they are in danger without any response from the user. This paper deals with the functionality and implementation of our idea in Embedded Systems and IoT.

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Project Report On
IOT Based Home Appliances System

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad University of Technology"

Submitted by

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SAIKAT BHOWMICK 26300320020

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Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled **"IOT Based Home Appliances System"** is a record of bonafide work, carried out by **SUBIR MAITY, SAIKAT BHOWMICK & MD USHAMA ANSARI** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the *Regent Education and Research Foundation* and as per regulations of the *Maulana Abul Kalam Azad University of Technology*. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B.Tech in Electronics and Communication Engineering.

Guide / Supervisor

Barjor 22/5/23

22·05·23

25/05/23

Examiner(s)   **Head of the Department**

Electronics and Communication Engineering
Regent Education and Research Foundation

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1. **NodeMCU - ESP8266**
2. **Power supply(Power Bank)**
3. **4 Channel Control relays**
4. **Connecting wires**
5. **Breadboard**
6. **Light Bulbs(Devices)**

Project Report On
DETECTION OF AIR POLLUTION IN VEHICLES USING EMBEDDED SYSTEM

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad   University of Technology"

Submitted by

AYANA BASU(26300320018)
AYANAVA LAHIRI(26300320033)
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Under the Guidance of

CHINTAN ROY

Department of Electronics and Communication Engineering
Regent Education and Research Foundation

(Affiliated to Maulana Abul Kalam Azad University of Technology formerly known as WBUT, West Bengal)
BARRACKPORE, KOLKATA – 700121

Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled "Detection of Air Pollution Using Embedded System" is a record of bona-fide work, carried out by Ayanava Lahiri, Tiyasa Rusdra & Ayana Basu under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the requirements, as specified by the *Regent Education and Research Foundation* and as per regulations of the *Maulana Abul Kalam Azad University of Technology*. In fact, it has attained the standard, necessary for submission. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report for B. Tech in Electronics and Communication Engineering.

Guide / Supervisor

Examiner(s)

Head of the Department

Electronics and Communication Engineering
Regent Education and Research Foundation

ACKNOWLEDGEMENT

We would like to thank our Principal **Dr. Rajorshi Bandyopadhyay** for their enthusiasm and helpful nature for making our education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We also highly grateful and would like to express our deep sense of gratitude to Mr. CHINTAN ROY. For his immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us in successful completion of the project on "**Detection of Air Pollution Using Embedded System**".

We also have great pleasure in expressing our gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

Date: 27.05.2023

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ABSTRACT

This will have one page abstract of the project. It should be a snapshot of the total project, so that by reading this anyone can get an idea about the project.

CONTENT

Project Report On

"AUTOMATIC PLANT WATERING SYSTEM"

"A dissertation submitted in partial fulfillment of the requirements for the Degree of Bachelor of Technology in Electronics and Communication Engineering from the Maulana Abul Kalam Azad University of Technology"

Submitted by

SAYED TOUSIF ALAM 26300319005

DIPTYOJYOTI BHATTACHARYA 26300319002

ELOVA GHOSH 26300320038

Under the guidance of

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BARRACKPORE, KOLKATA – 700121
2023

REGENT
EDUCATION &
RESEARCH FOUNDATION

Certificate of Approval

This is to certify that this report of B. Tech final year project, entitled
"AUTOMATIC PLANT WATERING SYSTEM" is a record of bona-fide work,
carried out by **SAYED TOUSIF ALAM, ELOVA GHOSH, DIPTYO JYOTI
BHATTACHARJEE** under my supervision and guidance.

In my opinion, the report in its present form is in partial fulfillment of all the
requirements, as specified by the *Regent Education and Research Foundation* and as
per regulations of the *Maulana Abul Kalam Azad University of Technology*. In fact, it
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results embodied in this report, are original in nature and worthy of incorporation in
the present version of the report for B. Tech in Electronics and Communication
Engineering.

Guide / Supervisor

S. Panchanan
27/5/23

28.05.23

Examiner(s)

Head of the Department

Electronics and Communication Engineering
Regent Education and Research Foundation

ACKNOWLEDGEMENT

We/I would like to thank our Principal and Dean for their enthusiasm and helpful nature for making our/my education in REGENT EDUCATION & RESEARCH FOUNDATION a memorable one.

We/I are/am also highly grateful and would like to express our/my deep sense of gratitude to Miss. SUPARNA PANCHANAN . For his/her immense contribution, valuable guidance, suggestions, advice and continuous encouragement are helped us/me in successful completion of the project on "AUTOMATIC PLANT WATERING SYSTEM ".

We/I also have great pleasure in expressing our/my gratitude to all faculty members of Electronics & Communication Engineering department as well as Library.

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ABSTRACT

An automatic plant watering system is a device that automatically waters plants without the need for human intervention. This can be a valuable tool for people who travel frequently or who simply do not have the time to water their plants on a regular basis. Automatic plant watering systems typically use a soil moisture sensor to determine when plants need water. Once the sensor detects that the soil is dry, the system will automatically turn on a water pump and water the plants until the soil reaches a desired moisture level.

There are many different types of automatic plant watering systems available, ranging from simple, DIY kits to complex, commercial systems. The type of system that is best for you will depend on the number of plants you have, the size of your garden, and your budget.

Automatic plant watering systems can save you time and money, and they can help to ensure that your plants are always properly watered. If you are considering purchasing an automatic plant watering system, be sure to do your research to find the system that is right for you

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