HOME AUTOMATION USING ARDUINO

by

Name	Roll No.	Registration No:
Sridhar Pathak	26301619001	011647
Munna Kumar Shaw	26301619009	017903
Ratnesh Kumar	26301619008	017919
Arijit Kar	26301619002	022908
Bidhan Kumar Das	26301619017	010527

A comprehensive project report has been submitted in complete fulfillment of the requirements for the degree of

Bachelor of Technology

in Electrical engineering

Under the supervision of

Mrs.Prabal Kumar Basak

Professor

Department of Electrical Engineering

Regent Education and Research Foundation

Affiliated to Maulana Abul Kalam Azad University of Technology, WestBengal

May,2023

CERTIFICATE OF APPROVAL

This is to certify that the project titled **HOME AUTOMATION SYSTEM USING ARDUINO** carried out by

Name	Roll No.	Registration No:
Sridhar Pathak	26301619001	011647
Munna Kumar Shaw	26301619009	017903
Ratnesh Kumar	26301619008	017919
Arijit Kar	26301619002	022908
Bidhan Kumar Das	26301619017	010527

for the Complete fulfillment of the requirements for B.Tech degree in **Electrical Engineering** from **Maulana Abul Kalam Azad University of Technology, West Bengal**is absolutely based on his own work under the supervision of Mrs**. Prabal Kumar Basak.** The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

Optional in case of External Supervisor

.....

Dr./Mr./Ms./Mrs.

Designation and Department Institute

Head of the Department (EE) Regent Education and Research Foundation

.....

Dr./Mr./Ms./Mrs.

Professor , Dept. of EE

Regent Education and Research Foundation

DECLARATION

,We Do hereby declare that this submission is our own work conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute and that, to the best of our knowledge and belief, it contains no material previously written by another neither person nor material (data, theoretical analysis, figures, and text) which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text.`

.....

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Registration No: 011647
Roll No:26301619001

.....

Munna Kumar Shaw
Registration No:017903
Roll No: 26301619009

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Ratnesh Kumar
Registration No:017919
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Arijit Kar
Registration No:022908
Roll No:26301619002

.....

Bidhan Kumar Das
Registration No:010527

RollNo:26301619017
Date:

Place:

SOLAR TRACKER

Project report submitted in partial fulfillment of the requirements for the degree of Bachelor of Technology from Maulana Abul Kalam Azad University of Technology, West Bengal (formerly known as West Bengal University of Technology)

BY

SUDIPTA KARMAKAR(26301620066) **MD MOSTAK SK(26301619010)**

SOMNATH KHARA(26301620064) **AMIYA BARMAN(26301619053)**

AKASH MONDAL(26301619003) **PAHIL SAHA(26301620048)**

Under the Guidance of

ASSISTANT PROF. ARKADEEP MONDAL

Department of Electrical Engineering

Regent Education & Research Foundation Group of Institutions

Affiliated to "Maulana Abul Kalam Azad University of Technology

MAY 2023

ACKNOWLEDGEMENT:

I would like to express my special thanks of gratitude to our Head of the Department **MR. SANJIB PAL** & thanks to our Assistant professor **MR. ARKADEEP MANDAL** who gave us the golden opportunity to do this wonderful project on **"SOLAR TRACKER"**.

Secondly, I would also like to thank my friends who helped me a lot in finalizing this Report within the limited time frame.

Any attempt at any level can't be satisfactorily completed without the support and guidance of my teacher and friends who helped me a lot in gathering different information, collecting data and guiding me from time to time in making this report.

Despite of their busy schedules, they gave me different ideas in making this project unique.

I am over helmed in all humbleness and gratefulness to acknowledge my depth to all those who have helped me to put these ideas, well above the level of simplicity and into Something concrete.

CERTIFICATE OF APPROVAL

This is to certify that the project entitled **"SOLAR TRACKER"** submitted by **"SUDIPTA KARMAKAR, SOMNATH KHARA, AKASH MONDAL, MD MOSTAK SK, AMIYA BARMAN,PAHIL SAHA"** respectively for partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Electrical Engineering from Maulana Abul Kalam Azad University of Technology (formerly known as West Bengal University Of Technology).

MR. SANJIB PAL

HEAD OF DEPARTMENT

ELECTRICAL ENGINEERING

REGENT EDUCATION AND RESEARCH FOUNDATION

REGENT EDUCATION & RESEARCH FOUNDATION HOD E E

01/06/23

MR. ARKADEEP MANDAL

ASSISTANT PROFESSOR

ELECTRICAL ENGINEERING

"An Initiative for the measurement of alcohol as well as smoking Level for the human being".

Project report submitted in partial fulfilment of the requirements for the degree of *'Bachelor of Technology'*
in
Maulana Abul Kalam Azad University of Technology
2023

By

Mr. Somnath Tapader
Reg.No.-018282
Roll No.-26301619006

Mr. Nirmal Ghosh
Reg. No.-018085
Roll No.-26301619007

Mr.Ayan Kundu
Reg. No.-022886
Roll No.-26301619004

Mr. Soumyadip Jana
Reg. No.-018340
Roll No.- 2630161905

Mr.Rana Saha
Reg. no.-20263010162002
Roll No.-26301620031

Under the Supervision

Mr. Suman Kr Dey
Assistant Professor
Electrical Engineering Department

Regent Education & Research Foundation

Barakanthalia(Barrackpore), P.O. - Sewli Telinipara, Kol-700121

ACKNOWLEDGEMENT

We would like to express my sincere gratitude to all the people without whom we Cannot be able to make this project. First, we would like to thanks our parents as I am really appreciated by them. Then it is a genuine pleasure to express our deep sense of thanks and gratitude to our mentor and guide, Mr. Suman Kr Dey, Assistant Professor (EE), for his valuable time and help throughout the project work. His dedication and keen interest and above all his overwhelming attitude to help his students have been solely and mainly responsible for completing my work. His timely and scholarly advice and scientific approach have helped me to a great extent to complete this work.

We are also grateful to other faculty members for their moral support during this period of work. We also extend our sincere thanks to those, who have directly or indirectly helped us in completing this job.

RECOMMENDATION

hereby recommended that the project title ""An Initiative for the measurement of alcohol as well as smoking Level or the human being" submitted by "Mr; Somnath Tapader", "Mr. Nirmal Ghosh", "Mr. Ayan Kundu", "Mr. oumyadip Jana", "Mr.Rana Saha" is accepted in partial fulfilment of the requirement for the four year degree of BACHELOR OF TECHNOLOGY"" in "ELECTRICAL ENGINEERING" from the college "REGENT EDUCATION & RESEARCH FOUNDATION" under "MAKAUT".

26/05/23

.....

Mr.Suman Kr Dey
Project Supervisor
Assistant Professor
Electrical Engineering Department
Regent Education & Research Foundation

WIRELESS MOBILE CHARGER

A PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE

OF

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL ENGINEERING

Submitted by:

BIPRAJIT MONDAL (26301620034)

ANIMESH BANK (26301620036)

ABHIJIT DAS (26301620049)

VIKRAM DAS (26301620020)

Under the supervision of

MRS. SHREYASI SENGUPTA

DEPARTEMENT OF ELECTRICAL ENGINEERING

REGENT EDUCATION & RESEARCH FOUNDATION

Sewli Telini Para, SH 1, Malir Math, Barrackpore, West Bengal 700121

ACKNOWLEDGEMENT

We would like to express our deepest gratitude to the Almighty God, for keeping giving us His blessings, allowing us to have the opportunity to be students at RERF.

Our deepest appreciation to our families and friends for their endless love, support and encouragement.

We would like to extend our sincere thanks to MRS. SHREYASI SENGUPTA , for always provide his guidance, and lecturing with great enthusiasm and patience, leaving no space to doubts, enabling us to do the project and the report in the best possible way.

BIPRAJIT MONDAL (26301620034) B.mondal
ANIMESH BANK (26301620036) Abank
ABHIJIT DAS (26301620049) A.Das
VIKRAM DAS (26301620020) V. Das

Signature of the Students

REGENT EDUCATION & RESEARCH FOUNDATION

Sewli Telini Para, SH 1, Malir Math, Barrackpore, West Bengal 700121

CANDIDATES' DECLARATION

We, **BIPRAJIT MONDAL (26301620034),ANIMESH BANK (26301620036),ABHIJIT DAS (26301620049),VIKRAM DAS (26301620020),**
fourth year students of B. Tech. Electromagnetics, hereby declare that the project Dissertation titled "WIRELESS MOBILE CHARGER" which is submitted by us to the Department of Electrical Engineering, Regent Education & Research Foundation, Barrackpore in partial fulfilment of the requirement for the award of the degree of Bachelor of Technology, is original and not copied from any source without proper citation. This work has not previously formed the basis for the award of any Degree, Diploma Associateship, Fellowship or other similar title or recognition.

Place: Barrackpore

BIPRAJIT MONDAL (26301620034)

ANIMESH BANK (26301620036)

ABHIJIT DAS (26301620049)

VIKRAM DAS (26301620020)

Date: 26.05.23

REGENT EDUCATION & RESEARCH FOUNDATION

Sewli Telini Para, SH 1, Malir Math, Barrackpore, West Bengal 700121

CERTIFICATE

We hereby certify that the Project Dissertation titled "WIRELESS MOBILE CHARGER" which is submitted by BIPRAJIT MONDAL,ANIMESH BANK,ABHIJIT DAS,VIKRAM DAS, Department of Electrical Engineering, Regent Education & Research Foundation, Barrackpore, in partial fulfilment of the requirement for the award of the degree of Bachelor of Technology, is a record of the project work carried out by the students under my supervision. To the best of my knowledge this work has not been submitted in part or full for any Degree or Diploma to this University or elsewhere.

Place: Barrackpore

MRS. SHREYASI SENGUPTA

Date: 26.05.23

SUPERVISOR

S. Sengupta.

Signature of the Guide

Signature of the HOD,EE

REGENT EDUCATION & RESEARCH FOUNDATION HOD E E

A PROJECT REPORT ON

SOLID STATE TESLA COIL

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL ENGINEERING

SUBMITTED BY

ARGHYA KARMAKAR	**26301620024**
SUBHRAJIT GHOSH	**26301620023**
SAMIR MONDAL	**26301620025**
SOMNATH ROY	**26301620021**
MUKUL CHANDRA BASAK	**26301620057**

UNDER GUIDANCE OF

ASHMITA GUHA CHOWDHURY

DEPARTMENT OF ELECTRICAL ENGINEERING

REGENT EDUCATION AND RESEARCH FOUNDATION
BARRACKPORE,NORTH 24 PARGANAS

AFFILITED TO

MAULANA ABDUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

MAY,2023

ACKNOWLEDGEMENT

I take this opportunity to place on record my deep sense of gratitude to Prof. **Ashmita Guha Chowdhury**, for his valuable guidance, encouragement and helpful criticism during the out!Sincere thanks to Prof. **SANJIB PAL** head of Electrical Engineering department Regent Education & Research Foundation, for his constant encouragement during our work and for providing necessary facilities to carry out the project. We are alsograteful to Prof. for his endless guidance and support. We are also thankful to The Principalof Regent Education & Research Foundation for giving us the opportunity to be a part of this esteeme dinstitution and facilitate us for carrying out the project work.Lastly we would like to thank all the staff members of Electrical Engineering Department(RERF] for helping usto carry out thesis and we are also grateful to our family for giving their continuous support and encouragement through out the process from beginning.

REGENT EDUCATION & RESEARCH FOUNDATION

GROUP OF INSTITUTION

CERTIFICATE OF APPROVAL

We hereby certify that the project report prepared by [Arghya Karmakar,Subhrajit Ghosh,Samir Mondal,Somenath Roy,Mukul Chandra Basak] "(Solid State Tesla Coil) be accepted in partial fulfilment of the virements for awardingthe degree of "Bachelor of Technology in Electrical Engineering" session (2020-2023]in the Departmentof Electrical Engineering, (RERFGI), Barrackpore. The going PROJECT is hereby approved as a creditable study of an Engineering Subject died out and presentedin a manner of satisfactory to warrant its acceptance as a perquisite to the DEGREE for which it has been submitted.

Notified to be understood that by this approval, the undersigned do not necessarily worse or approve any statement made, opinion expressed and conclusion drawn therein but rove the PROJECT only for the purpose for which it has been submitted

(ProjectGuide)
Ashmita Guha Chowdhury
(Assistant Professor)

(Head of the Department)
Prof.SANJIB PAL

REGENT EDUCATION & RESEARCH FOUNDATION HOD E E

Department of Electrical Engineering

Regent Education & Research Foundation
Barrackpore, North 24 Pagans

REGENT EDUCATION & RESEARCH FOUNDATION

GROUP OF INSTITUTION

RECOMMENDATION

I hereby recommend that the project entitled "SOLID STATE TESLA COIL" Being submitted by "ARGHYA KARMAKAR" "SUBHRAJIT GHOSH" "SAMIR MONDAL" "SOMNATH ROY" "MUKUL CHANDRA BASAK" to MAKAUT for the award of the degree of Bachelor of Technology in Electrical Engineering is the record of hisBonafide research work carried out under my supervision and guidance. The results presentedin this thesis have not been submitted elsewhere for the award of any other degree or diploma.This work in my opinion, has reached the standard of fulfilling there quirement for the award of Degree of Bachelor of Electrical Engineering. It is notified to be understood that by thisapproval, the undersigned do not necessarily endorse or approve any statement made, opinionexpressed and conclusion drawn therein but approve the PROJECT only for the purpose for which it has been submitted.

.....

Ashmita Guha ChowdhuryAssistant.Professor
Department of Electrical Engineering Regent Education & Research Foundation Group of Institution
Barrackpore,24Pgs(North)

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

A Project Report On

FINGERPRINT BASED DOOR LOCK SYSTEM USING ARDUINO

In partial fulfillment for the award of the degree

Of

BACHELOR OF TECHNOLOGY

IN

ELECTRICAL ENGINEERING

Regent Education & Research Foundation

"Department Of Electrical Engineering "

Under Guidance Of: Mrs.ENAKSHMI NANDI.

(Asst Professor, Dept. Of Electrical Engineering)

Submitted By:

Tomojit Bose-26301620030

Sukritimoy Bera-26301620022

Suvankar Bera-26301620035

Aniket Banerjee-26301620029

Prem Nonia-26301620033

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without mentioning of the people who constant guidance and encouragement made it possible, which is result of studied blend of both research and knowledge.

We express our earnest gratitude to our internal guide. Assistant Prof. Mrs.Enakshmi Nandi, Department of EE, our Project guide for her constant support, encouragement, and guidance. We are grateful for her co-operation and her valuable suggestions.

RECOMMENDATION

I hereby recommend that the project entitled "FINGERPRINT BASED DOOR LOCK SYSTEM USING ARDUINO" "being submitted by→→→
SUVANKAR BERA reg. No. (202630101620038) & roll no (26301620035),

TOMOJIT BOSE reg no. (202630101620043) & roll no. (26301620030),

PREM NONIA reg.no. (202630101620040) & roll no. (26301620033),

SUKRITIMOY BERA reg.no. (202630101620051) & roll no (26301620022),

ANIKET BANERJEE reg no. (202630101620044) & roll no (26301620029).

To MAKAUT for the award of the degree of Bachelor of Technology in electrical engineering is the record of his Bonafied research work carried out under my supervision and guidance. The results presented in this thesis have not been submitted elsewhere for the award of any other degree or diploma.

This work in my opinion has reached the standard of fulfilling the requirement for the award of degree of Bachelor of Electrical Engineering.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approve any statement made opinion expressed and conclusion drawn therein but approve the PROJECT only for the purpose for which it has been submitted.

Project Guide

Mrs. Enakshmi Nandi

Electrical Engineering Department

Regent Education & Research Foundation

Barrackpore, North 24pgs

CERTIFICATE OF APPROVAL

We hereby certify that the project prepared by Suvankar Bera, Tomojit Bose, Prem Nonia, Aniket Banerjee, Sukritimoy Bera "FINGERPRINT BASED DOOR LOCK SYSTEM USING ARDUINO "be accepted in partial fulfillment of the requirement of rewarding the degree of "Bachelor of technology in Electrical Engineering." Session [2020-2023] in the department of Electrical Engineering at Regent Education Research Foundation, Barrackpore.

This project is hereby approved as suitable study of an Engineering subject carried out and prevent in a manufacture satisfactory to warrant its acceptance as a pre certified to the Degree for which it has been submitted.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approved made, option expressed and conclusion drawn therein but approve the project only for the purpose for which it has been submitted.

Enakshmi Nandi

(Mrs. Enakshmi Nandi)

(Head of the Department)
Mr. Sanjib Paul
Department of Electrical Engineering
Regent Education & Research Foundation
Barrackpore, North 24pgs

REGENT EDUCATION AND RESEARCH FOUNDATION

BARA KANTHALIA, BARRACKPORE

A project report on

"Wireless charging station of electric vehicle"

SUBMITTED

BY

Ripan Baghira - 26301620055, Moumita Bhakta- 26301620028, Happy Giri-26301620027, Sayani Halder- 26301620065, Pabitra Guchhait - 26301620026

Under the guidance of

Mr. Bidyut Kumar Ghosh

Department of Electrical Engineering, 4th year

Submitted in partial fulfillment for the award of the degree of

Bachelor of Technology

ACKNOWLEDGEMENTS

We would like to express our heartfelt gratitude to all the people who have played a crucial role in the research for this project, without their active cooperation the preparation of this project could not have been completed within the specified time limit.

We would like to express our deep gratitude to our respected assistant Prof. **Bidyut Kumar Ghosh** , for the patient guidance, enthusiastic encouragement and useful critiques and support to complete this project with complete focus and attention.
We would also like to express our deep gratitude to our respected HOD sir for support to complete this project with complete focus and attention.

We would also like to give special thanks to our principal who supported us throughout this project with utmost cooperation and patience and for helping us in doing this Project.

RECOMMENDATION

I hereby recommended that the project title "Wireless charging station of electrical vehicle" submitted by "Ripan Baghira", "Pabitra Guchhait", "Moumita Bhakta", "Sayani Halder","Happy Giri" is accepted in partial fulfilment of the requirement for the four year degree of "BACHELOR OF TECHNOLOGY" in "ELECTRICAL ENGINEERING" from the college "REGENT EDUCATION & RESEARCH FOUNDATION" under "MAKAUT".

.....

Prof. Bidyut Kumar Ghosh
Project Supervisor
Electrical Engineering Department
Regent Education & Research Foundation

REGENT EDUCATION AND RESEARCH FOUNDATION

GROUP OF INSTITUTIONS

CERTIFICATE

We hereby certify, that the project report prepared by **Mr. Ripan Baghira, Mr. Prabitra Guchhait, Mr. Happy Giri, Ms. Moumita Bhakta , Ms. Sayani Halder** entitled ***" WIRELESS ELECTRIC VEHICLE CHARGING STATION"*** be accepted in partial fulfillment of the requirements for awarding the degree of **"BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING"** Session 2022-2023 in the Department of Electrical Engineering, RERFGOII, Barrackpore. The forgoing Project is hereby approved as a creditable study of an Engineering Subject carried out and presented in a manner of satisfactory to warrant its acceptance as a pre-requisite to the DEGREE for which it has been submitted.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approve any statement made, opinion expressed and conclusion draw therein but approve the project only for the prupose for which it has been submitted.

28/05/23

Mr. Bidyut Kumar Ghosh
(Project Guide)

Sanjib Pal 26/05/2023

Mr. Sanjib Pal
(Head of the Department)
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DECLARATION BY CANDIDATE

We hereby declare that the Project Work on "Wireless charging station of electrical vehicles" is done by us; Ripan Baghira, Pabitra Guchhait, Moumita Bhakta, Happy Giri & Sayani Halder submitted to Regent Education & Research Foundation for the requirement of the degree of Bachelor of Technology", under Maulana Abul Kalam Azad University of Technology, during the academic year of 2022-2023 .The project work is totally genuine & we have not copied it from any other sources.

Ripan Baghira

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Bluetooth Controlled Car using Arduino

A project report submitted for the partial fulfillment of the bachelor of technology

Degree in Electrical Engineering under

Maulana Abul Kalam Azad University Of Technology

By

ARIJIT KUMAR MONDAL

[ROLL NO: 26301620050 REGISTRATION NO: 202630101620023 OF 2020-21]

SHARMILA BANERJEE

[ROLL NO: 26301620043 REGISTRATION NO: 202630101620030 OF 2020-21]

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ARIJIT BRAMHACHARY

[ROLL NO: 26301620041 REGISTRATION NO: 202630101620032 OF 2020-21]

Under the Guidance of:

Assistant Prof. PRODIP MAZUMDAR

Electrical And Electronics Engineering

REGENT EDUCATION AND RESEARCH FOUNDATION

Bara kanthalia , Barrackpore. P.O-Sewli Telini para , Kolkata, West Bengal

Affiliated To

BF-142, Salt Lake, Sector-I, Kolkata - 700 064

Abstract

A remote controlled vehicle is any mobile machine controlled by means thatis physically not connected with origin external to the machine. There are many types in it, based on the controls –. The main target in such vehicles would be to safely reach a designated point, maneuver the area and reach back to the point of origin.

In this project we make use of the Bluetooth technology to control our machine car. We don't call this as a robot as this device doesn't have any sensors. Thereby, sensor less robots are machines.
User can perform actions like moving forward, backward, moving left and right by the means of command using his-her mobile phone app. The task of controlling our car is taken car by the Arduino UNO with micro controller ATMEGA32, 16 mHz processor, 2 KB SRAM (Static Random Accessible Memory) and 32 KB flash memory. Arduino play a major role in the control section and had made it easier to convert digital signals and analogue signals into physical movements. The major reason for using a Bluetooth based tech is that we can change the remote anytime

KEYWORD:

- Bluetooth-based
- Android Application
- Bluetooth of mobile
- Bluetooth module of a car

Signature of the H.O.D

(Electrical engineering)

REGENT EDUCATION & RESEARCH FOUNDATION HOD E E

Signature of the Examiner

Prodip Mazumdar 26/05/23
Signature Of Project Guide

REGENT EDUCATION & RESEARCH FOUNDATION

CERTIFICATE OF APPROVAL

We are hereby certify that

Project prepare by " ARIJIT KUMAR MONDAL, SHARMILA BANERJEE, SAMRIT GANGULY, ANKHI GOLDER , ARIJIT BRAMHACHARY" entitled **Bluetooth Controlled Car using Arduino** be accepted in Partial fulfillment of the requirements for awarding the degree of " Bachelor Of Technology In Electrical Engineering " session[2020-2023] in the department of Electrical engineering at Regent Education & Research foundation , Barrackpore. The forgoing project is hereby approved as a credible study of an engineering subject carried out & present in manner of satisfactory to warrant its acceptance as a pre requisite to the degree for which it has submitted .

It is notified to be understood that by this approval , the undersigned do not necessarily endorse or approve any statement made, opinion expressed & conclusion draw therein but approve the project only for the purpose for which it has been submitted.

Prodip Mozumdar

MR. PRODIP MOJUMDER

Assistant Professor

Department of Electrical Engineering

Regent Education & Research Engineering

Barrackpore, N 24 pgs.

Sanjib Paul 26/05/2023

MR. SANJIB PAUL

Head of the department

Department of Electrical Engineering

Barrackpore, N 24 pgs.

RUN A STEPPER MOTOR USING PULSE SIGNAL

A report submitted in partial fulfilment of the requirement

For the B-Tech in Electrical Engineering

From

Regent Education & Research Foundation Group of Instituution

Affiliated to

Maulana Abul Kalam Azad University of Technology, West Bengal

Submitted by

Vickky Dev Das

Soumyadeep Dutta

Sangita Mali

Sk Samim Ali

Kowsar Ali

Under the guidance of

Dr. Arindita Saha(Asst. Professor)

Department of Electrical Engineering

Regent Education and Research Foundation
Barrackpore, North 24 Paraganas

REGENT EDUCATION & RESEARCH FOUNDATION,BARRACKPORE,24PGS(N)

RECOMMENDATION

I hereby recommend that the project entitled 'RUN A STEPPER MOTOR USING PULSE SIGNAL' being submitted by-

VickkyDev Das - Reg.No(202630101620021) and Roll no(26301620052)

Sangita Mali - Reg.No(202630101620034) and Roll no(26301620039)

Soumyadeep Dutta - Reg.No(202630101620019) and Roll no(26301620054)

Sk Samim Ali - Reg.No(202630101620029) and Roll no(26301620044)

Kowsar Ali - Reg.No(202630101620020) and Roll no(26301620053)

to MAKAUT for the award of the degree of Bachelor of Technology in Electrical Engineering is the record of his bonafide research work carried out under my supervision and guidance. The results presented in this thesis have not been submitted elsewhere for the award of any other degree or diploma.

This work in my opinion, has reached the standard of fulfilling the requirement for the award of Degree of Bachelor of Electrical Engineering.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approve any statement made, opinion expressed and conclusion drawn therein but approve the PROJECT only for the purpose for which it has been submitted.

Project Guide

Dr. Arindita Saha (Asst. Professor)

Department of Electrical Engineering

Regent Education and Research Foundation

Barrackpore, North 24 parganas

REGENT EDUCATION &RESEARCH FOUNDATION,BARRACKPORE,24PGS(N)

CERTIFICATE OF APPROVAL

We hereby certify that the project prepared by ' Vickky Dev Das, Sangita Mali, Soumyadeep Dutta, Sk Samim Ali, Kowsar Ali' entitled **'RUN A STEPPER MOTOR USING PULSE SIGNAL'** be accepted in partial fulfilment of the requirements for awarding the degree of **'Bachelor Of Technology in Electrical Engineering' session [2020-2023]**

In the department of Electrical Engineering at Regent Education & Research Foundation, Barrackpore. The forgoing PROJECT is hereby approved as a creditable study of an Engineering Subject carried out and presented in a manner of satisfactory to warrant its acceptance as a pre-requisite to the DEGREE for which it has been submitted.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approve any statement made, opinion expressed and conclusion drawn therein but approve the PROJECT only for the purpose for which it has been submitted.

.....

(Project Guide)

Dr. Arindita Saha

Department of Electrical Engineering

.....

(Head of the Department)

Dr. Sanjib Pal

Department of Electrical Engineering

REGENT EDUCATION AND RESEARCH FOUNDATION,BARRACKPORE,24PGS(N)

A PROJECT REPORT ON

SOLAR TRACKING SYSTEM

Submitted in partial fulfillment of the requirements

For the award of the degree

BACHELOR OF TECHNOLOGY

IN

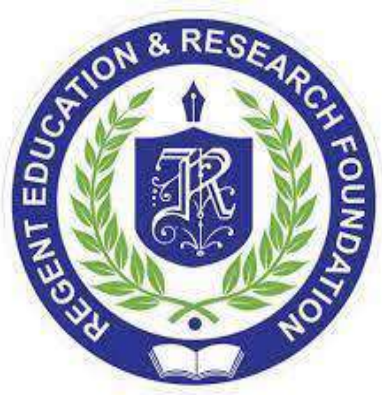
ELECTRICAL ENGINEERING

SUBMITTED BY

NILABHRA HALDER -	**26301620040**
BINIT PODDAR -	**26301620070**
PRITAM MANNA -	**26301620072**
ANCHITA DAS -	**26301620058**
TIYASA CHANDA -	**26301620059**

Under the Guidance of

MR. SANDEEP CHAKRABORTY



DEPARTMENT OF ELECTRICAL ENGINEERING

REGENT EDUCATION AND RESEARCH FOUNDATION GROUP OF INSTITUTE

BARRACKPORE, NORTH 24 PARGANAS

AFFILITED TO

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

MAY, 2023

ACKNOWLEDGEMENT

I take this opportunity to place on record my deep sense of gratitude to **Mr. SANDEEP CHAKRABORTY** for his valuable guidance, encouragement and helpful criticism during the course of this project work. My thanks are also to **Mr. SANJIB PAL**, Head of Electrical Engineering Department for his constant encouragement during my work and for providing necessary facilities to carry out the project. I also grateful to **PROF. SAMIK CHAKRABORTY**, Principal, RERFGI for giving me this opportunity to be a part of this esteemed institution and facilitate me for carrying out the project work. Last, but not the least, I thank all the staff members of Electrical Engineering Department, RERFGI for helping me to carry out the thesis. Finally I am grateful to my all family member for giving their continuous support and encouragement throughout the process from beginning.

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Group of Institutions

CERTIFICATE

We hereby certify that the project report prepared by ***Mr. Binit Poddar, Mr. Pritam Manna, Mr. Nilabhra Halder, Ms. Anchita Das*** *and* ***Ms. Tiyasa Chanda*** entitled **"SOLAR TRACKING SYSTEM"** be accepted in partial fulfilment of the requirements for awarding the degree of **"Bachelor of Technology in Electrical Engineering"** Session [2022-2023] in the Department of Electrical Engineering, RERFGOI, Barrackpore. The forgoing PROJECT is hereby approved as a creditable study of an Engineering Subject carried out and presented in a manner of satisfactory to warrant its acceptance as a pre- requisite to the DEGREE for which it has been submitted.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approve any statement made, opinion expressed and conclusion drawn therein but approve the PROJECT only for the purpose for which it has been submitted.

Mr. Sandip Chakraborty
(Project Guide)
Assistant. Professor

Mr. Sanjib Pal
(Head of the Department)
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RECOMMENDATION

We hereby recommend that the project entitled **"SOLAR TRACKING SYSTEM"** being submitted by **BINIT PODDAR** (Roll No- 26301620070), PRITAM MANNA (Roll No- 26301620072), NILABHRA HALDER (Roll No- 26301620040), ANCHITA DAS (Roll No- 26301620058), TIYASA CHANDA (Roll No- 26301620059), to MAKAUT for the award of the degree of Bachelor of Technology in Electrical Engineering is the record of his Bonafide research work carried out under my supervision and guidance. The results presented in this thesis have not been submitted elsewhere for the award of any other degree or diploma.

This work in my opinion, has reached the standard of fulfilling the requirement for the award of Degree of Bachelor of Electrical Engineering.

It is notified to be understood that by this approval, the undersigned do not necessarily endorse or approve any statement made, opinion expressed and conclusion drawn therein butapprove the PROJECT only for the purpose for which it has been submitted

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SINGLE AXIS SOLAR TRACKING DEVICE

A PROJECT REPORT

Submitted in Fulfilment for the Degree

Of B. TECH in

ELECTRICAL ENGINEERING

From

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

(MAKAUT, WB)

SUBMITTED BY

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Department of **ELECTRICAL ENGINEERING**

REGENT EDUCATION & RESEARCH FOUNDATION

MARCH, 2023

AKNOWLEDGEMENT

I would like to express my special thanks of gratitude to my teacher & as well as our Head of the Department (EE) and project supervisor **Mr. SANJIB PAL** who gave me the golden opportunity to do this wonderful project on the topic, **SINGLE AXIX SOLAR TRACKING DEVICE** which also helped me in doing a lot of Research and I came to know about so many new things I am really thankful to them.

Secondly, I would also like to thank my friends who helped me a lot in finalizing this project within the limited time frame. Any attempt at any level can't be satisfactorily completed without the support and guidance of my teacher and friends who helped me a lot in gathering different information, collecting data and guiding me from time to time in making this project unique.

I am over helmed in all humbleness and gratefulness to acknowledge my depth to all those have helped me to put this ideas, well above the level of simplicity and into something concrete.

DATE:- 26.05.23

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RECOMMENDATION

I hereby recommended that the project title **"SINGLE AXIS SOLAR TRACKING DEVICE"** submitted by **SUPRAKASH MAITY , KAUSHIK SAMANTA, SANKHAYAN TALUKDAR, ANINDITO ROY, AJAY YADAV** are accepted in fulfilment of the requirement for the **4TH year degree of "B.TECH" IN "ELECTRICAL ENGINEERING"** from the college **"REGENT EDUCATION & RESEARCH FOUNDATION"** under **"MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY (MAKAUT, WB)"**.

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CERTIFICATE OF APPROVAL

This to certify that the project report entitled **"SINGLE AXIS SOLAR TRACKING DEVICE"** submitted by **"SUPRAKASH MAITY , KAUSHIK SAMANTA, SANKHAYAN TALUKDAR, ANINDITO ROY, AJAY YADAV"** for 8th semester examination have been prepared following the guidelines of B.TECH degree in ELECTRICAL ENGINEERING, awarded by the **"MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY (MAKAUT, WB)"**, WEST BENGAL.

They have carried out the project work under my supervision.

Sanjib Pal

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