SRI VENKATESWARA
COLLEGE OF ENGINEERING AND TECHNOLOGY
Thirupachur-631203, Tiruvallur TK & DT
Approved by AICTE New Delhi & Affiliated to Anna University, Chennai
(A Telugu Minority Institution)

List of Students Under taking Project /Work For the Academic Year 2022-2023

Program Name: ELECTRICAL AND ELECTRONICS ENGINEERING

MINI PROJECT BATCH LIST 2022-2023

BATCH	REG NUMBER	STUDENT NAME	PROJECT TITLE	INTERNAL GUIDE
1	112420105001	Praveen Kumar.B	Automatic plant irrigation system using WI-FI microcontroller	Mrs V. Supriya/AP
	112420105003	Shrihari.T.K		
	112420105330	Manikandan.P		
	112420105333	Narendiran.M.G		
	112420105335	Nithish.M		
2	112420105	Aadhivalavan.K.S	PCB for this ESP32 home Antomation	Mrs S.Geetha/AP
	112420105	Bharathi.K		
	112420105	Chanti.G		
	112420105	Jayakumar.S		
	112420105	Saran.R		

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AUTOMATIC PLANT IRRIGATION SYSTEM USING WI-FI MICROCONTROLLER

MINI PROJECT

Submitted by

PRAVEEN KUMAR.B	**(112420105001)**
SHRIHARI.TK	**(112420105003)**
MANIKANDAN.P	**(112420105330)**
NARENDRAN.MG	**(112420105333)**
NITHISH.M	**(112420105335)**

In partial fulfillment of the requirements for the award of the degree

Of

BACHELOR OF ENGINEERING IN
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

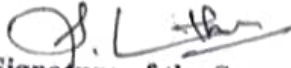## SRI VENKATESWARA COLLEGE OF ENGINEERING AND TECHNOLOGY, THIRUPACHUR ANNA UNIVERSITY: CHENNAI 600025

MAY 2023

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ANNA UNIVERSITY, CHENNAI BONAFIDE
CERTIFICATE

Certified that this project report titled "**AUTOMATIC PLANT IRRIGATION SYSTEM USING WI-FI MICRO CONTROLLER** " is the bonafide work of **MANIKANDAN.P(112420105330)** who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Signature of the Supervisor with date

Mrs. V.Supriya.

Assistant Professor

Department of Electrical

Electronics Engineering

Signature of the HOD with date

Mrs. S.Geetha.

Assistant Professor

Department of Electrical and

Electronics Engineering

Submitted for the University **EE8611-MINI PROJECT** examinations on
.... at **Sri Venkateshwara college of engineering and technology.**

INTERNAL EXAMINER

22/11/23

EXTERNAL EXAMINER

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ACKNOWLEDGEMENT

My wholehearted and sincere thanks to the "ALMIGHTY" for enabling me to do my research successfully.

First and foremost, I express my hearty sincerity to our Chairman **Dr.S.K. PURUSOTHAMAN** and our Principal **Dr.S.PALANI** for providing their appreciation and facilities which made the experience a pleasant one.

I would like to express my sincere gratitude to my philosopher, our vice Principal **Dr.M.SIVASUBRAMANIAN,** Associate Professor at, the Department of Electrical and Electronics Engineering for his Continues encouragement. Constructive and precise comments on my research work. His intellectual inquiry, friendly approach, and sustained encouragement catalyzed the progress of the research work.

I would like to express my sincere thanks to our Head of the Deapartment **Mrs. S.Geetha,** Assistant Professor, and all faculties in the Electrical and Electronics Engineering department for his encouragement, guidance, and support during this research work.

I sincerely appreciate and thank you very much for **Ms. N.lakshmi,II year M.E (EEE),SVCET** your help with the project .Thanks for helping me achieve my goal.I wanted to express my gratitudess for your training today.Thank you for being a great example of leadership for me

I am grateful to **Mr.Kishore, II year ECE, SVCET** for his great support of my research work. Finally, I owe my thanks to all staff members and friends who rendered their help in my Endeavour. I especially thank my parents for their unfailing support and encouragement throughout my project work.

MANIKANDAN.P

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ABSTRACT

Agriculture is the source of living of majority Indians and it also has countless influences on the economy of the country. The objective of our project is to reduce this manual involvement by the farmer by using an automated irrigation system whose purpose is to enhance water use for crops. This paper deals with an automatic irrigation system that senses the moisture content of the soil and automatically switches the pump when the power is on. In this project automation of farm irrigation and soil moisture control by using ESP8266(Node MCU) **Wi-Fi microchip module, soil moisture sensor**, temperature sensor(DHT11). This automatic irrigation system senses the Imoisture content of the soil and automatically switches the pump when the power is on.

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CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 CONCLUSION

Thus the "Automated Irrigation system based on soil moisture" has been designed and tested successfully. It has been developed by integrated features of all the hardware components used. The presence of every module has been reasoned out and placed carefully, thus contributing to the best working of the unit The moisture sensors measure the moisture level (water content) of the different plants. If the moisture level is going to be below the desired and limited level, the moisture sensor sends the signal to the Arduino board which triggers the Water Pump to turn ON and supply the water to the respective plant using the Rotating Platform/Sprinkler.

When the desired moisture level is reached, the system halts on its own, and the water pump is turned OFF. Thus, the functionality of the entire system has been tested thoroughly and it is said to function successfully.

6.2 APPLICATION

The intelligent watering system is suitable for small areas such as parks, villa courtyards, landscaping lawns, greenhouse gardens, etc. It is easy to operate and can be watered anytime and anywhere.

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PCB FOR THIS ESP32 HOME ANTOMATION SYSTEM

A THESIS OF
MINI PROJECT

Submitted by

AADHIVALAVAN.K.S (112420105301)

BHARATHI.K   (112420105309)

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SARAN.R   (112420105349)

In partial fulfillment of the requirements for the award of the degree

Of

BACHELOR OF ENGINEERING

IN

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SRI VENKATESWARA COLLEGE OF ENGINEERING AND TECHNOLOGY, THIRUPACHUR

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MAY 2023

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ANNA UNIVERSITY, CHENNAI

BONAFIDE CERTIFICATE

Certified that this project report titled "PCB FOR THIS ESP32 HOME ANTOMATION SYSTEM" is the Bonafide work of BHARATHI.K (112420105309) who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Signature of the Supervisor with date

Mrs. S.Geetha

Assistant Professor

Department of Electrical and

Electronics Engineering

Signature of the HOD with date

Mrs. S. Geetha

Assistant Professor

Department of Electrical and

Electronics Engineering

Submitted for the University EE8611-MINI PROJECT examinations on
22|11|23 at Sri Venkateshwara College of Engineering and Technology.

INTERNALEXAMINER

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EXTERNALEXAMINER

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I would like to express my sincere gratitude to my philosopher and Supervisor, **Dr. M. SIVASUBRAMANIAN**, Vice Principal & Associate Professor at, the Department of Electrical and Electronics Engineering for his Continues encouragement. Constructive and precise comments on my research work. His intellectual inquiry, friendly approach, and sustained encouragement catalysed the progress of the research work.

I would like to express my sincere thanks to **Mrs. S.GEETHA**, Assistant Professor, and Head Of the Department in the Electrical and Electronics Engineering department for his encouragement, guidance, and support during this research work.

I would like to express my sincere thanks to **Mrs. V.SUPRIYA**, Assistant Professor, and all faculties in the Electrical and Electronics Engineering department for his encouragement, guidance, and support during this research work.

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BHARATHI.K

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ABSTRACT

This project presents the overall design of Home Automation system (HAS) with low cost and wireless system. It specifically focuses on the development of an ESP32 based home automation system that is able to control various components via internet or be automatically programmed to operate from ambient conditions. In this project, we design the development of a firmware for smart control which can successfully be automated minimizing human interaction to preserve the integrity within whole electrical devices in the home. We used Node MCU, a popular open source ESP32 platform, to execute the process of automation. Different components of the system will use different transmission mode that will be implemented to communicate the control of the devices by the user through Node MCU to the actual appliance. The main control system implements wireless technology to provide remote access from smart phone. We are using a cloud server-based communication that would add to the practicality of the project by enabling unrestricted access of the appliances to the user irrespective of the distance factor. We provided a data transmission network to create a stronger automation. The system intended to control electrical appliances and devices in house with relatively low cost design, user-friendly interface and ease of installation. The status of the appliance would be available, along with the control on an android platform. This system is designed to assist and provide support in order to fulfil the needs of elderly and disabled in home. Also, the smart home concept in the system improves the standard living at home.

CHAPTER 8

CONCLUSION :

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