KJ'S EDUCATIONAL INSTITUTES

TRINITY COLLEGE OF ENGINEERING AND RESEARCH PUNE

(Accredited by NAAC with A+ Grade Approved by AICTE & Affiliated to SPPU, Pune)

Sr. No. 25 & 27, Near. Khadi Machine Chowk, Kondhwa Annexe, Pune–48, Maharashtra

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

Class: BE **Academic year: 2023-24**

Final Year Project list

Group No	Roll no	Name of Students	Name of guide	Topic
G-1	EN4020	ADSUL SARANG BALASAHEB	Prof. P.P. Chavan	IOT based Animal repelling System
	EN4006	JAGTAP SAHIL SHARAD		
	EN4001	RAUT ATHARVA SATISH		
G-2	EN4002	BHAGWAT KAJAL PRAKASH	Prof.A. R. Deshmukh	IOT based Women safety gadget
	EN4015	SAWANT PAYAL SANTOSH		
	EN4012	MOHITE SHIVDEEP JAYWANT		
G-3	EN4007	JENN SHREYASH PARMESHWAR	Dr. S.M. Handore	Battery Management System
	EN4009	KAWADE RUTUJA BALASAHEB		
	EN4003	CHAUDHARI PAYAL ARJUN		
G-4	EN4013	JADHAV NAMRATA MOHAN	Dr. S.M. Handore	Plant Disease detection using Deep learning
	EN4005	JADHAV SAKSHI SANTOSH		
	EN4018	TONDARE EKTA YOGIRAJ		
G-5	EN4004	JADHAV PRATHAMESH BANDU	Prof. Amol C. Bhosale	Online Attendance tracking system using AWS cloud.
	EN4016	SHAIKH MULANI AFSHA KADAR		
	EN4017	SHELAR PRATIK RAJESH		
G-6	EN4011	MAHAMUNI SUYASH TANAJI	Prof.A.G.Sawant	Online Placement Management system using AWS connectivity.
	EN4010	MALUSARE KUNAL K		
G-7	EN4019	WAGHMODE PRATIK RAJU	Prof.P.P.Deshmukh	Automatic Hydrpholic system using IOT
	EN4022	SHIPAI SADAF RIYAJ		
	EN4008	KALE PRASHANT PRATAPRAO		
G-8	EN4014	PATWEKAR RIZWAN MD ILIYAS	Prof. Dipti Pande	IOT based Weather Tracking system
	EN4021	MANE KSHITIJA ANIL		

Prof. Amol C. Bhosale

Project coordinator

Dr. S.M. Handore

HOD, E&TC

Head

Dept. of E & TC

Trinity College of Engg. & Research

Pune-411 048.

Trinity College of Engineering & Research Pune - 48 Dept. of E & TC

(Accredited By NAAC 'A+' Grade)

Trinity College of Engineering and Research, Pune 411048.

CERTIFICATE

This is to certify that, the project report titled

"BATTERY MANAGEMENT SYSTEM WITH CELL BALANCING USING PIC18F4550"

is a work carried out
By

Payal Chaudhari (B19653003)
Shreyash Jenn (B19653007)
Rutuja Kawade (B19653009)

Under the supervision/guidance of
Dr. S.M. Handore

During the academic sessions of year 2023 to 2024 and it is here by approved for the partial fulfillment of the mandatory requirement of Savitribai Phule Pune University, for Project, under the faculty of final year of Engineering (E&TC), of Savitribai Phule Pune University.

Dr. S.M. Handore
Project Guide

External Examiner

Trinity College of Engineering & Research Pune - 48 Dept. of E & TC

Dr. S.M. Handore
HOD (E&TC)

Principal
Trinity College of Engineering & Research

Date:
Place: Pune.

ABSTRACT

In electric vehicles, Battery Management System (BMS) plays a significant role in cell voltage equalization. In the passive cell voltage balancing method, strong cells dissipate excess energy through resistors in the form of heat. So, this will increase the overall battery pack temperature, which may damage the battery pack when it exceeds its permissible temperature limit. Whereas in the active cell balancing method, the extra energy will be stored in energy storage elements and that stored energy will be transferred to the lowest voltage cells to equalize the cells voltages among all the cells in the battery pack. The existing active cell voltage balancing methods have some disadvantages like low efficiency, bulk in volume, less reliable and more time taking for cell voltage equalization. To overcome these disadvantages in the active cell voltage balancing, in this paper, a new optimized active cell voltage balancing method based on a closed-Loop Switched-Capacitor Structure (CLSCS) has been proposed. The proposed method attains the shortest path from one cell to another cell in the battery pack. Consequently, it will improve the voltage equalization, speed and overall efficiency of the battery pack, as well as it will reduce the cost of the battery pack. This method is robust and adaptive for the imbalance of the cell voltages. Both simulation and experimental results are presented to validate the proposed work. The simulation work is carried out on a MATLAB environment. The overall cell voltage balancing speed is improved with the proposed method and the efficiency of the proposed converter structure is up to 95%.

Keywords : Battery management system, Over-charging, Over-discharging, Current and Voltage limit, Temperature level.

CERTIFICATE

This is to certify that, the project report titled

Trinity College of Engineering and Research, Pune 411048.

"ONLINE PLACEMENT MANAGEMENT SYSTEM WITH AWS CONNECTIVITY"

Submitted By

Kunal Kaluram Malusare (B190653010)
Suyash Tanaji Mahamuni (B190653011)

Is a bonafide work carried out by them under the supervision and guidance of **Prof. Anil G.Sawant** and it is approved for partial fulfillment of the requirement for BE (Electronics and Telecommunication Engineering) course of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (Electronics and Telecommunication Engineering).

This project report has not been earlier submitted to any other institute or university for the award of any degree or diploma.

Mr. Anil G. Sawant
Project Guide

Trinity College of Engineering & Research ★ Pune - 48 ★ Dept. of E & TC

Dr. S. H. Handore
HOD (E&TC)

External Examiner

Principal
K.J.'s Educational Institute's
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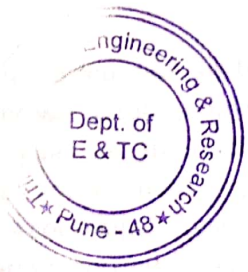
S. No. 25 & 27, Kondhwa-Saswad Road
Pisoli, Pune-411 048

Date:
Place: Pune.

Abstract

Online placement management system to streamline the placement process for educational institutions. Currently, many colleges rely on manual systems that are time-consuming, requiring significant paperwork and human effort to manage student placement data. Our proposed solution is an online portal accessible to all authorized users within the institution, which will greatly enhance data management efficiency. This system will reduce the reliance on manual processes, allowing placement officers to handle student information more effectively and companies to easily request lists of eligible candidates based on specific criteria. By automating and digitizing the placement process, the system will not only save time but also facilitate better interaction between students and recruiting companies, ultimately improving the overall effectiveness of the placement activities.



Codera Embedded Systems And Softwares Pvt. Ltd.

"Ratnal Vihar", Yashwant Nagar Akluj 413101, MH, India

Website: www.codera.info contact: contact@codera.info

Date: 29/03/24

Ref: cert/intern/22/001

To Mr. Suyash Mahamuni

This is to certify that **Mr.Suyash Mahamuni** in appreciation of his work as a **Project Intern**. He worked under the leadership and supervision of our project manager Balkrushna Waghmare, from the **7th August 2023** to **29th March 2024**.

During the tenure of his internship, he worked close on a live project and trainings. We found him extremely hardworking, ambitious and meticulous. The information, research and findings that were presented by him in the report were authentic and feasible.

We wish him good luck and every success in life and career.

Trinity College of Engineering & Research * Pune - 48 * Dept. of E & TC

Borawake.S.

Issuing Authority name: Mr. Shreyas Borawake
Designation: Head HR Dept.

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Date: 29/03/24

Ref: cert/Intern/22/002

To Mr. Kunal Malusare

This is to certify that **Mr. Kunal Malusare** in appreciation of his work as a **Project Intern**. He worked under the leadership and supervision of our project manager Balkrushna Waghmare, from the **7th August 2023** to **29th March 2024**.

During the tenure of his internship, he worked close on a live project and trainings. We found him extremely hardworking, ambitious and meticulous. The information, research and findings that were presented by him in the report were authentic and feasible.

We wish him good luck and every success in life and career.

Trinity College of Engineering & Research
Dept. of E & TC
Pune - 48

Borawake S.

Issuing Authority name: Mr. Shreyas Borawake
Designation: Head HR Dept.

CERTIFICATE

(Accredited By NAAC 'A+' Grade)

This is to certify that, the project report titled

"PLANT DISEASE DETECTION USING DL"

is a work carried out By

Jadhav Namrata (B190653013)

Jadhav Sakshi (B190653005)

Tondare Ekta (B190653017)

Under the supervision/guidance of Dr. S.M. Handore

during the academic sessions of year 2023-2024 and it is here by approved for thepartial fulfilment of the mandatory requirement of Savitribai Phule Pune University,for Project, under the faculty of final year of Engineering (E&TC), of Savitribai Phule Pune University.

Dr. S.M. Handore
Project Guide

Dr. S.M. Handore
HOD (E&TC)

Dept. of E & TC
Trinity College of Engineering & Research Pune - 48

Dr. A.B. Auti
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S. No. 25 & 27 Kondhwa-Saswad Road
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Date:

Place: Pune.

External

Abstract

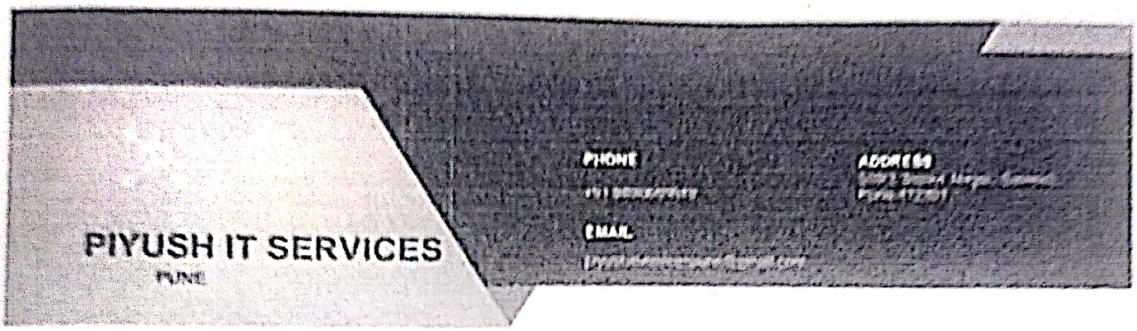
Today's technology has brought revolution in many fields including Agriculture. It has a lot of potential to boost crop output and to deal with food security. Plant diseases pose significant threats to agricultural productivity, necessitating efficient and accurate detection methods to ensure crop health and food security. Traditional methods of plant disease detection, often reliant on expert observation and manual analysis, are time-consuming and prone to human error.

Tomato being one of the most essential and widely consumed vegetables not only in India but globally, is prone to various diseases which cause severe yield loss. There are 9 different diseases which attack tomato leaves. And so, it demands a technology which will detect the disease and increase the production Recent advancements in deep learning (DL) offer promising alternatives, leveraging powerful computational models to automate and enhance the accuracy of disease identification.

The Dataset from Kaggle is used along with some manual data. However, CNN is used for image classification tasks which automatically learns hierarchical features from raw pixel data. Then to mitigate overfitting, a K-Fold cross-validation technique is used and along with it for developing and deploying advanced disease detection algorithm TensorFlow is utilized. Increasing population demands production, so this technique will not only boost the production but also, will reduce the time of production and so the workload.

In conclusion, deep learning offers a powerful tool for automated plant disease detection, with the potential to transform agricultural practices. Future work will focus on integrating these models into mobile and IoT devices for real-time monitoring and expanding the dataset to cover a broader range of plant species and diseases.

SPONSORSHIP LETTER



To Whomsoever It May Concern

We are pleased to inform you that based on the recommendation , Piyush IT Services would like to offer you sponsorship for your Btech project from 01/01/2024 to 15/05/2024.

Sr No	Name
1	Sakshi Jadhav
2	Namrata Jadhav
3	Ekta Tondare

As part of this sponsorship, you will receive, mentorship, and opportunities for professional development from our experienced team.

We believe that your skills and dedication will greatly benefit our organization, and we are excited to welcome you to our team. Once again, congratulations on your achievements, and we look forward to a successful collaboration.

Rushikesh S. Tanksale
PIYUSH IT SERVICES
PROPRIETOR

Proprietor
Piyush IT Services

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