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Sant Gajanan Maharaj College of Engineering, Mahagaon

Department of Electronics & Telecommunication Engineering

Project Work Diary



Academic Year: 2023-24

Semester: VII/VIII

Title of Project: "Automatic Irrigation and Fertilization system to the root zone of plants"

Name of Students:

| Roll No | Name of Students | Ph. No. | Email ID |
|---------|-----------------------------|------------|----------------------------|
| 01 | Mr. Roshan Ashok Avdan | 8530408749 | awadanroshan01@gmail.com |
| 04 | Mr. Bharat Laxman Gawade | 7350239109 | bgavade418agmail.com |
| 10 | Mr. Abhishek Dattatray Kole | 9960837964 | koleabhishek2002@gmail.com |

Student Photographs



(Mr. Roshan A. Avadan)



(Mr. Bharat L. Gawade)



(Mr. Abhishek D. Kole)

Name of the Guide: Prof. S. T. Matale

Co-Ordinator: Prof. V. K. Salunkhe

Name of the HOD: Prof. A. B. Farakte

Project Photo with Guide & Students:



Sign of Guide

Sign of H.O.D

CONCEPTUAL DESIGN OF THE PROJECT

Block Diagram

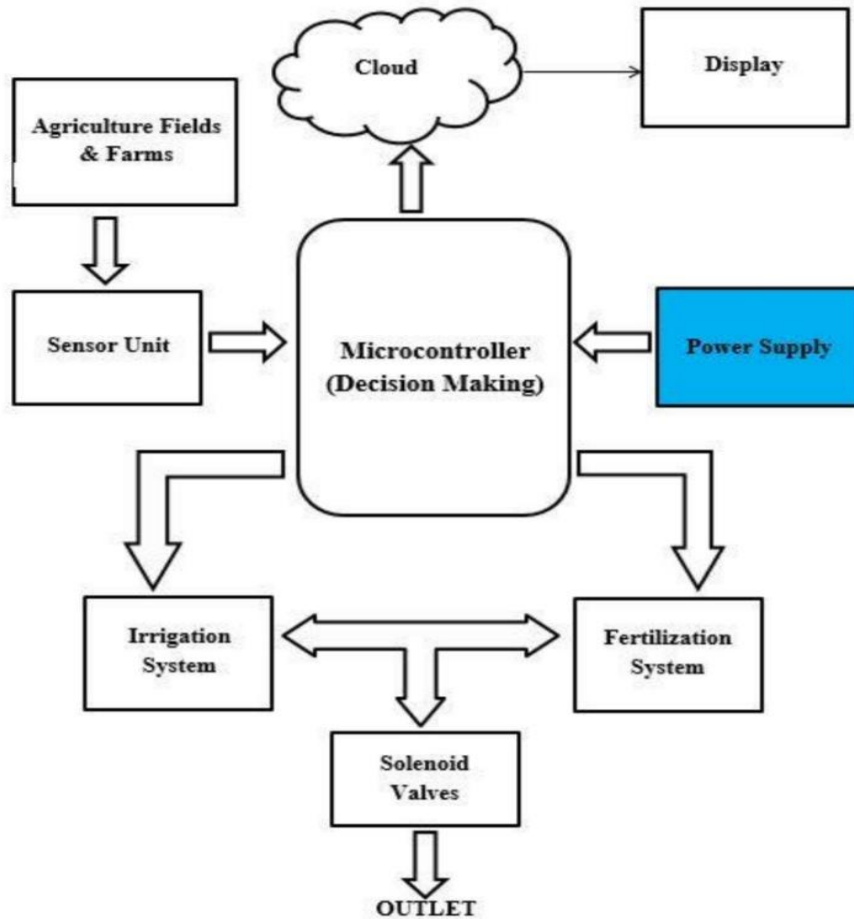


Fig no.1 Block diagram of Irrigation and Fertilization System.

Fig no.2 Circuit diagram of irrigation and fertilization system.

Flow Chart of the Project:

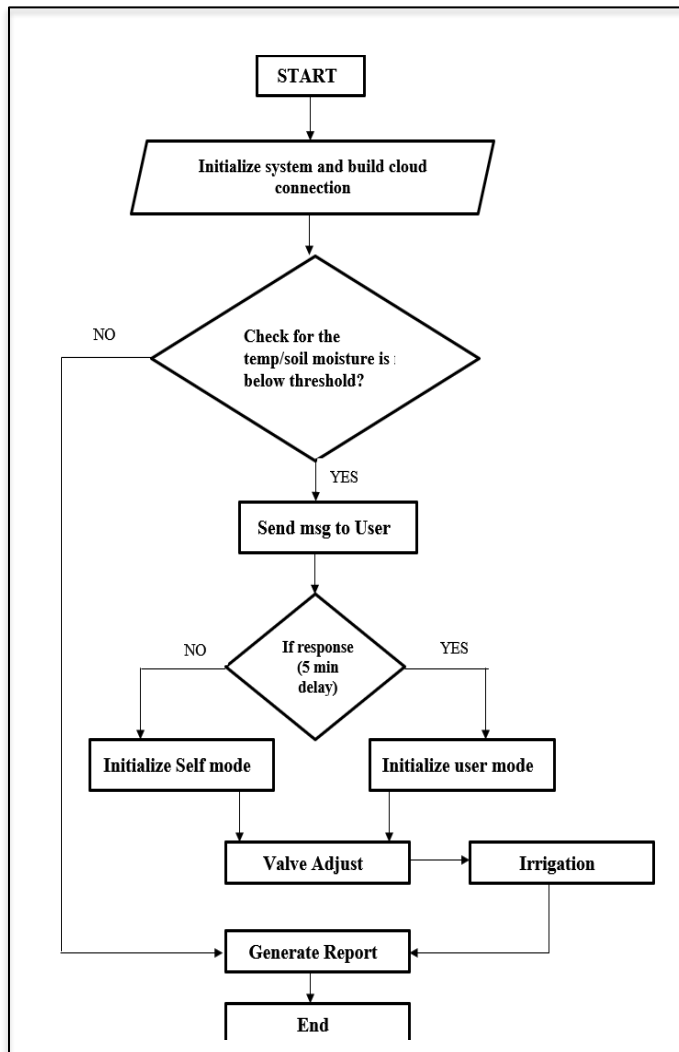


Fig no. 3 flow chart of irrigation system

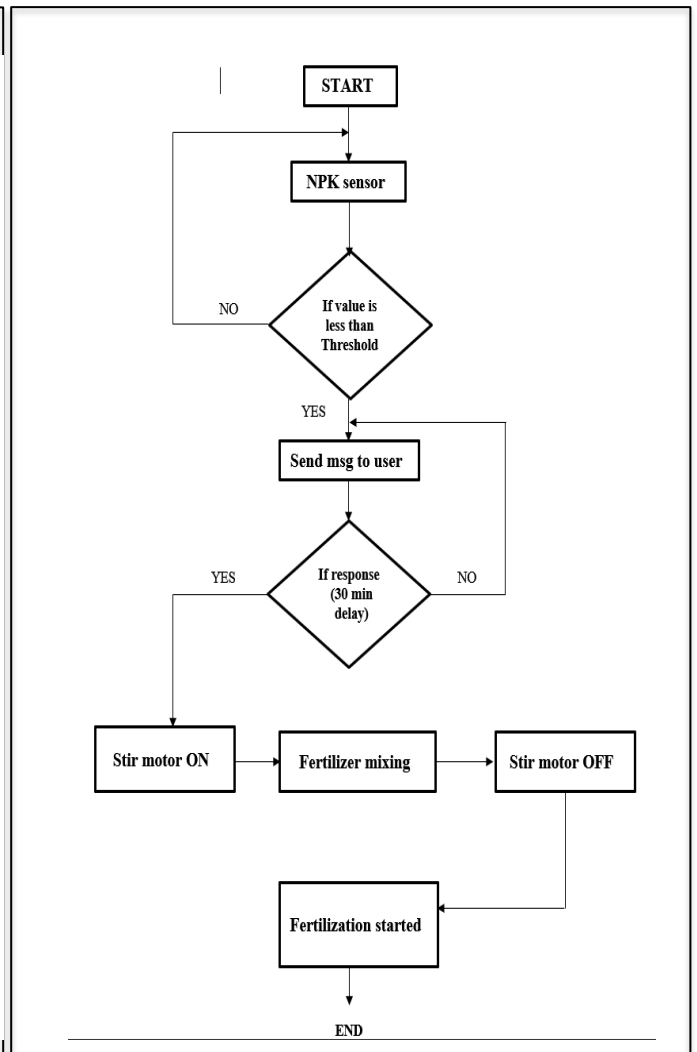


Fig no. 4 flow chart of fertilization system

WEEKLY PROJECT PROGRESS REPORT

- **Date:** 2 / 9 /2023

- **Work Done:**

- During the first week of the project, we established our group, discussed area of interest, and sent them to the project coordinator.
- This week, appropriate guides were assigned to each group.

- **People Visited:**

- Prof. V. K. Salunkhe
- Prof. S. T. Matale

- **Project Notes Prepared:**

- After consulting with friends, three students organised a group and received confirmation from the project coordinator.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 9/ 9 /2023

- **Work Done:**

- Started searching topics on the Smart India Hackathon portal.
- Discussed about the problem statements.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Searched and collected more information on the problem statements.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 16/ 9/2023**

- **Work Done:**

- Two topics found.
- 1. Automatic irrigation and fertilization.
- 2. Drug dispenser.
- Searched on the current issue.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- List out the problem to work on.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 23/ 9/ 2023

- **Work Done:**

- Discussed problems related to the topics.
- Created powerpoint presentation on two topics.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Gathered information of the two topics.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 30 / 9/ 2023

- **Work Done:**

- We have given a presentation on the two topics.
- One topic finalized for further project work.

Topic title “automatic irrigation and fertilization to the root zone of plants”

- **People Visited:**

- Prof. S. T. Matale
- Prof. V. K. Salunkhe

- **Project Notes Prepared:**

- Created a Powerpoint presentation for the two topics.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 14 / 10/ 2023**

- **Work Done:**

- Collection of theoretical data to related project.
- Discussed research paper related to our project.

- **People Visited:**

- Prof. S. T. Matale
- Prof. A. B. Farakte

- **Project Notes Prepared:**

- Collect information for synopsis.
- Clear doubts from guide.

- **Sign of Students:**

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- **Sign of Guide:**

- **Sign of HOD / Co-ordinator:**

WEEKLY PROJECT PROGRESS REPORT

- **Date: 21 /10/ 2023**

- **Work Done:**

- Discussed hardware and software related to our project.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Collected related information of the hardwares.

- **Sign of Students:**

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- **Sign of Guide:**

- **Sign of HOD / Co-ordinator:**

WEEKLY PROJECT PROGRESS REPORT

- **Date: 28 / 10 /2023**

- **Work Done:**

- Discussed with the guide about what we actually wanted to do in this project.
- Created a block diagram for our project.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Watched videos related to irrigation and fertilization and prepared some notes.
- Cleared doubts from this.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 4/ 11/ 2023

- **Work Done:**

- During this week we discussed the flow of our project and created flow chart for irrigation and fertilization purpose.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Collected data sheets of the required components.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 11/ 11/ 2023**

- **Work Done:**

- Started making a synopsis of our project.
- Created a summary of our project.

- **People Visited:**

- Prof. S. T. Matala

- **Project Notes Prepared:**

- Discussed change to be done in synopsis.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 18/ 11 / 2023**

- **Work Done:**

- Submitted project synopsis to the department.

- **People Visited:**

- Prof. S. T. Matale
- Prof. V. K. Salunkhe

- **Project Notes Prepared:**

- We submitted our project synopsis to the project co-ordinator.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 16/ 12/ 2023**

- **Work Done:**

➤ Searched components from different websites and shops.

- **People Visited:**

➤ Prof. S. T. Matale.

- **Project Notes Prepared:**

➤ Read the datasheets of required components.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 23 / 12 /2023**

- **Work Done:**

- The components required for the project which we had ordered have been delivered.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Shown the components to the guide.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 30 / 12 /2023**

- **Work Done:**

- We created a circuit diagram of our project.
- Watched some online lecture related to our project.

- **People Visited:**

- Prof. S. T. Matale
- Prof. A. B. Farakte

- **Project Notes Prepared:**

- The guide helped us to understand some concepts and some connections.
- Studied arduino library.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 6 / 1 /2024

- **Work Done:**

- Tested rain drop sensor according to the data sheet.
- Also tested NPK sensor.

- **People Visited:**

- Prof. S. T. Matala.

- **Project Notes Prepared:**

- Guide saw our hardware and some mistakes were corrected.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 13/ 1/2024

- **Work Done:**

- Tested DHT11 sensor and soil moisture sensor.
- Finally all components were tested.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- We got desired results from aal the components.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 20/ 1 /2024

- **Work Done:**

- We connected all components to the ESP8266 microcontroller for testing purpose.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Guide helped us to remove some errors from the program.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 3/ 2 /2024

- **Work Done:**

➤ Started designing the module for our project.

- **People Visited:**

➤ Prof. S. T. Matale.

- **Project Notes Prepared:**

➤ Study the arduino hand books.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 10/ 2 /2024

- **Work Done:**

➤ Program dump in ESP8266 module.

- **People Visited:**

➤ Prof. S. T. Matale.

- **Project Notes Prepared:**

➤ Implemented project without structure.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 17 / 2/2024

- **Work Done:**

- Finally created structure of our project.
- Started creating an application to display values.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Seen some videos of kodular for creating application.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 2 / 3 /2024

- **Work Done:**

- We created an application named as kp2 and tested it with hardware.

- **People Visited:**

- Prof. S. T. Matala.

- **Project Notes Prepared:**

- Verification successfully done.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date: 16/ 3/ 2024**

- **Work Done:**

- We implemented the overall components on the structure of the project and tested it well.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Verification successfully done.

- **Sign of Students:**

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- **Sign of Guide:**

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- **Sign of HOD / Co-ordinator:**

WEEKLY PROJECT PROGRESS REPORT

- **Date:** 23/ 3/ 2024

- **Work Done:**

➤ We started collecting information to create report of our project.

- **People Visited:**

➤ Prof. S. T. Matale.

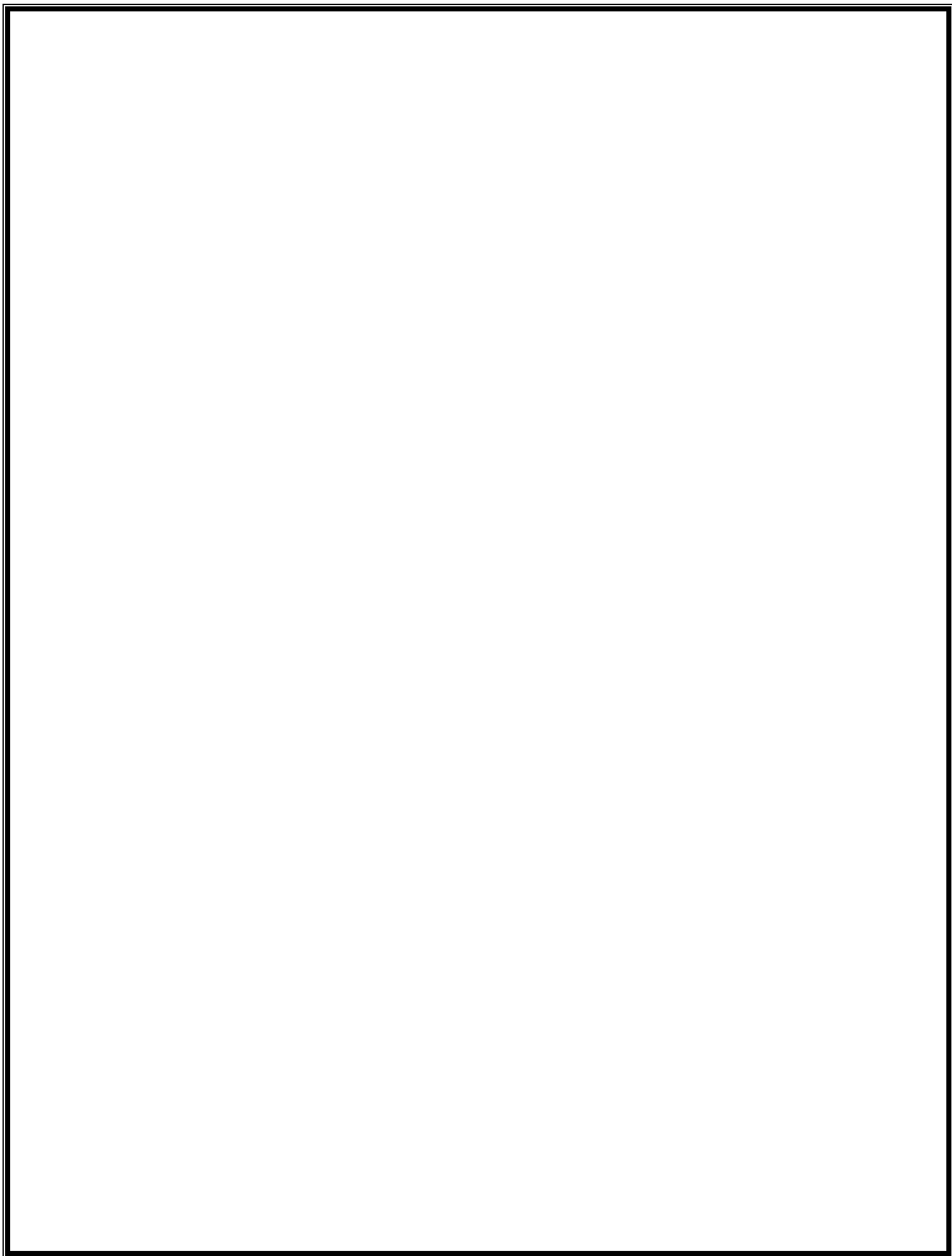
- **Project Notes Prepared:**

➤ Collected information for paper publishing.

- **Sign of Students:**

- **Sign of Guide:**

- **Sign of HOD / Co-ordinator:**



WEEKLY PROJECT PROGRESS REPORT

- **Date:** 6/ 4/ 2024

- **Work Done:**

- We tested the overall hardware to know whether it is properly working or not.

- **People Visited:**

- Prof. S. T. Matale.

- **Project Notes Prepared:**

- Verified successfully.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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WEEKLY PROJECT PROGRESS REPORT

- **Date:** 13/ 4/ 2024

- **Work Done:**

➤ We published the paper and printed the report.

- **People Visited:**

➤ Prof. S. T. Matale.

- **Sign of Students:**

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- **Sign of HOD / Co-ordinator:**

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