MEETING MINUTES – Real Time Soil Moisture Monitoring System – Group 02

Date of Meeting: 16/08/2024   **Location:** F2F, CSSC   **Chairs: Asad Maza**

Minutes Prepared By: Bella Bao

1. Purpose of Meeting *(add rows as necessary under banner headings)*

Client Meeting – Deliverable 1 Discussion 12:00PM – 13:00PM

In this meeting we discussed with client for more details or the project, showed our draft deliverable 1 report and received feedbacks.

2. Attendance at Meeting

Name	Department / Division	E-mail	Phone
Asad Maza	MIT – Group 2	21211711@student.uwa.edu.au	N/A
Bella Bao	MIT – Group 2	23843181@student.uwa.edu.au	N/A
David Shang	MIT – Group 2	24071326@student.uwa.edu.au	N/A
Dharani Kumari Nagali	MIT – Group 2	23870369@student.uwa.edu.au	N/A
Hanni Bao	MIT – Group 2	23888818@student.uwa.edu.au	N/A
Udaymithra Kalla	MIT – Group 2	23858856@student.uwa.edu.au	N/A

3. Meeting Agenda

Client Meeting – Deliverable1 Discussion 12:00PM – 13:00PM

1. Recap on discussion with Rachael

2. Key Points of the project detail and documentation discussed and clarified

3. Deliverable 1 reviewed and feedback

4. Meeting Notes, Decisions, Issues

Client Meeting – Deliverable 1 Discussion 12:00PM – 13:00PM

1. **Recap on Discussion with Rachael**

   o It was suggested to conduct a feasibility study on soil sensors.

   o However, both parties agreed that this should not be the current focus of the project and can be considered for future work.

   o If soil sensor research is pursued in the future, Truebner's research on sensors can be referenced.

2. **Key points of documentation discussed:**

- **GPS Location:** The possibility of incorporating GPS location data was discussed.

- **Farmer Connectivity:** It is assumed that farmers will have Wi-Fi connectivity, which can be used for data transmission.

- **Power Management:** Power management strategies such as sleep cycle/duty cycle were discussed. The current focus should be on developing a basic prototype, and solar panels will not be considered for now.

- **John Deere Integration:** John Deere does not have a built-in visualization tool; it is typically done by a third party. The team proposed using a customized dashboard for this purpose.

- **GRDC Funding:** GRDC (Grains Research and Development Corporation) was mentioned as a potential source of funding.

- **Device Loan:** The team can provide a list to Atif for loaning devices required for the project.

- **Prototype Development:** The team will start with developing a basic prototype, focusing on microcontrollers, sensors, and connectivity (excluding John Deere integration for now).

3. **Next Step**

   1. Continue to work on deliverable 1 documentation.

   2. Gateway Communication: Explore LoRa-based communication for minimal cost. Consider storing data on a gateway (e.g., Raspberry Pi) before sending it to the cloud or other systems.

   3. Dashboard Development: Develop a simple dashboard with functionality that may be of interest to farmers, such as: Moisture levels, Moisture at different depths, Geographic location, Data interpretation using the Angular Distance Weighting (ADW) method.

   4. Start building the basic prototype.

5. Action Items

Action	Assigned to	Due Date	Status
Deliverable 1 report update	All	19th Aug	Work In Progress
Work out details of next meeting	All	22nd Aug	Work In Progress

6. Next Meeting

Date: **23/08/24**		Time:	**TBA**	Location:	**TBA**
Agenda:	TBA				