MONTHLY WORK REPORT

(To be filled by the Candidate)

Candidates Name: Mr. Moses Charlie Yalla	**Designation:** Intern
Period: 14 September 2025 – 14 October 2025	**WBL Level:** I
Department: Industrial Material and Systems division	**Employee Code:** 210
Name of the Supervisor: Mr. Abhishek Jha	**Name of the HoD:**
Name of the Project: Development of an Atmospheric Instrumentation GUI prototype for Data Visualization and Analysis	
Technology Area: Software Development & Atmospheric Science	

Details of the work done

Objective

(i) To design and develop a **centralized, web-based Graphical User Interface (GUI)** Prototype that showcases all ongoing and completed projects under the Industrial Material and Systems Division (IMSD).

(ii) The goal was to create an intuitive, visually engaging platform through which researchers, students, and visitors can **explore atmospheric instruments and related documentation** such as PDFs, videos, and images.

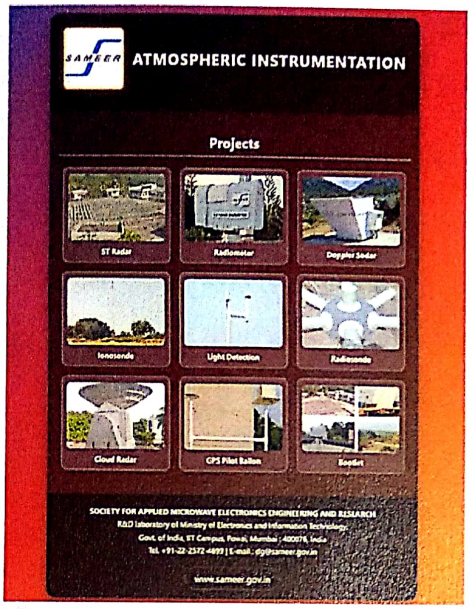
(iii) This project bridges **computer science and design thinking**, focusing on usability, accessibility, and human–computer interaction.

Tools & Technologies Used

- **Frontend:** HTML5, CSS3, JavaScript (ES6)
- **Visualization Library:** Chart.js (for data representation placeholders)
- **Design & Prototyping:** Figma (for wireframes and layout planning)
- **Version Control & Hosting:** Git and GitHub Pages
- **Utilities:** VS Code, Chrome Developer Tools
- **GitHub Repository:** https://moseschariieofficial.github.io/Atmospheric-Instrumentation-GUI/
- **QR Code:**

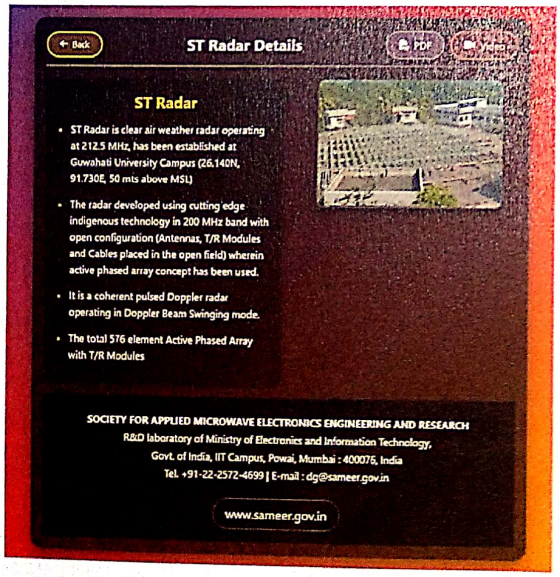
Details of Work Done / Key Tasks Performed

(i) GUI Concept and Interface Design



- Designed the interface structure in **Figma**, applying SAMEER's color palette and visual consistency.
- Created **interactive project cards** for each IMSD project (ST Radar, Radiometer, Doppler Sodar, Ionosonde etc.).
- Focused on **human-centered interaction principles**—clarity, feedback, and ease of navigation.
- Organized project information hierarchically for quick scanning and deeper exploration.

(ii) Frontend Development and Interactivity



- Implemented the GUI using **HTML, CSS, and JavaScript** with responsive grid layouts.
- Added hover animations, transitions, and clear button affordances for improved user experience.
- Embedded **downloadable PDFs** in each project's detail section for instant document access.
- Added a **one-click video button** allowing immediate playback of demonstration or educational videos.
- Tested across browsers to ensure stability and responsiveness.

(iii) **Data Visualization Prototype**

- Integrated **Chart.js** placeholders to display example atmospheric parameters such as Brightness Temperature, LWP, and IWV.
- Designed dynamic chart areas that will later accept live or historical data feeds.
- Experimented with different chart types (line, bar, scatter) for future scientific visualizations.

(iv) **Deployment and Documentation**

- Deployed the live GUI on **GitHub Pages**, making it accessible for demonstration and feedback.
- Documented the entire project in a **README.md**, covering setup, code structure, and screenshots.
- Included a **QR code** in the report and README for instant viewing during reviews or presentations.
- Maintained version control through Git for traceable updates and collaboration readiness.

Learning Outcomes

- Gained end-to-end understanding of **interface design, frontend development, and deployment.**
- Learned to apply **human–computer interaction (HCI)** principles in a technical research context.
- Strengthened practical skills in **Figma prototyping, responsive web design, and Git/GitHub workflow.**
- Developed the ability to **translate complex research content into visual and interactive formats.**
- Created a portfolio-ready artifact demonstrating synergy between **technology and design,** aligning with future **M.Des** goals.

5. Contribution to IMSD (SAMEER)

- Delivered a **centralized GUI platform** that improves visibility of IMSD projects for internal teams and external visitors.
- Simplified access to project documentation and demonstration videos through direct links within the interface.
- Provided a **scalable front-end framework** that can later host real-time data visualizations or integrate with existing retrieval systems.
- Enhanced SAMEER's outreach and knowledge-sharing capabilities through design-driven digital communication.

Future Plan / Next Steps

- Connect live datasets or retrieval algorithm outputs to the GUI via API integration.
- Conduct formal usability testing with research staff to refine layout and interaction patterns.
- Expand the visual dashboard with filtering and comparison features for atmospheric parameters.
- Prepare a case study from this project for my M.Des portfolio, highlighting design process and technical implementation.

Signature of the Candidate	Signature of Supervisor	Signature of HoD
Charlie		
Date: 14-10-2025	Date: 14-10-2025	Date: 14-10-2025

CANDIDATE FEEDBACK

(To be filled and signed by the Supervisor/HoD)

Candidates Name: Mr. Moses Charlie Yalla	**Designation:** Intern
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Name of the Project: Development of an Atmospheric Instrumentation GUI prototype for Data Visualization and Analysis

Sr. No.	Criterion	Marks in the Scale of 1-10 (1-Poor, 10-Excellent)
1	Initiative (personal drive, enthusiasm)	9
2	Acceptance of responsibility	8
3	Technical knowledge, problem solving skills and expertise	9
4	Work quality and output	9
5	Communication (Oral/Written) skills	9
6	Behavior, tact and courtesy	10
7	Attitude/willingness to work	9
8	Time management	9
9	Punctuality and regularly	9
10	Self-improvement	10
	Overall Score (1-10)	9.1/10

Signature of Supervisor	Signature of HoD
Date: 14-10-2025	**Date: 14-10-2025**

Evaluation Guidelines:

1. Candidate will submit monthly work report to the supervisor.
2. Supervisor will submit his feedback on the work report to concerned Head of the Division.
3. Supervisor will forward the monthly report along with supervisor's feedback to center coordinator Shri. Vijay Sarode, WBL Coordinator (Email: vijay@sameer.gov.in)
4. Supervisor feedback should be in the format given above.
5. The Mid-term and End of term review of WBL candidates by TECH-MEC would be carried out based on evaluation of survey/Study, Design aspects, technology understanding, Initial Prototyping etc.