

Minutes of the CSSR4Africa Team Meeting

Date and Time: July 28, 2025
Venue: Room C210.
Status: Draft.

Participants

Assane Gueye
Birhanu Shimelis Girma, Chairman
Clifford Onyonka
Ibrahim Jimoh
Muhammed Danso
Muhirwa Richard
Tsegazeab Tefferi
Yohannes Haile

Birhanu Shimelis welcomed the participants to the meeting and the Committee members then discussed all the items of the meeting agenda. These discussions are summarized below.

1. Approval of the minutes of the last meeting

The participants reviewed the minutes of the previous meeting held on July 21, 2025 and approved them as a true and accurate record of the meeting.

2. Matters arising from the minutes

Agenda item 1: Update the status of the milestones with their new due dates.

Action: Done.

Agenda item 2: Investigate the approach of having the BehaviorTree.Cpp library as a system-wide installation

Action: Done.

Agenda item 3: Demonstrate the key-word spotting ASR model

Action: Done.

3. Progress reports.

Matters arising from the progress reports of 25th July 2025 discussed below in agenda 5, 6, 7,8 and 9.

4. Status of tasks, deliverables, and software.

Work is on-going to ensure that robot localization is integrated into GitHub by Friday 31st July 2025.

5. Interactive demo.

Team discussed the initiative of making pepper robot more interactive and they proposed two possibly options; 1 to use open AI API for the interaction, this will lift the heavy processing on the pepper robot, and it will make the interaction faster and more natural, even though it is paid the price is relatively low. The problem with it comes with privacy concern because the user will be sending the voices data to openAI server without explicit consent. The second option is to use the open-source option: In this approach, the interaction pipeline would consist of ASR (Automatic Speech Recognition), an LLM (Large Language Model), and TTS (Text-to-Speech). The specific LLM to be used has not yet been decided, as the team is still evaluating the best option. This approach is more suitable for the CSSR4Africa use case, as it would be hosted locally. Additionally, the team would have greater flexibility to innovate due to increased control over the system.

6. ASR.

The fine-tuned ASR model for Kinyarwanda has been found and it is readily available on hugging face.

7. Text - to - speech

The current TTS models they sound too robotic, and the speech are too fast for a person to recognize what is being spoken, the team suggested finding a way to improve on this issue. Muhirwa has accepted that for the Kinyarwanda TTS version it is possible to tweak some parameters like speech rate but for English it is trick because they must develop the ROS driver for it, and it would be better to find the existing one and it will be used instead.

8. Software Updates.

Everyone has privileges to edit the section they are working on but before making or pushing any changes they should request ownership from Danso.

9. Software installation manual.

The team highlighted that the installation process needs to be improved to reflect the current software practices. Specifically, each Python program should be set up with a Python virtual environment and include a script to install all necessary dependencies. It was also noted that the installation of software based on `CMakeLists.txt` and the individual ROS node `README.md` files is currently broken. This issue is being addressed following discussions with Birhanu and Yohannes, and some points previously raised by Danso. As for the installation manual document, everyone is responsible for documenting the installation procedures for the ROS nodes they manage. Since Danso owns the installation manual, team members need to request edit access from him in order to update the relevant sections.

10. Any other business.

Deep Learning Indaba:

Geraud one of the organizers of deep learning Indaba Rwanda edition accepted the meeting invite that will take place on Tuesday 29th July. During this meeting it is expected to discuss what part CMU Africa is expected to play in the workshop so that we can prepare better.

11. Date and time of next meeting

The next meeting will be held on Monday August 04, 2025 in C210 at 10AM CAT.

End of the Meeting

There being no other business, the Chairman thanked the participants for their contributions and closed the meeting.

Action items following the meeting of the CSSR4Africa project

Action	Action description	Responsible	Completion date
1	Update the status of the milestones with their new due dates and Interactive Demo.	B. Shimelis	August 01, 2025
2	Update the installation Manual	Everyone	August 01, 2025
3	Demonstrate the key-word spotting ASR model to the team.	C.Onyonka	August 01, 2025
4	Share Kinyarwanda ASR hugging face link	B. Shimelis	August 01, 2025
5	Sending the updated Failure handling Report	T. Tefferi	August 01, 2025
6	Talking to Rosine to see how CMU Africa can benefit from Deep Learning Indaba workshop.	Prof. Assane	August 01, 2025
7	People's privacy regarding 3rd party closed source LLMs	Prof. Assane	August 01, 2025

Table 1: Action Items