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To: ematson@purdue.edu, ahsmith@purdue.edu, lhiday@purdue.edu, lee3450@purdue.edu

From: IEEE

- Sungjin Park (huitseize@chungbuk.ac.kr)
- Gayoung Yeom (gayoung@hufs.ac.kr)
- Dayeon Won (aakk9350@kw.ac.kr)
- Haegyeong Im (fine632@soongsil.ac.kr)
- Minji Kim (minzyk0729@jejunu.ac.kr)

Summary

This week, the paper was written in methodology. All parts tried to build an experimental environment for testing, especially the network team connected sensors using ESP32 and open-weather API.

What IEEE completed this week:

- Kubernetes Team
 - Uploading the server and client programs in the cloud as a Worker Node.
 - As the performance is not allowed on GCP at the free-tier level, the load testing cluster's spec is downgraded.
- Back-end team
 - Updating APIs.
 - The network part requests an API about saving sensor data in the Database.
 - Making parse program.
 - To put in the Database, the data from open-weather should parse from hex to string.
- Front-end team
 - Refactoring some Components associated with Graphs.
 - Solving the issues in Modal.
 - Fixing error in Slider UI.
 - Fixing error in range setting.
 - Changing API connection part, according to update Backend.
- Network team
 - Connecting to open-weather API and get some data.
 - The EUI number of the ESP32 Device is used to connect sensors.
 - Transmitting data from open-weather API to the Database using Backend API.
 - Converting format of the sensor's value from hex to ASCII.
 - Trying to install a real farm with sensors in front of the KSW building.
- Paper
 - The methodology has been written in English.

Things to do by next week

- Building a testing environment for results.
- Completing writing the paper.
- Preparing presentation.

Problems or challenges:

- There was not enough time to configure the experimental environment.
 - To solve this problem, all the team members kept working after 5 pm.
 - Other parts helped the network part to gather data.

References

[1] “ESP32 + LoRa” Preparation & Config Parameters.” Heltec Automation Docs.
https://heltec-automation-docs.readthedocs.io/en/latest/esp32/lorawan/config_parameter.html#configure-parameters (accessed July. 19, 2022).