Semester Report

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Abstract—**To briefly describe what I have done in this semester. The each subjects are list as a section. And in each subject, all topics are listed.**

I. WORK ON RETRANSMISSION-BASED ACCESS CONTROL ...

- Revise the paper format
- To reproduce the simulation proposed in the paper
- Compare the simulation result with others
    - DACB by Suyang Duan
    - TRAO by German Corrales Madueno
    - ...
- To survey for the different on access barring mean between NB-IoT and LTE Fig. 3
- To study for the process and detail of the access control technology (EAB)

II. WEARABLE PROJECT

An Android project to communicate with two BLE device, the bracelet and glass. The bracelet can be distinct the color of an object, alarm when it's close to other objects. The glasses can read the QRcode Message and know it's in a crowded place. This application can send/receive message to/from device, and speak the message from device to user.

- New UI flow Fig. 1
- Bracelet device
    - Seek Bracelet - change the notification way to the alarm instead of vibrate
    - Color Detection - new data format
    - Distance Detection - the bracelet only work well once
    - Power Information - hard code in bracelet
    - Connection switch - new connect and disconnect approach in new design
- New layout, and new layout... Fig. 2
- To demonstrate the application successfully on the final exhibition

III. WORK ON DESIGN OF REGION-BASED ...

- Read paper to know the background knowledge
- To implement the experiment for 4 functions mentioned in paper
    - Setup
    - Key Generation
    - Signing
    - Verification

A project on Android, to run four functions listed above individually and show their CPU usage and time consumption.

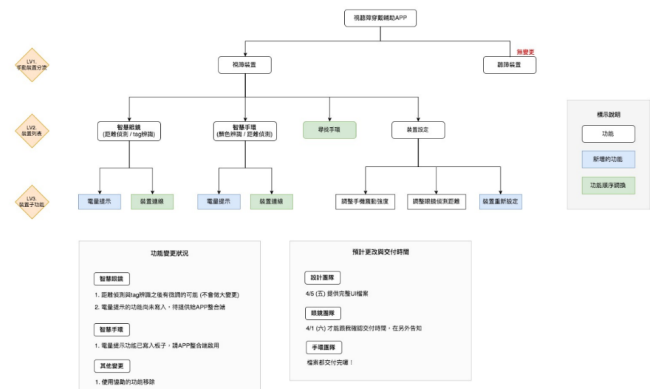Fig. 1: They change the UI for several times

Fig. 2: New Design for User Interface

Fig. 3: The access barring process for NB-IoT