

ENEL 400

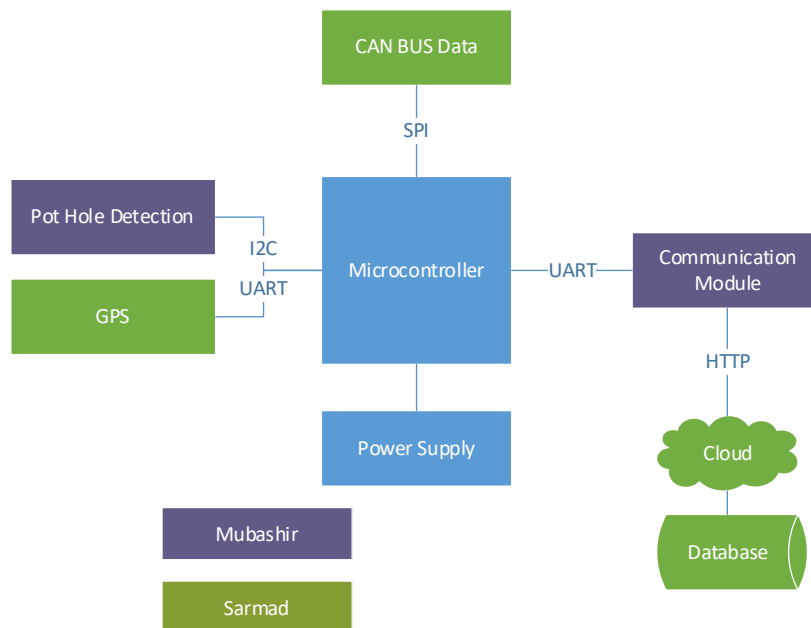
Testing Plan Reporting Requirement

Name: Sarmad Alvi

Student Number: 200429983

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1. Outline your part of the project. Please include a block diagram that shows your part of the project and that (or those) of your partner(s). Please indicate by a dotted line how the different parts of the project are connected.



2. Describe the interface(s) (dotted line(s) from above) between the different parts of the project.

I2C between IMU and microcontroller.

UART between GPS module and Microcontroller.

UART between Communication 4G module and Microcontroller.

HTTP using AT commands between communication module and internet.

SPI between CAN Bus module and Microcontroller.

3. Describe how you will perform testing for your parts of the project.

GPS: Set up GPS module with microcontroller, take the sensor outside and see if it connects to a satellite and gives accurate coordinates of my location.

Backend: Send HTTP request from a phone or laptop using curl command and test that backend properly handles HTTP request.

CAN Bus: Simulate CAN data from a computer or hook up CAN module to car and check to make sure that data is received. Following that, decode the data to check that I can get the data that we need for the project. If not, we need to choose an alternative.

4. Describe how you can develop and test your part of the project without requiring your partner's participation.

GPS: Don't need partner for testing as we each have a microcontroller to do our testing.

Backend: I can send HTTP requests from any computer and test the backend system. Since we will be able to simulate the HTTP request that would be sent from the communication module, I can freely test the backend without my partner's participation.

CAN Bus: Since we each have a microcontroller, and I have the CAN module, and a car, I am able to test my part of the project without my partner's input.