**FIREFIGHTER DASHBOARD APPLICATION**

Team Members:

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**PROJECT ABSTRACT**

The proposed project (Firefighter dashboard) shall be used for the firefighter’s safety precautions. The aim of this project is to get all the telemetry data of the firefighter team members and send it to the team lead either using serial communication/network protocol (TCP/IP). The technological hurdles that shall be associated with this project is interfacing STM32 board with Raspberry Pi 3 B+, implementing a push-to-talk service using Raspberry Pi and designing interactive GUI considering QT framework as a platform. After successful completion of this project, the firefighting team lead shall monitor the telemetry data and accordingly provide instructions to its team members using push-to-talk service preventing any life casualty/injury.

The primary area of application shall be for Firefighting department, however, with some medication and adding other sensors, this project application shall be extended to military operations or any sport adventures like camping. In the current scenario, firefighters are not embedded with any sensor device, hence it becomes difficult to keep track of all the firefighters by the team lead.

The selected project is more focused on project area 5, but we shall implement some components from project area 4. Below is the list of devices which we are planning to use

1. STM32 board
2. Raspberry Pi 3 B+
3. Sensors: Air quality, GPS and ECG/Heartbeat
4. Wifi Dongle
5. Headphone with Mic
6. TFT Display
7. Software Platform/Tools: FreeRTOS, Ubuntu/RaspbianOS, QT framework, Eclipse

Google Drive Link: <https://drive.google.com/drive/u/1/folders/0ALOTuxiOtuoxUk9PVA>