**Scope**

We can either address one or both of the following scenarios:

a) mining operation

b) offshore oil rig

**An Outline of the Issue**

Based on the information provided in the Project Brief, there is a need for a device that can:

· effectively track the equipment/ assets being used on site

· help with the management of personnel in the event of an emergency by:

- quickly deducing the most effective evacuation routes and/or methods

- act as a medium through which relevant parties can be notified about the emergency (e.g. head office to personnel (or) vice-versa)

[mining situation only]

· effectively track assets as well as personnel as they move between “above ground” and “below ground” positions

[offshore oil rig situation only]

· track personnel working in isolation

· monitor worker’s fatigue level

· monitor the number of hours workers spend at work

· monitor the number of hours workers spend in sleeping quarters

· identify if a worker has fallen into the sea

· notify the relevant parties if a worker is in danger (e.g. fallen in the sea)

**Key Objectives**

Research, design and prototype a tracking system that can:

1. be used for personnel

2. be used for equipment (assets)

3. be ‘holistically’ viewed by site management

4. address the following purposes:

a) ensure safety of staff in:

(i) normal work operations

(ii) emergency situations

b) *timely* asset location management

c) holistically analyse the allocation of:

(i) personnel

(ii) resources

d) [mining situation only] rapidly adjust to different unknown layouts and transfer data from underground

e) [oil rig situation only]

(i) record when workers are on duty

(ii) notify others in the event of an emergency

(iii) track fatigue

(iv) send an alert if someone falls into the ocean

**Deliverables**

1. Market Analysis

2. High Level Architectural Design of the Solution

3. Prototypes

**Stakeholders**

There is no specific end client that the solution is required to be built for. However, the target market will include various mining and oil rig companies like BHP, etc.

**Our Solution**

TBA

**How we intend to deliver**

TBA

**Tentative Project Schedule**

Refer to the ‘Timeline’ file

Project End Date: 1 May 2018