**BME Capstone Design Project Weekly Progress Report**

**Project Title:** KK01: Design of extremely small satellite

**Student Name:** Bethany Santos, Ho Yin Samuel Yeung, Owais Nakhuda

**Reporting Week:** Jan 21 - Jan 25

**Project Manager of the Week:** Ho Yin Samuel Yeung

**Tasks Outlined in Previous Progress Report:**

* Meet up with Tubesat Engineering Team
* Determine workload for each issue found on Tubesat

**Progress made in Reporting Week:**

* Met with Tubesat Engineering Team
* Determined remaining issues to be fixed with Tubesat

The main goals for this week was to meet up with the current Engineering team working on the tubesat system and get caught up with the current issues being faced with their system

In regards to testing the wireless modem attached on the tubesat, after consulting with Dr. Enright, we determined that the most appropriate testing to be conducted in order to confirm our system’s link budget was to find a currently operating satellite with a similar centre frequency as ours, and watch for the reception of any of their signals. If we are successful, we can confirm our operating distance from it.

Tests for successful transmission is still to be determined, as Dr. Enright suggested that, while adding a physical RF attentuation block with a coaxial cable will test for attenuation, it is not a confirmation for BER handling (Bit Error Rate). Therefore, for now we will assume that the transmission range is within specifications, and merely confirm that the wireless protocol can successfully transmit uncorrupted packets.

A communication protocol is still to be determined, as it must be ensured that all packets must be successfully received if an image file is to be reconstructed and recovered by the ground station.

**Tasks for Next Week:**

* Continue work on issues with satellite
* Conduct Receiver range test as soon as possible