**Mesh Networking**

**Quality Management Plan**

**Purpose**

The purpose of the Quality Management Plan is to describe how quality will be managed throughout the lifecycle of the Mesh Networking project. The Quality Management Plan will ensure that all stakeholders will be familiar with how quality will be planned and controlled for the project. It will establish the processes and procedures for ensuring a quality product and deliverable upon completion of the project. This plan will specifically address the following:

* Ensure quality is planned
* Define how quality will be managed
* Define quality control activities
* Define acceptable quality standards

**Quality Management Approach**

The quality management approach for the Mesh Networking project will ensure that quality is planned for both the product deliverable and the deliverable processes. In order to be successful, this project will meet its quality objectives by utilizing an integrated quality approach to define quality standards and quality metrics.

The product quality for the Mesh Networking project will be defined by the faculty advisor industry sponsor. The faculty advisor and industry sponsor will establish the standards and criteria that needs to be met to ensure the success and quality of the product deliverable.

The process quality for the Mesh Networking project will consist of the processes necessary to produce the project deliverable. This will be established by the project team to ensure the successful delivery of the product.

**Quality Control Activities and Standards**

The quality control activities for the Mesh Networking project will be set and used by the project team. The following procedure will be followed when developing a coding functionality deliverable:

The project team will run multiple testing of the code to ensure it is fully functional before progressing. Any failures during testing will require debugging and additional research.

The metrics used for evaluating the functionality of the code will be determined by the project team. These metrics include latency, packet loss percentage, throughput, and power consumption. The code

must meet the ranges and quality standards set for these metrics:

|  |  |  |  |
| --- | --- | --- | --- |
| **Latency** | **Packet Loss** | **Throughput** | **Power Consumption** |
| **0 – 60ms** | **0-6%** | **5 – 120 kbps** | **5 – 55 mW** |

Any results outside of these ranges will require a code re-evaluation to identify any improvements that can be made to it.