

## LIST OF FIGURES

<b>Figure 2. 1</b> Internet of Things. ....	7
<b>Figure 2. 2</b> Raspberry Pi 3B+. ....	8
<b>Figure 2. 3</b> DHT22 Sensor. ....	8
<b>Figure 2. 4</b> GY-302 BH1750 Sensor. ....	9
<b>Figure 2. 5</b> YL-69 Sensor. ....	9
<b>Figure 2. 6</b> Water Pump. ....	9
<b>Figure 2. 7</b> Relay. ....	10
<b>Figure 2. 8</b> ADS1115. ....	10
<b>Figure 2. 9</b> Red Spinach. ....	11
<b>Figure 3. 1</b> The Proposed Machine Learning Phase is Used in This Thesis. ....	18
<b>Figure 3. 2</b> The Architecture of The Observation Data Storing Management. ....	20
<b>Figure 3. 3</b> Topologi Client-Server. ....	21
<b>Figure 3. 4</b> The proposed diagram blocks is used in this thesis. ....	23
<b>Figure 3. 5</b> The proposed train/test data split allocation is used in this thesis. ....	27
<b>Figure 4. 1</b> Monitoring Result Analysis. ....	31
<b>Figure 4. 2</b> Delay Test Analysis. ....	32
<b>Figure 4. 3</b> Throughput Test Analysis. ....	32
<b>Figure 4. 4</b> Data Display Realtime Firebase. ....	33
<b>Figure 4. 5</b> Data Retrieval Analysis. ....	34
<b>Figure 4. 6</b> Total Overview of Data Preparation in this Final Project. ....	34
<b>Figure 4. 7</b> Overview of information on data preparation. ....	35
<b>Figure 4. 8</b> General description of soil moisture calculation plot. ....	35
<b>Figure 4. 9</b> The overview of soil moisture value plot in this thesis. ....	36
<b>Figure 4. 10</b> Plot description of plant status calculation in this thesis. ....	36
<b>Figure 4. 11</b> The overview of plant status value plot in this thesis. ....	36
<b>Figure 4. 12</b> The overview of correlation matrix in this thesis. ....	37
<b>Figure 4. 13</b> output of encoder label. ....	37
<b>Figure 4. 14</b> pearson correlation matrix red spinach dataset. ....	38
<b>Figure 4. 15</b> An overview of the accuracy score process in this final project. ....	38
<b>Figure 4. 16</b> An overview of the accuracy score process in this final project. ....	38

<b>Figure 4. 17</b>	An overview of the confusion matrix in this thesis. ....	39
<b>Figure 4. 18</b>	The overview of classification process in this thesis. ....	39
<b>Figure 4. 19</b>	General description of the classification report in this final project.	39
<b>Figure 4. 20</b>	The overview of model training in this thesis. ....	40