**ME 420 – MECHANICAL ENGINEERING RESEARCH PROJECT**

Registration number : E/17/285

Project Title : Implementing IOT & AI Based Food Quality Monitoring System

Outcomes of the project:

1. Real-time monitoring of food quality parameters such as smell, temperature, humidity, Air quality etc.
2. Early identification of potential issues and trends using AI algorithms.
3. Notification of relevant personnel when food quality parameters go outside of acceptable ranges.
4. Easy analysis of the collected data using data visualization tools.
5. Improved food quality and safety.
6. Reduce food wastage

Milestones of the project :

**Project timeline tagged with the milestones:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project timeline** | Jul 31 - Aug 6 | Aug 7 - Aug 13 | Aug 14 – Aug 20 | Aug 21 – Aug 27 | Aug 28 – Sept 3 | Sept 4 – Sept 10 | Sept 11 – Sept 17 | Sept 18 – Sept 24 | Sept 25 – Oct 1 | Oct 2 – Oct 8 | Oct 9 – Oct 15 | Oct 16 – Oct 22 | Oct 23 – Oct 29 | Oct 30 – Nov 5 | Nov 6 – Nov 12 | Nov 13 – Nov 19 |
| **Check how work the selected sensors** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Design the sensor and test** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Finalize the designing part of sensor and test the senser for selected food** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Collect the data from the developed sensor** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Compare the data with available data in the internet** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Develop AI algorithm to predict food quality** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Create a web application to monitor the quality of food** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Jul 31 - Aug 6 | Aug 7 - Aug 13 | Aug 14 – Aug 20 | Aug 21 – Aug 27 | Aug 28 – Sept 3 | Sept 4 – Sept 10 | Sept 11 – Sept 17 | Sept 18 – Sept 24 | Sept 25 – Oct 1 | Oct 2 – Oct 8 | Oct 9 – Oct 15 | Oct 16 – Oct 22 | Oct 23 – Oct 29 | Oct 30 – Nov 5 | Nov 6 – Nov 12 | Nov 13 – Nov 19 |

Date :2023/09/14

Name of the Student – RATHNAYAKA R.M.A.K. Signature of the student : ……………………………………

Comments : ……………………………………………………………………………………………………………………………………………

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Name of the supervisor -Prof. D.A.A.C. RATNAWEERA Signature…………………………………………………………