CHAPTER – 7

FUTURE WORK

7.1 INTRODUCTION

The main idea in this proposed system is to develop the twin blade automated vegetable cutter, which helps to chop the vegetables into the users desired shapes where the type of blade is been chosen from the mobile application. And the mobile application is communicate with system via Bluetooth connection and all the required controls are made possible. Our expanded work that will help the users to handle and work with the system in easiest and efficient way. The goal of this proposed system is to enhance the cooking process much easier by applying the necessary technologies.

7.2 MODULES UNDER SCOPE

The following are the modules that are under the future scope for the proposed system,

- Chopping vegetables based on the weight of the vegetables
- Controlling the machine in WiFi mode
- Identification of internal damages in the system using AI

7.2.1 CHOPPING VEGETABLES BASED ON WEIGHT OF VEGETABLES

In the existing system, the vegetables are loaded to the slicer platform through the hollow entry of the system. The vegetables that are loaded are not been checked whether this type of vegetable can be sliced by the system and there is a need of human interaction to check the vegetables that are been loaded. There are various kinds of vegetables and different clusters of vegetables, which are differ by their size, color, weight, nature whether it is soft or hard, and season.

These are the various features of the vegetables and it is been an input parameter for this proposed system. In this future scope module, the proposed is built in such a way that it weighs all the kind of vegetables loaded into the slicer platform, where it predicts the ability of the system to chop the vegetables. In the system, the weighing device is been attached below the slicer platform where it find outs the weights of the loaded vegetables. If the weight of the loaded vegetables crossed it's threshold value, then it will intimate the user by some notifications visually or by some alert message sounds. By, the help of this scope we can enhance the usage and functionality and the difficulties that are faced in the existing system. If this scope is been is come to the real world, it will be more useful for the industries which are using this machine.

7.2.2 CONTROLLING THE MACHINE IN WiFi MODE

In this existing system, the communication between the user and vegetable cutting machine is made through the Bluetooth connectivity. The mobile android application which is been provided is paired with the system, through the mobile application the user can able to control and access the features of the proposed system. Basically, technical feature of Bluetooth is, it is fast, reliable, efficient performance. The major disadvantage of using the Bluetooth module is, it accessible within the shortest distances coverage of nearly 10 meters and the communication range is about 1 Mbps. In this future scope module, we are going to use the Wifi connection for controlling the system. In this module, instesd of using Bluetooth module, WiFi connectivity is being introduced where it provides more features than Bluetooth module. By, applying the Wifi based controlling system, we can able to easily control or access the system from longer distance fastly or remotely. Since, the WiFi is based on internet connectivity, the request

and response activities are performed faster. If this scope is been is come to the real world, it will be more useful for the industries which are using this machine.

7.2.3 IDENTIFICATION OF INTERNAL DAMGES USING AI

In the existing system, most of the internal components are made through the stainless steel materials, where it produces maximum life and durability of the product based on the usage. The outer body and the blades of the proposed system is mostly made up of stainless steel, these internal components are not viewed externally by the users, so they will come not know about the conditions and status of the internal components that they are in good condition without any damages, rust in the blade, bending and broken damages of the blade, etc,. In this future scope module, we can able to track and get the frequent datas about the internal components of the system, where the users can easily come to know about the damages that are occurs in the system. This module is implemented by applying the trending technology called Artificial Intelligence. Artificial Intelligence is a most accruing technology, where performs intelligent activities as like as humans activities. Basically, artificial intelligence technology is an integration two further technologies they are, Machine learning and deep learning. By applying this technology to this system it produces a user-friendly environment to the users, where they can get all the information and accessibility features of the system. The alert or notification messages regarding the internal damages of the system is provided by the artificial intelligence model through the mobile application to the users, therefore users can easily known about the information about the damages in efficient way. If this scope is been is come to the real world, it will be more useful for the industries which are using this machine.

7.3 SUMMARY

In this chapter future scope, we discussed about various modules that could enhance the existing system features. These future modules have an ability to enhance the system by applying the latest technologies, which can increase the performance, efficiency, durability and accessibility of the system. The future scope modules introduced to the system are, chopping the vegetables based on the weight of the vegetables, controlling the machine in WiFi mode, and identification of internal damages using AI. The first module chopping the vegetables based on the weight of the vegetables, this module removes the disadvantage in the existing system where the vegetables that are loaded to the slicer platform are being weighed before being sliced, so we can reduce the damages occurs on the components. The second module controlling the machine in WiFi mode, this module increases the efficiency by controlling the machine through Wifi connection instead of Bluetooth connection, since the Wifi network has high features than the Bluetooth. The last module identification of internal damages using AI, this module the AI model is been integrated to the electronics components where it monitors the internal components, whether there is any damages are occurred in the system and intimates to the users electronically through the mobile application. . If these scope is been is come to the real world, it will be more useful for the industries which are using this machine.