**Introduction:**

Food quality and food safety are gaining more and more importance in recent decades. Many different chemicals are used in modern agriculture to promote the growth of plants, to protect plant from disease, to artificially ripening the fruits etc. This will produce some harmful effect to human health. People are very conscious about their health, they prefer only fresh, good quality fruit/vegetable.

Agricultural products quality and safety is not only related to the public health, but also affected social stability, economic development and national security, which become a global issue with a growing concern. Agricultural products can be affected by pesticides, heavy metals, microorganisms and other harmful substances pollution during production, processing and transportation.

When undesirable chemicals end up in food, they could cause health effects, such as allergic reactions and/or adverse effects on organs Some people are allergic to particular food chemicals and it may cause side effects such as allergies, gastric irritation, diarrhea, rashes, asthma, nausea, respiratory irritation and hyperactivity.This project intended to introduce the concept of IoT technology, the key technologies used at present and review the recent applications of IoT technology in monitoring agricultural products such as fruits and vegetables and the use of chemicals on it. IoT technology is the integration of heterogeneous smart devices and interoperable communication technologies, such as RFID, WSN, sensors, GPS etc.

The purpose of this investigation is to design a system for chemical detection and agricultural products traceability. This system can be used in supermarkets, markets and plantations. Moreover, this system also can be used in the areas of purchasing, storage and transportation, and in house.

**Block Diagram**

**PH SENSOR**

**2560 MICROCONTROLLER**

**COMPUTER**

**BUZZER**

**MOTOR**