**CHAPTER 2**

**LITERATURE REVIEW**

**2.1 LITERATURE SURVEY**

1. **“Autonomous Seed Sowing Agriculture Robot”** by Jayakrisna P V S, Suryavamsi Reddy M, Jaswanth sai N and Susheel N. The authors have discussed on building a autonomous robot with less maintenance and that are portable as well. This paper presents the design of a robot that does the work of seed sowing in ploughed agricultural land avoiding the human effort of tracing the path and sowing seeds at equal interval using field parameters (like length and breadth of the field) and seed spacing intervals as inputs specified by the user. It also takes you through the designprocess of the robot, explained in detail the prototype and the equipment used for building it and the difficulties faced during the different phases of the projects.
2. **“Precision Agriculture Robot for Seeding Function”** by Neha S Naik, Virendra V Shete and Shruti R Danve. This paper has discussed on saving the time and energy required for performing repetitive farming tasks and increasing the productivity of yield by treating every crop individually using precision farming concept. Designing of such robots is modeled based on particular approach and certain considerations of agriculture environment in which it is going to work. Its working is based on the precision agriculture which enables efficient seed sowing at optimal depth and at optimal distances between crops.
3. **“Automatic Seed Sowing and Irrigation Agribot using Arduino”** by M Aravinda Kumar , Akkarapalli Sanjeev Reddy and K Sagadevan. An adequate water supply is important for growth of plants. So in this paper authors have discussed about watering process for plants. The water system averts soil disintegration, spare water to crops. The most essential procedure is it focused on watering way close to the root zone and on the land before seed sowing. Seed sowing digging and irrigation robot will proceed onward different ground shapes and performs seed sowing operation.
4. **“Automated Seed Sowing Agribot using Arduino”** by Saurabh Umarkar and Anil Karwankar. The qualitative approach of this paper is to develop a system which minimizes the working cost and also reduces the time for digging operation and seed sowing operation by utilizing solar energy to run the agribot. Soalr panel is used to capture solar energy and then it is converted into electrical energy used to charge battery. Seed sowing and digging robot will move on various grounds and performs digging, sowing the seed and covers the ground by closing it.
5. **“Agricultural Robot for Automatic Ploughing and** **Seeding”** by Amrita Sneha, Abirami A, Mrs R Praveena and Mrs R Srimeena.This paper strives to develop a robot capable of performing operations like automatic ploughing, seed dispensing and pesticide spraying.it also provides a manual control when required and keeps tabs on the humidity with the help of humidity sensor. The field is fitted with humidity sensors placed at various humidity levels. It checks these levels with set point for humidity and alerts the farmer. And the main objective of this paper is to measure and control humidity in the field using humidity sensors and water sprinkler.
6. **“Design of an Autonomous Seed** **Planting Robot”** by Nandagopal

Srinivasan,Prithviraj Prabhu, Sanjana Smruthi and Vivek Sivaraman N. In this, the design of a robot capable of sowing seeds autonomously on prepared land is reported. The seeds are sown by the robot in evenly spaced rows with each point where a seed has been dropped from successive point. Overall, the proposed device exhibits appreciable efficacy in power consumption, making it suitable for the field of agriculture.