Analysis of Agriculture & Livestock Improvement

– A Review

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Abstract— **This paper deals about the analysis and design of the agriculture and livestock improvement according to the new technologies used for these activities such as integrated machines and high level robotics for livestock activities, where the analysis has specify the sensors, genetic engineering, food production and management of agriculture and livestock in the efficient way through some of the new developed technologies such as embedded machines, land maintain robot, intensive and extensive farming are designed and analysed in the new way of technical process.**

Keywords: Sensors, Genetic Engineering, Livestock, Embedded Machines.

I.INTRODUCTION:

The new technologies such as sensors and other equipment will bring the agricultural land to the foremost advanced level in order to reduce the worker or to make the farm labour less which could be fulfilled by the representing the advanced technologies into the farming industry, this paper not also deals about the farming system and gives the important to the livestock process, such that the livestock also one of the important process

of the farming industry where it could be deals with the high machines and improved system will manage all the animals and their surroundings. Where increase of farm will does not bring the food demand and other processes at all over the world.

In order to take it to the advanced and foremost process the sensors based networks are installed to take the farming management to the easier level, where will help to read the physical quantity of the plants and makes convert into signals where this information will be more helpful to the farmer without affecting of the plants and crops from the diseases. So all the technologies are integrated and mingled to form the advanced farming and it may increase the yielding process of the system in an efficient way and other methodologies are the genetic engineering are also to be discussed.

II.SENSORS ACTIONS:

The sensors are the particles which are tiny shape, there are macro sensors and micro sensors to sense the larger and smaller particles which could have the capability to read the physical quantity of the nature and has to be reported in a digitalized process or with

the other methods. There are different types of sensors are separated into the various categories such as soil sensors, plant sensors and animal sensors. Where in our technologies here applied the air sensors and temperature sensors which could be able to analyse the both air as well as temperature.

1. Crop Sensors

The crop sensors which are used to analyse the physical quantity of the crops or grains, where it is used to check out whether the plants needs water, mineral and other requirements it could be satisfied by the farmer where by the analysis of those records these crops and plants will get care of by the farmer without spoil of the insects and other damages by the insects where the crops get could be prevented.

A. Air Sensors:

The air sensors are one of the important sensors in the agricultural development where it could be sense the air over the farming surroundings and the sensors will sense the air and forwarding the to the database of the farmer. By comparing the two report levels of the past year and the present year and suitable crops can be cultivated.

B. Soil Sensors:

The soil sensors are also the vital sensors elements of the system where it could be sense the physical quantity of the soil, where the soil has the good enough of the minerals and nutrients for growing of the soil, these reports have to be forwarded for the analysing purpose of the soil. The sensors are also used to capture the water level of the land and animals which wanders the land are should analysed and forward report to the database system.

C. Crop Sensors:

The crop sensors are the necessary needs of the farming system, where it could analyse the crop temperature, whether the crop gets damaged by the insects around the environment, mineral levels, nutrients levels are also mainly to be analysed by the crop sensors activities process. Thus by the process of using the crop sensors the crop yielding process should be analysed at any situation also some of the comparing records also obtained for reviewed process of sensors technology.

III.LIVESTOCK TECHNOLOGIES:

The livestock is the one of the important process of the system, where all animals in the form are to be focused into the system such that the animals which are around

the livestock are maintained under the various technologies, such as the biometrics, RFID technologies and Infrared Communication are used in the livestock process, where animals are controlled and maintained easily by applying of these technologies in the advanced livestock process.
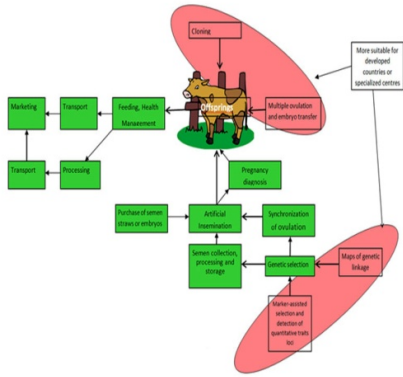
2. Livestock Management

The above figure 2 represents the livestock management of the advanced manner, where the animal should be regularly diagnosed, for pregnancy and artificial insemination to increase the production levels of the animals to get better healthier. In the management aspect feeding and caring of the animals with the respective food managing process, and making of these animals to moving into the sensors for the regular management process. Thus the farmer need is made to be less in the future days all the activities are too been done by machines.

A. GPS System:

The GPS is known as the Global Positioning System, where it is to be focus that the animals are watched regularly by the nearby places, where GPS system will show the animals which are surrounded by the farm and farmer does not need watch the animals through the computerized monitor will show the animals so that they can watch easier and therefore missing animals are also to be identified by the farmer easily.

B. RFID SYSTEM:

The RFID is known as Radio Frequency Identification system, where this could be identify of the animal where to make the automatic record of the animal from moving one place to the other system. And these RFID technologies will have the more advanced technique which could record easily by the system without missing of the animal in the form.

C. Biometrics:

Biometrics are the another type of identification which are used as the another identification process which could be able to read all the animals biometrics and also this animals could be able to achieve the following circumstance and animals can be followed without any infections that should be attacked animals on the farm. Where identification and processed technologies which can prevent animal from the diseases and other aspects of the system and it will be the vital part of the farm management system.

IV.AGRI-BOTS:

The agricultural robots are agribot which are used to cultivate the crops,

harvesting methods and other activities such as fruit picking, damaged crop analyzing etc are the works which are done by the agricultural robots. The future development of these agricultural robots used to do the complete work on the agricultural lands, such as from the starting stage to the ending stage of the cultivation.

3.   **Agriculture robots on action**

Where financially these robots are high cost and these robots are to replace instead of the human well this robots are designed for the agricultural works which contains many activities such as the soil maintenance, also agricultural robots are used in the livestock process, such as the milking further washing the animals in the livestock and others works can also done by the agricultural such as castrating etc. Hence these kinds of activities are carried out by the agricultural robots and it completely reduces the human effort on the land, and in certain periodically it sends reports to the system or server for reference.

V.ENGINEERING:

The agricultural activities and practices are reducing day by day where this should be prevented by applying of the engineering process into the agricultural practices, so it has to be follow some new activities in the agricultural system such as closed ecosystem well this process states that waste product are mingled into closed ecosystem and made into the oxygen gas process.

Synthetic biology is stated as the concept of combing programming and biology sciences where it could be able to construct new process in the biological systems. This could manipulate chemicals, manufacture materials and structure in the biological systems and vertical farming is the advanced level farming where practiced in urban areas produce crops in the buildings with the perfect structure through hydroponics and renewable resources process are promoted.

VI.CONCLUSION:

Thus paper completely deals with the analysis of the agricultural improvements through sensors for the all kinds of activities to protect the plants from all the destruction. And it manages the livestock process where technologies are made to automation process for every activity; agricultural robots will play the important process in the future agriculture where it has the capability to manage all the process around the field from the growing to preservation.

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