**“AGRICULTURE DRONE WITH RASPBERRY PI”**

**ABSTRACT**

In Nepal, agriculture is the part of Nepalese life style. It is a main source of agriculture product. Due to lack of proper technology producing goods is very hard for farmer. To make it easier many technologies are used day by day, one of them is drone. The developed system is an agriculture drone, which helps to capture aerial view this makes easier to identify either crops are growing or not, either pesticides are working properly or not or simply monitoring field etc. it is an unmanned aerial vehicle where people can manipulate it from remote system. This is a nice feature in drone because it helps to manipulate system wirelessly and can take aerial imagery. Aerial imagery feature helps to monitor field easily and can be used for to detect different kinds of disease and also help to map the field. This process of monitoring and analyzing helps farmer to take better decision in farming.

**Introduction**

1. **Background:**

Technology today is improving day by day everything is involved with technology one way or another. Rapid growth of technology gives human to work more efficient and effectively. Because of that today’s life style are changing in different way such as difficult algorithms are executed by computer, different kinds of works are done by AI, machinery equipment are used for to do difficult works etc. Even though the technology is made adaption is very hard. In the context of Nepal even today’s generation use old ways to do work. Some adaption is done, but most of them used old ways to work.

In Agriculture sector, people still do their job manually for exam0ple all the selection of crop land preparation, seed selection, seed sowing, irrigation, crop growth, fertilizing, harvesting are done by their hand. This this makes hard for the farmer and it is also inefficient way to do work. Many develop country use different kind of technology in agriculture; one of them is drone technology. This technology is advance because it helps user to have aerial view with live imagery, this make use to analysis the data and can take proper action for it. But to acquire it takes lot of budget and manpower. “Agriculture drone with raspberry pi” is a system which helps use to have advance function with less about of budget this system supply user can easily understand it and execute it. Using Linux server in drone helps user to execute Linux command, this makes uyser to change the settings or other features in drone. User can also easily add custom parts in the drone such as change camera; adopt gimbals system to have proper aerial view etc.

1. **Introduction:**

This system is Linux based drone control by window application. As the name of the project this system is embedded with raspberry pi with naze32 flight controller. Drone or Unmanned aerial vehicle (UAV) is an old technology but improve version was appeared in late 90’s. At that time drone are basically used for military purpose mostly of them are used by US force.

Now a day’s even common people can acquire it. Different types of drone are available in market such as hobbyist drone, military drone etc. Different drone has their unique sets of functions such as GPS, Altitude Sensor, Gyroscope, magnetometer, visual system etc. this function helps to make system more controllable and stabilized.

Drones are aerial robots that carry visual sensor, navigation system and sometimes even weapons. They come in all shapes and sizes and go by variety of names. These system are used by different purpose like in military they are used for spy’s but sometimes to kill. In business it is used for to delivery goods, making movies etc, so in general it has some good and bad features it its just an individual point of view.