A Review Paper on Android Based Advanced Agriculture Farming System

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Abstract— Agriculture is the cultivation of land and breeding of animals and plants to provide food, fiber, medicinal plants and other products to sustain and enhance life. Agriculture is a basic need of any country. Most of the rural people are dependent upon the agriculture. Mobile technology used in agriculture sector can play important role in agriculture development. This paper is about how Android Apps of agricultural services have impacted the farmers in their farming activities. In this paper discussed about information related farming and sources of information which is useful for farmer.

Keywords—Agriculture, Android Application, Farming

I. INTRODUCTION

The science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products cleared the land to use it for agriculture. India is an agriculture based developing country. 65-70% of Indian population is depends on agriculture for their living. Now a day’s technologies become advance. In agriculture there are various technology and information are available on internet. The challenging task for farmers is to get information according to their soil type, productivity near their location and availability of resources. It’s very hard for farmer to get the information. Majority of the Indian farmers are small-scale producers and unable to access and find the information from internet. The mobile phone based solution is easy to get information for farming. Most of smart phone uses android operating system, its applications are freely available, and so it is easily available for farmer to get information.

II. LITERATURE SURVEY

Hetal Patel and Dr. Dharmendra Patel (May 2016), “SURVEY OF ANDROID APPS FOR AGRICULTURE SECTOR”. This research paper contain different types of application for agriculture, Business apps, Conference apps, Diseases and pests apps, Farm management apps, Learning and reference apps, Location-based apps, Market data apps, Weather apps [1].

Mittal, S., Gandhi, S., & Tripathi, G. (2010) “Socio-economic impact of mobile phones on Indian agriculture”, this paper include the required information for farming like, Crop choice, Seed variety, Weather, Plant protection, Cultivation practice, Market Prices & Market Demand [2].

Mahadhan introduce an application which provides detailed information about the input of farming like right temperature, soil, amount of water required for a crop. It provide Dose calculator to calculate the exact amount of fertilizer and Dealer locator with contact details and Google navigation. [4]

Deshpande Radhika, Bhalekar Dipali, Mutkule Prasad, Sanjay Pandhare, Nawale Akshay (2015) —One sStop Solution for Farmer Consumer Interaction, IJCA Proceedings on National Conference on Advances in Computing NCAC, this research paper discussed about application which Provide information to the farmers about how to get access to better inputs and gain more productivity, get connected to the end consumers. It provides time when to planting to harvested and manage. [5]

Ms Rachana P.Koli (Me-li), Mr.Suhas D.Raut (Phd. Professor Dept C.S.E) (April 2014) “Android Application Agriculture Decision Support System”, in this research paper discussed about application which is decision support System in Agriculture System. This application used for crop selection using different parameter like soil type; soil PH, Weather, Water consumption etc. [6]

Rachana P. Koli, V. D. Jadhav (2013) “Agriculture Decision Support System as Android Application”, paper gives detail about android application for agriculture. Android is the mobile operating system which is used in smart phone, its applications are freely available. Mobile is now very commonly used, so to increase agriculture production makes use of that is profitable. Android has lots of advantages. By using Mobile technologies sharing and exchange knowledge become easy. Farmer can own mobile phones and get information according to their need. [7]

Spray Guide mobile application of agriculture, it calculates everything like the amount of solute, the amount of solvent, the mixing time and the spraying areas so that they get the best value from their work. The app is compatible with Android, iPhone and iPad. [8]

IFFCO-KISAN Agriculture APP is offered by Indian Farmers Fertilizer Cooperative Limited (IFFCO). By using this app farmer can get the advice from agriculture expert about different crops, agriculture cycle, water management etc. This app also provides a marketing price and weather forecast. [9]

Theodoros Lantzosa, George Koykoyris, Michail Salampasis (2013) “FarmManager: an Android application for the management of small farms” The Hellenic Association for Information and Communication Technologies in Agriculture Food and Environment (HAICTA) this paper is about application “farm manager”. By using this app Tasks such as field definition, task operations, lists and reports and all farming use data can be submitted and carried on together in a smart phone at any farm working condition done in small farm. [10]

Android is an open source development platform that can be used to build the very powerful applications to developers. It is a Linux-based, open-source operating system designed for use on cell phones, e-readers, tablet PCs, and other mobile devices. Android is implemented in the form of a software stack architecture consisting of a Linux kernel, a runtime environment and corresponding libraries, an application framework and a set of applications. Applications are predominantly written in Java and run within individual instances of the Dalvik virtual machine. [14]
Constantina Costopoulou, Maria Ntaliani, Sotiris Karetsos (2016) “Studying Mobile Apps for Agriculture” IOSR Journal of Mobile Computing & Application paper investigates how mobile apps can support farmers. This research says that by providing access to information, markets and services is profitable for them. There are fewer number of Android apps available for agriculture, so development of mobile apps should support agriculture.

Vimal B. Patel, Rahul G. Thakkar, Dr. Sangeeta Ahuja (2014) “Agricultural Android Application” IJCST, in this research paper discussed about designing IT based application which provides information to farmers about whether forecasting, agricultural crops, crop diseases in a user-friendly environment. It provides functionality of kishok at low cost.

III. CONCLUSION

Various sources of information and different application related agriculture are available for farmers which can be used in different phases of farming. All the functionality listed above in different phases need to be combined in one application, so that farmers don’t need to install a different app for different activity.

REFERENCES
[1] Hetal Patel and Dr. Dharmendra Patel (May 2016), “SURVEY OF ANDROID APPS FOR AGRICULTURE SECTOR”.
[4] https://mahadhan.co.in