

# Krishi-Mitra:- An ICT enabled Interface for Farmers

Kokane Gauri K<sup>1</sup> , Kolhe Sushma R<sup>2</sup> ,Labade Dipali M<sup>3</sup> , Vaidya Geeta B<sup>4</sup>

*1Student, Computer Engineering, SND College of Engineering, Yeola, SPPU, Maharashtra, India*

*2Student, Computer Engineering, SND College of Engineering, Yeola, SPPU, Maharashtra, India*

*3Student, Computer Engineering, SND College of Engineering, Yeola, SPPU, Maharashtra, India*

*4Student, Computer Engineering, SND College of Engineering, Yeola, SPPU, Maharashtra, India*

## Abstract

*Application of IT is related with markets in the developed countries where capital intensive method of agricultural production is followed. However, in a country like India where rural base is wide, its relevance cannot be overlooked. In addition to facilitating farmers in improving the efficiency and productivity of agriculture and allied activities, the potential of IT lies in bringing about an overall qualitative improvement in life by providing timely and quality information inputs for decision making; IT can also be effectively used to strengthen the supply chain for agro based companies for leading to better price realization by farmers. Rapid growth in the field of ICT helps in basic aspects of mankind like- agriculture, education, healthcare etc. However, the moderate technical growth of ICT applications is confined to the community of a limited number of people, who live in digital pockets.*

**KeyWords:-** *Information and communication technology, human computer interaction, Internet, information retrieval, farming, Agriculture information system, iconic interface.*

## 1. INTRODUCTION

The availability and accessibility of information are the crucial points in taking the optimal decision at right time. Nowadays, advancement of ICT make possible to retrieve almost any information from the global repository so, they are unable to access required information on the Farming life cycle, seed selection, pesticides, etc. from the internet. As a consequence, they are not capable to take optimal decisions at different stages of farming life cycle, which make huge impact on the farmers revenue. Developed interface for the Indian farmer community to access the agricultural information from the global internet repository and store them into local repository. The proposed interface is critically evaluated with the farmer from different states of India. The evaluation results proved the effectiveness of the proposed interface. User can only interact with the system through icons and results back with their intended agricultural information in Indian language. To access the intended agricultural information from internet and local repository, users have to form proper query. The query is generated by selecting the corresponding icon(s) displayed in the interface. We proposed to develop an iconic interface which is integrated with interaction in Indian languages. The proposed interface is critically evaluated with the farmer from different states of India. We have also included a feature of weather forecasting which will help all the farmers to work according to weather prediction and get a fruitful results. With respect to this farmer got an amazing option of predicting the future lines of production based on previous data and history populated in the system. So system will gain knowledge about the process and ins outs once farmer feeds in their previous experience. Now a days our main source of health that we getting our farmer they are not getting information related to weather and government schema.

## 2. SYSTEM ARCHITECTURE

In this proposed we have to implement a system to have an effective vegetable production, weather production and production prediction so farmer can farming safely and produce best product. This proposed system also provide iconic interface which is used to provide easy communication between farmers. This also provides the notifications of governments newly released services for farmers and also provides a banks loan details information.

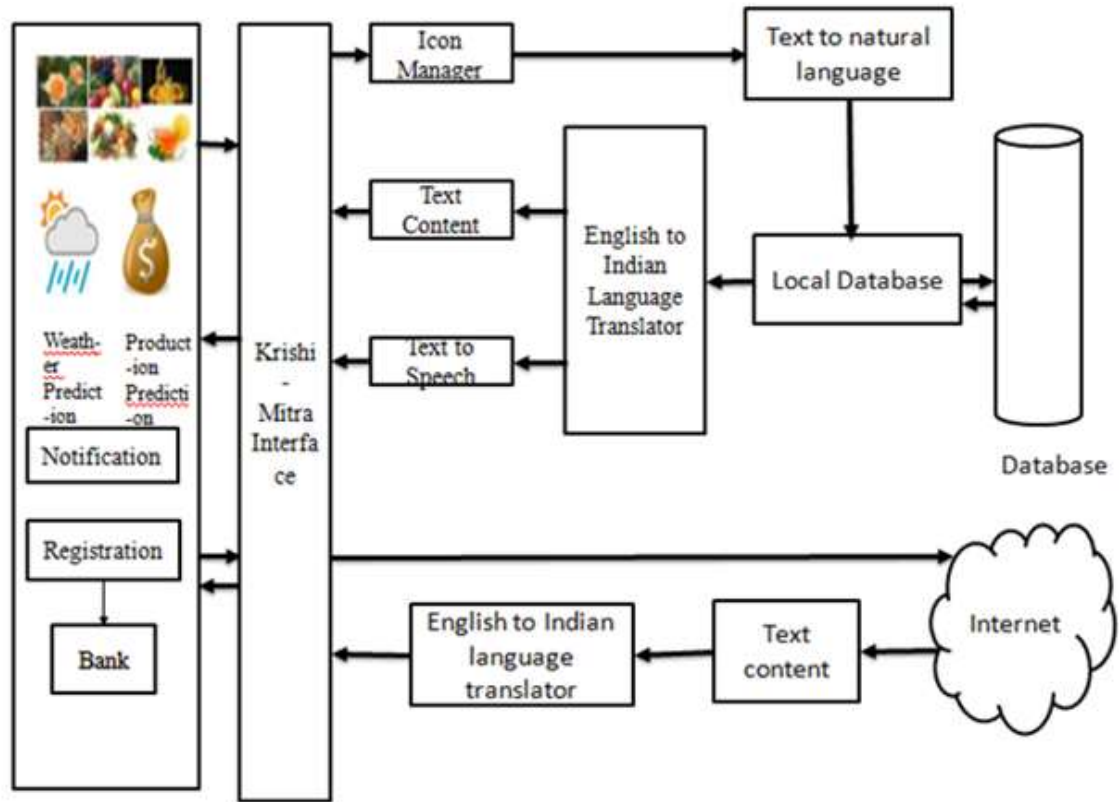


Fig. 1 Architecture of proposed system

## 2. METHODOLOGIES

### 2.1 Hashing Algorithm:-

The hashing algorithm use a hash function for different functionalities like Bloom filters, Finding duplicate records, Protecting Data, Finding similar records, Geometric hashing and so on. The hash function is a function that can be used to map data of arbitrary size to data of fixed size. Hash function accelerate table or database lookup by detecting duplicated records in a large file. The hash table map several different keys to the same index. The hash function contains a set of records, rather than a single record. The hash function are used to build caches for large datasets stored in slow medium. This is also used in file comparison. This hash algorithm is used for finding a duplicated records and avoid them. This is also used in system when user enters a User id or Password for registration. It avoid repetition by giving alert of same registration.

### 3. SYSTEM ANALYSIS

We have created android application in ADT (Android Development Toolkit) bundle. We proposed mobile application for farmer where farmer can check production prediction, weather detail, market rates and information related to fruits, vegetables and crops. In this application farmer can also get notifications and updates of government policies related to farming. Information related to bank and farmer loan can also be retrieved by this application.

### 4. RESULT



## 5. CONCLUSION

An krishi-mitra interface to accessing the agricultural information from the global repository of internet and the local repository has been proposed in this paper. The proposed interface is able to overcome the digital and language confinement of the Indian farmers by employing the multiple modes of interaction techniques. The empirical evaluation through large diversified users reveals that the Krishi-mitra interface adequately caters the need of the user. It also be concluded that the proposed interface is very much usable, applicable in the desired context. At the current stage the Krishi-mitra interface is limited to access the agricultural information in the context of Indian languages. However, it can be extended toward the agricultural context of any country in the world, which proves that the approach is generic. This system is for Farmers who can easily access the government policies and also they can gain more information about crops. And also it would be easier for them to decide which crop to be grown in order to get productive results with the help of weather prediction as well as production prediction.

## 6. FUTURE SCOPE

In future, we can incorporate other multiple Indian languages like- Bengali, Tamil, etc. with Krishi-mitra interface. We can also includes text to speech translation and we can also add video links for farmers easily understanding.

### • ACKNOWLEDGEMENT

It gives us great pleasure in presenting the preliminary project report on 'Krishi-Mitra: An ICT Enabled Interface for Farmers'. We would like to take this opportunity to thank my internal guide Prof. Dhakane V.N. & our project co-ordinator Prof. Shaikh I.R. for giving us all the help and guidance we needed. So really grateful to them for their kind support. Their valuable suggestions were very helpful. We are thankful to our Head of Department Prof. Shaikh I.R. and all Teaching Staff for providing various resources such as laboratory with all needed software platforms, continuous Internet connection, for Our Project. Beside we are thankful to management and Dr. Kudal H.N. Principal of our college. In the end our thank to many other individuals of S.N.D. College of Engineering & RC ,Yeola ,for providing their useful suggestions which contributed greatly in making our project successful.

### • REFERENCES

- 1) L. N. De Silva, J. S. Goonetillake, G. N. Wikramanayake, and A. Ginige, "Towards using ICT to enhance flow of information to aid farmer sustainability in Sri Lanka," in ACIS 2012: Location, location, location: Proceedings of the 23rd Australasian Conference on Information Systems, pp. 1-10. ACIS, 2012.
- 2) D. Samanta, S. Ghosh, S. Dey, S. Sarcar, M. K. Sharma, P. K. Saha, and S. Maiti, (2012, December). "Development of multimodal user interfaces to Internet for common people," in Intelligent Human Computer Interaction (IHCI), 2012 4th International Conference, pp. 1- 8. IEEE, 2012
- 3) R. Prasad, K. R. Ranjan, and A. K. Sinha, "AMRAPALIKA: An expert system for the diagnosis of pests, diseases, and disorders in Indian mango," Knowledge-Based Systems, 19(1), pp.9-21. Elsevier,2006.
- 4) Punchihewa, Devaka J., and Prasad Wimalaratne. "Towards an ICT Enabled Farming Community." E-Governance in Practice, India (2010): 201-207.
- 5) Parikh, T. S., Patel, N., & Schwartzman, Y. (2007, December). A survey of information systems reaching small producers in global agricultural value chains. In Information and Communication Technologies and Development, 2007. ICTD 2007. International Conference on (pp. 1-11). IEEE.

- 6) Ginige, T., & Richards, D. (2012). A model for enhancing empowerment in farmers using mobile based information system. In ACIS 2012: Location, location, location: Proceedings of the 23rd Australasian Conference on Information Systems 2012 (pp. 1-10). ACIS.

