

Smart Village System

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Abstract

This paper gives the idea from Smart cities to Smart villages. It focuses on the key areas of interest in the village perspective and also evaluates the applications of IoT in those areas. It also provides a comprehensive view with respect to improvement in the quality of life in villages. There is a need for designing and building Smart Villages which are independent in providing the service and employment and connected to the whole world. Smart villages will be connected to villages via information and communication technologies (ICT) used to access Internet. Smart Village program to improve public facilities in the villages seeks to make villages 'smart' on the lines of Smart Cities that will help them become self-reliant, clean and up to date.

Keywords: Smart Villages, Internet of Things, Smart Cities, Big Data, Cloud Computing, Information, Communication Technology

I. INTRODUCTION

India is a country dominated by villages. So that developing India it must to develop villages first, but Because of lack of communication problem in villages they do not have central communication system. Hence villagers not have sufficient knowledge about Ration status, Dairy Management , important announcement in village , Government Scheme, funds & Taxes .To overcome from this problem and to help villagers it is possible to make android application from them to know all important information through android application .Android application that provide farmer worker recruitment process, notice board . This Android application provides centralize management system. A large number of Indians are living in village; hence it is necessary to include their point of view to make India smart. Now this is the time to change the views of rural people as they are using smart mobile with many useful applications. Modern information technology is a very easy to change their views and understand the concept of smart village. A smart village means where a person can be able to speak, for work to respect each other. Large no of people of will required a large amount of resources in our country is not very rich to provide digital devices to every village people. This paper is developed after a understanding life of the village people and how smartphones are used to enhance life of people who live in village area Smart people are a necessary be a part of Smart village, because they plan the social look at the village through their skills like creativity and social relations with others that help the village to be open to the outside world. It is not easy to find a large number of smart people in Indian villages so a group of some smart people can be made for each village. The group is responsible to create other smart people.

II. ARCHITECTURE OF SMART VILLAGE SYSTEM

This is specifically designed for people or area those are living in rural part of India. Design of system is user friendly that it can be easily handled by any literate or illiterate person. India is a country having various religions and there languages so it is important to unite this languages. This system fulfills all this problems and yields corresponding output.

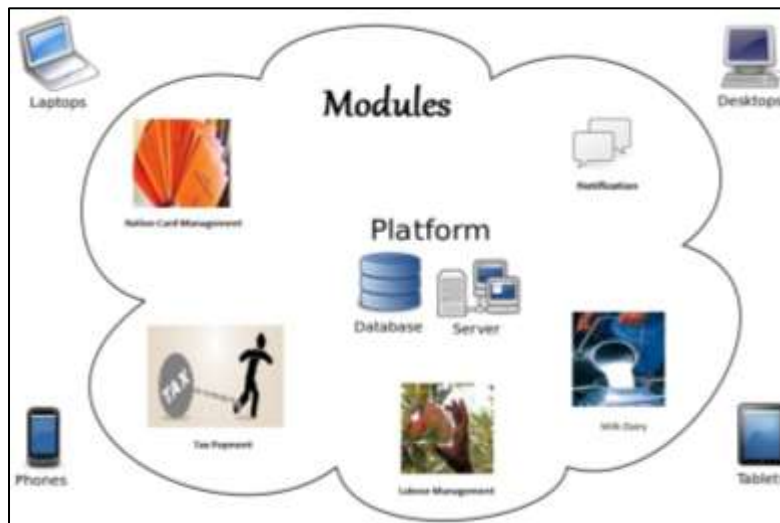


Fig. 1: Architecture of Smart Village System

Smart Village system included following modules

- 1) Ration Management,
- 2) Notification Management,
- 3) Milk Dairy Management,
- 4) Labor Management and
- 5) Tax Payment.

This are modules we are going to develop in smart village system .There is a main Database server we can access the system by using Smart phones or Tablets having android operating system. The main server can be handled by Administrator. User can access the modules by using Wi-Fi, 3G, or 4G LTE. Firstly user needs to register to access the Application. After completing the Registration process user can access the different modules and able to Receive the Notification.

III. EXISTING SYSTEM

A. Ration Management

In India, ration cards are primarily used when purchasing subsidized foodstuffs (wheat and rice) and fuel (LPG and kerosene). They are an important subsistence tool for the poor, provide proof of identity and a connection with government databases. India's public distribution system (PDS) is based on the ration card, which it uses to establish identity, eligibility, and entitlement. There are three types of Ration card:

- APL (Above Poverty Line).
- BPL (Below Poverty Line).
- AAY (Antodaya Anna Yojana) beneficiaries under PDS/TPDS.

The villagers don't know information about the Ration or Kerosene is available or not. Records are managed in Register so it is difficult to manage and analyze total sale of village.

B. Milk Dairy Management

In India, many farmers running their dairy farm successfully as their as side business. Which has yielded a great production in dairy farm in occupation. So prior to making opinion about this business, see that now a days peoples are running dairy farming, which has encourage farmers to have at least one cattle. Manager (Person having authorization of Milk Dairy) of milk dairy need to keep Record of milk. Farmers feed their milk twice a day i.e. Morning and evening. At the other side Manager Not easy to maintain the Record milk collected by farmers and require more time and efforts to maintain the records of whole month.

C. Notification

Notification gives official information to someone. Important Notification about the Government Scheme, subsidy are not reaching to all villagers. Also the Water tax and all other taxes like home tax, farm tax is needed to pay on time if they don't do so they have to pay penalty. Information about an event or Meeting is also not reach up to villagers.

D. Labor Management

Agricultural work is hard work. Agriculture work require lots of man power, which brings certain importance to the labor work they are not easily available which degrades the production of farming. Demand of Labor for working in Agriculture increasing

daily. Labors are unaware about work, farmers also need labors to increase their production as both are dependent on each other hence, It is necessary to have a bridge between them.

E. Tax Payment

Tax payment is also important ingredient for village. Tax deposited by peoples is used for the wellness of the village. There are Different types of taxes like Residential tax, water tax, farm tax. It is necessary to reach this tax directly to government but due to lots of paper work it goes through many other government officers having probability to inaccuracy, corruption, fraud, partiality.

IV. PROPOSED SYSTEM

A. Ration Management

As we seen the drawback of Ration management we overcome this problem by using this module. Here we are going to send a Notification of Ration (Wheat, Rice and Oil) or Kerosene when it is arrived and available to buy to villager's .Notification is divided as per the Ration Card type i.e.(APL,BPL,AAY).People are able to pay online or offline Payment to buy Ration or Kerosene. This drastically reduces the paper work and on top of this payment information is also stored on Server.

B. Milk Dairy Management

As we have discussed above in existing system how the Dairy management system lags due to improper record management. To resolve this unorthodox situation we have designed the all new online dairy management system. The new managerial system keeps record twice a day (Morning and Evening) which helps villagers to track day to day collection of milk and their payment. Payment is Transferred Online automatically to each Member after every ten days.

C. Notification

It is also one of the most essential modules which govern the regular notification scheme. Whenever government announces a new scheme, event, promotion it directly reaches in the notification panel. Villagers are up to day up to date instantly. Administrator can send any notification regarding gramsabha, devotional, spiritual, entertainment, financial using this app.

D. Labor Management

Labor management is highly under estimated system in India, as it t is not supported by officials, it is necessary to encourage labors in having their hand to our general economical subject. This module is divided in two parts first for Farmers and second for Labor. The Farmer and labor work hand in hand to increase the opportunity. This app organizes the labors as per the farmers need giving labors their value for their work. Even the labors find their place of work.

Farmer can easily find worker as per need using this module. Farmer need Labor for the different type of work like Spraying, feeding, Planting, cropping, harvesting.

E. Tax Payment

Tax payment is made online in this module by using by debit card, credit card, ATM card, Online Banking using Payment gateway. This reduces the headache of farmers as their efforts for payment are reduced. Curruption,fraud is degraded to large extend.

V. CONCLUSION

After getting independence in 1947, it was believed that our nation progress a lot by adapting the advance technologies from western powers but due internal rational disagreement on the foreign materials India lacked this opportunity and didn't adapted to new technologies. As the time passed on and development in computerization created a revolution in 1990's Indian people came to know about the importance of automation and now in 21st century it became a great need. Current system has lots of drawbacks as it requires lots paper work, man power which is infeasible and over the more accuracy is low with high probability of corruption. Understanding all this we have developed a system which can reduce all the hard work to zero and yield great result.

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