

A MD5 Algorithm Approach to Monitor Village Using Village Using Mobile Application

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ABSTRACT

This paper gives the idea from smart cities to smart villages. It focuses on the key aspects of village and also evaluates the applications of android app 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 services and get connected to the world. Smart villages will be connected to villages via Information and Communication Technologies (ICT) that is used to access Internet. This application is to improve public facilities in the villages to make them 'Smart' on the lines of smart cities that will help them become self-reliant, clean and up to date.

Keywords: *Android application, MD5 Algorithm, Smart Village, Village Requirements.*

I. INTRODUCTION

The advancement of a nation depends upon the village's advancement. As part of the smart village principle, we require a system that assists in advancement of towns in the locations like Primary education, individual's health care, Roads and Transportation, drinking water centers, federal government policies awareness and schedule of fundamental facilities/infrastructure This system assists the members to team up, strategy, evaluate and find out and carry out various activities with others experience/feedbacks and tips. India is a country dominated by villages. So that developing India it must develop villages first, because of lack of communication problem in villages they do not have central communication system. Hence villagers do not have sufficient knowledge about Ration status, Dairy Management, important announcements in villages, Government Schemes, Funds and Taxes. To overcome this problem, the process has to begin from the bottom. To help the nation grow, an approach to monitor and facilitate the needs of village has been planned effectively via android application. 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 very easy and the concept of smart villages can be understood easily. This paper is developed after understanding the life of the village people and how smart phones are used to enhance life of people who live in village area. Design of this system is user friendly and it can be easily handled by any kind of people.

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II. EXISTING APPROACH

The available system contains ration management, milk dairy management, labor management, tax payment, notification and all these systems are done manually. There is no existing system that monitors all these in one go. There are certain applications that are public and anyone can access the availability of these shops in the villages but none of them are function specific. The villagers do not know information about what's happening around them. Records are managed in registers manually and thus it is difficult to manage and analyze total sale of village. The major drawback in the existing system is the security issue. The existing system only provides certain information about the village and it can be accessed by anyone and it is not secure. There is no existing system for online smart village monitoring system. It can be done through study held by the federal government however not through online system. A few of the issues dealt with by the villagers are transport, water, electrical energy, health care, education. Problems in towns are unknown to federal government. Volunteer module: Volunteer module offers you a chance to assist individuals in the towns by offering services like health care, Roads and Transportation and so on. The voluntary services design is necessary to comprehending a victim's requirements and using significant assistance.

The advancement of a nation depends on the village's advancement. As part of the smart village idea, we require a system that assists in advancement of towns in the locations like Primary education, individual's health care, Roads and Transportation, Drinking water centers, federal government policies awareness and accessibility of standard facilities/infrastructure. Rural advancement of the nation (and in any nation) is primary and very first the very best method to obtain farm items to the marketplace rapidly and financially. Fresh foods are important to health and advancement, and the rural nation has to have light, power, water and other requirements for interaction, health and transport. Individuals in villagers will get awareness about their issues.

Smart Village was among thirteen significant tasks intending to make our houses smarter and more energy effective. The jobs got £ 3.8 million in financing from the Technology Strategy Board and the Department for Business, Innovation and Skills (BIS). The combined objective of the thirteen jobs was to demonstrate how smart meters might be incorporated with interactions innovation to make houses more energy-efficient, and customers more energy-aware. The goal of our Smart Village job was to compare Smart Metering and Home Systems in Urban Areas with those in Rural Areas. We took a look at the efficiency of numerous levels of system, from an energy conserving perspective and in regards to assistive innovation chances to enhance individual's wellness in your home.

IEEE Smart Village, an international humanitarian program assisting remote, energy-deprived neighborhoods construct towards sustainability with renewable resource and innovation, revealed today the growth of their collaboration with Global Himalayan Expedition (GHE). With this growth, IEEE Smart Village is supporting GHE in offering tidy energy gain access to through solar energy to enhance the living requirements of rural

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towns in the remote Himalayan frontiers of India. IEEE Smart Village's financial investment in GHE will particularly approach financing access to fundamental electrical energy, through setup of energy effective high lumen LED lights for property lighting, solar LED street lighting for the outside neighborhood area, mobile charging points and personalized DC HD LED TELEVISION for these towns which are normally situated above 13000 ft. in the Indian Himalayas surrounding nations such as Pakistan and China.

In collaboration with IEEE Smart Village, GHE's goal is to execute the renewable resource and innovation services in a sustainable, ecologically advantageous and scalable method-- resulting in a general advancement of the remote towns in the Ladakh and Zaskar areas of India. In August 2015, a global cast of volunteers, consisting of IEEE members, assisted set-up DC Solar micro grids, varying in capability from 100 watts (W) to 300 watts (W), to the remote ancient village of Shingo, situated in Hemis National Park, in the Rumbak Valley of Ladakh, under the banner of GHE. Mr.Das states that makes them a fertile ground for explore smarter methods of utilizing energy that might assist the rural bad leapfrog conventional power networks to a greener, community-led method.

"Changing customer behavior in a huge city is a significant issue," he states. "It will take years to develop smart cities, however I can get countless smart towns performed in that time." In Smart Villages access to sustainable energy services functions as a driver for advancement-- allowing the arrangement of great education and health care, access to tidy water, sanitation and nutrition, the development of efficient business to enhance earnings, and improved security, gender equality and democratic engagement.

II. PROPOSED APPROACH

This paper focuses on making the villages smarter through an android application. It also provides a secure registration and signing options. The users are verified by the village officials and only those with permissions to access can use this application. Numerous of them live in remote rural village neighborhoods. Up until such neighborhoods have access to contemporary energy services, little development can be made to establish their economies and enhance their lives. In each of the 6 areas a significant global workshop brings together the varied set of gamers from throughout the area, offering a revitalizing and open environment favorable to creating brand-new insights into how to take on the difficulties of village energy gain access to for advancement. A last occasion in each area draws together lessons discovered in combination with policy makers, donors and advancement companies, and thinks about next actions.

We wish to engage volunteers throughout IEEE's organizational systems and many societies from deal with hardware advancement for the villager, to leveraging your business connections from improvement of the kiosk service strategy, to boots-on-the-ground field work. There countless chances to share your abilities to advance IEEE Smart Village's humanitarian objective. Wi-Fi hotspots let villagers gain access to regional intranet through a language-independent mobile app to see their usage, pay costs and register problems. If users surpass

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their allowance, they can be shut down to prevent straining the grid and faults can be spotted from another location prior to villagers trained in fundamental repair works are sent out to repair them.

3.1. RATION MANAGEMENT

In India, ration cards are primarily used when purchasing foodstuffs and fuel. This application provides notifications of Ration (Wheat, Rice, and Oil) or Kerosene will be sent to the customers whenever it arrives. Notification is divided as per the Ration Card type i.e. APL, BPL, and AAY. People are able to pay online or offline to buy Ration or Kerosene. This drastically reduces the paper work and on top of this payment information is also stored on Server. This further helps the people to know about the items being supplied on the particular days from their home itself and so that there is no need to go to the ration shops and return back without purchasing. The details of the quantity and cost of the products are also provided in the application. This makes the work of villagers easier. In an effort to make the public distribution system (PDS) more efficient, various state government in India has decided to introduce smart cards for the consumers. In the initial phase of the project, system would be installed Special training in operating this system is being given to ration dealers in the state. The computers would keep updated consumer information provide online information of all stocks available in a particular PDS outlet. In the initial phase of project each user has to register for ration card online from respective ration shop through web and the form will be scrutinized by s given by smart card. A smart card has a computer chip and enables its holder to purchase goods or avail of services, or perform other operations using data stored on the chip. As Government provides the food, oil and fuel to economically challenged people at subsidized rates which are distributed to the public through ration shops. They also fix an upper limit on the consumption per head. Depending on the number of dependents in a family the system will calculate the upper limit of the rationing and will maintain this record for future references. It can also maintain a log as to which family has been consuming how much. Once user select the quantity, his account balance is checked and if it is sufficient user will get the items and account will be automatically updated. The proposed system will also be maintaining an account of the material which is coming in the ration shop and will automatically be maintaining the current status so that the owner cannot claim that the goods are over. In all this mechanism will be a boon for the economically challenged people who depend on these shops.

3.2. MILK DAIRY MANAGEMENT

Many farmers are running their dairy farm successfully as their side business which yields a great production. This encourages the farmers to have at least one cattle. In existing system, 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 collection of milk and their payment. Payment is transferred online automatically to each member after every ten days. Thus, it helps the farmers to sell the milk and also get benefited in collaboration with the milk dairies.

3.3. NOTIFICATION

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Notification gives official information to the villagers. 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 notifies in the notification panel. Villagers are up to date instantly. Village head can send any notification regarding gram Sabha, devotional, spiritual, entertainment, financial using this application. The information regarding the meetings to be held in the villages will be notified so that the villagers can take part in those meetings. This also gives the opportunity for the villagers to discuss their points with the officials. Hence the issues in the villages can be solved and thus making it smarter.

3.4. LABOR MANAGEMENT

Agricultural work requires lots of man power, which brings importance to labor work. Demand of labors for working in the agricultural fields is increasing and is mentioned in this app for job needs.

3.5. TAX PAYMENT

Tax paying is the most important thing that an individual should focus. Tax payment facility is included so that the villages can pay the water tax and also the current bills from their place. Tax payment is made online in this module using debit card, credit card, ATM card, online banking using payment gateway. It will have two options: tax payment and electricity board payment. The tax payment option will redirect to the tax paying websites where the tax can be paid. The electricity board payment option will redirect to the corresponding websites where the current bills can be paid through the smart phones. The payment efforts of farmers are reduced. Corruption, fraud is degraded to large extent.

3.6. ADDITIONAL SERVICES

This paper also provides education facilities. It is no secret that a good education has the power to change a life. What is new is the demand for that change. Governments are investing more than ever before on educating their citizens, eager for them to compete in the global workforce. A growing global middle class is spending more of its own money on educating their families. Employers are looking for a new sort of colleague - someone with the skills to flourish in the 21st century. Combined with technologies that continue to develop at breakneck speed, the result is a world that has the want, and the means, to learn at scale. Yet there is so much to be done. One in five adults lack the written communication skills they need to progress in life, and 57 million children do not know what it's like to step inside a classroom. Many millions more are in education, but not learning effectively. The global challenge for education is not just about providing access, but also ensuring progress. As the world's leading learning company, we can help make a difference. But we also know that the challenges are too immense to tackle alone. So we're fostering a global community of teachers, parents, students, governments, institutions and businesses, who can help us find the answers and deploy the solutions. The villagers can be benefited by the educational videos in the application. This encourages the people in the village to learn more things. The details of the available courses and the duration will be provided. It also provides the list of jobs available so that the youngsters of the village can be employed. It contains the job details, qualification required, salary and the location details of the job provider. This reduces unemployment in the village. It also contains the

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contact information of general services so that the villagers can contact them in case of emergencies. The local transport timings, details and route information's are also included so the people can be on time. The delay's that occur due to certain unavoidable situations are also updated.

3.7. PEOPLE'S ROLE

This paper on smart village contains three roles of users: Village Head, Admin, User (Villagers). The Village Head is responsible for maintaining and monitoring the village. He/She holds the responsibility of sending and updating the important schemes which are necessary for making the village smart. The village head can access the profile of the users. The user can continue to further use the application only if the village head verifies the user and grants permission of access. The role of admin is to update the functionalities discussed in the requirements. The users can create their profile and access the modules available in the application.

IV. BENEFITS

- 24/7 Phone & Email assistance;
- Monthly & expense efficient bundles for routine consumers;
- Live for Online Smart Village Monitoring System.

The advancement of a nation depends on the village's advancement. There is no existing system for online smart village monitoring system. The advancement of a nation depends on the village's advancement. As part of the smart village idea, we require a system that assists in advancement of towns in the locations like Primary education, individual's health care, Roads and Transportation, Drinking water centers, federal government policies awareness and accessibility of fundamental facilities/infrastructure In each of the 6 areas a significant worldwide workshop brings together the varied set of gamers from throughout the area, offering a revitalizing and open environment favorable to creating brand-new insights into how to take on the obstacles of village energy gain access to for advancement.

V. FUTURE SCOPES

India is a land of countless villages. More than eighty percent of the Indian population lives in villages. That's why it is said that Real India lives in villages. So it is very important to give greater attention and concentration to them.

The backwardness and underdevelopment of the rural areas have attention of not only the planners, but all those who are keenly interested in the all-round development of India. It is a pity that even after 50 years of independence there are no sanitary conditions, no means of living, no provision for housing facilities. Efforts should be made on a war footing for the improvement of the rural areas. In this regard, the youth who are the future citizens of India, have a vital role to play. The state governments and central government should come forward with new and useful schemes for the rural reconstruction and development. Most of the villagers are engaged in agricultural operations. But most of them have no knowledge of the modern techniques of increasing the produce. So the educated youth should guide and instruct them in the right direction. Many villages still lack the arrangements for pure drinking water. Even though there are wells and ponds, they

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become breeding center for mosquitoes. As there is no proper planned drainage system, the stagnant water results in several water borne diseases. In villages some people grow vegetables and pulses. Some others earn their living by carpentry, weaving etc. The condition of the landless labors is very miserable. Most of them are either unemployed or underemployed. There is a large scale of illiteracy. There are no proper health and educational facilities. Moreover the villagers are born in debt, live in debt and die in debt. In order to prevent the youth from going to urban areas, the government should start cottage and small scale industries. Several farmers committed suicide because of the failure of crops. They could not return the loans taken from banks and money lenders. There should be some insurance facilities provided to save them. In order to develop our villages some of the following actions can be taken.

1. Villages should be provided with good transportation facilities.
2. There should be proper drainage, good sanitation facilities and electricity facilities should be provided. Governments should undertake village development programs for rural uplift. The Janma Bhoomi programme and the Rajiv Pallebataprogramme implemented in Andhra Pradesh yielded good results.
3. There has been a green revolution under the guidance of Punjab and Haryana universities. Medical and government health centers should be started.
4. Family welfare centers, technical training centers and rural banks have to be encouraged.
5. The Government should provide credit facilities and supply fertilizers at cheap rates.
6. There should be rural credit societies and land mortgage banks.

Villages are the back bone of any nation. It is necessary that the villages should be uplifted to higher levels. Most of the raw materials and food stuffs are provided in villages. So by developing them, the overall development of the country can be achieved.

The development of a country depends on the village's development. As part of the smart village concept, we need a system that helps in development of villages in the areas like Primary education, people's healthcare, Roads and Transportation, Drinking water facilities, government policies awareness and availability of basic facilities/infrastructure. This system helps the members to collaborate, plan, assess and implement different activities and learn with others experience/feedbacks and suggestions.

All of the process will be made online and be recorded in database reducing man work and man power.

The aim of project is to develop the village with job opportunity for villagers. A team of project is to find the problem or need of a village in terms of Socio-Cultural or Physical or social infrastructure and to design that facility with efficient engineering solution which include the design proposal and estimate cost to facilitate the require facility for the future growth of village with urban facilities.

VI. RESULT

After applying all this functionalities and services the overall problems in the villages can be reduced. Due to this economical, educational and other modern techniques increases the level of thinking, living standard and overall status of villages increases. Because of this villages become self-dependent and also can contribute towards the development of the nation to a very larger extent.

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VII. CONCLUSION

The nation has progressed a lot by adapting the advanced technologies from western powers but due to international disagreement on the foreign materials India lacked the opportunity and did not adapt the new technologies. The development in computerization created a revolution in 1990's and then Indians came to know about the importance of automation and now in 21st century it became the great need. Current systems has lots of drawbacks as it requires lots of paper work and the accuracy is low with high probability of corruption. Understanding the requirements, we have developed a system which can reduce all the hard work to zero and yield great result.

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