RURAL EMPOWERMENT WITH INTERNET OF THINGS

Shreedevi S Shahapur
Co-author: Prof. Dr.Suma S
PG SCHOLAR, DEPT of MCA, DSCE
Dayananda Sagar College Of Engineering Bangalore

Abstract– India is a village country. More than 70% of the people live in villages. Their main occupation is agriculture. Health facilities like hospitals, medical and education sectors like schools, colleges are less encouraged. So to improve things IoT plays an important role. We can use and implement IoT to improve the education sector, health sector by automating the facilities. Now the day's Internet has all over access around the globe, hence it can reach villages easily. So we can make the best use of the internet.

Keywords: **Rural empowerment, Internet of Things, Applications in agriculture, Smart villages through IoT**

I.   INTRODUCTION

The revolutions have been constant for centuries to come. Technology has been constantly changing. One such revolution is the Internet of Things. Such is the impact of IoT; it is also called the "fourth industrial revolution". Living has become so easy with such machinery.

With IoT, we can easily integrate the technologies. We can implement new ideas with technologies. So IoT made it easy for combining technologies and making them into reality.

In reality, we can face many problems regarding health facilities like hospitals, doctors we didn't get the doctor at right time and to date, so many rural areas do not have hospitals nearby. So we can resolve this problem by implementing the IoT.

IoT changes the way we live by implementing the technologies and integrating them. IoT helps us to find solutions for the problems. We can face problems like the non-availability of doctors in rural areas that might increase the seriousness of the situation. In rural India, the IoT is least encouraged as the companies do not find a market in urban areas.

Internet of Things with its macro-level capabilities can reduce the cost with a large production of materials like sensors, thus making it operationally sustainable and socially transformable.

IoT helps to bring a revolution by empowering rural areas and connecting rural area people to recognized India.

II.   LITERATURE SURVEY

Oracle India's managing director says that IoT will help to reliable delivery of services like governance, education, financial, and health services to the rural areas.

In rural areas, people do not have access to specialist doctors. Thus, so many hospitals in cities are charging more cost, but they are reaching people using technologies, and they can help people staying in rural areas.

Using technologies doctors in cities can see and talk to the patients in rural areas. In case of medical emergencies, this technology helps a lot. Doctors

and prescribe the medicine based on the patient's conditions.

IoT is also helping a lot in high schools. It helps students to learn actively, and they can make the best use of technology. Said by shailendra Kumar.

IoT connectivity can also help to market rural products worldwide with digital marketing. nowadays so many apps are available in the market to sell and buy a product easily.

To use IoT technology, a person not necessarily the educated one. If he has some basic knowledge about the using that's enough as the IoT improved in such a way that it's available in the local language.

K.S. Vishwanathan, is the vice-president of Nasscom (National Association of Software and Services Companies). He said that India can capture at least 20% market share in the next 5 years and IoT emerges as the next big thing to become a $300-billion global industry by 2020.

3. METHODOLOGY

For Secondary sources and information Journals, articles, newspapers, the internet, books are referred to. The secondary data is also collected from the published reports.

4. LIMITATIONS OF THE STUDY

The study is conducted based on the secondary data available which is only conceptual research.

Meeting doctors is not a big issue nowadays as so many applications are available like MFine, Apollo247, etc. with good internet access these can easily reach untapped areas.

V SMART VILLAGES THROUGH INTERNET OF THINGS

At the point when we analyze the number of inhabitants in provincial and metropolitan territories it's been in every case more in towns like 80% of individuals are living in country zones. Henceforth, we need to zero in on every individual should be

managed the cost of all offices like well-being, schooling, and so forth

The ideas of medical care, training, extra-occupational support, admittance to monetary administrations and items are generally strange to the few spots that litter the Indian scene. In such a circumstance, IoT could well be the innovation that comes to an obvious conclusion and construct spans between the metropolitan and country circles of India.

There is a typical issue of gas spillage in the two urban areas and towns. The utilization of an LPG chamber is definitely not a protected method of cooking. Notwithstanding, the circumstance is considerably more genuine in our towns. A plausible answer for this issue is the utilization of a gas sensor stopped onto a miniature regulator board (like an Arduino). It has an in-constructed framework that cautions the mortgage holder through an SMS, cell phone application, or manual alert.

Towns face the test of death toll because of an absence of appropriate framework and network to significant medical clinics during crises.

For instance, on account of a fire or water peril, individuals understand the risks past the point of no return. Thus, smoke sensors should prove to be useful to caution property holders if a fire breaks out. Dampness sensors can likewise assume a vital part in checking the existence of block facades.

They can caution inhabitants early if the dividers have gotten too feeble to even consider withstanding the heap.

Domesticated animals observing arrangements with creature farming and cost reserve funds. Utilizing a mix of sensors and remote IoT applications, one can follow the steers' well-being, prosperity, and area.

This information assists with distinguishing debilitated creatures, find creatures, and thusly, can likewise bring down work costs. Ensemble Link is

one potential arrangement. Another arrangement is a remote retrofitted bolus in the cow's stomach, which can impart through Bluetooth to an ear-tag.

With IoT, we constructed so many global positioning frameworks or wearable GPS beacons for the security of kids and friends, and family.

Water Tank Automation: water tank mechanization procedure assists with following the circumstance of inflow of water and this method additionally helps in turning now and again of engine dependent on the water level.

A Health ATM permits you to think about your wellbeing and check the key body boundaries, for example, blood tally, BMI, and so forth economically and rapidly.

VIII CONCLUSION

The government of India has already initiated IoT investment in the country with the opportunity to transform India into one of the largest economies in the world.

More than 70% of Indian people live in villages whose main occupation is agriculture.
Health care, education, support systems, access to products and services are all meagerly available to these rural people when compared to their urban counterparts.

The Internet of things technology can provide better access to health care, education, products, and services to the rural people thereby bridging the gap between rural and urban India.

IoT-based applications can be deployed in rural areas for cheap as the cost of sensors is decreasing and the mobile internet is undergoing increased market penetration forcing better cellular connectivity. This facilitates the introduction of IoT technology. Our rural areas face many problems and the Internet of Things can be practically applied to our villages to enable better solutions. Investments in the Internet of Things in rural areas will help them to catch-up up with their urban counterparts

III.   REFERENCES

https://nextbigwhat.com/iot-rural-india
https://ieeexplore.ieee.org/document/7857376?reload=true

https://blogs.worldbank.org/digital-development/agriculture-20-how-internet-things-can-revolutionize-farming-sector

https://qrius.com/iot-smart-villages

https://www.nextbigwhat.com/iot-rural-india-297

Harnessing Internet of Things in Rural India by Smart Tech Consulting group

https://www.indiatimes.com/news/india/how-the-internet-of-things-is-digitizing-agriculture-speeding-up-ruraldevelopment-in-india-326546.html

http://indianexpress.com/article/technology/tech-news-technology/internet-of-things-can-connect-millions-inrural-india-to-the-mainstream]