Knowledge Through Digitalization: Innovation of IT Center & Lab in Rural Areas

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Abstract—Today's world is forwarding towards new technology to becoming smarter and advanced. Every person had a smartphone as well as laptop but some people, mainly in rural areas don't know the actual use of a smartphone. They are only Accessing Social media. So the main purpose of this paper is to tell about that how the people from rural areas are aware by new technologies by the implementation of Information Technology centre and laboratory with different methodology. This Information Technology centre and laboratory change the set mind of the rural people. For this innovation, we want users and their innovation with experimentation and suitability of methodology created by us for the environment to reach to the goals.

Keywords—Information Technology, Vigyan Ashram, Internet, Android, Application, Telepresence

I. INTRODUCTION

As we are finding a smarter way of doing work for good work as well as getting good output from the work. We all have a smartphone in our home which completes almost 50% of work of any person. Because of that we find some record that 291.6 million Smartphone users are there in our country, it is recorded at the end of 2017, and now it accepted that 337 million users in 2018. So this rapid change shows that how much we are moving towards new technology but we are not using well especially rural people. But we don't know the actual use of any technology and finally, we are misusing. Not only smartphone we have a smarter way to do work, but we are not aware of them, or we don't know how to utilize it. Now also in India 900 million people not having an internet connection.

This is the concept for the rural development methodology, innovation, and making rural people practical. IT centre in a rural area can easily solve the problem by using recants technology, it finds the solution and does an experiment, it will result that new innovation came to existence. This concept first came into mind Of MIT student in 2006 for the development of rural areas. They had given the name of these concepts as Living Labs for the sustainability and development of rural areas. In the world, innovations are going on but they are not affordable to the rural people, to make it affordable and more useful this IT centre is required.

To aware the rural people from every new technology and to provide the internet we have to open the IT centre or Laboratory. This IT centre provides information about the latest technology and how to use them and also help in constructing new technology-based devices and up gradation of previous technologies.

II. IT CENTRE

The IT centre stands for Information technology Centre. IT centre in rural areas means the development of rural areas with the help of technology, not only past technologies but also recants technologies like IOT(Internet of Things), AI(Artificial Intelligence), ML(Machine Learning), DL(Deep Learning) etc. IT practical towards the technologies centre will upgrade the rural area if they're implemented in a correct manner with the full of support from rural as well as government people. This IT centre not only helps in up gradation of a traditional method to technical methods but also help to build the trust about technology and scheme of government in rural people

Fig-1 Rural People showing interest in Technology and Implementing

This IT centre does the meeting, organize events for the welfare of rural peoples.

III. AGENDA BEHIND IT CENTRE

- To make the people smarter and area to be developed
- To aware them about technologies
- To make people practical towards all the work
- To make people to understand technology
- Implementation of recent technologies in all fields.
- To make people for implementing the technologies.
- Make education digital and practical.
- Provide employment and internship
- By connecting all with Internet
- By connecting them with android application
- By providing information about social media and how to use.
- A smarter way of using a smartphone.

IV. PROBLEMS SOLUTION BY IT CENTRE

A. By Conducting Meet-Ups:-
The Sarpanch of the gram with the manager of the IT centre will be going to conduct this session after every 2 weeks of the month on any day. Here all people can discuss about their problem and within one month they find the solution anyhow.

Fig-2 Meetups by Village Peoples

B. By Meeting peoples:-
The one team will be made to look after the village. In this team, every member has to do a survey of 100 families in one week that they are suffering from any problem or they want any help or not and they require any help or not.

C. By making more and more coordinator:-
If the centre has more coordinator that means people are supporting, it will create a good and direct message to the villages

D. Women Coordinators will help in the home-based problem.

V. WORK BY IT CENTRE

The IT centre main work is aware the people about the latest technology and how they can use them. So how the IT centre will work will discuss here.

A. In Agriculture:-
As the growth rate of agriculture of India is falling down due to use of traditional methods, due to unawareness towards technology. Here IT centre aware the people by providing correct information about many types of equipment and agriculture-related information. They tell them about the use of the mobile application in agriculture. IT centres itself do the invention and updation in the fields of agriculture.

- ❖ By providing information about an Android application like:-
  - *i. Kishan Suvidha: -* This application is launched by the government of India to aware the farmer and for developing villages. This application tells about weather forecasting as well as the market price of all the crop product

Fig 3 Kishan Suvidha App

Another Android application is:-
- i.   IFFCO Kisan- Agriculture App
- ii. RML Farmer - Krishi Mitr
- iii. Pusa Krishi
- iv. AgriApp
- v.   Kheti-badi (खेती-बाड़ी Organic Farming Info)
- vi. Krishi Gyan
- vii. Crop Insurance
- viii. AgriMarket

- ❖ Equipment Information like about Weather Data Logger, it is used where their connectivity is not there.
- ❖ By showing awareness video clips in the centre.
- ❖ *By* awaking student from the education in agriculture.
- ❖ Finally IT centre can also look after to the farmer that how they are doing work in their fields if they are doing wrong so they can aware them.

This all the feature are available in the market but IT centre not only aware the people but also it helps people by

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concerning that what is the drawbacks and what is more required and they find the way to tackle them.

B. In Health:-

According to the government of India, 18.9 % of the death happens due to not assisting them properly. To overcome this problem IT centre can help more by assisting them with the help of technologies. They are:-

- By making two or more than two on the basis of the population they can fit telepresence robot and maintaining them well. So on emerging Condition, we can save the life.

Fig 4 Telepresence Robot

- The people who are suffering from diabetes can track the glucose level by using SugarIQ app and Sensor with Insulin.
- At the time of pregnancy, if emergency require IT people can assist by the help various machine and equipment
- The person with disabilities can be good by using various techniques like rehabilitation robot or we can design the robot according to the disabilities.
- To protect from contamination water and food we can take care about cleanliness by a robot and other means.
- At last providing information by video clips, short films etc.

C. In Education:-

IT centre not only provide a good education but also diploma degree with good training. They can provide Internship to other students. The IT centres are good in education because they indirectly provide total education practically.
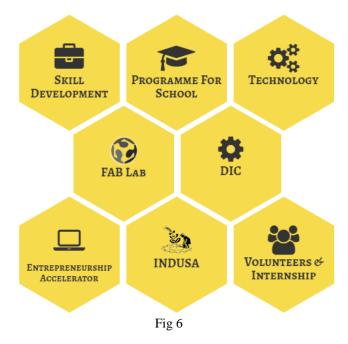

Fig 5

D. Other:-

- In homes of rural areas by awaking them with the different-different beneficial scheme of Government.
- Awareness' about home equipment
- Technical Equipment' in business so it used less manpower and large productivity.

VI. EXAMPLE: VIGYAN ASHRAM

A Vigyan Ashram is a world of rural technology. It is IT centre associated with the different organization like MIT, others etc.

A. Agenda of VIGYAN ASHRAM

Fig 6

It is only working on technologies and how to implement.

Vigyan Ashram developed the many types of equipment they are:-

  i.　Water Pump Controller
  ii.　Low-Cost Hearing Aid
  iii.　LDR Based Light Control system
  iv.　Azolla
  v.　Navalkol
  vi.　Leaf Wetness Duration Sensory System LWDSS
  vii.　Social Spaces Project
  viii.　Egg incubator
  ix.　Precision Agri control devices
  x.　Sanitary incinerator

The idea of Vigyan ashram given by Dr S S Kalbaag in 1993. It is a centre of IIE, Pune.

VII. THE BENEFIT TO THE RURAL AREA.

- ❖ People will become smarter.
- ❖ The thinking ability of people will change (that means mindset) towards technology.
- ❖ We can easily solve the problem of rural people.
- ❖ We also succeeded in creating a great unity between people.
- ❖ People will start a trust in technologies
- ❖ Farmers productivity will increase.
- ❖ The death rate will down which happen in absence of doctors.
- ❖ We didn't require hiring any doctors.
- ❖ Agriculture will superb.
- ❖ Education become digitalizes.
- ❖ Students will be technical with practical knowledge.
- ❖ We will find in some years " Smart Farming "
- ❖ Smart Homes
- ❖ Smart Village.
- ❖ Women Empowerment
- ❖ We find every people taking benefit of all the Scheme of Government
- ❖ Corruption anyhow Stopped at some amount

VIII. CONCLUSION

Implementation of IT centre is necessary because in today's generation everyone is digital but not smart. From this IT centre, people will aware of every recent technology which is launched and how we can utilize it. IT centre not only provide awareness but also good education with tourism.

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