SMART CITY: A SURVEY

[1]Sonal Ade, [2]Dr.D.V. Rojatkar
[1]Student, [2]Professor
Dept Of Electronics And Telecommunication
Government College Of Engineering, Chandrapur, Maharastra.

Abstract-A smart city is a 'smart' system which is characterize by the interaction between infrastructure, behavior capital and the culture achieved through their interaction. The survey of smart city concept is to reading the recent paper in the field and also we casting the number of concept of smart city. This paper is containing the survey of many number of articles. They articles are divided into two categories

1. General case studies

2. Specific case studies

The general cases contains the topic of smart city in a general framework Specific cases study contains the topic of smart city from the specific detailed application. it contains the traffic management system, wireless technology and smart grid. The result of survey on smart city shows the information of communication technology (ICT). It covers the all area like government buildings, electricity, water, hospital, transport, facilities, traffic, and health. Therefore the smart city is defined as their need.

Keywords-information of communication technology (ICT), wireless sensor network (WSN)

1. INTRODUCTION

Problem comes then it providing the infrastructure and various public services. The population are solved the investment in the information of communication technology and the infrastructure technology.

It growing the number of peoples with number of services anytime and anywhere. The many ideas are creating in smart city project. The aim of smart city project is to improve our daily life and building infrastructure with the help of network. In these days the information and communication is the essential part of development. It is used in all cities. The country which contains the smart concept they are smart peoples, economy, living aThe population of the cities is more than 50% and its expected % is will increase to 70% by 2050. The many and smart management is to improving the quality of our life.

A smart city is the town of self contained in terms of evolution of information. A modern city is offers to give us superior are life. We putting or connecting the sensor is receives reference, information, data etc and then transmitted them.

3. BACKGROUND

Due to increasing population and poverty day by day, failure of infrastructure during natural disaster. Have a much property A flexible infrastructure having important role to reduce the effects of disasters.

The smart city remains some basic components such components are network, smart phone, sensor to connect the people with mobile terminals etc.

(Information of communication technology) ICT can be used in workplace, home and in public facilities, its function to managing the city easily. The connected sensors in smart city will improve the infrastructure such as an oil pipelines, power grids and vehicular moment.

a. SMART GRID

There many definitions of smart grid .it contains the technology and functional definitions. The one of the most famous grid is digital electricity. digital electricity collects and distributes the information. their grid is contains a communications network, hardware or software to monitor and control and electric grid. It can provides the minimum cost, power and instant information. See in figure 1

Figure 1: Smart Grid

b. SMART METER

A smart meter system is one of the most important system it has benefits to the peoples, costumers and the company. It containing the smart meters and control devices. Smart meters can calculates the electric usage and providing information to the company.

c. INTELLIGENT TRA

The smart transport systems are contribute to the rational explanation of existing infrastructure. The objective of ITS is

i.　　Energy conservation and environmental protection.

ii.　　Improve the economic productivity of current and future system.

iii.　　Increase the prosperity of travelers.

iv.　　Increase the prosperity of travelers.

NSPORTATION SYSTEM

d. SMART HOME

There are so many different views of the smart home. some home terms are dependence on modern technology. However, the many smart house is controlled by the owners. This technologies that supports that smart home

Communication. With the owner are computer, mobile, TAB, internet network etc whether the owner is inside or outside from the home.

e. SMART WATER

The smart city containing the several of technologies will be use. As per the smart city we need to have smart system to maintaining our natural health. Using smart meter that predicts the population consumption of water.

f. SMART HEALTH CARE

Smart cities are providing the multiple solutions. In hospitals contains the special wireless access to emergency departments they can help with medical emergencies by transmitting vital information.

4. CORE COMPONENT OF SMART CITY

The section of a fundamental component which makes a city smart. According to the literature from the discussion of the smart city conceptual variants preceding section. The identification of smart city core component is divided into 3 section

a.   Technology Factors

b.   Institutional Factors

c.   Human Factors

a. TECHNOLOGY FACTOR

Technology is the key of smart city because the use of ICT to transforms life and work [41]. A well functioning infrastructure is most important but not enough to become a smart city.

b. INSTITUTIONAL FACTOR

The support of government and various policy of the governance is implimenting the smart city day by day. This category comprises the verity of smart growth in the city and country. all of this implimentation happens with the help of government agencies, non government policies etc.

c. HUMAN FACTOR

The availability and quality of the IT infrastructure is not only a definition of smart city [17]. Importantly, the other definitions stress role of human infrastructure human capital and education in urban development [12].

5. LITERATURE SURVEY

The literature section is integration into the United Kingdom and united state. It containing the ideas of the economic, ecological and social health. The planning of urban addressing and concept of sustainability cities. Due to the increasing rate of smart city to increasing health and reduce social discard related to the poverty. It is protecting to the local environmental, and ecosystem health etc.

HIGHLIGHTS

1. Develoopment of an integrated definition of the notion of smart city.

2. Classification of smart city application domains.

3. Definition of a coverage index based on the number of smart city addressed domain.

4. Regression analysis o identify the crucial factor that influences the coverage index.

6.   CHALLENGES : WORLD SURVEY

The smart city challenge inspired 78 mid-sized cities to complete for the opportunity to demonstrate how achieved data and intelligent transportation systems (ITS) technologies and applications can be used to minimize the congestion, keep travelers safe, protect the environment, respond to climate change and support economic vitality.

Additionally, the other six finalist cities Austin, Denver, Kansas city, Pittsburgh, Portland and San Francisco will benefits from the support of the smart city challenge collaborative, which made up of private sector along with the department of energy. The department of homeland security's science and technology directorate, and the national institute of standards and technology.

Here some of the elements the smart cities will be working on:

i.　Conversion of smart city vehicle fleets, public transit, and taxis from conventional to electric.

ii.　Convertion of private fleets from conventional to electric.

iii.　De-carbonization of the city's electricity grid.

iv.　Increase consumer adaptation of electric vehicles.

7. CHALLENGES: INDIAN SURVEY

The cities are engines of growth and drawing a million people every minute from rural areas. The government has introduced the many challenges of smart city.

The main objective is that the cities are providing core, infrastructure and good quality of life to the citizen. A clean and sustainable environment is the one of the most important application of smart city.

a.　Retrofitting existing legacy city infrastructure to make it smart: There are number of issues consider when reviewing a smart city strategy. The most important determine the existing citie's weak areas. The integration of formerly isolated legacy system to achieve city wide efficiencies can be a significant challenges.

b.　Financial smart cities: The high power expert committee (HPEC) an investment estimates in urban infrastructure has assessed a per capita investment cost (PCIC) of Rs 43,386 for a 20 year period.

c.　Availability of master plan of city development plan : A city development plan most of our cities don't have master planes or a city development plan, which is the key to smart city planning and implementing and growing all a city needs to improve and provide better opportunities.

d.　Providing clearances in a timely manner: For timely completion of the project. All clearances should use online processes and be cleared in a time bound manner.

e.　Capacity building programme: The building capacity for 100 smart cities is not a easy task and most ambitious projects are delayed owning to lack of quality manpower, both at the center and state levels.

8. SMART MISSION

Smart city is the most benefiting region in the area of country. Which is more advanced and as well as deployed infrastructure developing in the market.
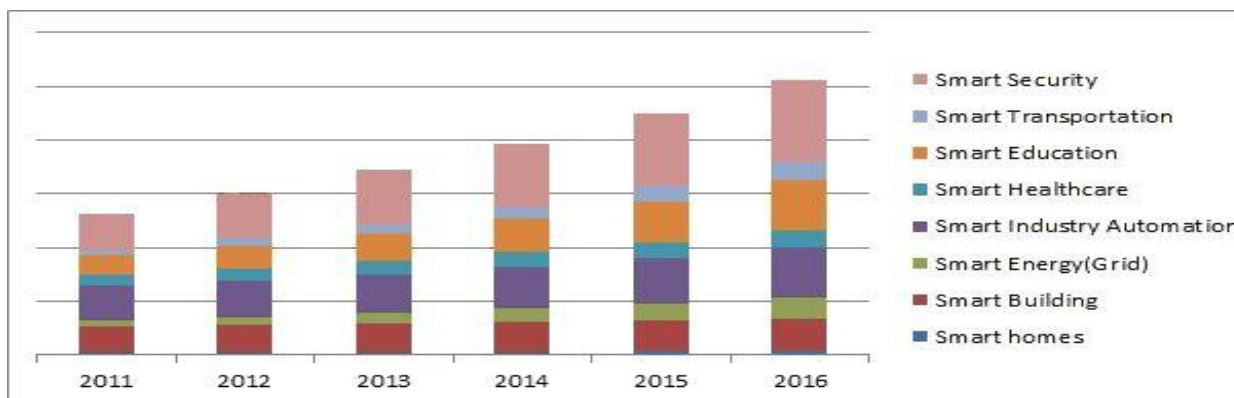
Smart city challenges for country of Iran is being met from smart meters, Philippines, solar panels and 100 smart cities in India. The figure of smart mission is given below:

9. SMART CITY MARKET SYNOPSIS

A smart city is differentiated from other counterparts on the basis of technological advancement, Governance environmental capitals etc. some essential components in the smart city is smart transportation, smart energy management. Increasing the consciousness of the governments and citizens are driving the applications.

The graphical representation of smart city market synopsis is given below:

10. CONCLUSION

Application that have done this. The idea of the smart city is containing to the many cities. They cities are United State, Brazil, South Korea, Malta, China etc and others these cities will making to the certain quality of life smart cities The technology has contains many fantasis about our daily lifestyle. The smart city give us to the various having the capacity to developing modern city. Some nomenclature contains the smarter city, digital city. The smart city depends on the smart background with the smart infrastructure with the help of wireless sensor network.

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