Becoming even smarter about emerging smart cities and Internet of Things(IoT)

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Abstract: Cities are emerging and evolving at the very time that technologies are growing in our life they are connecting us with urban infrastructure management. The task of our Government is novel, daring and inventiveness. Although concept of smart cities emerged from various sectors, Internet of Things, it is a central feature of smart city models. Smart cities include not only economical business but also academics and charitable (philanthropic) organizations. Academics attracted by technological applications and they are able to sense and track the human use. Philanthropic witness solutions to the urban evils with humanity, justice, value-added quality of life and empowerment of citizen. An important view of the list of smart cities is personalized nature of their methodology. This paper implicates about more interesting features and evolving of smart city concept along with the use of IOT in smart cities.

Keywords: Empowerment, infrastructure, inventiveness, IOT, novel, philanthropic, personalized, smart city, urban

1. Introduction

In 1950's only thirty percent of the world's population lived in cities, by 2014 fifty-four percent and by 2050 it is estimated that a full two thirds of human population of the world will be living in cities. Some of the seeds of today's smart cities can be found in a series of conversations made between scholars and practitioners in 1980s, reflecting future of cities. The network of cities are inhabited by "Knowledge Processors ".This can be long term goal and cities can work towards developing layers of 'smartness'

2. What is Smart City?

Smart city - defined as metropolitan or urban environment which is more efficient, grander than the chaotic environments we live today. These new cities are 'sustainable cities', 'green cities', 'digital cities', 'intelligent cities', 'knowledge cities', 'information cities', 'resilient cities', 'low carbon cities', 'eco-friendly cities'. These efforts take along upgrading in both environment and economic conditions.

In India, smart city would have a different inference for defining its term. There is no such particular definition for smart city. Some definitional restrictions are required to guide cities which contain a longing list of infrastructure and services that describe his or her level of intention.

3. What can smart cities do?

It acts a leverage technology to serve people. They start with an information network and designed to optimize resources which also promotes healthy and sustainable development for environment, economy, visible and also user friendly. It also makes cities more liveable and alive. They can also discover connected streets which are the core of smart cities. Each Streetlight can gather and send information. These smart connected streetlights open up many possibilities. For example. Sam has an appointment in town; she is looking for a parking spot. She does not need to travel a long to park her vehicle. And if Tom is using an

Electric vehicle he can find a charging station as soon as he needs it. If Raghu is a Physically challenged person and wants to cross a street on his own he can use a specific lighting to cross the street safely.

In Real time projects Waste collection companies also know, How full the containers are?. Weather sensors manage automatic watering systems and detect leaks. We can also be updated by air and noise pollution also. It also detects river level in order to prevent from floods. No need to read water or electricity meters. Even consumption figures will be available in real time which also saves resources.

If an accident occurs, an alert will go out immediately. Remote monitoring provides an instant update on the situation. Drivers can also receive warnings on their GPS and on connected road signs like "Caution, Slowdown, Accident Prone zone etc. Traffic lights can adjust to regulate traffic flows and prevent traffic jams. Hence connected streets can provide a full suite of applications which discussed above.

4. How smart cities work ?

The internet of things is changing much about the world we live in from the way. A massive development in technology leads us to think and work smarter. In each case of smart cities we will use wireless sensors which is connected to internet and stores in the remote server in the cloud . We also need a common language to communicate with other.

5. How are Smart cities and IOT connected together?

What would happen if all electronic devices started communicating between them and us too? Assume if my wake up alarm s connected to the water heater and it again connected to toaster and then to a music system and all are connected to the internet working in coordination with each other for your comfort. so that when you wake up in the morning you will have a warm shower and soon after a hot breakfast meanwhile listening to your favorite music. IoT is a system of systems that means all the electronic devices will be connected to each other in a local area forming a system and further these systems will connect to each other forming a bigger network . The web application running on the remote server allows monitoring the entire source in our network. The process starts with the devices themselves which securely communicate with an Internet of Things platform. This platform integrates the data from many devices. Information can be integrated, gathered and shared by the dashboards. Hence we should say IOT along with those sensors are VIP's to complete a perfect cycle in ground level processing. Remote node connects the end node to the network or cloud and should be able to process data to some extent and then send relevant data to the cloud for making predictions and inferences. Since IOT is network system, connectivity can be done both ways wired and wireless in form of Wi-Fi, Bluetooth, radio frequency etc. Here the job of cloud is to compute the collected data analyze it and make inference and predictions and which again connected to the Gateways. And here Gateway sends the same to connected cloud for depth analysis which can be fed back to sensors and can also be sent to business applications for continuous assessment through the internet which finally all are connected to the internet for real time projects.

6. Future of Smart Cities

By 2025 approximately 50 billion products will be connected to the internet that will be six objects per person or six times more equipment than that of the world population. Very soon all the devices produced will be IoT enabled. It means, they will come with sensors and actuators. It will make our life more efficient and convenient. Development scenario will depend on our sole need and creativity. No doubt, IoT is going to be very immense and very rapidly steer up Human race without any controls.

7. Conclusion

In the modern world everyone needs to be connected and communicated securely, easily, and to produce anything, anywhere at any time. It includes from individual workers to organizations of all sizes. Even every day activities in our life is governed by technology in some ways. As far as smart solutions are concerned, the purpose of smart city mission and vision is to drive economic growth and improve the quality of life, create employment, and enhance incomes for all, especially the poor and disadvantaged, leading to inclusive cities. Even we have to form e-groups to listen to people and obtain feedback and use online monitoring of programs and activities. Saving human is more important than Improving technology. So our advanced technologies (smart cities) along with IoT should not affect our growth of individuals at any cost.

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