

Green Field Smart-City Project for India

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Abstract— As the India's population shifts to urban territories, policymakers are pressed for answers to overcrowding, pollution, budget limitations, aging infrastructure, resource constraints and the requirement for continuing growth. India has recently committed to the development and construction of 100 Smart Cities to meet the demands of its rapidly growing and urbanizing population. This effort will include construction of new municipalities and renovation of existing cities as the rural population shifts into urban areas. Smart city concept can be used for transforming any city into a smart city. Smart cities have various overwhelming advantages & it a win – win situation for both, government & the citizens. Smart solutions can be helpful in controlling the ever increasing population in the cities. This paper focuses on the concept of smart city as the Government of India launched the smart city project for developing 100 smart cities (now 98 smart cities) in the country and also concentrates on the challenges as well as the key areas for development of smart cities in India along with the case study of Chandigarh.

Keywords: Smart Cities, Urban Areas

I. INTRODUCTION:

Most Cities of India do not have master plans therefore; unplanned urbanization is of great concern especially for provision of infrastructure and services. Most peri-urban areas are “no governance” areas as they are neither rural nor urban. As cities expand, the peri-urban areas, which are mostly unplanned areas, are brought into the cities' jurisdiction. Thus, there is a need for planning to precede growth of cities, as retrofitting and redevelopment is a much more difficult exercise.

Recognizing that India is at present experiencing a high pace of urbanization and movement of its citizens from smaller towns and villages to urban areas, Finance Minister Arun Jaitley set aside 7600 Crore (\$1.24 billion USD) for the creation of 100 Smart Cities in the maiden budget that the new government presented to Parliament in July 2014. This plan envisions not only the building of new cities from the ground up but also modernizing older cities.

Many definitions of “smart city” exist, and “smart” approaches have been understood differently by different people and sectors. A few definitions take note of that smart cities are those cities with “smart (intelligent) physical, social, institutional and economic infrastructure while ensuring centrality of citizens in a sustainable environment;” refer to key characteristics defined by distinct factors (e.g., smart economy, smart mobility, smart people, smart environment, smart living, smart governance); and concentrate on the vital utilization of new technology and innovative approaches to improve the efficiencies and competitiveness of urban areas.

Smart Cities are the integration of information technology, telecommunications, urban planning, smart infrastructure and operations in an environment geared to maximize the quality of life for a city's population.

Cities are built on the three pillars of Infrastructure, Operations and People. In a Smart City, not only is each one of these pillars infused with intelligence, but more importantly the pillars work in an interconnected and integrated fashion to utilize resources efficiently. For instance, a Smart City's

II. STANDARD FEATURES OF PROJECT:

- 1) Smart Hospitals
- 2) Smart Roads
- 3) Smart Infra Structure
- 4) Smart Waste Management
- 5) Smart Water Management
- 6) Smart Traffic Management
- 7) Fully Internet Connected City

III. AIMS AND OBJECTIVES



A. Innovations:-

- World's Best Hospital
- World's Biggest Amusement Park
- World's Biggest Airport (Both For Passengers And Cargo)
- Water Absorptions Roads
- Eco City, Solar City
- ICT Driven
- Excellent Sports Facilities



B. Security System of City:

The whole city will be surrounded by ANTI-AIRCRAFT MISSILES. This kind of security installation will make the defense system stronger.



ANTIAIRCRAFT MISSILES

A surface-to-air missile (SAM), also known as a ground-to-air missile (GTAM) or surface-to-air guided weapon (SAGW), is a missile designed to be launched from the ground to destroy aircraft or other missiles. It is one type of anti-aircraft system; in modern armed forces, missiles have replaced most other forms of dedicated anti-aircraft weapons, with anti-aircraft guns pushed into specialized roles.

C. Anti-Sanitized City:

The whole city will be sanitized by sanitizer pipelines which will be laid underground at the time of construction. This will help to resist the bacterial growth in city and to maintain the proper public health,

1) Air Sanitizer

An air sanitizer is a sanitizer that acts on airborne microbiological organisms or microorganisms. In the United States, a sanitizer is a disinfectant that is intended to disinfect or sanitize, reducing or mitigating growth or development of microbiological organisms including bacteria, fungi or viruses on inanimate surfaces in the household, institutional, and/or commercial environment and whose labeled directions for use result in the product being discharged to publicly owned treatment works (POTWs)

IV. LITERATURE REVIEW

GIS Steering Smart Future for Smart Indian Cities by Anuj Tiwari & Dr. Kamal Jain (2014): The concept of a smart city is a new one. This paper depicts the smart city projects in India namely LAVASA: SMART HILL CITY & GIFT: GUJARAT INTERNATIONAL FINANCE TEC-CITY.

The Smart City Cornerstone: Urban Efficiency by Charbel Aoun (2013): This paper shows a five stages approach for changing over our urban centers into more efficient and sustainable places to live.

- 1) Setting the vision
- 2) Bringing in the technology
- 3) Working on the integration
- 4) Adding innovation
- 5) Driving collaboration

Smart cities: Researches Projects and good practices for the cities by Rocco Papa, Carmela Gargiulo, & Adriana Galderisi (2013): The concept of smart city is giving the answer for making the cities more efficient & sustainable. It is quite popular in the policy field in the recent years. During

the 1990's the development of the information technologies was at the peak level & people felt that new technologies can produce new forms of productions, markets, society organization, industries, business districts, residential districts & so on. The term smart city has become more and more widespread in the field of urban planning. Urban planners could give the fundamental direction for making cities smart by using smart devices and smart concepts.

Hafedh Chourabi et al, (2012): A smart city relies, among others, on a collection of smart computing technologies applied to critical infrastructure components and services.

Faisal Razzak, (2012): The Internet of Things (IoT) empowered users to bring physical items into the circle of digital world. This was made possible by different tagging technologies like NFC (Near Field Communication), RFID (Radio Frequency Identification) and 2D (2-Dimensional) barcode which allowed physical objects to be recognized and referred over the internet.

Smart City and the Applications by Kehua Su, Jie Li, Hongbo Fu (2011): This paper chiefly concentrates on the recent research on concept of smart city. The relationships between the smart city and digital city are also described in this paper. The various application systems for a smart city are:

- 1) Construction of a Wireless City
- 2) Construction of Smart Home
- 3) Construction of Smart Transportation
- 4) Smart Public Service and Construction of Social Management
- 5) Construction of Smart Urban Management
- 6) Construction of Smart Medical Treatment
- 7) Construction of Green City

Smart Cities can be identified along six main dimensions (IBM Smart Cities: www.ibm.com/uk/cities), (Giffinger, R et al, 2007). These axes are

- Smart Economy - Innovation and Competitiveness
- Smart Mobility- Transport and Infrastructure
- Smart Environment - Sustainability and Resources
- Smart People - Creativity and Social Capital
- Smart Living - Quality of Life and Culture
- Smart Governance - Empowerment and Participation

The Vision of a Smart City by Robert E. Hall (2000): The vision of the smart city is the urban centre of the future. The systems and structure will monitor their own conditions and carry out self-repair. The smart materials and structures are also known as the intelligent or adaptive materials. The smart city concept was in a planning stage since late 1998, but it received its first funding in January 2000. The future will require reconsidering of the relationships between government, city managers, business, academia and the research community.

V. CONCLUSION:

To study the concept of smart cities.

To study the key areas for the development of smart cities.

To explore the challenges faced during the development of smart cities.

ACKNOWLEDGMENT:

We would like to sincerely acknowledge the encouraging efforts of Civil Engineering Department of Sharad institute of technology polytechnic yadav. Our heartfelt thanks to faculty members who helped us in prepare review paper and give direction with their precious suggestions & rich experience.

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