

# Development of Smart City

Payal Shejel, Harshita Kamble, Nandini Borge, Vaishnavi Nade

Department of Civil Engineering  
Guru Gobind Singh Polytechnic, Nashik, India

**Abstract:** *With the continuous improvement of technology, Economy and society, the driving force of new generation informatics technologies is able to develop smart applications an establish a new and sustainable city model. The smart city project divided into three major fields and two relatively concepts: smart government, smart economy, smart society, and provided policymakers with effective information to guide the design and construction of their localized smart project.*

**Keywords:** Smart City, Economy, Sustainability

## I. INTRODUCTION

In facing the development of technology is and the increasing understanding of the new world people live in, people have gradually figured out the most basic daily needs, such as food, water, and electricity. When there are more products and services people.

## II. THE CONCEPT OF SMART CITY

In the past decade, the Internet of things, cloud computing, mobile Internet, big data and other new-generation information technologies have developed rapidly, and the construction and practice of smart cities around the world are also advancing. With the advancement of practice, the concept of a smart city is also evolving, but definition and concept have not been formed all over the world. The concept of the smart city first appeared in the 1990s, when the idea was to take the new information and communication technology as the necessary infrastructure for a modern city.

## III. THE THREE MAJOR FIELDS OF THE SMART CITY

Traditionally, cities include three main aspects: politics, economy, and society. As a result, the three main areas of a smart city are smart government, smart economy, divided into five components: smart government, smart economy, smart society, new generation information infrastructure and the smart city development environment.

### A. The Smart Government

With the rapid development of new generation information technologies, traditional government affairs are changing from e-government to smart government. The use of the Internet of Things, cloud computing, mobile Internet, artificial intelligence, data mining, and technologies to improve the intelligence of government office, supervision, service, decision-making in order to form an efficient, agile, and convenient new government is referred as smart government.

### B. The Smart Economy

Carrier of smart economy is smart Industry. Smart industry is an industry with a high manufacturing, including building an industrial modeling and simulation platform for manufacturing, affordable industrial data acquisition and enterprise level integration of business systems, manufacturing plants and suppliers, and education and training of smart manufacturing.

### C. The Smart Society

Intelligent society refers to a highly intelligent society. Smart society mainly includes two aspects: first, the intellectualization of social undertakings, such as smart education, smart medical treatment, smart school, smart hospital; second, the intelligence of citizens life, such smart community and smart home, smart society is an advanced stage of social information development. Building a smart society is an important part of ensuring and Improving people's livelihood.

#### **IV. THE KEY TECHNOLOGIES OF THE SMART CITY**

Internet of things, cloud computing, mobile Internet big data spatial information technology and artificial intelligence are the six key technologies of the smart city. By Embedding and equipping sensors into buildings and intersections in every corner of the world and in the system closely related to production and life, such as communication system, water supply system and oil and gas Pipeline, the internet things so as to other realize the resource data integration level of human society and system, making and city produce more refined and dynamic way.

##### **The Construction of City Information Modeling [CIM]**

If we take the smart city as development goal of a city, an essential element is the construction of urban degree of index, networking, informatization, intelligence intensive industry and technology<sup>7</sup> SMART CITY intensive industry, not a labor-intensive industry.

In June 2011, the U.S. government established a priority action plan in four aspects of smart networking, digitization, visualization, and intelligence of all urban resources, in order to achieve a more agile perception and feedback of the city, thereby promoting urban economic transformation, and so on.

##### **The Smart City System Framework Based**

On Digital Twin Based on the construction of urban Information infrastructure, we should also build a smart city system framework based on digital twins. Through the digital representation physical space in the smart city, the adjustment, prediction, diagnosis, monitoring and control of the operation status, performance, activities, digital governance structure, service process and operation intelligent equipment of the physical entity can be realized. Based on the smart city, the physical space can interact with digital virtual platforms in real time to achieve joint optimization

##### **Data Collection and Analysis**

With the deepening construction of urban Information infrastructure and digital twin smart city architecture, relevant government departments < enterprises will accumulate massive big data resources. Using big data technology to process these data resources, data analysis, data mining and machine learning can further improve the administrative management, and public service level of government departments, the production, operation, and management level of enterprises, turning the massive data generated by smart cities into a great invisible wealth of society.

#### **V. THE BENEFITS OF THE CONSTRUCTION OF THE SMART CITY**

Building a smart city is an important way to solve or alleviate various "urban diseases", promote urban economic development and social progress, and ensure urban sustainable development. By shaping the public value of the city through the smart city, it can provide citizens with a better Its construction can also solve many Long-established social problems and therefore improve urban life.

#### **VI. THE DEVELOPMENT TEND OF THE**

According to IDC Future Scope: Worldwide Smart Cities and Communities infrastructure is based on and Geographic Information System [GIS], integrating wireless sensors, Internet of things, Internet of things, internet and artificial Intelligence 2021 Predictions, the investment relate to smart cities and smart cities and smart communities in China will exceed 230 billion yuan, with emphasis on public safety, smart emergency, and other fields by 2014. By then, 40% of cities will integrate the physical world and the , digital world through technologies such artificial intelligence, and digital twins to improve the remote management level key infrastructure and digital services enter the IOE era of interconnection of things. The development potential and challenges of smart cities also coexist. YangXueshan, Vice Minister of Ministry of Industry and Informatics Technology, pointed out that the construction China's Smart city is facing four major the challenge of information technology; the challenge of improving ability; the challenge of understandings, habits, and systems to environment.

**VII. CONCLUSION**

The smart city developing concept and a product of urban informatization to a certain stage. With the continuous improvement of technology, conomy, society, and new technologies such as big data, cloud computing, Internet of things, geographic information and mobile Internet, smart applications and a new and sustainable model cam ne established. There are three major fields of the smart city: the smart government, the smart . Economy, and the smart society.

**REFERENCES**

- [1]. Palmisano, S.J.(2010,June), Building Smarter planet, city by city. Retrieved September 27, 2021, from
- [2]. [https://www.ibm.com/smarterplanet/us/en/smarter\\_cities/article/shanghai\\_keynote.html](https://www.ibm.com/smarterplanet/us/en/smarter_cities/article/shanghai_keynote.html)
- [3]. President Obama launches advanced Manufacturing partnershiop. (2011,
- [4]. June 24) retrieved September 27, 2021 From
- [5]. <https://obamawhitehouse.archives.gov/the>