

# Smart Cities: A Survey on Internet of Things technologies in Smart City applications

Jayantajit Gogoi, Rishi Raj Dutta, Bidyut Chetia Patra and Mr. Arup Barua

Department of CSE, School of Technology  
Assam Don Bosco University, Azara  
Guwahati, India-781017

**Abstract**— The future home, workspace, campus or city, as predicted by science fiction in early times is now a reality. Modern microelectronics and communication technologies offer the type of smart living that looked practically inconceivable just a few decades ago. The smart city concept represents a compelling platform for IT-enabled service innovation. The emerging internet of Things (IoT) is one of the main drivers of the future smart spaces. This paper identifies the key benefits and motivation behind the development of IoT-enabled smart cities. Then it provides a comprehensive view of general types of smart cities application. Finally we considered the vital design challenges, which should be met to realize the smart cities.

**Keywords**- Smart Cities, Internet of Things, IoT Sensors, Wireless Sensor Networks, Smart homes, Smart grids, Arduino, ESP8266.

## I. INTRODUCTION

Internet of Things is the integration of physical objects which are attached with electronics, software, sensors, and network connectivity between them, that allow them to capture and transmit data [1]. In IoT, a thing refers to a physical object that include sensors to communicate with the real world through a network to perform certain functions. IoT devices may form a network system which links various communication devices to have quick, reliable and real-time information exchange and communication that would help in intelligent management of the connected devices. As a result, objects can be monitored and managed remotely allowing for the communication between the physical and virtual worlds [2, 3].

## II. SMART CITIES TECHNOLOGIES

A. Long Range/Low Power Connectivity  
Wireless

## III. APPLICATIONS

The IoT

## IV. RELATED WORKS

## V. CONCERNS OVER IoT

The Internet of Things is a modern era technology but the challenges and issues concerning to IoT are enormous. Numerous consideration are need to be done before implementing IoT in different applications. Some of the issues are as follows;

A. Design Issues

B. Security Issues

C. Hardware Issues

## VI. CONCLUSION

In this survey paper, we investigated

## REFERENCES

- [1]
- [2]
- [3]

## CONTENTS OVERVIEW:

### SMART CITIES: A SURVEY ON INTERNET OF THINGS TECHNOLOGIES IN SMART CITY APPLICATIONS.

Abstract:

keywords:

1. introduction
2. Smart cities technologies
3. applications
4. related works
5. concerns over iot
6. conclusion
7. references