A Survey on Internet-of-Things for Smart Cities and Urban Informatics

Abstract—

*Index Terms—*smart cities, Internet-of-Things

I. INTRODUCTION

II. OVERVIEW

We may describe a smart IoT system built on four different layers, including the sensing plane, network plane, data plane, and the application plane. The research challenges, related work, and future directions could be discussed in the following sections of the paper.

III. RESEARCH PROBLEMS

(Each topic: research challenges, existing technologies, future directions)

A. Application plane

case studies, existing applications in smart cities worldwide

B. Data plane

urban informatics, big data analytics, knowledge discovery, cloud computing, social networks

C. Network plane

network infrastructure in city, wireless communications, green networking

D. Sensing plane

wireless sensors, mobile crowdsensing, CPS ...

IV. CROSS-PLANE DESIGN

- emphasizing on the cross-layer design, and the interaction of different layers in the system.
- research consideration for the smart system as a whole

V. FUTURE DIRECTIONS

VI. CONCLUSIONS

REFERENCES