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Review On Urban Data Management using Cloud Computing and IOT

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Abstract: *Considering quick growth of technical knowledge, it is pertinent for the metropolitan stake-holders to improve the urban living standards by implementing effective policies assistance from data analysis using the Internet of Things (IoT). The IoT involves usage of various sensors for recording data that corresponds to different aspects of urban life, such as health, transport and governance. The interconnection of these sensors enables data analysts and governing bodies to decipher patterns in data, and in turn better understand the urban environments for efficient city planning, eventually creating smart cities. The design and implementation of smart cities is a hot topic nowadays in the field of urban development. This paper reviews the modern technologies that are being used to implement the smart city concept, in turn making it sustainable and more environment-friendly. The necessity of having a variety of sensing platforms for sustainable urban development is discussed. There is a discussion on different data collection and processing frameworks being deployed in smart cities, highlighting the key benefits of utilizing modern technologies like big data, cloud computing, machine learning (ML) and artificial intelligence (AI) with the IoT. The challenges encountered during these processes are also examined, which create new research opportunities. This paper will serve as a guideline for researchers working in the field of sustainable urban development using IoT along with the other modern technologies.*

Keywords: Urban Data Analytics IoT Sensor Networks Cloud Computing for IoT Real-time Data Processing

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