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A Methodology for Real-time Data Sustainability in Smart City: Towards Inferencing and Analytics for Big-Data

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Highlights

- Data modeling as reforming into most suitable forms for inferencing and analytics
- Smart city sensors data transformation through data modeling by reforming it into data forms like RDF and JSON
- Data sustainability for both inferencing and big-data analytics can be promised at real-time

Abstract— A city gets evolved into the smart city by improving citizen's wellbeing, sustainability and work efficiency with the help of latest Information Communication Technology (ICT) and Internet of Things (IoT). Automated system monitoring tasks for a smart city plays a crucial aspect in the fields of ICT and IoT. Whereas, these monitoring should be adaptive to real-time data processing concerns to perform data analytics fast and accurate. High frequency and volume of big-data involved in the smart city require information projection to be sustainable while maintaining its representation for producing real-time inferencing and analytical results. Data modeling as reforming into most suitable forms for inferencing and analytics is a challenging and costly task while considering time constraints. Their natural representations are well suited for real-time data analytics and inferencing in IoT-based information on the Web. This study aims to collect information from smart city sensors and transform this information through data modeling by reforming it into data forms like RDF and JSON. A case study of the weather based dataset is shown to get the outcome in the said forms of

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