

Big Data Analysis for Smart Cities

Kamel Maaloul*, Brahim Lejdel **

* Computer science department, El-Oued University, Algeria.

** Computer science department, El-Oued University, Algeria.

E-mail: kamel_maaloul@univ-eloued.dz, Brahim-lejdel@univ-eloued.dz

Abstract

The emergence of smart cities aims to solve the problems posed by the continuous development of urbanization and the increasing population density in cities. To meet these challenges, governments and policy-makers are undertaking smart city projects aimed at sustainable economic growth and a better quality of life, for both residents and visitors. Information and communication technology (ICT) is a key technology for the development of cities. However, ICT applications generate huge amounts of data called Big data. The extraction of information from Big Data is a growing trend in information systems aimed to provide better services to citizens and supporting decision-making processes. However, to extract information useful for the development of intelligent information services at the city level, the datasets generated from various areas of the city must be integrated and analyzed. This process is usually called big data analysis. The study of the literature shows a growing interest in the exploitation of big data analysis applications in general and in the field of smart cities in particular. However, in-depth discussions on the essential characteristics of big data analysis frameworks meeting the requirements of smart cities remain necessary.

The objective of this project is to propose a new framework that allows the analysis of big data to manage smart cities.

Mot clés: Big Data, Villes intelligentes, TIC, Analyse des données.

Abstract Graphique



Thesis plan

First-year:

1. Study the use of big data analysis in different applications for smart cities.
2. Study the benefits of the use of data mining in Big Data to manage smart cities.

Second-year:

1. Development of the fundamental Framework with Big data, which improves the quality of the different services of smart cities.
2. Study the support platforms and the requirement of implementation of the prototype.
3. Publication of the proposals and first results.

Third-year:

1. Writing reports describing our work and the results of our project.
2. Implementation and tests of the application.
3. Validation and publication of results.
4. Writing the thesis.

References

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