

The Role Of Smart Cities In Solving Urban Problems (Case Study: Transportation Problems In Damascus)*

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Abstract:

Urban Planning is concerned about the future development of cities, which are considered as the reflection of social and economic status, so the concept of the city was developed as a result of evolution in humanitarian activities, where the industrial development in the eighteenth century increased reliance on transportation, which is reflected directly in the form and the planning of the city, and with the increasing number of urban residents, and increased reliance on transportation, emerged a set of urban problems, such as traffic problems, which includes traffic congestion, high levels of pollution, increase the time of movement, and energy consumption, these problems were solved by conventional methods, through construction of new roads, or widening existing ones to relieve congestion which gives the short term solution, and a negative impact on the environment, and attracts an increasing movement of vehicles within cities.

However, the technical development that accompanied the twentieth century, offers a range of opportunities to find appropriate solutions to these problems, as it has led to the emergence of a community which increasingly dependent on the knowledge and digital technologies, rather than the usual ones, so the concept of the city developed as a result of this social evolution, and has appeared several labels for cities based on techniques such as digital, electronic, virtual, informational, and smart cities, but what distinguish smart city is its concentration on creativity and the ability to solve problems as they are the most important features of intelligence.

The research problem is the lack of urban policies which use smart cities technologies in solving urban problems, especially transportation problems, so the research aims to develop a strategy to solve transportation problems in Damascus using smart cities applications.

It starts by defining smart cities and its dimensions, then shows its basic applications, especially smart transportation, its components, application challenges, and its role in solving transportation problems, then it introduce similar experiments for the application of smart transportation systems, then it concludes to a set of recommendations which contribute to solve traffic problems in Damascus through the application of intelligent transportation strategy.

Key words: smart cities, smart transportation, traffic problems.

* For The paper in Arabic see pages(583-599)

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