

Designing a Smart City Relying on Renewable Energies: A Solution in the Concept of Sustainable Development

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Abstract : Nowadays, issues such as various types of pollution, problems caused by energy consumption, population density, social activities, difficulties related to urban access and communication, transportation, etc., have challenged different communities and become the subject of their discussions. In response to this issue, theories and movements have emerged to achieve sustainable urban development, including the smart growth movement. This theory emphasizes that the physical growth and expansion of cities should serve the community and the environment, aiming to improve the quality of life and promote the use of renewable energy resources for sustainability. The smart city network system not only improves the economic situation of the society and benefits the environment but also enables the achievement of important issues such as sustainable development, continuity, and diversity of energy resources. In this article, we investigate the impact of using renewable energy sources on optimizing energy consumption and reducing pollution caused by fossil fuels with the help of smart city development. The aim of this article is to introduce renewable energy sources and their utilization as a solution to address the energy crisis and reduce environmental pollution. This research has attempted to introduce the smart city and the use of renewable energy sources as a method for solving many urban problems and achieving efficient urban control and management.

Keywords : smart city, renewable energy sources, sustainable development, sustainable city

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