MAPPING OF NEIGHBOURHOOD FOR ACCESSING SUSTAINABLE BUILT ENVIRONMENT, SMART CITY CONTEXT OF NEWTOWN, RAJARHAT

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Abstract - The increasing trend of the urban population and the pace of urbanization have become the serious global concern in this 21st century. In India, along with the increasing population of the urban area there is lot of other challenges associated like deteriorating environment, climate change, remote accessibility etc.Therefore the concept of smart city in the context of sustainable development is worthwhile for developing the preparedness to face the challenges of increasing urbanization. As the built environment usually leads to the human impact on the nature and climate, the smart city concept with sustainable built environment can provide a decent quality life to the urban dwellers by harnessing those technologies that come up with some smart solutions. Use of remote sensing data and GIS mapping is the robust tool for urban planning, development and optimized use of basic amenities. GIS can integrate a variety of spatial data like proximity of the road network, sewage, ground water, solid waste management, soil quality, Land Use and vulnerability to the disasters. Present study will consider the Newtown,Rajarhat as it has the growing potential for becoming a smart city. The project activity involves the GIS mapping and planning for utilization of the renewable energy like solar and other possible renewable sources by introducing other economically viable and ecofriendly techniques to minimize the use of non-renewable energy sources towards developing a sustainable built environment.As digitization has become an integral part of everyday life, data collection has resulted in the accumulation of huge amounts of data that can be used in various beneficial application domains. The aim of the study is to review the applications of GIS to support smart cities and will also explore the opportunities, challenges and benefits of incorporating GIS applications for smart cities.

Keywords - GIS Mapping, Sustainable Built Environment, Smart City, Rajarhat.