

## Geospatial Information for Smart City Development

**Authors :** Simangele Dlamini

**Abstract :** Smart city development is seen as a way of facing the challenges brought about by the growing urban population the world over. Research indicates that cities have a role to play in combating urban challenges like crime, waste disposal, greenhouse gas emissions, and resource efficiency. These solutions should be such that they do not make city management less sustainable but should be solutions-driven, cost and resource-efficient, and smart. This study explores opportunities on how the City of Johannesburg, South Africa, can use Geographic Information Systems, Big Data and the Internet of Things (IoT) in identifying opportune areas to initiate smart city initiatives such as smart safety, smart utilities, smart mobility, and smart infrastructure in an integrated manner. The study will combine Big Data, using real-time data sources to identify hotspot areas that will benefit from ICT interventions. The GIS intervention will assist the city in avoiding a silo approach in its smart city development initiatives, an approach that has led to the failure of smart city development in other countries.

**Keywords :** smart cities, internet of things, geographic information systems, johannesburg

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