

Applications Using Geographic Information System for Planning and Development of Energy Efficient and Sustainable Living for Smart-Cities

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Abstract : As urbanization process has been and will be happening in an unprecedented scale worldwide, strong requirements from academic research and practical fields for smart management and intelligent planning of cities are pressing to handle increasing demands of infrastructure and potential risks of inhabitants agglomeration in disaster management. Geo-spatial data and Geographic Information System (GIS) are essential components for building smart cities in a basic way that maps the physical world into virtual environment as a referencing framework. On higher level, GIS has been becoming very important in smart cities on different sectors. In the digital city era, digital maps and geospatial databases have long been integrated in workflows in land management, urban planning and transportation in government. People have anticipated GIS to be more powerful not only as an archival and data management tool but also as spatial models for supporting decision-making in intelligent cities. The purpose of this project is to offer observations and analysis based on a detailed discussion of Geographic Information Systems(GIS) driven Framework towards the development of Smart and Sustainable Cities through high penetration of Renewable Energy Technologies.

Keywords : digital maps, geo-spatial, geographic information system, smart cities, renewable energy, urban planning

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