EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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DEVELOPING REAL TIME MODEL FOR ROAD SAFETY MEASURES IN NIGERIA USING GEOGRAPHICAL INFORMATION SYSTEMS AND REMOTE SENSING

Abstract

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Abstract This paper presents the developed model for the application of Location Based Service (LBS) for emergency response system to road accidents in Nigeria. The dearth of emergency response system is most felt in transportation sector. The global road safety crisis kills nearly 1.2 million people and injures between 20 and 50 million people every year with the developing world having a disproportionate share of 90% of road fatalities and Nigeria having a huge proportion of road deaths in Africa (Patvora Action Centre, 2005). Nigeria, like some other developing countries in the world has not developed measures to initiate quick response to road accidents, so death from road accident is on the increase. At present over 8% of hospital beds are occupied by road crash victims while 85 people die on Nigerian roads everyday as a result of road accidents and lack of immediate medical attention as revealed by a study carried out by Central Bank of Nigeria (2005). Most of the deaths are as a result of lack of responsive and efficient emergency system in Nigeria. Location based service (LBS) became very useful in this respect as many developed countries have deployed an efficient emergency system based on LBS techniques. LBS are essentially value-added services that utilise information about a user's geographical position, combining this positioning information with spatial and non-spatial databases. Application of Geographic Information System (GIS) to determine variables as shortest path, closest medical facility, Location-Allocation based on Transportation Network. Therefore the possibility of effective response in real-time is made attainable.