

IAF EARTH OBSERVATION SYMPOSIUM (B1)  
Earth Observation Applications, Societal Challenges and Economic Benefits (5)

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APPLICATION OF EARTH OBSERVATION TECHNIQUES IN IMPROVING MEDICAL  
EMERGENCY RESPONSE EFFICIENCY IN PORT HARCOURT

**Abstract**

Locating the nearest emergency unit of hospitals is the major recovery barrier in medical emergency response (MER). This has negatively affected the mitigation or rescue of victims from medical top events. The speed and accuracy of response in a medical emergency require valid and reliable information to aid decision making. Generally, if accident victims are offered a golden rescue time, they will have a greater chance of survival. And in case of life threatening events, the National Emergency Agency or the State Emergency Agency require reliable remote sensing techniques to develop an interactive MER map with functional medical units and level of specialty services such to enable adequate rescue operation. The aim of this study is to create an integrated platform that aids decision making in emergency situations in the City. This study involves collaboration between national and state emergency stakeholders to aid their active response with the geospatial platform. The Scope of this study focused on the capital city of Rivers State; Port Harcourt. The study digitized all functional hospital locations based on their capacity and service ranking and major/minor roads in the city using a panchromatic view of NSat2 of 2.5 spatial resolution Acquired from NASRDA. About 47 hospitals were mapped, and the result revealed a hospital buffer zone of 200meters apart. This study developed a Live platform which the researchers encouraged continuous update to put into consideration road worthy of major and minor roads such to keep informing decision making and city policies. The study developed an integrated system that will incorporate logistics to enable easy communication to accident victim's relations. This study drew numerous value to MER especially in Reducing time taken to source information needed for response in emergencies, provide holistic information in MER situations and improved collaborative intervention during MER by concerned agencies