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Disaster and Crisis Management Using Geographical Information System (GIS) during the Operation and Maintenance Stages of the Hyderabad Metro Rail in India

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Abstract : The paper describes the importance of preventive measures and immediate Emergency logistics during accidents and unfortunate Disasters for the Hyderabad Metro Rails in their various stages of construction. This is the need of the modern generation where accidents, explosions, attacks and sudden crisis are frequent casualties which take huge tolls of life in the present world. The paper utilizes the workflow and application of Geographical information System (GIS) to provide information about problems and crisis structures for efficient Metro Transportation in the city. The study analyzes the difficulties and problems which cause accidents during operation and maintenance stages of the Metro Rail. The paper focuses upon the intermediate and firsthand information of Crisis with the help of GIS technology to share Disaster data for effective measures by the Cyber Police stations, Emergency Responders, Hospitals and First Aid Centre to act immediately and save lives. The results and conclusions have nevertheless proved very informative and useful for the safety board authorities of the Hyderabad Metro Rail. The operation and Maintenance are integral stages in the development of any Multipurpose transportation Projects and are usually prone to various Disasters and tragedies. Hence, the GIS technologies help in distribution of information among the masses with the web Technologies and advanced software developed to prevent and manage crisis widely and in a cost-benefits manner.

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