

# GIS APPLICATION IN URBAN WATER MANAGEMENT AT THE TIME OF NATURAL DISASTER (CASE STUDY: SAQQEZ CITY IN KURDISTAN PROVINCE IN IRAN COUNTRY)

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## Abstract

Providing perfect and health water for drinking, health protection and also extinguishing probably fires and etc are original problems in urban management system at the time of natural accidents. Since in natural accidents, facilities that relate to this vital element are underground so, it is difficult to find quickly some right, exact and definite information about water utilities. Therefore, this article has done operationally in Saqqez city in Kurdistan province of Iran and it tries to represent operation and capabilities of Geographical Information system (GIS) in urban water management at the time of natural accidents. Structure of this article is that firstly it has established a comprehensive data base related to water utilities by collecting, entering, saving and data management, then by modeling water utilities we have practically considered its operational aspects related to water utility problems in urban regions. Purposes of article are: Making a data base related to water utility on survey region. Modeling water utilities in urban regions and achievement to expected operations.

**Keywords:** water utilities, Natural disaster, Data, Geographical Information system (GIS), Modeling and network analysis, Saqqez city in Kurdistan province in northwest of Iran.

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