

AN INSIGHT OF USING REMOTE SENSING TECHNIQUE ON WATER RESOURCES MANAGEMENT

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ABSTRACT:

Due to the affects of lack of water resources on the environment, remote sensing has become one of the main information sources for Water resource managers. In order to create reliable models for the simulation of environmental processes, thanks to development in satellite sensors and their capabilities to collect data in several spectral bands. Remote sensing technique can be utilized to monitor some water quality parameters such as suspended sediment rates and chlorophyll amount. Moreover, such techniques have a significant role in the fields of groundwater pollution and water thermal pollution. To put it in a nutshell, the remote sensing improves our abilities to control the aforementioned varieties of water pollution. As we know, more reliable model related data is, more accurate flood and runoff models will be. Therefore, we can prepare more authentic data via using remote sensing technique for measuring snow characteristics and rainfall rate. Additionally, the satellite images can roughly provide comprehensive information to illustrate the soil attributes, which will enhance irrigation planning through estimation of the actual crop evapotranspiration. In addition, to predict the drought conditions, the remote sensing method can be considered as an invaluable tool. Furthermore, using satellite data can be a valuable asset in the early stages of shallow stagnant groundwater areas detection and also modeling. Finally, this paper is reviewed the use of satellite images in recent water resources management studies and also outline its possible key roles in the future research of remote sensing.

TOPIC: Remote sensing applications

ALTERNATIVE TOPIC: Not Specified