World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:14, No:12, 2020

Schematic Study of Groundwater Potential Zones in Granitic Terrain Using Remotesensing and GIS Techniques, in Miyapur and Bollaram Areas of Hyderabad, India

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Abstract : The present study aims developing interpretation and evaluation to integrate various data types for management of existing water resources for sustainable use. Proper study should be followed based on the geomorphology of the area. Thematic maps such as lithology, base map, land use/land cover, geomorphology, drainage and lineaments maps are prepared to study the area by using area toposheet, IRS P6 and LISIII Satellite imagery. These thematic layers are finally integrated by using Arc GIS, Arc View, and software to prepare a ground water potential zones map of the study area. In this study, an integrated approach involving remote sensing and GIS techniques has successfully been used in identifying groundwater potential zones in the study area to classify them as good, moderate and poor. It has been observed that Pediplain shallow (PPS) has good recharge, Pediplain moderate (PPM) has moderately good recharge, Pediment Inselberg complex (PIC) has poor recharge and Inselberg (I) has no recharge. The study has concluded that remote sensing and GIS techniques are very efficient and useful for identifying ground water potential zones.

Keywords : satellite remote sensing, GIS, ground water potential zones, Miyapur
Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development
Conference Location : Chicago, United States
Conference Dates : December 12-13, 2020