

Assessment of Ground Water Potential Zone: A Case Study of Paramakudi Taluk, Ramanathapuram, Tamilnadu, India

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Abstract : This paper was conducted to see the ground water potential zones in Paramakudi taluk, Ramanathapuram, Tamilnadu India with a total areal extent of 745 sq. km. The various thematic map have been prepared for the study such as soil, geology, geomorphology, drainage, land use of the particular study area using the Toposheet of 1: 50000. The digital elevation model (DEM) has been generated from contour interval of 10m and also the slope was prepared. The ground water potential zone of the region was obtained using the weighted overlay analysis for which all the thematic maps were overlaid in arc gis 10.2. For the particular output the ranking has been given for all the parameters of each thematic layer with different weightage such as 25% was given to soil, 25% to geomorphology and land use land cover also 25%, slope 15%, lineament with 5% and drainage streams with 5 percentage. Using these entire potential zone maps was prepared which was overlaid with the village map to check the region which has good, moderate and low groundwater potential zone.

Keywords : GIS, ground water, Paramakudi, weighted overlay analysis

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020