Abstract

The physiographical properties like the hight of the sealevel, including the important indicators in studying the aquiferous areas, that can use of it in estimation and measurement the amount of medium runnig waters network(the length and the number of floodway) and the focus time in the different sections of every aquiferous. Also these incator have determinitive effect on the quality and quantity of the hydrological indicators and in consequence on the amount of the flowing water and water regime of the aquiferous areas. So there is the relation between them and the amount of running water and the load of area's sediment. The investhing the effect of the power of separting the numerical model on the similarization result is applies in thise research of the HEC-HMS model. The hight models with separating power of 10,20,30,40,50,60,70,80,90, and 100 meters by using the way of the nearest neighbors is produced of the topographic maps of the mapping organization.Every of these models is introduced with the other needed datas and the amount of running water is estimated. The measurment and ualidation of the result is observed after executing the model and is similarizing in the avea by using the NASH and RMSE models.after recording the model ability in similarizing the running water's area, to evaluate the effect of the separating power of the hight's numerical model on the amuont of the running water's area, the result of similarizing DEM in 10 meters separating power was compare with 20,30,40,50,60,70,80,90,100 meters. Generally ,the research results showed that changing the power in this model resulted in changing some properties of morphology area. And coasequently resulted in decreasing running water of 979.9 , 867.6 m^3. But statistical analyzes based on the variance break down,clarified that the numericalmodel of 10 meter can not give the better and exacter rezalts than the numericalmodels of 50 and 100 meters under the studied areas in the kardehdam in mashhad. Also,there was not the possibility of identifying a special threshold in these parameters.

Key words : DEM Resolution, Runoff, Hydrological Attributes, Topographical Attributes, Kardeh Watershed

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Probing on Digital Elevation Models Resolution in Rainfall-Runoff Simulation Using GIS and HEC-HMS Model in Kardeh Watershed

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