

Abstract

Foundation of engineering designs of water resources is certainly the census of regional- hydraulic variables and to generalize them. In another word, solutions to designs and dimensions, facilities and design lineament all directly depends on the precision of the prepared data and the way they've been developed. Lack of the data on hydraulic directing of different spots of the region under study and high expenses of examinations throughout the region caused to use different methods of extrapolation and interpolation to estimate such data, among these methods are the relation between picture and distance and the relation of square picture. One of such methods which recently is being more popular is CARIGING method. This method was first introduced by Carig in 1966 and then was developed by Matron in 1967 to 1971. In this research the effort have been put to the area where according to the precision of this method in estimating incidental variables throughout the region, develop the data related to the hydraulic direction of the region to the level of region and also to divide the region to separate regions by hydraulic directing . Distance of drainers is evaluated by Cariging method throughout the region considering the development of hydraulic directing in the region and they were compared using the method of triangulation of Tisen. The ratio of regions with average hydraulic directing ($0.5 < k < 1$) have been raised in evaluation of Cariging; also the ratio of the region's levels with low hydraulic level of ($k < 0.5$) have risen during Cariging method compared to Tisen method. So the space specialized to the regions with high hydraulic direction levels ($k > 1$) is more than Cariging method. Also by comparing the distances of drainers in both methods the general result is that distances of drainers in Cariging method nevertheless their higher average hydraulic direction in regions is more compared to the Tisen method which is caused by the low average depth of uninfluential layer in the region throughout Cariging method. Also distances of drainers in non-synchronous methods changed as following. In dynamic equilibrium method, almost both methods showed the drainers with equal distances. In Kerkham method, it was revealed that the drainers distances achieved through Cariging method are more than drainers distances through Tisen method, however in Gloverdom the drainer distance achieved through cariging method was more compared to the drainer achieved in Tisen method.

Keywords : Geostatistics, Hydraulic Conductivity, Spatial Correlation, *Hofle Plain*.



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