

**Abstract:**

The terrain affects the hydrological characteristics of watershed. Digital models are used display (representation) terrain that requires a certain scale range to understand each phenomenon. GIS and environmental models are used to analyze and visualize terrain. Scale detail should be investigated in each hydrological study according to the purpose and nature of the subject. Due to the lack instructions to determine the appropriate scale in the use of maps for flood estimation this study is essential. That was performed in the Jamash watershed of Hormozgan province, for example. In this study aimed to investigate the effect of hydrological parameters on the optimal scale cartographic, First, DEM with 20, 25, 30, 40, 50 and 100 resolutions were produced from topographic maps with 1: 25000 and 1: 50000 scales. Then Importing to Arc MAP HEC-Geo HMS extension and basin and meteorological models and control data was extracted. Then its outputs with rainfall-runoff data were entered to HEC-HMS. Finally, with AIM function and statistical analysis of them using variance analyze test, optimal scale was determined and using the number of routed streams investigation in each DEM and its impacts on model output it was found: Dems that produce more homogenous intervals, provide better results for flood routing.

**Key words:** Hydrologic Processes Optimal scale, Flood, Hormozgan Jamash Watershed



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Showing Methodological Framework for Accordance  
between Flood Hydrological Processes and Map  
Cartographic Scale (Case study: Jamash Hormozgan)

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