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Assessment of geomorphometrical parameters for separation alluvial fans in Desert area (Case study: Aghda, Yazd)

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Abstract

This research focuses on alluvial fans in desert area. Alluvial fans are one of the most important geomorphological units in desert area. There are several tremendous methods to separate alluvial fans. There are qualitative and quantitative factors to differentiate them from other geomorphological units. In this study effective geomorphometrical parameters in differentiate landforms were applied for alluvial fans. Geomorphometrical parameters are calculable and can be extracted using mathematical equations and the corresponding relations on digital elevation model. Geomorphometrical parameters used in this study included Percent of Slope, Plan Curvature, Profile Curvature, Minimum Curvature, the Maximum Curvature, Cross sectional Curvature, Longitudinal Curvature and Gaussian Curvature. The results indicated that geomorphometrical parameters are not suitable to separate alluvial fans.

Keywords: Alluvial fans, Geomorphometry, Separation, Yazd Aghda.

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