



## Investigating the Granulometry and Mineralogical Similarities of Geomorphological Facies with Aeolian Sediments Crossing Yazd-Meybod Road

Ali Mohammadian Behbahani<sup>1\*</sup>, Sadat Feiznia<sup>2</sup>, Mohammad Reza Ekhtesasi<sup>3</sup>,  
Hasan Ahmadi<sup>4</sup>

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### Abstract

Dust emission and sand mobilization are the common natural hazards in desert roads of Iran, which originate from geomorphological facies of road margin. In this study, the geomorphological units of Yazd-Meybod road margin were distinguished, and the samples were taken from these facies as origin area while roads sediment as the transition area of sediments. The samples were analyzed using morphometric indices and microscopic mineralogy; then, its results were compared using cluster analysis method. The results showed that the median and mean of road sediment grain is 208 and 224  $\mu\text{m}$ , respectively which according to the relationship between transportation distance and diameter of grains in deposition area prove that the origin area could be close to sedimentation area. The skewness index of grain size distribution tends to show coarser grains and poor sorting for road sediments which revealed the local transportation area of sediment particles. The results of mineralogy between road sediments and geomorphological facies around the road showed that the aeolian sediments crossing the road were more similar to sand sheets and sand dunes which can be introduced as the source area of aeolian sediments on the Yazd- Meybod road.

**Keywords:** Cluster Analysis, Wind Erosion, Geomorphology, Yazd- Meybod Road.

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1. Assistant Professor, Faculty of Range and Watershed Management, Gorgan University of Agricultural Sciences and Natural Resources (GUASNR), Corresponding Author: Email: mohammadian@gau.ac.ir  
2. Professor, Faculty of Natural Resources, University of Tehran.  
3. Professor, Faculty of Natural Resources and Desert Studies, University of Yazd.  
4. Professor, Faculty of Agriculture and Natural Resources, Science and Research Branch, Islamic Azad University