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-Estes
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A Study of the Geomorphological Facies of Yardang Area of Lut Desert Based upon Photomorphic Unit Analysis of Satellite Images

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Abstract

To study the geomorphological facies of Lut Desert, especially Yardangs which are prominent and rare features in the world, 6 reflective Landsat satellite thematic mapper bands dated 1367 and 1368 as well as colour composites dated 1368 (TM₇=red, TM₄=green, TM₂=blue) were employed. In the study some additional information, such as topographic maps (1:50000), ILWIS and ER mapper softwares were also used for Image processing. To enhance the Images, stretching and filtering techniques were applied to study the features as well as land cover types and photomorphic units. Based on the obtained data, 14 different units were distinguished of which five are related to Yardang. The obtained results also have shown the capability of Landsat satellite images in delineation of Desert geomorphological facies. During the study, major characteristics of geomorphologic facies were also identified and mapped.

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