

عنوان مقاله:

(Marble Slabs Classification System Based on Image Processing (Ark Marble Mine in Birjand

محل انتشار:

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خلاصه مقاله:

Marble is one of the semi-precious stones that has been used in decorating building façade and making decorative things. This stone is present in the nature in the form of rock or layered stone. Examining the kind of stone, extent of impurity and different streaks in white marble is a widely confronted subject by those who are involved in this industry. Obtaining the extent of impurity of white marble using methods of detecting and analyzing material is expensive and time-consuming. In this research carried out on white marbles of Ark Mine in Birjand, it has been attempted to present very fast method using Image Processing Techniques so that while preserving identity and appearance of stone and without any damage to it, we compute the impurity level and different streaks on white marble surface. The proposed method includes two stages; in the first stage applying image processing functions, it is attempted to segment the present impurities and streaks on marble surface from the stone background and in the second stage, the area of these impurities and streaks is computed. Results obtained in this paper (97.8%) in comparison with other researches and experimental methods indicate acceptability of this algorithm.

کلمات کلیدی:

White Marble; XRD; XRF; Image Processing

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