

Real-Time Classification of Marbles with Decision-Tree Method

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Abstract : The separation of marbles according to the pattern quality is a process made according to expert decision. The classification phase is the most critical part in terms of economic value. In this study, a self-learning system is proposed which performs the classification of marbles quickly and with high success. This system performs ten feature extraction by taking ten marble images from the camera. The marbles are classified by decision tree method using the obtained properties. The user forms the training set by training the system at the marble classification stage. The system evolves itself in every marble image that is classified. The aim of the proposed system is to minimize the error caused by the person performing the classification and achieve it quickly.

Keywords : decision tree, feature extraction, k-means clustering, marble classification

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