APPLICATION OF K-MEANS CLUSTERING IN IDENTIFICATION OF MACHINING LOCATION OF MECHANICAL PARTS

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ABSTRACT

In this paper , we uses K-means clustering algorithm, feature extraction, curve fitting based on sparse matrix, Hough transform and Sobel edge detection method, the mathematical model is established, and using MATLAB 2016 a, SPSS, such as word calculator software, data, image processing, and for clamping of automatic industrial manufacturing line, automatic computer intelligent identification parts in packaging process location problem, and comprehensive identification of parts the coordinates of each position, given mechanical arm grab behavior parameters, check up the accuracy of the target parts location identification.

Keywords: K-means clustering algorithm, sparse matrix, curve fitting.