Application of repeated GA to deformable template matching in cattle images (2004)

Abstract:In this work, a system that enables accurate location of contours within outdoors-taken digital images is presented. This system is based on the optimization of an objective function involving a selective edge detector and a distance map extractor, applied sequentially to the original image. In order to guarantee a certain probability of success, the repeated execution of GA is applied. The performance of the system is tested against a database of 138 images of cows in lateral position, obtaining a rate of successes up to 92 % in the best of the cases.