

Multiple vehicles license plate tracking and recognition via isotropic dilation Abstract

In this paper, a new algorithm for Automatic License Plate Localisation and Recognition (ALPR) is proposed on the basis of isotropic dilation that can be achieved using the binary image Euclidean distance transform. In a blob analysis problem, any two Region of Interest (RoIs) that is discontinuous are typically treated as separate blobs. However, the proposed algorithm combine with Connected Component Analysis (CCA) are coded to seek for RoI within a certain distance of other RoI to be treated as non-unique. This paper investigates the design and implementation of several pre-processing techniques and isotropic dilation algorithm to classify moving vehicles with different backgrounds and varying angles. A multi-layer feed-forward back-propagation Neural Network is used to train the segmented and refined characters. The results obtained can be used for implementation in the vehicle parking management system.