عنوان مقاله:
License Plate Detection and Component extraction

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خلاصه مقاله:
A vehicle license plate recognition system consists of three main steps. The first step is to detect the license plate in an input image. The second step is to extract the license plate components (including characters and numerals); and finally the recognition of the extracted components. In this paper, we focus on the first and the second steps. In the proposed method, to locate the license plate in an image, characteristics of license plates are considered and emphasized. By using Sobel edge detection, Gaussian filters, morphological operations, and the horizontal and vertical projection profiles analysis, the license plate location is estimated. The detected license plate is binarized by an adaptive threshold. Skew of the license plate is estimated and compensated. The connected components that satisfy some conditions are considered as the main license plate components and are extracted. The experiments show that the proposed method accurately detects the license plates and extract components from the images with various backgrounds and skews.

کلمات کلیدی:
License plate locating, Component extraction, Edge detection, Morphological operations, Projection profile analysis

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