Abstract

As an application of CCTV Traffic surveillance, retrieval of the number plate from the vehicles is an important dimension, which demands intelligent solution. In this document, template matching block of computer vision toolbox has been used to extract the vehicle number plate. It is assumed that images of the vehicle have been captured at a particular resolution and orientation. It is also assumed that alphanumeric characters on the plate have been written with a particular font style, type and size. This paper presents a new SIMULINK model in MATLAB which has been developed to extract the number plate from the vehicle. Each alphanumeric character on a plate is extracted and matched with template image with the help of template matching block. This block matches the pixel by pixel value of original image with one of the template images and gives the template metric value. To develop this SIMULINK model, Digital Signal Processing Toolbox and Computer Vision System Toolbox is used in MATLAB. The approach used for this model is template matching, which has been used for the recognition of letters and digits. This technique can be used for security purpose e.g. finding stolen cars, and for parking area management etc.
Number Plate Extraction using Template Matching Technique

References


Index Terms

Computer Science
Signal Processing
Keywords
Template matching  MATLAB  vehicle detection  alphanumeric character  CCTV