Automatic License Plate Recognition (ALPR) is an image processing technology which used to identify vehicles by their license plate. In this paper, an ALPR system is developed where adaptive resize and crop are used for better efficiency. For highlighting the license plate region image morphology, horizontal and vertical extraction has been used. Line Segmentation and Orientation (LSO) algorithm is proposed for segmentation which is also effective in efficient searching for signs of the license plate and finally template matching has been used for recognition. The proposed method works successfully with the recognition rate of 84.87%. Moreover, some license plates with different fonts of writings have been given true positive results which are not issued by the government. So, the proposed method will be helpful not only in license plate recognition but also in other field of Bangla optical character recognition.

**Index Terms**

Computer Science  Algorithms
Keywords

ALPR; Image Morphology; CC; LSO Algorithm; Sign House Database; Template Matching;