Abstract

This paper examines the issues in recognizing the Devanagari characters in the wild like signboards, advertisements, logos, shop names, notices, address posts, etc. While some works deal with the issues in recognizing the machine printed and the handwritten Devanagari characters, it is not clear if such techniques can be directly applied to the Devanagari characters captured in the wild. Moreover, in the recent times, a lot of research has been conducted in the field of object categorization and localization. It would be interesting to investigate if the state-of-the-art tools for object categorization can also be applied to the recognition of the Devanagari characters.

The idea is to view the isolated characters as objects so as to detect them in the wild. The ability to recognize the Devanagari characters in the wild will be very useful in the Internet services like Google street view and its associated applications. So, a detailed study of the
Devanagari character recognition using the state-of-the-art character recognition and object recognition tools has been carried out to compute the best performance. This serve as a baseline for the comparison for the future works. There is no benchmark database to conduct studies on the Devanagari character recognition in the wild. So a database of 40 Devanagari character categories has been created from 200 pictures of the images in the wild.

References


Index Terms

Computer Science
Pattern Recognition

Keywords
Object recognition camera-based character recognition Devanagari characters off-line handwritten character recognition.