# **TEXT RECOGNITION IN NATURAL BACKGROUNDS**

|  |  |
| --- | --- |
| Shubham Sinha  *shubhamsinha96@yahoo.co.in* | Shivam Rastogi  *shivam.ras304@gmail.com* |
| Prashant Singh  *prashantsingh41195@gmail.com* | Ajay Tanwar  *ajaytanwar65@gmail.com* |

Vinita Rohilla

*vinita.rohilla@gmail.com*

|  |  |
| --- | --- |
| Abstract: | In this paper, we try to overcome the problem of recognizing characters in images of natural backgrounds especially the ones which are noisy and have low-contrast. We have used a publically available database of more than 70,000 images of English alphabet and numbers. The database comprises of computer generated fonts, hand-written text snapshots, and images of characters in natural backgrounds. Another database is being used which consists of non-textual objects. In our proposed method, we first train a SVM (Machine Learning) to classify between textual and non-textual image regions and then another SVM is used to classify the text from textual regions in their respective classes. We also propose methods to improve accuracy by pre-processing the images. |
| Keywords: | Optical Character Recognition, English characters, Machine Learning, Support Vector Machine, De-noising, Thresholding |