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| Title | A machine learning approach for Bengali handwritten vowel character recognition. | | |
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| Abstract |  |
| Recognition of handwritten characters is complex because of the different shapes and numbers of characters. Many handwritten character recognition strategies have been proposed for both English and other major dialects. Bengali is generally considered the fifth most spoken local language in the world. It is the official and most widely spoken language of Bangladesh and the second most widely spoken among the 22 posted dialects of India. To improve the recognition of handwritten Bengali characters, we developed a different approach in this study using face mapping. It is quite effective in distinguishing different characters. The real highlight is that the recognition results are more efficient than expected with a simple machine learning technique. The proposed method uses the Python library Scikit-Learn, including NumPy, Pandas, Matplotlib, and support vector machine (SVM) classifier. The proposed model uses a dataset derived from the BanglaLekha isolated dataset for the training and testing part. The new approach shows positive results and looks promising. It showed accuracy up to 94% for a particular character and 91% on average for all characters. | |