IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 10, May 2023

Classification of Ancient Modi Script Characters using Convolutional Neural Network

Panchfula Lohkare[1], Rutuja Pol[2], Snehal Shnde[3], Omkar Zaware[4], Prof. Vasudha Patil[5]
B.E Project Students, Department of Electronic and Telecommunication[1,2,3,4]
Assistant Professor, Department of Electronic and Telecommunication[5]
Rajiv Gandhi College of Engineering, Karjule, Harya, Maharashtra, India

Abstract: *This study aims to develop a character recognition system for the MODI language, which is challenging due to the complexity of character identification. The proposed system uses convolutional neural networks (CNN) and the VGG16 algorithm to accurately identify printed and handwritten MODI characters from scanned papers, regardless of the input paper quality. The training dataset consists of 48 distinct MODI script characters, including vowels and consonants, and is routinely updated with handwritten samples obtained from various sources and the IEEE DataPort dataset. The study demonstrates the feasibility of developing a highly accurate character recognition system that follows the established method of the MODI Script Character Recognizer System (MSCR).*

Keywords: Handwritten Character Recognition, MODI Script, Digital image, Pattern Recognition Techniques, Character segmentation Techniques;

REFERENCES

[1]. S. S. Gharde and R. J. Ramteke, "Recognition of characters in Indian modi script," International Conference on Global Trends in Signal Processing, Information Computing and Communication (ICGTSPICC), p. 236–240, 2016.
[2]. M. S. Deshmukh, M. P. Patil and S. R. Kolhe, "Offline handwritten modi numerals recognition using chain code.," Third International Symposium on Women in Computing and Informatics, p. 388–393.
[3]. S. Joseph and J. George, "Handwritten character recognition of Modi script using convolutional neural network based feature extraction method and supportvector machine classifier," IEEE 5th International Conference on Signal and Image Processing (ICSIP), pp. 34-36, 2020.
[4]. P. Tamhankar, K. Masalkar and S. Kolhe, "A novel approach for character segmentation of offline handwritten Marathi documents written in Modi script.," Procedia Computer Science, 2020.
[5]. S. Chandure and V. Inamdar, "Handwritten modi character recognition using transfer learning with discriminant feature analysis.," IETE Journal of Research, pp. 1-11, 2022.
[6]. S. Kulkarni, P. Borde, R. Manza and P. Yannawar, "Recognition of handwritten modi numerals using hu and Zernike features.," 2014.
[7]. S. Anam and S. Gupta, "An approach for recognizing Modi lipi using Otsu's binarization algorithm and kohenen neural network.," International Journal of Computer Applications, pp. 29-35, 2015.