

REFERENCES

- [1] A Survey on Optical Character Recognition System. Journal of Information & Communication Technology. Vol 10. Issue. 2, December 2016. Noman Islam, Zeeshan Islam and Nazia Noor.
- [2] A Survey of OCR Applications. International Journal of Machine Learning and Computing. Vol. 2, No. 3, June 2012.
- [3] M.D. Ganis, C.L. Wilson, J.L. Blue “Neural network-based systems for handprint OCR applications” in IEEE Transactions on Image processing, 1998, Vol.7 Issue 8.
- [4] R. Gosswiler, M. Kamvar, S. Baluja, “What’s Up CAPTCHA? A CAPTCHA Based On Image Orientation”, in WWW, 2009.
- [5] R. Plamondon, S. N. Srihari, “On-line and off-line handwriting recognition: a comprehensive survey” IEEE transaction on pattern analysis and machine intelligence, 2000, 22(1), 63-84.
- [6] S.L. Chang, T. Taiwan, L.S. Chen, Y.C. Chung, S.W. Chen, “Automatic license plate recognition” in IEEE transactions on Intelligent Transportation Systems, 2004, Vol. 5, Issue 1, p.p. 42 – 53.
- [7] Satti, D.A., 2013, Offline Urdu Nastaliq OCR for printed Text using Analytical Approach. MS thesis report Quaid-i-Azam University: Islamabad, Pakistan.p. 141.
- [8] B hansali, M., & Kumar, P, 2013, An Alternative Method for Facilitating Cheque Clearance Using Smart Phones Application. International Journal of Application or Innovation in Engineering & Management 211-217.
- [9] Global Optical Character Recognition Market Snapshot
<https://www.transparencymarketresearch.com/optical-character-recognition-market.html>
- [10] Qadri, M.T., & Asif, M, 2009, Automatic Number Plate Recognition System for Vehicle Identification Using Optical Character Recognition presented at International Conference on Education Technology and Computer, Singapore, 2009. Singapore: IEEE.
- [11] A Survey of OCR Applications. International Journal of Machine Learning and Computing. Vol. 2, No. 3, June 2012.
- [12] A Detailed Analysis of Optical Character Recognition Technology, Karez Abdulwahhab Hamad, Mehmet Kaya. 03rd September 2016.
- [13] Kaur S, Mann PS, Khurana S. Page Segmentation in OCR System-A Review.
- [14] Saha S, Basu S, Nasipuri M, Basu DK. A Hough transform based technique for text segmentation. arXiv preprint arXiv:1002.4048. 2010 Feb 22.

- [15] Basu S, Chaudhuri C, Kundu M, Nasipuri M, Basu DK. Text line extraction from multi-skewed handwritten documents. *Pattern Recognition*. 2007 Jun 30;40(6):1825-39.
- [16] Khandelwal A, Choudhury P, Sarkar R, Basu S, Nasipuri M, Das N. Text line segmentation for unconstrained handwritten document images using neighborhood connected component analysis. In *International Conference on Pattern Recognition and Machine Intelligence 2009* Dec 16 (pp. 369-374). Springer Berlin Heidelberg.
- [17] Shinde AA, Chougule DG. Text Pre-processing and Text Segmentation for OCR. *International Journal of Computer Science Engineering and Technology*. 2012:810-2.
- [18] Trier ØD, Jain AK, Taxt T. Feature extraction methods for character recognition-a survey. *Pattern recognition*. 1996 Apr 30;29(4):641-62.
- [19] Pradeep J, Srinivasan E, Himavathi S. Diagonal based feature extraction for handwritten character recognition system using neural network. In *Electronics Computer Technology (ICECT), 2011 3rd International Conference on* 2011 Apr 8 (Vol. 4, pp. 364-368). IEEE.
- [20] Bishnu A, Bhattacharya BB, Kundu MK, Murthy CA, Acharya T. A pipeline architecture for computing the Euler number of a binary image. *Journal of Systems Architecture*. 2005 Aug 31;51(8):470-87.
- [21] Dinesh Acharya U, Subbareddy NV. Krishnamoorthy: Isolated Kannada Numeral Recognition Using Structural Features and K-Means Cluster. *Proc. of IISN*. 2007:125-9.
- [22] Sharma OP, Ghose MK, Shah KB. An improved zone-based hybrid feature extraction model for handwritten alphabets recognition using euler number. *International Journal of Soft Computing and Engineering*. 2012 May;2(2):504-8.
- [23] Suen CY. Character recognition by computer and applications. *Handbook of pattern recognition and image processing*. 1986:569-86.
- [24] Rehman A, Saba T. Neural networks for document image preprocessing: state of the art. *Artificial Intelligence Review*. 2014 Aug 1;42(2):253-73.
- [25] Dongre VJ, Mankar VH. A review of research on Devnagari character recognition. *arXiv preprint arXiv:1101.2491*. 2011 Jan 13.
- [26] SMITH, R. 2007. An Overview of the Tesseract OCR Engine. In *proceedings of Document analysis and Recognition.. ICDAR 2007*. IEEE Ninth International Conference.
- [27] GOOGLE. Google Code. google code. [Online] 2012. <http://code.google.com/p/tesseract-ocr/>.

- [28] Chirag Patel, Atul Patel, PhD, Dharmendra Patel - Optical Character Recognition by Open Source OCR Tool Tesseract: A Case Study - International Journal of Computer Applications (0975 – 8887) Volume 55– No.10, October 2012
- [29] Rafi Ullah ,Ali Sohani,Faraz Ali, Athaul Rai - OCR Engine to extract Food-items and Prices from Receipt Images via Pattern matching and heuristics approach.
- [30] Harshit Sidhwa, Sudhanshu Kulshrestha, Sahil Malhotra, Shivani Virmani Text Extraction from Bills and Invoices - International Conference on Advances in Computing, Communication Control and Networking (ICACCCN2018)
- [31] Canny, J F, Finding Edges and Lines in Images, MIT technical report AI-TR-720,1983.
- [32] Shah P, Karamchandani S, Nadkar T, Gulechha N, Koli K, Lad K. OCR-based chassis-number recognition using artificial neural networks. In Vehicular Electronics and Safety (ICVES), 2009 IEEE International Conference on 2009 Nov 11 (pp. 31-34). IEEE.
- [33] Zhai X, Bensaali F, Sotudeh R. OCR-based neural network for ANPR. In 2012 IEEE International Conference on Imaging Systems and Techniques Proceedings 2012 Jul 16 (pp. 393-397). IEEE.
- [34] Shamsheer I, Ahmad Z, Orakzai JK, Adnan A. OCR for printed urdu script using feed forward neural network. In Proceedings of World Academy of Science, Engineering and Technology 2007 Aug (Vol. 23, pp. 172-175).
- [35] Yetirajam M, Nayak MR, Chattopadhyay S. Recognition and classification of broken characters using feed forward neural network to enhance an OCR solution. International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume. 2012 Oct 28;1.
- [36] Ruvan Weerasinghe. “Developing a commercial grade Tamil OCR for recognizing font and size independent text”, 130-134.
- [37] Prabu. “Understanding of Convolutional Neural Network (CNN) — Deep Learning” <https://medium.com/@RaghavPrabhu/understanding-of-convolutional-neural-network-cnn-deep-learning-99760835f148>
- [38] Priyanka Patel. “Convolutional Neural Nets” <https://medium.com/@priyankapatel2205/convolutional-neural-nets-1813eee0510>
- [39] henkboelman. “Serverless AI with Custom Vision & Azure Functions” <https://www.henkboelman.com/articles/serverless-ai-with-custom-vision-and-azure-functions/>
- [40] Christopher Olah. “Understanding LSTM Networks” <https://colah.github.io/posts/2015-08-Understanding-LSTMs/>
- [41] Prasoo Singh. “LSTM- Long Short-Term Memory” <https://medium.com/analytics-vidhya/lstm-long-short-term-memory-5ac02af47606>

- [42] apache jspwiki. “Long Short Term Memory networks”
<https://ldapwiki.com/wiki/Long%20Short%20Term%20Memory%20networks>
- [43] Chris Nicholson. “A Beginner’s Guide to Important Topics in AI, Machine Learning, and Deep Learning.”
<https://pathmind.com/wiki/lstm>
- [44] Rajib Rana. “Gated Recurrent Unit (GRU) for Emotion Classification from Noisy Speech”
<https://www.semion.io/doc/gated-recurrent-unit-gru-for-emotion-classification-from-noisy-speech>
- [45] Sanket Gupta. “Overview of Text Similarity Metrics in Python”
<https://towardsdatascience.com/overview-of-text-similarity-metrics-3397c4601f50>
- [46] Suphakit Niwattanakul*, Jatsada Singthongchai, Ekkachai Naenudorn and Supachanun Wanapu - Using of Jaccard Coefficient for Keywords Similarity. Proceedings of the International MultiConference of Engineers and Computer Scientists 2013 Vol I, IMECS 2013, March 13 - 15, 2013, Hong Kong