



(c) Binary Image.

संदर्भ स

१. ऐतिहासिक साधने (१५८८ ते १८२१) संपादक : शां. वि. आवळ
२. श्री शिवछत्रपतींची ९१ कलमी बखर
आणि भोसले घराण्याची चरित्रावली वि. स. वाकसकर
३. हिंदवी स्वराज्य आणि मोगल सेतुभाधवरव पगडी
४. श्री शिवछत्रपती- संकल्पित शिवचरित्राची
प्रस्तावना, आराखडा व साधने त्र्यं. शां. शेखवलकर
५. शासनवर्गीय प्रच्ययगीन चरित्रकोश सि. वि. चित्राव

(d) Final Output image.

5. Conclusion

Here we come to conclude that the proposed method is simple binarization method, which produces more clear output. It can be work on many degraded images. This technique uses contrast enhancement along with threshold estimation. We introduced new module post processing which will remove the background degradations found in the binarized image. In this technique we are going to used grey scale method to create outlined map around the text. The output of this system produces separated foreground text from collided background degradation. For that we have maintain the contrast level at min and max level. Which will help to make more clear and readable output.

References

- [1] Wagdy, M., Ibrahima Faye, and DayangRohaya. "Fast and efficient document image clean up and binarization based on retinex theory."Signal processing and its Applications (CSPA), 2013 IEEE 9th International Colloquium on.IEEE, 2013.
- [2] Sehad, Abdenour, et al. "Ancient degraded document image binarization based on texture features." Image and

Signal Processing and Analysis (ISPA), 2013 8th International symposium on.IEEE, 2013.

- [3] Su, Bolan, S hijian Lu, and Chew Lim Tan. "Robust document image binarization technique for degraded document images."Image Processing, IEEE Transactions on 22.4 (2013): 1408-1417.
- [4] Su, Bolan, Shijian Lu, and Chew Lim Tan. "Combination of document image binarization techniques."Document Analysis and Recognition (ICDAR), 2011 International Conference on.IEEE, 2011.
- [5] Gaceb, Djamel, Frank Lebourgeois, and Jean Duong. "Adaptative Smart-Binarization Method: For Images of Business Documents." Document Analysis and Recognition (ICDAR), 2013 12th International Conference on .IEEE, 2013
- [6] N. Otsu, "A threshold selection method from gray level histogram," IEEE Trans. Syst., Man, Cybern., vol. 19, no. 1, pp. 62-66, Jan. 1979.
- [7] Brensen, B. Gatos, and K. Ntirogiannis, "H-DIBCO 2010 handwritten document image binarization competition," in Proc. Int. Conf. Frontiers Handwrit. Recognit., Nov. 2010, pp. 727-732.
- [8] W. Niblack, *An Introduction to Digital Image Processing*. Englewood Cliffs, NJ: Prentice-Hall, 1986.

Author Profile



Yogita Kakad received the B.E. degree in Computer Engineering from HVPM College of Engineering & Technology, Amravati in 2009. Pursuing M. E. in Computer Engineering from MGM College of Engineering and Technology, Kamothe, Navi Mumbai.

Savita Bhosale received M.E degree and Pursuing her PhD in Electronics Engineering from Dr. Babasaheb Ambedkar Technical University, Raigad and working as Assistant Professor at MGM College of engineering and Technology, Kamothe Navi Mumbai.