Abstract

In this paper, an automatic histogram threshold approach based on a fuzzy measure is presented. This work is an improvement of an existing method. Using fuzzy logic concepts, the problems involved in finding the minimum/maximum of an entropy criterion function are avoided. Hamid R Tizhoosh defined a membership function to measure the image fuzziness, which makes the methodology totally supervised. We attempt to automate the process by taking an alternate approach. For low contrast images contrast enhancement is assumed. Experimental results demonstrate a quantitative improvement.

References

- Yang Xiao, Zhiguo Cao, Wen zhuo, Type-2 fuzzy thresholding using GLSC histogram of human visual nonlinearity characteristics; Optics Express, vol. 19, no. 11, 10657, May 2011.

Index Terms

Computer Science  Image Processing

Keywords

Type-I fuzzy Type-II fuzzy ultrafuzziness