Abstract

Image retrieval is one of the main topics in the field of computer vision and pattern recognition. Local descriptors are gaining more and more recognition in recent years as these descriptors are capable enough to identify the unique features, which suitably and uniquely describe any image for recognition and retrieval. One of the popular and efficient frameworks for capturing texture information precisely is the Local binary pattern (LBP). LBP descriptors perform well in varying pose, illumination and lighting conditions. LBP is a structural approach and plays significant role in wide range of applications. One of the disadvantages with LBP based framework is its dimensionality. The dimensionality of LBP increases, if one increases the number of neighboring pixels. Further statistical approaches gained lot of significance in image retrieval and LBP based methods raises high dimensionality and complexity issues, in deriving statistical features. The present paper addresses these two issues by quantizing the LBP code, to reduce dimensionality and by deriving GLCM features on quantized LBP. The proposed method is experimented on Corel database and compared with other existing methods. The experimental results indicate the high retrieval rate by the proposed method over the existing methods.
References

17. V Vijaya Kumar, U S N Raju, K Chandra Sekaran, V V Krishna, Employing long linear patterns for texture classification relying on wavelets, ICGST-Graphics, vision and image processing (ICGST-GVIP), Vol.8,No.5, pp. 13-21, Jan-2009, ISSN: 1687-398X


21. V. Vijaya Kumar, Gorti Satyanarayana Murty, PS V V S R Kumar, Classification of facial expressions based on transitions derived from third order neighborhood LBP, Global journal of computer science and technology graphics & vision (GJCST), Vol.14, No.1, pp. 1-12, Jan-2014, ISSN: 0975-4350.


45. http://wang.ist.psu.edu/.
47. Ms. Urvashi Chavan1, Prof. N. M. Shahane2, Content Based Image Retrieval Using Clustering, International Journal of Application or Innovation in Engineering & Management (IJAIEM), Volume 3, Issue 10, October 2014

Index Terms

Computer Science

Image Processing
Keywords

Structural; Statistical approach; Pose; Illumination; Dimensionality;