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Abstract

The local binary pattern (LBP) provides a simple and efficient approach to gray-scale and rotation invariant texture classification. However, the LBP operator thresholds P neighbors at the value of the center pixel in a local neighborhood and employs a P-bit binary pattern to encode only the signs of the differences between the gray values. Thus, the LBP operator

discards some important texture information. In this paper, we have proposed the compound local binary pattern (CLBP), an extension of the LBP texture operator for rotation invariant texture classification. The CLBP operator exploits 2P bits to encode the information of a local neighborhood of P neighbors, where the extra P bits are used to express the magnitude information of the differences between the center and the neighbor gray values. A feature representation method based on CLBP codes is presented. Experimental results show that, the classification rate of the proposed method is appreciable.

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Index Terms

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Key words

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