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SELECTION OF THE PROPER COMPACT COMPOSITE DESCRIPTOR FOR IMPROVING CONTENT BASED IMAGE RETRIEVAL

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ABSTRACT

Compact Composite Descriptors (CCD) are global image features capturing both, color and texture characteristics, at the same time in a very compact representation. In this paper we propose a combination of two recently introduced CCDs (CEDD and FCTH) into a Joint Composite Descriptor (JCD). We further present a method for descriptor selection to approach the best ANMRR that would result from CEDD and FCTH. With our approach the most appropriate descriptor in terms of maximization of information content can be found on a per image basis without knowledge of the data set as a whole. Experiments conducted on three known benchmarking image databases demonstrate the effectiveness of the proposed technique.

KEY WORDS Compact Composite Descriptors, CBIR, Selection of the proper descriptor, Fuzzy techniques