

Abstract

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H.264/AVC Based Multi-View Video Codec using The Statistics of Block Matching

This paper proposes two reference frame architectures for H.264/AVC based multi-view video codecs. To achieve this, the block matching amongst reference frames of the codec are statistically analyzed. Based on the resulting statistics, two sets of reference frame architectures for best coding performance of the codec are proposed. The coding performance of the codec using the proposed reference frame architectures are assessed against the same codec which uses three different reference frame architectures. The measurements were carried out on four standard multi-view datasets. Results show that the application of the proposed reference frame architectures significantly (up to 2.3 dBs) improves the coding performance of the codec.