LOW–COMPLEXITY POWER–SCALABLE MULTI–VIEW DISTRIBUTED VIDEO ENCODER

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Abstract : To meet the requirements of resource–limited video sensors, low–complexity video encoding technique is highly desired. In this paper, we propose a low–complexity power–scalable multi–view distributed video encoding scheme by using the correlations among video frames from adjacent video sensor nodes via robust media hashing extracted at encoder and using the global motion parameters estimated and fed back from the decoder. In addition, the proposed method is power–scalable, which is adaptive based on the available power supply of the video sensor. The power–rate–distortion behavior of the proposed scheme is also analyzed in order to maximize the video quality under limited sensor resource allocation.