Digital video compression techniques have a crucial contribution in the world of telecommunication and multimedia sector where bandwidth is a valued constraint. A large amount of multimedia data has to be stored in a limited storage space. Hence, video compression techniques mainly focus on reducing the volume of information required for picture sequences/streaming pictures without losing much of its quality. Thus, in order to provide an competent compression method for multimedia data, Luminance Masking technique was proposed. In this context, an Intensity Dependant Spatial Quantization (IDSQ) perceptual means is proposed which attempts the intensity masking of the human visual system and perceptually adjusts quantization. IDSQ allows for adaptation to the video characteristics and its design meets low complication implementation requirements. The proposed method has been incorporated into the HEVC reference model for the HEVC Range Extensions and its performance was judged by measuring the bit rate reduction against the HEVC Range Extensions.
References


Index Terms
Keywords

HDR, HEVC, Intensity Dependant Spatial Quantization (IDSQ), Luminance Masking.