Abstract

This paper introduces a VHDL realization of a new efficient intra prediction scheme that aims to enhance the compression efficiency of the H. 264 standard. The new proposed algorithm is called Best Prediction Matrix Mode (BPMM). The main idea behind the new prediction scheme is to combine the most usable intra prediction modes, vertical - horizontal - DC, into a new efficient prediction mode. The performance of the new proposed prediction scheme with respect to compression ratio, Peak Signal to Noise Ratio (PSNR) and bit rate is evaluated. The results show that the BPMM enhances the compression ratio and correspondingly the bit rate and it noticeably increases the PSNR.

References


**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**  
Video Compression  
H. 264  
Intra Prediction