



A Novel VLSI Architecture MST Core Supported Video Codec Using CSDA

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Abstract— This paper presents a low cost effective multistandard transform supported video codec using combination of factor sharing and distributed arithmetic called CSDA (Common Sharing Distributed Arithmetic) method. Several researches have worked on transform core in order to reduce the hardware cost. This new architecture only uses adders and shifters instead of multipliers. This architecture shares available hardware resources. So that it will reduce the hardware cost very efficiently. To support different standards such as MPEG1/2/4, VC-1, H.264, it uses selection signals of multiplexers. The language which is used to build this architecture is Verilog HDL. The simulation of this MST core is done by using Model Sim.

Index Terms—Common Sharing Distributed Arithmetic (CSDA), Discrete Cosine Transform (DCT), integer transform, Multistandard Transform (MST).

