Abstract

Wavelet packet-division multiplexing (WPDM) is a high-capacity, flexible, and robust multiple-signal transmission technique in which the properties of wavelet packet basis functions are used for orthogonal multiplexing. In this paper, a new algorithm based on finite field wavelet packet division multiplexing (FF WPDM) is proposed for secure orthogonal multiplexing of images. Further, VLSI architecture of the proposed algorithm is designed. The VLSI
architecture is implemented on images using XILINX ISE and ModelSim to demonstrate the effectiveness of the proposed scheme.

References

- Xilinx Coolrunner-II CPLD Galois Field GF(2m) Multiplier, XAPP371 (v1. 0) September 26, 2003.

Index Terms

Computer Science: Image Processing

Keywords

Cryptography; Wavelet Packet Division Multiplexing; VLSI