Abstract

In Wireless communication is one among the foremost vivacious analysis areas within the communication field these days. This paper presents the implementation of FSM based WLAN and modified FSM based WiMAX interleaver in VHDL. For WLAN the implemented interleaver is compared with the available works. A modification in the FSM of address generator for WiMAX interleaver provides a significant 35.8% enhancement in terms of logic cells and 22% enhancement in terms of slice flip flops used, as compared to available work [41]. The circuit parameters and simulation results obtained using ModelSim XE II software are also presented.

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**Index Terms**

Computer Science  
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**Keywords**  
WLAN  FSM  WiMAX  VHDL  Xilinx  ModelSim.