

## **Area Efficient WiMAX Interleaver using FSM**

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*Abstract*—OFDM is multiplexing technique used in WiMAX standards as it is always challenging to find FPGA solution because of its area and operating frequency. We have developed Interleaver which plays a vital role in improving the performance of FEC (Forward Error Correction Codes) codes in terms of Bit Error Rate over wireless channel. The proposed work justify the efficient structure for interleaver by address generation using FSM and data path control i.e. interaction with memory using multiplexers. The design is developed using VHDL.

*Keywords*- Interleaver, WiMAX, FSM, FEC, FPGA.

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