Abstract

The latest Research Trend in wireless communication is implementing wireless system on SDR (Software Define Radio), so the SDR implementation of MIMO-OFDM receiver with channel state information is presented in this paper. Here we use Xilinx 13.1 Spartan 3 xc3s400pq208 FPGA device. The simulation results are obtained for 2x2 MIMO-OFDM receiver system in which we have implemented channel estimation, FFT, deinterleaver and decoder blocks in VHDL. The performance analysis of the receiver implementation is presented with resource utilization and timing analysis.

References

- J. Ruggiero, T. Bonnema, D. J. Inman, application of SISO and MIMO modal analysis technique.
- N. Seifi, A. S. Tehrani, and M. Viberg, “Simulation of a Wideband Reconfigurable Multi-Antenna System with Space-Time Coding”, in Nordic Matlab
- Paul A. Lynn, Wolfgang Fuerst, Introductory Digital Signal Processing with

**Index Terms**

Computer Science  Communication Systems

**Keywords**

MIMO  OFDM  FPGA  channel estimation