Abstract

This paper presents design and implementation of turbo code, after that many types of decoders are introduced with various many parameters such as (number of iteration, length of code, number of frame, type of decoding techniques, rate, generator polynomial and type of channel) get the Bit Error Rate (BER) for each case, and compare the results. This work in order to study the effect of each parameter on the performance of Turbo Code to specify the parameters that give the optimum performance of this codes. Finally turbo encoder implemented on FPGA device.

References


**Index Terms**

Computer Science

Software Engineering

**Keywords**

Turbo code, Bit Error Rate (BER), Recursive Systematic Convolutional (RSC) and Log Likelihood Ratio (LLR).