Simulation of Convolutional Encoder and Viterbi Decoder using Verilog

Volume 102 - Number 4

Year of Publication: 2014

Authors:
Nehul Mathur
Sunil Sharma

10.5120/17805-8625

Abstract

In this paper, we are implementing the Convolutional encoder and viterbi decoder with code rate 2/3 using verilog. The main issue of this paper is to implement the RTL level model of Convolutional encoder and viterbi decoder, with the testing results of behavior model. We tried to achieve a low silicon cost. The viterbi algorithm, used for Convolutional codes extensively employed decoding algorithm for Convolutional codes. This paper is realized using verilog HDL. It is simulated and synthesized using Modelsim Altera 10. 1d.

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**Index Terms**

Computer Science  
Circuits And Systems

**Keywords**

Convolutional encoder  
viterbi decoder  
Modelism10. 1d  
viterbi algorithm  
trellis diagram

simulation.