

Research on convolutional decoding using the Viterbi algorithm

Duong Thi Thuyen

Abstract: This topic aims to study and apply the Viterbi algorithm to decode convolutional signals in modern communication environments. Through theoretical and experimental analysis, the objective of the topic is to build an efficient decoding system that can be used in various applications such as satellite television and mobile networks. The research method includes both the theory of convolutional coding and the design of the Viterbi algorithm through practical experiments. The results of the topic are expected to provide new technical solutions for improving data transmission quality.

Keywords: convolutional decoding, Viterbi algorithm, mobile communications, satellite networks, convolutional coding