Abstract

Turbo codes are family of forward error correcting codes, whose performance is near Shannon limit. Turbo decoding is based on the maximum a-posterior algorithm (MAP) algorithm. In this paper, the problem of turbo decoding in ISI channel is studied. A Super-trellis structure method has been presented and modified turbo decoding is suggested. Two methods have been suggested for turbo decoding in ISI channel. In the first method, we take all possible combinations of output of encoder-2 and in method-2, output of each encoder is passed through channel filter independently. Method-2 performs better than method-1 but requires higher bandwidth. The improvement in performance is demonstrated through simulations.

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Index Terms

Computer Science Communications

Keywords

Convolution Code Intersymbol Interferance Isi Channel Iterative Decoding Turbo Code