Abstract

Genetic algorithms are successfully used for decoding some classes of error correcting codes, and offer very good performances when solving large optimization problems. This article introduces a new Decoder based on Genetic Algorithm and the Syndrome Weight decision (GADSW) for decoding Low Density Parity Check (LDPC) codes. The performances of (GADSW) decoder are very good compared to sum-product decoder, which prove its efficiency.

References

Syndrome Weight Decision based Genetic Algorithm Decoder for LDPC Codes


Index Terms

Computer Science Communications

Keywords

Genetic Algorithm, syndrome weight, Sum-product decoder, LDPC code, Error correcting codes.