Abstract

From Shannon limit it is known that, for a particular bandwidth and noise characteristics, there exists a maximum rate at which data can be transmitted with arbitrarily small number of errors. Coding schemes are utilized to improve the data transmission efficiency. The paper aims to represent the comparative performance analysis of Low Density Parity Check (LDPC) codes and Bose-Chaudhuri-Hocquenghem (BCH) codes in transmitting data over noisy channel for different parameters. The performance of LDPC block codes is simulated for different decoding schemes and code rates. Performance analysis of LDPC codes is also shown for regular and irregular codes. For fixed error correcting capability, the BCH coding scheme is further simulated for different code length with increasing code length. The simulated output is worthwhile to analyze the performance of a communication system before the physical
implementation of the system.

References

- NanaTraore, Shashi Kant, Tobias Lindstrom Jensen, "Message passing algorithm and Linear Programming and decoding for LDPC and Linear Block codes".

Index Terms

Computer Science Security

Keywords

LDPC BCH Code rateifx