Multi-Split-Row Threshold Method for Low-Complexity Message-Passing Algorithm

R. Murugan

Abstract : Literature review revealed that, a low-complexity message-passing algorithm, called Split-Row Threshold, is used to implement low density parity check code which is a linear error correcting code, a method of transmitting a message over a noisy over a noisy transmission channel, and is constructed using a sparce bipartite graph. Five LDPC decoders that are compatible with the 10GBASE-T standard are implemented using the MinSum Normalized and MinSum Split-Row Threshold algorithms. The noise threshold defines an upper bound for the channel noise, up to which the probability of the lost information can be made as small as desired. To avoid congestion at receiver end to design low-complexity message-passing Algorithm that avoids bottlenecking to make decoding faster. The paper focuses above features.