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Abstract

Errors during data communication are inevitable. Noise in the channel leads to bit error. The paper proposes a matrix based novel bits encoding technique, aim to achieve error correction capability with optimize redundancy. Furthermore an efficient software based decoding algorithm to detect and correct transmission errors is introduced. Here errors include single bit error, multiple bits error and burst errors. The proposed technique maintains high code rate, provides multiple bit error correction capability and can best be implemented as hybrid automatic repeat request (HARQ).

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Key words

