ERROR PERFORMANCE IN BCH CODES

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ABSTRACT

This thesis intends to explain on BCH codes as one of several error detection and error correction techniques of the block codes. BCH uses standard generator polynomials that have been the most important term in their implementation of error detection and error correction technique.

This thesis covers the theoretical and the practical design of the BCH codes. The theoretical part covers the algorithms used, how they are encoded and decoded and how they are used to correct errors.

The practical design is the way to implement the BCH codes into hardware to gives a better understanding through the real operation of the BCH codes. It attempts to provide a clear and simple explanation on the hardware schematic diagram on BCH codes both at the transmitter and receiver part.

As the part of the software implementation, the results are obtained through a simple simulation process by using Matlab V6.1. The error rate has been computed to study about the performance of the BCH codes technique.

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