

An Adaptive Error Control System Using Hybrid ARQ Schemes

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Summary

A simple and efficient system utilizing the class of Hamming codes in a cascaded manner is proposed to provide high throughput over a wide range of channel bit error probability. Comparisons with other adaptive schemes indicate that the proposed system is superior from the point of view of throughput, while still providing the same order of reliability as an ARQ (automatic repeat request) system. The main feature of this system is that the receiver uses the same decoder for decoding the received information after each transmission while the error-correcting capability of the code increases. As a result, the system is kept to the minimum complexity and the system performance is improved

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