

ABSTRACT

Shape Coded Modulation

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A novel combined modulation and error-control technique is introduced. The technique utilises shapes formed by signal points of conventional modulation techniques to represent binary digits to be transmitted over a channel.

Conventional bandpass modulation techniques transmit and decode points of the signal constellation independently of each other. In this thesis, it will be shown that the shapes defined within the signal constellation may be used to provide error control capability.

Results of computer simulation of different shape coded modulation techniques developed also will be presented.

Keywords: Mohan Chandra Baro; Shape Codes; Error-Control Coding