

عنوان مقاله:

Reliable Spread Spectrum Communication Systems by Using Low-Density Parity-Check Codes

محل انتشار:

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خلاصه مقاله:

A joint scheme for the channel coding and spectrum spreading communication system is proposed in this paper. The Bit Error Rate (BER) performance of the joint proposed scheme is evaluated and compared with the case of channel coding scheme without spectrum spreading. We employ a single Low-Density Parity Check (LDPC) code for the both channel coding and direct sequence spectrum spreading. We show that the BER performance is significantly improved while the complexity does not increase too. The philosophy behind this achievement is that the spectrum spreading techniques provide the ability of channel noise protection for the communication systems by themselves

کلمات کلیدی:

LDPC Codes; Direct Sequence; Spread Spectrum; SPA; Channel Coding; BER

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