

Efficient Relay Selection Scheme Utilizing OVVSF Code in Cooperative Communication System

Authors : Yeong-Seop Ahn, Myoung-Jin Kim, Young-Min Ko, Hyoung-Kyu Song

Abstract : This paper proposes a relay selection scheme utilizing an orthogonal variable spreading factor (OVVSF) code in a cooperative communication. The relay selection scheme influences on the communication performance in the cooperative communication. Conventional relay selection schemes such as the best harmonic mean relay selection scheme or the threshold-based relay selection scheme should know information such as channel state information (CSI) in advance. The proposed relay selection scheme does not require information in advance by using a reference signal utilizing the OVVSF code. The simulation result shows that bit error rate (BER) performance of proposed relay selection scheme is similar to the best harmonic mean relay selection scheme that is known as one of the optimal relay selection schemes.

Keywords : cooperative communication, relay selection, OFDM, OVVSF code

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