

An Improved Cooperative Communication Scheme for IoT System

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Abstract : In internet of things (IoT) system, the communication scheme with reliability and low power is required to connect a terminal. Cooperative communication can achieve reliability and lower power than multiple-input multiple-output (MIMO) system. Cooperative communication increases the reliability with low power, but decreases a throughput. It has a weak point that the communication throughput is decreased. In this paper, a novel scheme is proposed to increase the communication throughput. The novel scheme is a transmission structure that increases transmission rate. And a decoding scheme according to the novel transmission structure is proposed. Simulation results show that the proposed scheme increases the throughput without bit error rate (BER) performance degradation.

Keywords : cooperative communication, IoT, STBC, transmission rate

Conference Title : ICCCNMC 2015 : International Conference on Computer Communications, Networks and Mobile Computing

Conference Location : Paris, France

Conference Dates : August 27-28, 2015