Abstract

An energy-efficient communication schemes in wireless sensor networks (WSN) is highly desirable where energy consumption is constrained. In this paper, the mathematical model of energy consumption per bit in wireless sensor network using Cooperative MIMO is presented. Cooperative MIMO transmission and reception can simultaneously achieve the energy savings and the delay reduction over some distance ranges. Further, the best diversity scheme to
minimize total energy consumption to send a given number of bits is analyzed. The simulation through MATLAB is carried out for various modulation techniques in Rayleigh fading channel.

References


Index Terms

Computer Science

Wireless

Keywords

Alamouti Diversity Schemes  Bit Error Rate (ber)  Energy Efficiency  Rayleigh Fading
Single-input-single-output (siso)
Single-input-multiple-output (simo)

Multi-input-single-output (miso)

Multi-input-multi-output (mimo)

Modulation Schemes

Wireless Sensor Network.