Abstract

To increase the life span of wireless sensor network, energy consumption must be minimized while satisfying given throughput and delay requirement. In this paper, we described an energy model based on cooperative MIMO scheme considering of both transmission and data aggregation energy is proposed for wireless sensor network. Based on this consequence, jointly considering both cooperative MIMO and data aggregation techniques which shows performance enhancement over conventional SISO system for same signal-to-noise ratio. Moreover, at critical distance value MIMO system outperforms SISO system is compared. The results show that MQAM is the best modulation technique is proved by simulations and suitable diversity technique for energy miniaturization to send a given number of bits are analyzed.

References


**Index Terms**

Computer Science  Wireless

**Keywords**

Alamouti diversity schemes  Data aggregation  Energy Efficiency  Wireless sensor network.