Abstract

This paper considers the wireless sensor networks and highlights its applications in present time and mainly focuses on the two main techniques for saving maximum energy in transmitting information in WSN and these are multi-input multi-output (MIMO) and cooperative MIMO (CMIMO). Under this paper there is a comparison of energy efficiency in MIMO and single-input single-output (SISO) system for both transmission energy and circuit energy. Then there will be the discussion of CMIMO advantages, its energy model, properties, comparison with the equivalent technique (DCA) and the most important strategy used under CMIMO system is node sleep strategy and its significance in front of non-node sleep strategy will be discuss in this paper.

References

1. Bin Li, Hongxiang, Wenjie Wang, Quiye Yin and Hui Liu “Performance analysis and
optimization for energy-efficient cooperative transmission in random wireless sensor network,”

methods in wireless sensor networks: a critical review”, international journal of computer
applications, Vol. 39, pp.35-48, February 2012


5. A. Paulraj, R. Nabar, and D. Gore, “Introduction to Space-Time wireless communication

6. S. K. Jayaweera, “Virtual MIMO based co-operative communication for energy
2006.

7. D. Wu. Y. Cai, L Zhou, and J. Wang, “A cooperative communication scheme based on
coalition formation game in clustered wireless sensor networks”, IEEE Trans. Wireless


CMOS RF transceiver design” IEEE Trans. Microwave theory Tech., vol.50, PP.281-287,

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