Abstract

A Wireless sensor network is made up of small sensor devices which can communicate with each other and that are Battery operated. The Energy resources are limited and battery replacement is not easy work. There are so many application of sensor network such as Target tracking, Remote monitoring, waste water monitoring, data logging, natural disaster prevention, land slide detection, etc. Because energy resources are limited so there is a need of energy saving mechanisms which can efficiently reduce power level. In this paper we will analyze energy consumption of distributed source coding MIMO system. There are three domains in sensor network where power consumption has occurred that are Sensing, communication and data processing.

In this paper, we will discuss about DSC-MIMO methods to reduce power consumption and increase energy efficiency and will compare with traditional SISO and MIMO system. DSC (Distributed Source Coding) schemes are used to compress data of sensor nodes which is
correlated. By this method we can gain high coding efficiency and MIMO is effectively reducing energy consumption.

References

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Index Terms

Computer Science Wireless

Keywords

WSN (Wireless sensor network), DSC (Distributed source coding), MIMO (Multiple input Multiple output), SISO (Single input Single output), Power consumption.