Abstract

Deployment of sensor nodes has become a major challenge in improving network coverage dynamically in wireless sensor networks. Hence different spatial multiplexing techniques are experimented to provide energy efficiency in sensor networks. At the primary deployment level it is evident that the multiple input single outputs (MISO) consumes lesser energy than the other techniques. However implementing STBC based MIMO (SCHCT) technique in wireless sensor network further reduces the energy to large extent. This paper exploits this method for a group of sensor nodes those are divided into many clusters where multiple cluster heads cooperatively manages the transmission activity with less energy consumption and enhanced network life span. The network lifetime of WSN has also further increased by employing a different approach with the SCHCT technique even to a Heterogeneous sensor Network.

References

A Novel Energy Efficient Network Management Scheme of Heterogeneous WSN with MIMO Techniques


Index Terms

Computer Science  Wireless

Keywords

Heterogeneous wireless sensor networks  Energy efficiency  Virtual MIMO  STBC

SCHCT