In this paper, the energy efficiency of cooperative sensing in cognitive radio networks is investigated. In cooperative sensing, more energy is consumed in sensing the channel and reporting the results to the fusion detector. To address this issue a very innovative design called External Sensing Energy Efficient technique is proposed in this literature. Analytical studies show that sensing time is a key factor to determine the energy efficiency. The approach is to outsource the sensing work to external network. Simulation results show the comparison between the internal sensing and the external sensing which says that ESEET performs significantly better than that of internal sensing.
Energy Efficient Design for External Cooperative Sensing in Cognitive Radio


Index Terms

Computer Science

Networks
Keywords
External Cooperative Sensing   Energy Efficiency