

## عنوان مقاله:

Sensor Selection for Efficient Cooperative Spectrum Sensing using Genetic Algorithm under Secondary Random Geometric Networks

## محل انتشار:

سومین کنفرانس ملی ایده های نو در مهندسی برق (سال: 1393)

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## خلاصه مقاله:

In this paper, a novel realistic sensor selection cooperative spectrum sensing (CSS) for cognitive radio (CR) network is designed, where the node selection is based on the spatial location of the nodes. The location of the secondary users (SUs) is modeled as a random stochastic geometry network, following Poisson point process. In particular, we invoke Genetic algorithm (GA) to estimate the primary user (PU) location and its transmission pattern, according to received signal strength (RSS) at several SUs location. By selecting the most informative SUs to join together, the load of sensing measurements to the fusion center (FC) is decreased and thereby results in less computation, optimum bandwidth utilization, and saving the costs for deploying nodes in the space. The Monte-Carlo simulations confirm that the proposed scheme outperforms the conventional cluster-based CSS schemes.

## کلمات کلیدی:

(Genetic Algorithm, Spectrum sensing, Poisson point process (PPP

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/348670>

