

# Parameters estimation using cuckoo search algorithm of harmonic signals in additive and multiplicative noise

**Haroun RAGUEB, Ali BADIDI BOUDA**

**Abstract :** In this study we present a novel approach to estimate harmonics in multiplicative and additive noise using Cuckoo search algorithm. The estimation of parameters is formulated as a nonlinear optimization problem and simulations are carried out to assess the performance of the proposed algorithm.

**Keywords :** Cuckoo search algorithm, multiplicative noise, Additive noise, Parameters estimation, Harmonics, Metaheuristic