Abstract

Particle Swarm Optimization (PSO), is well known technique for population based global search but its limitation to premature convergence before finding the true global minimiser. In this paper we introduce a technique by adding new parameters and a new velocity update formula using personal best value discovered by the swarm particles and decreasing the diameter of search space which prevents premature convergence before finding the true global minimiser. The resulting particle swarm optimization (PGCPSO) provides a mechanism which is more efficient in finding true global minimizer while it was tested across the benchmark suite.

References


**Index Terms**

Computer Science

Algorithms

**Keywords**

Particle Swarm Optimization