

Abstract

Resource scheduling is one of project operational planning which there is have process identifies resources amount and type according to the activity that scheduled. Requirements of resources for each times can different, so maybe there is fluctuation of need resources. So, a high of fluctuation during project tour must be avoid, i.e.needed resource leveling during project time.

The problem of resource leveling optimization is a common problem in have studied at long time, but must be search a new methodology or several heuristic in order to produce the optimal solutions of the problem. In this final assignment, we discuss an implementation of the particle swarm optimization (PSO), on the optimization of project resource scheduling.

Final result shows that particle swarm optimization can be implement on the optimization of resource leveling problem. The effectiveness of this heuristic is demonstrated with case studies. Preliminary test shows that this approach can give a good solution with minimal fluctuation.

Keywords: project resource scheduling, fluctuation, resource leveling, PSO