

PSO for timetables

Tassopoulos and Beligiannis (2012) propose a PSO algorithm for timetable generation.

Questions

1. Explain and exemplify the problem of generating timetables (e.g., consider your schedule). What other methods have been proposed to solve this problem? Describe briefly at least two. Explain the algorithm proposed by Tassopoulos and Beligiannis (2012). How can it be modified for a different resource allocation problem?
2. Implement a standard PSO algorithm for solving a synthetic optimization problem. Compare the results to those obtained by another known method.

References

Tassopoulos, I. X. and Beligiannis, G. N. (2012). A hybrid particle swarm optimization based algorithm for high school timetabling problems. *Applied Soft Computing*, 12:3472–3489.