

# Solving manufacturing cell design problems using a shuffled frog leaping algorithm

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The manufacturing Cell Design Problem (MCDP) is a well-known problem for lines of manufacture where the main goal is to minimize the inter-cell moves. To solve the MCDP we employ the Shuffled Frog Leaping Algorithm (SFLA), which is a metaheuristic inspired on the natural memetic features of frogs. The frog tries to leap all over the search space for a better result until the stopping criteria is met. The obtained results are compared with previous approaches of the algorithm to test the real efficiency of our proposed SFLA. The results show that the proposed algorithm produces optimal solutions for all the 50 studied instances. © Springer International Publishing Switzerland 2016.

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