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Optimisation of makespan of a flow shop problem using multi layer neural network. (English)

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Summary: This paper presents an approach based on a multi layer neural network algorithm (MLNNA) to find a sequence of jobs for flow shop scheduling problems with the objective of minimise the makespan. The purpose of this paper is to develop an artificial intelligence and trained a neural network model for solving the flow shop scheduling problem which gives a best jobs sequence with the objective of minimise the makespan. The effectiveness of the proposed MLNNA method is compared with many problems selected from different papers. A large number of problems are solved with the present MLNNA model and it is found suitable and workable in all the cases.

MSC:

90B35 Deterministic scheduling theory in operations research

68T07 Artificial neural networks and deep learning

Keywords:

artificial neural network; flow shop problem; scheduling; multi-layer network; makespan; job sequencing

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