Optimisation of identical parallel machine scheduling problem

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Abstract: Scheduling is allocating the resources optimally over a period of time. The productivity and customer goodwill of the company increases by proper scheduling. This work focuses on scheduling of identical parallel machines (IPM) with an objective to makespan minimisation by using Grey Wolf Optimiser (GWO) algorithm. Makespan is the maximum completion time of all the jobs. In this work, the different jobs in different identical parallel machines are classified as experiments E1, E2, E3 and E4. These experiments were computationally solved by new metaheuristic GWO algorithm. The experimental computational results of GWO were compared with GA to obtain near optimal solution in all experiments.

Keywords: makespan; Grey Wolf Optimiser; GWO; identical parallel machine; IPM.

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