International J. of Engg. Research & Indu. Appls. (IJERIA).
ISSN 0974-1518, Vol.7, No. I (February 2014), pp 85-96

A HYBRID TECHNIQUE FOR SOLVING FLOWSHOP SCHEDULING PROBLEM USING ARTIFICIAL BEE COLONY ALGORITHM

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Abstract

This paper presents a novel approach for solving the Blocking Flowshop Scheduling (BFS) problem with the objective of minimizing the makespan with the help of Combinatorial Auction Mechanism. Due to globalization and rapidly decreasing product life cycle, manufacturing industries are trying to maximize the machine utilization and minimize the makespan of the machine. For this reason flowshop scheduling is used to solve resource allocation conflicts between multiple agents, where each agent is responsible to solve flowshop scheduling problem by itself. With the help of Artificial Bee Colony algorithm solving the BFS in flowshop scheduling. Combining these approaches together and comparing with traditional methods.

Keywords*:* Flowshop scheduling, Multiagent system, Artificial Bee Colony Algorithm, Resource Allocation, Blocking Flowshop Scheduling.