An integer programming approach for balancing and scheduling in extended manufacturing environment (Conference Paper)

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Abstract

In the fiercely competitive era induced by expansion of open business archetypes, the managerial aspects of Extended Manufacturing Environments (EMEs) are experiencing growing concerns. There is no scope of leaving a possible operational improvement unexplored. For enhanced operational efficiency and capacity utilization the balancing and scheduling problems of EMEs are, therefore, rightfully considered and an integer programme is proposed in this paper. The model is designed in a spread sheet and solved through What'sBest optimizer. The model capabilities is assessed through a test problem. The results have demonstrated that the model is capable of defining optimized production schedules for EMEs. © 2015 AISTI.

Author keywords

Balancing and Scheduling Approaches Extended Manufacturing Environments Integer Programming

Indexed keywords

Engineering controlled terms: Information systems Manufacture Production control Scheduling Capacity utilization Managerial aspects Manufacturing environments Operational efficiencies Operational improvements Optimized production Scheduling problem Test problem

Engineering main heading: Integer programming

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