OPTIMIZATION OF PRODUCT TRANSFER WITH CONSTRAINT IN ROBOTIC CELL USING SIMULATION

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Abstract
This article deals with simulation modelling of a flexible manufacturing cell. Our purpose is the optimization of a robot cycle that transfers products in the cell. We consider the productivity as performance criterion. An analytical survey is developed and validated by simulation results. These results permit to get an aided adequate decision and a large reactivity facing the changes of products operated in a flexible manufacturing cell. A constraint of flow time of products on machines has been considered in the model, the results of the simulation allowed to eliminate invalid cycles with this constraint and to classify the remaining cycles according to their shortest cycle times. 9 refs.
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