عنوان مقاله:
Two-Sided Assembly Line Balancing with Considering the Relationships between the Tasks

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خلاصه مقاله:
In the most last researches about the balancing of twosided assembly lines, it is assumed that the relationship between each two tasks assignable to a side of the line is equal. However in practice, this relationship may be related to the factors such as the distance between the implementation place of the tasks and the tools required for performing them. We know that the more relationship between the tasks assigned to each station can obtain more efficiency for the assembly line. So first, we suggest an index for calculating the value of the relationship between each twotasks and then we define a performance criterion called assembly line tasks consistency for calculating the average relationship between the tasks assigned to the stations of each solution. Wepropose a simulated annealing algorithm for solving the two-sided assembly line balancing problem with considering the three performance criteria, simultaneously: number of stations or line efficiency, number of mate-stations or line length and assembly line tasks consistency.

کلمات کلیدی:
Two-sided assembly line balancing problem, Tasks relationship, Simulated annealing algorithm

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