Computer-Aided Assembly Sequence Planning Using Simulated Annealing

E-mail: 9808034@ mail.dyu.edu.tw

ABSTRACT

The purpose of this project is to establish a computer -aided model for assembly sequence planning using simulated annealing approach. Four evaluation criteria such as directionality, fixture complexity, direction change and tool change are developed for systematic evaluation of the assembly sequences. Then, simulated annealing algorithm have been adopted for solution procedure for assembly sequence planning. In addition, the solution quality and solving efficiency are tested for the computer-aided model being developed. Finally, real-world examples are adopted for illustrating and validating the performance of the computer-aided SA model for assembly sequence planning.

Keywords : Assembly Sequence Planning ; Simulated Annealing

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