

Batch-Oriented Setting Time`s Optimisation in an Aerodynamic Feeding System

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Abstract : The change of conditions for production companies in high-wage countries is characterized by the globalization of competition and the transition of a supplier`s to a buyer`s market. The companies need to face the challenges of reacting flexibly to these changes. Due to the significant and increasing degree of automation, assembly has become the most expensive production process. Regarding the reduction of production cost, assembly consequently offers a considerable rationalizing potential. Therefore, an aerodynamic feeding system has been developed at the Institute of Production Systems and Logistics (IFA), Leibniz Universitaet Hannover. In former research activities, this system has been enabled to adjust itself using genetic algorithm. The longer the genetic algorithm is executed the better is the feeding quality. In this paper, the relation between the system`s setting time and the feeding quality is observed and a function which enables the user to achieve the minimum of the total feeding time is presented.

Keywords : aerodynamic feeding system, batch size, optimisation, setting time

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