

Accepted Manuscript

Title: An Energy-Efficient Multi-Objective Optimization for Flexible Job-Shop Scheduling Problem

Authors: Hadi Mokhtari, Aliakbar Hasani

PII: S0098-1354(17)30203-X
DOI: <http://dx.doi.org/doi:10.1016/j.compchemeng.2017.05.004>
Reference: CACE 5806

To appear in: *Computers and Chemical Engineering*

Received date: 7-12-2016
Revised date: 2-5-2017
Accepted date: 6-5-2017



Please cite this article as: Mokhtari, Hadi., & Hasani, Aliakbar., An Energy-Efficient Multi-Objective Optimization for Flexible Job-Shop Scheduling Problem. *Computers and Chemical Engineering* <http://dx.doi.org/10.1016/j.compchemeng.2017.05.004>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

An Energy-Efficient Multi-Objective Optimization for Flexible Job-Shop Scheduling Problem

First author: Hadi Mokhtari

Department of Industrial Engineering, Faculty of Engineering, University of Kashan, Kashan, Iran

Second author: Aliakbar Hasani

School of Industrial Engineering and Management, Shahrood University of Science and Technology, Shahrood, Iran

Highlights:

- Energy consumption model at shop floor level
- Scheduling of both production and maintenance operations
- A multi-objective model
- (i) Total completion time, (ii) Total availability of system, and (iii) Energy consumption objective functions
- Extensive analysis and results

Abstract. In recent years there has been increased concern on energy efficiency of industries. Since the scheduling problems in the shop floors are directly related to the energy consumption, an appropriate way to improve energy efficiency in industrial plants is to develop effective scheduling strategies. Hence, the aim of this paper is to design an energy-efficient scheduling in a shop floor industrial environment, i.e., flexible job-shop scheduling problem (FJSP). To this end, a multi-objective optimization model is developed with three objective functions: (i) minimizing total completion time, (ii) maximizing the total availability of the system, and (iii) minimizing total energy cost of both production and maintenance operations in the FJSP. To cope with this multi-

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات