



Engineering Optimization >

Volume 48, 2016 - [Issue 10](#)

463 | 23 | 0
Views | CrossRef citations to date | Altmetric

Original Articles

A new Nawaz-Enscore-Ham-based heuristic for permutation flow-shop problems with bicriteria of makespan and machine idle time

Weibo Liu, Yan Jin & Mark Price

Pages 1808-1822 | Received 17 Jun 2015, Accepted 06 Jan 2016, Published online: 18 Feb 2016

Cite this article <https://doi.org/10.1080/0305215X.2016.1141202>



Sample our
Engineering & Technology
Journals
>> **Sign in here** to start your access
to the latest two volumes for 14 days

Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

Share

Abstract

A new heuristic based on the Nawaz-Enscore-Ham algorithm is proposed in this article for solving a permutation flow-shop scheduling problem. A new priority rule is proposed by accounting for the average, mean absolute deviation, skewness and kurtosis, in order to fully describe the distribution style of processing times. A new tie-breaking rule is also introduced for achieving effective job insertion with the objective of minimizing both makespan and machine idle time. Statistical tests illustrate better solution quality of the proposed algorithm compared to existing benchmark heuristics.

Keywords:

Acknowledgement

The PhD scholarship supported by the Queen's University Belfast and China Scholarship Council is acknowledged.

Disclosure statement

No potential conflict of interest was reported by the authors.

Related research

People also read

Recommended articles

Cited by
23

Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Keep up to date

Register to receive personalised research and resources by email

 Sign me up

