



528 | 26 | 0
Views | CrossRef citations to date | Altmetric

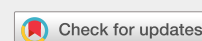
Original Articles

Simulating operator learning during production ramp-up in parallel vs. serial flow production

W. Patrick Neumann  & Per Medbo

Pages 845-857 | Received 10 Jul 2015, Accepted 15 Jul 2016, Published online: 10 Aug 2016

 Cite this article  <https://doi.org/10.1080/00207543.2016.1217362>



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

The aim of this research is to demonstrate how human learning models can be integrated into discrete event simulation to examine ramp-up time differences between serial and parallel flow production strategies. The experimental model examined three levels of learning rate and minimum cycle times. Results show that while the parallel flow system had longer ramp-up times than serial flow systems, they also had higher maximum throughput capacity. As a result, the parallel flow system frequently outperformed lines within the first weeks of operation. There is a critical lack of empirical evidence or methods that would allow designers to accurately determine what the critical learning parameters might be in their specific operations, and further research is needed to create predictive tools in this important area.

Keywords:

Related research

People also read

Recommended articles

Cited by
26

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

