



Funded by the
European Union
NextGenerationEU



European
Digital Innovation
Hubs Network



Advanced Concepts

Helmut Simonis

Constraint Based Production Scheduling





This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>.

This license requires that reusers give credit to the creator. It allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, for noncommercial purposes only. If others modify or adapt the material, they must license the modified material under identical terms.



Acknowledgments



This publication was developed as part of the ENTIRE EDIH project, which received funding from Enterprise Ireland and the European Commission.

Part of this work is based on research conducted with the financial support of Science Foundation Ireland under Grant number 12/RC/2289-P2 at Insight the SFI Research Centre for Data Analytics at UCC, which is co-funded under the European Regional Development Fund.

Part of this work is based on research conducted within the ASSISTANT European project, under the framework program Horizon 2020, ICT-38-2020, Artificial intelligence for manufacturing, grant agreement number 101000165.

Key Points



-

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Outline



Sequence Dependent Setup

Transportation Time

Human Resource Constraints

Energy Cost Aware Scheduling

Premption

Inventory

Alternative Processes/Process Paths

Explainability

Summary



-