

The proposed method has also been applied on a real-world case from a battery packaging machinery workshop in China. The results show that the proposed method can handle real-world cases effectively. ... Integrated planning and scheduling under production uncertainties: bi-level model formulation and hybrid solution method. Comput. Chem. Eng ...

The successful operation of computer-based production planning, scheduling, and controlling are crucial to survival in a competitive and fast-growing market that prevails in most manufacturing industries. Companies need to have a dynamic, offering product options with reducing life cycles and far greater complexities. The use of advanced ...

Production planning and scheduling. Batch production stands as a widely applied process within the chemical production industry, enabling the production of multiple products through a series of steps, which may include complex network-type features such as recycling streams, batch splitting, batch mixing, etc (Wu et al., 2021). In batch ...

Optessa is a leader in intelligent planning, sequencing, and scheduling optimization software with many successful implementations among top tier global manufacturers. Optessa products have wide applicability in industries as diverse as auto OEMs, suppliers, power equipment, electronics, semiconductor, mills; batch process industries such as food and ...

Here, a multi-objective optimization model for the optimal scheduling of hot rolling load considering the actual production operation conditions was proposed, the model was ...

Traditional approaches in production planning and scheduling focus on the allocation of demand to a single factory and obtain sequences of operations on machines in this factory. In the multi-factory or distributed setting, an additional task includes assigning orders to potential factories beforehand. Starting with the first case studies in ...

Chen and Peng (2007) present an MIP model for integrating production planning with shop scheduling. Their model considers capacity constraints, operation sequences, lead times and due dates in a multi-order environment, and aims to minimize the cost of both production idle time ...

The Benefits of Integrated Planning and Scheduling. By integrating production planning and scheduling, manufacturers can achieve better coordination between the two processes. This leads to enhanced visibility, improved accuracy, and streamlined workflows. Imagine a manufacturing operation where production planning and scheduling are disconnected.

Developing, manufacturing and shipping products with ever-changing client needs is challenging. Implementing manufacturing tools like production planning can streamline production while ensuring you deliver high ...

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Simulation will be used to evaluate the impact of energy efficiency measures and process adjustments 15th CIRP Conference on Intelligent Computation in Manufacturing Engineering, CIRP ICME &#226;EUR~21 Production planning and process optimization of a cell finishing process in battery cell manufacturing Johannes Wannera\*, Max Weebera, Kai Peter Birkea,c, ...

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