유연 흐름 생산 라인의 TOC에 기반한 통제

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Abstract

We construct an event-driven hierarchical control model for a Flexible Flow Line and develop a systematic control procedure using the concept of the theory of constraints(TOC).

An equation is suggested to find a bottle-neck of a system. A target production level which improves the existing heuristic solutions is derived. According to a two phase scheme differenciating a bottle-neck and non bottle-neck control, a systematic input sequencing method is developed. Priority dispaching is considerd in an optimization model which is activated with event-driven style. A bottle-neck change is also allowed dynamically.

keywords: Flexible Flow Line(FFL),

TOC(Theory Of Constraints),

Event-driven control.