Patompong Preamyothin 2011: Timed Petri Nets and Model Predictive Control Design for unconstrained Max-Plus Linear Systems in Discrete Event Dynamic Manufacturing. Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering, Department of Electrical Engineering. Thesis Advisor: Associate Professor Peerayot Sanposh, D.Sc. 96 pages.

This research study design and analysis a discrete event dynamic system that has synchronization, but no concurrency feature. In the model analysis model that using timed Petri nets graph and max-plus algebra.

This research interest in design of optimal control to Just-in-times operation without constraint. Including Just-in-times control, Which calculation method of Feeding material and It is developed in real-time control or model predictive control for max-plus linear systems. That is control method of feeding material in real time by modifying the reference value at a rate of production has changed.

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