

International Conference on

Design and Production Engineering

July 25-26, 2016 Berlin, Germany

A comparison between Kanban, CONWIP and hybrid production policies in a just-in time manufacturing system

Ayden Torkabadi

University of Regina, Canada

Achieving the minimum manufacturing costs level is of great importance for organizations to improve the operation margin. Just In-Time (JIT) manufacturing is practiced by many organizations to attain that objective. Reserving minimum Work-In-Process (WIP) through pull production control systems is targeted by JIT systems. This research compares the performance of Kanban, CONWIP and seven proposed hybrid production control systems besides presenting a review on literature in the area. Accordingly, the methods, results and specifications of the production systems of previous researches are discussed in the review. This research considers a multi-level production and assembly line that manufactures multi products. The case selected for the manufacturing model is from auto part industry. The output values for the WIP and other performance measures are achieved by using discrete event computer simulation. Findings from performance comparison of Kanban, CONWIP and proposed hybrid systems are presented.

Biography

Ayden Torkabadi is a PhD candidate at Industrial Systems Engineering department at the University of Regina. He is focusing on the application of Artificial Neural Networks on development of intelligent production control policies. He previously completed his MBA in Malaysia University of Technology where he was focusing on production management. He has a BSc in Industrial Engineering from Iran University Science and Technology.

torkabam@uregina.ca