

Sitthiwat Santikornwanich 2015: Application of Lean Manufacturing System for Productivity Improvement in Electronics Industry. Master of Engineering (Engineering Management), Major Field: Engineering Management, Faculty of Engineering at Si Racha. Thesis Advisor: Associate Professor Chaiwat Numthong, D.Eng. 137 pages.

This research present the application of Lean Manufacturing Systems in order to improve the productivity of electronic equipments production processes. The objectives are to eliminate wastes in the production line, reduce production lead time and work in process. Lean tools and methods such line balancing, production line layout, setup line reduction, and production continuous flow are implemented to meet the small lot size of customer orders. In addition, Information Technology has played an important role to be used for supporting production management. Electronics-Kanban is developed to increase efficiency of material flow control, centralize buffer, and supermarket system to enable for flexible manufacturing and respond customer need effectively. The results of this research can reduce the production lead time 82.01 %, work in process 81.97 %, increase production efficiency 44.60 % and 10.00 % of customer on time delivery respectively. Furthermore, production costs are diminished about 8,505,360 Baht per year.

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Thesis Advisor's signature