NAPISPORN KUENTAK: SHOP FLOOR SCHEDULING BY SIMULATION. THESIS ADVISOR: ASSO.PROF. SIRICHAN THONGPRASERT, Ph.D., TATCHAPOL POSHYANONDA, Ph.D., 212 PP. ISBN 974-578-779-5

The main objective of this thesis is to determine an appropriate production schedule in a feed mill factory by simulation method in order to reduce downtime which causes by waiting, to supply a new production schedule when there are changes in the production constraints, and to be a part of a production management information system.

The system operations and criteria are acquired from the knowledge of the experts, production details, equipment's and machine's limitations, and heuristics obtained from running a simulation model.

The system reduces the requirement of operators' skill and downtime at operations, especially at mixer operation, which is a bottleneck of the plant. It creates an appropriate production schedule as a production constraints change. In addition, the system can be applied to other feed mill factories by modifying heuristics represented in the knowledge-base.