C215238 : MAJOR CIVIL ENGINEERING
KEY WORD: PLANNING / REPETITIVE CONSTRUCTION / HEURISTIC METHOD
SOONTORN DIEWSURIN : A HEURISTIC METHOD FOR PLANNING REPETITIVE CONSTRUCTION. THESIS ADVISOR : ASSIST. PROF. PING KUNAWATSATIT, Ph.D. 284 pp. ISBN 974-582-051-2

The aim of this thesis is to develop a planning method for repetitive construction project utilizing the computer program. The repetitive construction can be divided to different stages which have the same operation. The activity may have the different quantities of work in the different stages and it may be splitted between stages but it must follow the sequence of operation. The critical path method and bar chart method are used in this study. The start time of activity in each stage is selected from three different assumptions; i.e., the duration of activity is shorter than, longer than, and equal to the preceding activity.

The resource allocation is applied to locate manpower and equipment under resource constraint by heuristic method which arranges the set of sequence activities in each time period by the priority rules. The tested construction projects are conformed to the actual operational results.

A line of balance technique is also used to control and analyse the project during the construction time.