

4037651 EGTI/M : MAJOR : TECHNOLOGY OF INFORMATION SYSTEM  
MANAGEMENT; M.Sc. (TECHNOLOGY OF INFORMATION  
SYSTEM MANAGEMENT)

KEY WORDS : CAI / COMPUTER ASSISTED INSTRUCTION

BURASAKORN SUNKAMIN : COMPUTER ASSISTED INSTRUCTION FOR  
DIGITAL CIRCUIT DESIGN. THESIS ADVISORS : WORAWIT ISARANGKUL M.S.,  
WANCHAI RIVEPIBOON Ph.D., CHUMCHOK NAMSRIKULRAT M.Eng.,  
103 p. ISBN 974-662-353-2

The purpose of this study was to develop computer assisted instruction for Digital Circuit Design with appropriate computer assisted instruction tools. Effectiveness of the computer assisted instruction program was assessed by comparing an experimental group's and a control group's pretest and posttest mean scores on a digital circuit design test. The opinion of the experimental group towards the computer assisted instruction was also evaluated. Asymetrix Toolbook II Instruction 5.01 was employed as a tool to construct the computer assisted instruction. The subjects were 50 students in Agricultural Engineering and Technology Faculty, Rajamangala Institute of Technology. Twenty-five subjects were randomly assigned as the experimental group which used the computer assisted instruction and listened to lecture. The other 25 subjects were assigned as the control group which learned by listening to lecture only. The results show that for both the experimental and the control groups, pretest and posttest mean scores were significantly different at 0.05 level. Furthermore, the posttest mean score of the experimental group was significantly different at the 0.05 level from that of the control group. The mean posttest score of the experimental group was higher than the mean posttest score of the control group. Almost all the students in the experimental group had good opinion towards the computer assisted instruction.