

C215321 : MAJOR TRAFFIC AND TRANSPORT ENGINEERING

KEY WORD: TRAFFIC SUMULATION / MAJOR CONFERENCE / BANGKOK

SARUN NILTISAN : TRAFFIC SIMULATION FOR A MAJOR CONFERENCE : A CASE STUDY OF WORLD BANK MEETING IN BANGKOK METROPOLIS. THESIS ADVISOR : ASSO. PROF. KUNCHIT PHIU-NUAL, DR. ENG. 194 PP. ISBN 974-584-166-8

The aim of this research is to simulate traffic condition in Bangkok. Metropolis Area during a period of time when a great number of participants and their companions were attending at the World Bank meeting in 1991. The work was carried out by using SATURN program (Simulation and Assignment of Traffic to Urban Road Networks). The SATURN program was one of a very effective computer model for simulation and also analysis and evaluation of traffic management schemes.

In the study, node-link system was used in developing the network. The selected detail study area in Bangkok covered the connected routes from places where the participants and their companions accommodated to the meeting point at the Conference Building, and the affected nearby areas. The whole area was sub-divided into 52 smaller zones depending upon the nature of the network. The base year trip matrix were estimated from observed traffic counts employing matrix estimation using Maximum Entropy method. Validations were then tested by analyzing the outputs from the assignment stages. Comparisons were made between the simulated and assigned traffic volume counts, and the differences were evaluated before the best choice was determined. Finally, the two simulations of the acquired present traffic condition and that of the time of the conference were run through SATURN.

Form this study the SATURN program was found to be one of the effective tools with good and sophisticated traffic assignment model for large scale network analysis. It is in deed applicable since the program requied less data than normal traffic simulation models.