

THE CHARGING SIMULATION AND ANALYSIS BY
NUMBERING SYSTEM

AELINDA BT MOHD SHUKUR

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

**THE CHARGING SIMULATION AND ANALYSIS BY
NUMBERING SYSTEM**

**This thesis is presented in partial fulfillment for the award of the
Bachelor of Electrical Engineering (Honour)
UNIVERSITI TEKNOLOGI MARA**

**By:
AZLINDA BT MOHD SHUKUR
Faculty of Electrical Engineering
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM
SELANGOR**

ACKNOWLEDGEMENT

I would like to express my gratitude to my project advisor Puan Norashimah Khadri for her supervision, encouragement and essential advice for this dissertation. I would also like to thank Ir. Muhammad for his opinion and give some information of this project.

My is sincere appreciation to Mr. Ghouse Meah, Mr. Azman, Mr Hamid and all Telekom staffs at Raja Chulan Digital Trunk Exchange (RCDT).

My deepest grace goes to my family for the boundless supports and patience towards the completion of this dissertation.

Lastly not forgetting, I wish to convey my thanks to Faculty of Electrical Engineering through the knowledge benefited and to all my friends who have indirectly contributed to this project.

The kindness, cooperation and supports from all of the above mentioned people will always be remembered.

Azlinda Bt Mohd Shukur
Faculty of Electrical Engineering
Universiti Teknologi MARA
40450 Shah Alam
Selangor
30 MARCH 2002

ABSTRACT

Charging is a key function since it is the means of translating network traffic into revenue (from the network operators' perspective). It is essential that accurate and detailed charging data is available for billing and statistical purposes. This project discusses the analysis on values of CC (Charging case), CHP (Charging Program), TC (tariff class), T (tariff) and SWC (switching category) at different type of call (local, national or trunk call), and measures the charge at the Raja Chulan Digital Trunk (RCDT) Exchange. The simulation was done using Visual Basic 6.0. It also discusses on which exchange will involved to capture the subscribers' information for evaluate the charge.

TABLE OF CONTENTS

Declaration	i
Acknowledgement	ii
Abstract	iii
List of Figures	vii
List of Abbreviations	viii

CHAPTER	DESCRIPTION	PAGE
1	INTRODUCTION	
	1.1 Introduction	1
	1.2 Basic Charging Function	1
	1.2.1 Charging Analysis	2
	1.2.2 Charging Program	2
	1.2.3 Pulse Metering	3
	1.2.4 Toll Ticketing	4
	1.3 Accounting	4
	1.3.1 Accounting Analysis	5
	1.4 Scope of the Project	5
2	AXE EXCHANGE	
	2.1 Introduction	6
	2.2 Application supported by the Local Exchange	6
	2.3 AXE Structure	9
	2.4 Access and Services	10
	2.4.1 Subscriber Switching Subsystem (SSS)	11
	2.4.2 Subscriber Control Subsystem (SCS)	13
	2.4.3 Subscriber Services Subsystem (SUS)	15
	2.4.4 Business Group Subsystem (BGS)	15