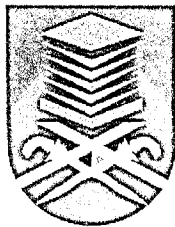


**AN INVESTIGATION ON A TMNET ISDN TRAFFIC
IN SHAH ALAM**

**This thesis is presented in partial fulfillment for the award of
the Bachelor of Electrical (Honors)
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ABSTRACT

This paper is about an investigation on TMNET integrated services digital network (ISDN) traffic in Shah Alam. Traffic analysis is very important to network operations. The results obtained from traffic analysis can be used to improve the grade of service (GOS). Analysis is for a period of 8months, starting from August 2002 until March 2003.

TABLE OF CONTENTS

CHAPTER	DESCRIPTION	PAGE
1	INTRODUCTION	
	1.1 Introduction	1
	1.2 Project Background	4
	1.3 Project Objectives	4
	1.4 Project Overview	5
2	TRAFFIC THEORY	
	2.1 Introduction	6
	2.2 ISDN	7
	2.2.1 Internet traffic in ISDN	8
	2.3 Basic Theory of Teletraffic Engineering	9
	2.3.1 The Traffic Concept	9
	2.3.2 General concept of traffic Engineering	9
	2.3.3 Functions / Roles Traffic Engineering.	10
	2.4 The unit of traffic	11
	2.5 Congestion	14
	2.6 Traffic measurement	16
	2.7 Lost-call systems	16
	2.8 Traffic performance	17
	2.9 Loss systems in tandem	20
3	APPLICATION SOFTWARE	
	3.1 Introduction	22
	3.2 Programming with Visual basic	23
	3.2.1 Logic structure of Visual Basic	23
4	RESULTS AND DISCUSSION	
	4.1 Analysis based on Busy hour	27
	4.2 Analysis based on grade of service	32
	4.3 Software Development	37
	4.3.1 Introduction	37
	4.3.2 Future development	40
	4.3.2 The main menu	40
	4.3.3 The call option	41
	4.3.4 The traffic option	43
	4.3.5 The graph of busy hour option	45
	4.3.6 The Graph of call option	47
	4.3.7 The GOS option	49

CHAPTER 1

INTRODUCTION

1.1 Introduction

When any industrial plant is to be designed, an initial decision must be made as to its size, in order to obtain the throughput. For an oil refinery, this number of barrels per day; for a machine shop, it is the traffic to be handled. This determines the number of trunks to be provided.

In teletraffic engineering the term trunk is used to describe any entity that will carry one call. It may be an international circuit with a length of thousands of kilometers or a few meters of wire between switches in the same telephone exchange. The arrangement of trunks and switches within a telephone exchange is called its trunking.

If record is made over a few minutes of the number of the calls in progress on a large telecommunication system, such a telephone exchange or a transmission route, it appears as shown in figure 1.0. The number of calls varies in random manner, as individual calls begin and end.

If this random variation is smoothed out by taking a running average, the number of calls in progress is found to vary during the day, For example as shown in figure 1.1. There are very few calls during the night. The number of calls rises as people get to work and reaches a maximum by the middle of the morning. It falls at mid-day, as people go to lunch, and it rises again in the afternoon. It decreases as people go home from work and it has a further peak in the evening as people make social calls.