BASE TRANSCEIVER STATION INTEGRATION

NORUL AMIN B. MOHD NOR

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

BASE TRANCEIVER STATION INTEGRATION

This project is presented in partial of fulfillment for the award of
Bachelor of Electrical Engineering (Hons)
UNIVERSITI TEKNOLOGI MARA

NORUL AMIN B. MOHD NOR
Faculty of Electrical Engineering
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM, SELANGOR

Abstract

This project paper presents the process that involved in implementation of Base Transceiver Station (BTS) of Global System for Mobile (GSM) network. The processes include of planning, design, survey, installation and measurement equipment use in the process.

After undergoing these processes, the BTS is integrated to the TIMECel network. Data analysis is performed after the integration. The result of the analysis will be used to optimize network utilization.

ACKNOWLEDGEMENTS

I would like to thank my supervisor Pn. Norasimah Khadri for her kindness, support and suggestion in order to finish this project report.

I would also like to express my thanks to TimeCel Cell Planning and Project department staff especially to Mr. Amran Abdul Latiff for their help and co-operation to finish this project. Thank you very much.

TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION	
	1.1 Introduction	1
	1.2 Scope of the Project Report	2
	1.3 Organization of the Project Report	2
II	GLOBAL SYSTEM FOR MOBILE (GSM)	
	2.1 Introduction	3
	2.2 Basic Principle of GSM Network	4
	2.3 Network Switching Subsystem (NSS)	5
	2.4 Base Station Subsystem (BSS)	7
	2.5 Network Management Subsystem (NSS)	8
III	NETWORK PLANNING	
	3.1 Introduction	10
	3.2 Coverage Planning	10
	3.2.1 Digital Map	12
	3.2.2 Field Strength Measurement	14
	3.3 Frequency Planning	17