



UNIVERSITI TEKNOLOGI MARA

**CADASTRAL DATABASE UPDATING: A
PROPOSE METHOD OF LEGACY CADASTRAL
DATA COMBINATION.**

MOHAMAD SAIFUL BIN ABDULLAH

Thesis submitted in fulfilment of
requirements for the degree of
Bachelor of Surveying Science and Geomatics (Hons)


Faculty of Architecture, Planning and Surveying

February 2021

AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Postgraduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : Mohamad Saiful b. Abdullah
Student I.D. No. : 2016522937
Programme : Bachelor of Surveying Science and
Geomatics (Honours) – AP220
Faculty : Architecture, Planning & Surveying
Thesis/Dissertation Title : Cadastral Database Accurate Improvement: A
propose method of legacy cadastral data
combination.
Signature of Student : 
Date : 19/2/2021

ABSTRACT

NDCDB is one of the databased which have developed at JUPEM for the purpose of survey data storage. Before the databased upgrade, the data survey was in hardcopy which contain various data legacy. The change of the system was recommending the NDCDB as the databased to control survey data. However, this databased not fair to low accuracy legacy dataset which is ignore the dataset 3rd class. Low accuracy for 3rd class will be affect other hight accuracy dataset. For the updating the databased should appear the lot 3rd class. Effect for hight accuracy dataset can be reduce with use the appropriate weight. Aim of this study are to produce new dataset National Digital Cadastral Survey Database (NDCDB) show all geometry or lot legacy dataset without any bias. To achieve the aim, the objective of this study is to analyse effect of legacy class survey 3rd class in combination dataset using bearing, investigate effect of weight use for 3rd class in survey class using angle method. Proposed value of weight in data legacy in dataset for 3rd class survey based on input bearing and angle observation. The study area will be carried out at Perlis Malaysia. To accomplish the objective, this software; Star*Net are used to process the data which must determine the standard deviation and residual of the error. This study will help the Department of Survey and Mapping Malaysia (JUPEM) in improve the database NDCDB with the data combination legacy data survey.

ACKNOWLEDGEMENT

First and foremost, praise and thanks to God, the Almighty, for His blessing throughout my research work has completed this research. I would like to express my sincere and sincere thanks to my research supervisor, Sr. Norshahrizan bin Hashim and course coordinator Dr. Ernieza Suhana binti Mokhtar for providing me with the opportunity to conduct research and provide invaluable guidance throughout this research. His dynamism, vision, sincerity, and motivation really inspired me. He has taught me the methodology of conducting research and presents as much clear research work as possible. It is a great privilege and honor to work and study under his guidance. I am very grateful for what he has to offer me. I would also like to thank her for her empathy, and her respect during my discussions with her on the research and preparation of the thesis. I am very grateful to my parents for their love, prayers, attention, and sacrifice for educating and preparing me for my future. I thank all those involved directly and indirectly for their support during my research work. I would also like to thank all the staff of the Universiti Teknologi Mara (UITM) for their valuable cooperation.

TABLE OF CONTENT

	Page
CONFIRMATION BY PANEL OF EXAMINERS	
SUPERVISOR'S DECLARATION	
ABSTRACT	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENT	iv
LIST OF TABLES	vi
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS / NOMENCLATURE	ix
CHAPTER 1	1
INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Statement	3
1.3 Research Question	4
1.4 Aim and Objectives	4
1.5 Scope of Study	5
1.6 Significant of Research	5
1.7 Summary	5
CHAPTER 2	6
LITERATURE REVIEW	6
2.1 Introduction	6
2.2 Cadastral Database System	6
2.3 Data Accuracy Assessment on NDCDB Block	7
2.3.1 Angular based least square adjustment	7
2.3.2 Legacy cadastral data combination	8
2.4 Data modelling of cadastral database	9
CHAPTER 3	10
3.1 Introduction	10
3.2 Flow Chart	11
3.3 Preliminary study	12
3.3.1 Study Area	12