

MONOGRAF



Compiled by:

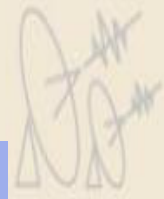
PROF. DR. ABD. MAJID BIN A. KADIR
DR. ABDULLAH HISAM BIN OMAR

Faculty of Geoinformations Science and Engineering.
Universiti Teknologi Malaysia
81310 UTM, Skudai

Based On:

GEOGRAPHIC INFORMATION SYSTEM AND SCIENCE
PA Longley, MF Goodchild, DJ Maguire, DW Rhind
John Wiley, 2000

OKTOBER 2005



$$v+i = Ax$$
$$v^T P v \rightarrow \min$$
$$x = (A^T P A)^{-1} A^T P i$$

SISTEM MAKLUMAT GEOGRAFI II: *Subject Outline*

Lectures:

Lecture 1	GIS SOFTWARE Introduction The Evolution of GIS Software Architecture of GIS Software Types of GIS Software Systems Tugasan 1
Lecture 2	GEOGRAPHIC DATA MODELLING Introduction GIS Data Models Example of Water Facility Object Data Model Geographic Data Modeling in Practice Tugasan 2
Lecture 3	GIS DATA COLLECTION Introduction Primary Geographic Data Capture Secondary Geographic Data Capture Obtaining Data From External Sources Capturing Attribute Data Managing a Data Capture Project Tugasan 3
Lecture 4	CREATING AND MAINTAINING GEOGRAPHIC DATABASES Introduction Database Management Systems Storing Data in DBMS Tables SQL Geographic Database Types and Functions Geographic Database Design Structuring Geographic Information Editing and Maintenance Multi-User Editing of Continuous Databases Tugasan 4

Lecture 5	VISUALIZATION AND USER INTERACTION Introduction Visualization Conventions and Techniques Interacting with Representations Through Visualization Re-modeling Spatial Distributions Multivariate Mapping Applications Tugasan 5
Lecture 6	GEOGRAPHIC QUERY AND ANALYSIS Introduction Queries and Reasoning Measurements Transformation Tugasan 6
Lecture 7	ADVANCED SPATIAL ANALYSIS More Spatial Analysis Descriptive Summaries Optimization Hypothesis Testing Tugasan 7
Lecture 8	UNCERTAINTY, ERROR AND SENSITIVITY Statistical Models of Uncertainty Error Propagation Fuzzy Approaches Living With Uncertainty Tugasan 8

Text Book:

Geographic Information System and Science, PA Longley etc, John Wiley, 2000