

## Guideline to prepare Msc.Geoinformatic Dissertation

This document provides guidelines for writing and evaluating the technical specifications for an Msc.Geoinformatic Dissertation. It is targeted toward individuals and organizations with limited remote sensing expertise. We will present some examples that could be used for a Mini-project. Not all specification possibilities will be covered but the intent is to provide a reasonable framework from which specifications for a remote sensing & GIS project could be developed.

### **Writing the specification**

The purpose of the technical specification is to provide specific information about the how the project will be carried out with details about the products that will be delivered. The technical specification should include the following sections

### **Front Page**

Page 1	Title Page
Page 2	Certificate
Page 3	Acknowledgement
Page 4	Contents
Page 5	Abstract
Page 6	List of Figures/ Tables/Screens
Page 7	Symbols & Abbreviations

### **CONTENTS**

Abstract
List of Figures
List of Tables
List of Screens
Symbols & Abbreviations

### **1.1 Introduction**

- 1.2 Define the “Research Problem”
- 1.1 Research Motivation
- 1.3 Objectives of the Present Study
- 1.4 Research Questions

### **2. Review of Literature**

### **3. Study Area**

- 3.1 Location and Extent

- 3.2 Climate
- 3.3 Geomorphology
  - 3.3.1 Soil
  - 3.3.2 Minerals
- 3.4 Forests
- 3.5 Demography
- 3.6 Water Resources
- 3.7 Topography
- 3.8 Flora and Fauna

#### **4. Materials & Methods**

- 4.1 Spatial Data
- 4.2 Non- Spatial Data
- 4.3 Instruments / Field Equipment/ Materials
- 4.4 Software Used
- 4.5 Data Processing
  - 4.5.1 standardization of Data
  - 4.5.2 data Processing In Gis
    - 4.5.2.1 Digitization
    - 4.5.2.2 Generation of Base Layers
    - 4.5.2.3 Generation Different Maps Related To Research
  - 4.5 Overall Research Methodology
    - 4.5.1 Steps In Analysis. Include A Flowchart (Required).

#### **5. Field Work**

- 5.1 Two or Three Days Field Trip
- 5.2 Collection of Sample from Study Area /Collect Gps Point/Ground Truthing

#### **6. Results and Analysis**

- 6.1 Final Report
- 6.2 Presentations
- 6.3 Present Summary Statistics, Maps

#### **7. Discussions**

#### **8. Conclusion**

- 8.1 Overall Conclusion
  - 8.2 GIS Advantages and Limitations in the Application Area
  - 8.3 Future Developments

### **REFERENCES / BIBLIOGRAPHY**

1. Author Name, Title of Paper/ Book, Publisher's Name, Year of publication
2. Full URL Address

## **Typing and Binding of Research Project Report**

### **Font**

1. Chapter Names - 16 TIMES NEW ROMAN (Bold) All Caps
2. Headings - 14 TIMES NEW ROMAN (Bold) All Caps
3. Subheadings - 14 TIMES NEW ROMAN (Bold) Title Case
4. Sub –Sub Headings - 12 TIMES NEW ROMAN (Bold) Title Case
5. Body of Project - 12 TIMES NEW ROMAN
6. Text in Diagrams - 12 TIMES NEW ROMAN (All Lower Case)
7. Diagrams / Table Headings / Fig. Headings - 12' TIMES NEW ROMAN Title Case
8. If Any Text 12' TIMES NEW ROMAN (Title Case)

### **Spacing**

1. Two (2) Line Spacing between Heading and Body Text.
2. Line Spacing In Body Text should be 1.5.
3. New Paragraphs Start With Single Tab.

### **Margins**

Left 1.5'                      Right 1.0'  
Top 1.0'                      Bottom 1.0'

### **Page Numbers**

Position Bottom, Middle

1. Front Pages Small Roman Numbers  
(Excluding Title Page, Certificate Page, Acknowledgement Page)
2. Body Pages 1, 2, 3 .....
3. Annexure 1, 2, 3.....  
(Separate For Each Annexure)

**Pages:** Bond Paper      **Size:** A4Paper      **Color:** White

**Documentation:** Spiral Binding

**Project Report Should Not Exceed More Than 80 Pages**

A Project Report

On

<<Title of the Project>>

In partial fulfillment for the award of the degree of

Master of Science

In

<<Geoinformatics>>

<<Your Study Center Name In Caps>>

Submitted

To



Uttarakhand Open University  
Haldwani (Nainital) Uttarakhand

2012

Submitted By  
<<Name of the Student>>

Under the Guidance  
<< Guide Name>>

<< Enrollment No >>

<< Designation >>

BONAFIDE CERTIFICATE

This is to certify that the project report titled <<Project Title >> is being submitted by << student Name >>, Bearing << Enrollment No>>, in PGDC/ MGIS/ - semester is record bonatide work carried out by them. The results embodied in this report have not been submitted to any other university for the award of any degree.

<< Supervisor>>

<< Coordinator>>

## **Data Specifications**

In This Section The Detailed Specifications Of Any Data, Such As Maps And Images, Are Laid Out. These Details Can Include The Following:

- Acceptable Cloud Cover In Original Imagery (Average Cloud Cover Over The Study Area Must Be Less Than 20%, However, The Study Area Must Be Cloud Free)
- Projection Information (All Satellite Imagery Used During The Project And Final Maps Produced During The Project Will Be Delivered With Predefine Projection System Like (Utm Zone N /PolyconicUsing The Wgs 84 Datum)
- File Formats (All Imagery Must Be Delivered In Geotiff/.Img Format And Vector Data Must Be In Shapefile Format With Accompanying Projection [.Prj] File),
- Storage Media For Delivery (All Data Will Be Delivered On Dvd-R Disks),

### **Get free Satellite Image (Landsat) Download for Internet:-**

1- USGS Earth Explorer

2-Global Land Cover Facility (GLCF)

3-USGS Global Visualization Viewer (Glovis)

### **USGS Global Visualization Viewer (GLOVis)**

([www.glovis.usgs.gov/](http://www.glovis.usgs.gov/) )

- USGS Global Visualization Viewer (Glovis) Is A Quick And Easy Online Search And Order Tool.
- The Viewer Allows User-Friendly Access To Browse Images From Various Satellites And Sensors.
- The User Can Select Any Area Of Interest And Immediately View All Available Images For The Specified Location.
- Glovis Offers Additional Features Such As Cloud Cover Limits, Date Limits, User-Specified Map Layer Displays, Scene List Maintenance, And Access To Metadata.
- An Ordering Interface Is Provided For Data That Have Processing Options Available.
- A Downloading Interface Is Provided For Datasets That Are Available At No Charge.

## **Download Free Vector / DEM Data**

<http://www.diva-gis.org/Data>

### 1. Free Spatial Data Country Level

Download Country Level Data For Any Country In The World: Administrative Boundaries, Roads, Railroads, Altitude, Land Cover, and Population Density.

### 2. Global Level

A New File with the (2011) Global Country Boundaries

### 3. Global Climate Data

See Worldclim or Diva-Gis Specific Data Here