

REMOTE SENSING SURVEY
TECHNIQUES

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REMOTE SENSING SURVEY TECHNIQUES

By

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	viii
	ix
	i
CHAPTER I Introduction and literature on remote sensing.	
1.0 General introduction.	
1.1 Introduction to surveying techniques	2
1.2 Brief literature on remote sensing	4
CHAPTER II Energy, film and their sensors.	26
2.0 Energy	10
Electromagnetic energy. Electromagnetic spectrum. Atmospheric effect on electromagnetic waves. Radiation of energy. Energy interaction with earth's surface features.	
2.1 Films	27
Film and emulsion properties. Black-and-white aerial film. Colour aerial film - normal colour and colour IR. Filters.	
2.2 Sensors	37
Types of sensors and their energy. Ultra violet, visible and reflected IR sensors - Types of photographic cameras; framing cameras, panoramic cameras, strip cameras, multi-spectral camera.	

CONTENTS	viii
PREFACE	ix
CHAPTER I Introduction and literature on remote sensing.	1
1.0 General introduction.	1
1.1 Introduction to Surveying Techniques	2
1.2 A Brief Literature on remote sensing	4
CHAPTER II Energy, Film and Their Sensors.	16
2.0 Energy	16
Electromagnetic energy. Electromagnetic spectrum. Atmospheric effect on Electromagnetic waves. Radiation of energy. Energy interaction with earth surface features.	
2.1 Films	27
Film and emulsion properties. Black-and-white aerial film. Colour aerial film - normal colour and colour IR. Filters.	
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Thermal IR sensors - infrared radiometer
(thermal radiometer), thermal cameras.
Microwave sensing - microwave radiometer,
Radar. Sensors on board the Landsat -
multispectral scanners (MSS). Satellite
beam viewer (SBV) camera. Reception of
Landsat data. Other earth resources
platforms and systems.

CHAPTER III Basic interpretation equipment.	64
3.0 Introduction.	64
3.1 Selection of equipment.	65
3.2 Viewing equipment.	67
Stereoscopic viewing instruments, stereoscopic viewer with polarizers, non stereoscopic viewing instruments.	
3.3 Measuring equipment.	68
Linear measuring instruments, area measuring instruments, height measuring instruments. Plotting equipment - stereoscopic plotter, non stereoscopic plotter.	
3.4 Equipment for transfer of details.	71
3.5 Other important instruments.	75
CHAPTER IV Data interpretation techniques and data preprocessing.	80
4.0 Introduction.	82

4.1 Elements and factors influencing interpretation.	15
4.2 Preparation:	20
4.21 Ground truth	20
4.22 Mosaic	21
4.3 Sequence and methods of interpretation	22
4.4 Measurement and plotting techniques	27
4.5 Enhancement techniques	100
4.51 Density slicing - photographic techniques, electronic and microdensitometer techniques.	102
4.52 Edge enhancement - photographic techniques, video and computer techniques.	112
4.53 Image masking and combination - photographic techniques, optical techniques, computer techniques.	115
4.54 Contrast stretching - photographic techniques, computer techniques.	122
4.6 Computer automatic interpretation techniques - general consideration, supervised training, unsupervised training (clustering techniques).	125
4.7 Output of classification - map output, tabular output, graphical output.	135
4.8 Data preprocessing - general	139

consideration, photographic processing, optical and digital conversion, analogue to digital conversion, digital to analogue conversion, geometric correction, radiometric correction, the reduction of noise.

CHAPTER 5	General application of remote sensing.	147
5.0	Introduction	148
5.1	Aerial photographic application.	149
5.2	Application of thermal scanner imagery.	151
5.3	Application of M.I.R. imagery.	154
5.4	Application of passive microwave sensing.	155
5.5	Application of Landsat imagery.	156
CHAPTER 6	Selected applications of remote sensing.	159
6.0	General introduction.	159
6.1	Remote sensing application to highway engineering survey and design.	159
6.10	Introduction.	160
6.11	Data and interpretation techniques.	161
6.12	Prefeasibility and feasibility studies and factors involved in design consideration.	171
6.13	Detailed survey - Soil strength, construction materials, drainage and rivercrossing, earthworks.	174
6.14	Application of Landsat imagery to road project in Sudan.	181

6.15 Application of aerial photography to road projects - aerial photographic application in South West Africa, aerial photographic application in Malaysia.	189
6.16 Application of remote sensing in other countries.	192
6.2 Remote sensing application to plant species identification in agriculture and forestry.	195
CHAPTER VII Discussion and conclusion.	198
Discussion	198
Conclusion	208
APPENDIX	211
REFERENCES	224

Remote sensing survey techniques are concerned with the detection and recording of radiant energy within the electromagnetic spectrum, and analyzing this data to obtain useful information about earth features.

This survey technique has been used in both military and civilian connections. Successful applications have been made in many fields of studies, for example highway engineering and planning, agriculture and forestry.

The technology for acquiring remotely-sensed data and the interpretation techniques required for converting it into usable information are being continuously developed. A combination of data available from different types of sensor systems and a combination of interpretation techniques with ground truth information and field experience should provide the best means of identifying the earth from the air. Black-and-white, and colour aerial photographs are most commonly used for interpretation purposes. Colour aerial photographs generally provide much more information than the original black-and-white.

This report discusses briefly the type of sensing systems and the way in which they work; their advantages and disadvantages. These sensors observe the way various earth surface features emit and reflect electromagnetic energy.

Electromagnetic spectrum, atmospheric attenuation, emission and reflection of electromagnetic energy, the selection of filters, the band use and their characteristics-