

Ain Shams University  
Faculty of Engineering

DESIGN OF GEODETIC NETWORKS FOR MONITORING RECENT  
CRUSTAL MOVEMENTS USING THE  
OPTIMIZATION THEORY

By

ENG. ASHRAF EL-KUTB MOUSA

A THESIS

Submitted in partial fulfillment of the  
requirement for the Degree of M. Sc.

In Civil Engineering

Public Works - Surveying

Supervised by

Prof. Dr. Mohamed M. Nassar

Prof Of Surveying And Geodesy

Faculty Of Engineering

Ain Shams University

Prof. Dr. Ali A. Tealeb

Prof Of Geophysics

NRIAG- Helwan

Cairo - 1992

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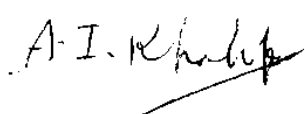
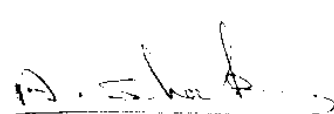

Prof. Dr. M. M. Nassar  
Prof. of Surveying  
Faculty of Engineering  
Ain Shams University

Prof. Dr. A. A. Tealeb  
Prof. of Geophysics  
NRIAG., Helwan

Cairo - 1982



Examiners Committee :

<u>Name, Title &amp; Affiliation :</u>	<u>Signature</u>
1- Prof. Dr. Ahmed I. Khalifa Prof. of Surveying Faculty of Engineering El-Azhar University	
2- Prof. Dr. Ahmed A. Shaker Prof. of Surveying Faculty of Engineering Zagazig University	
3- Prof. Dr. Mohamed M. Nassar Prof. of Surveying Faculty of Engineering Ain Shams University	

Date :    /    /    1982

### STATEMENT

This dissertation is submitted to Ain Shams University for the degree of M. Sc. in Civil Engineering.

The work included in this thesis was carried out by the author in the Department of Public works, Ain Shams University, from 1988 to 1992.

No part of this thesis has been submitted for a degree or a qualification at any other University or Institution.

Date : 1-3-1992

Signature : Ashraf EL-Kutb Mousa

Name : Ashraf EL-Kutb Mousa.

صفحة تعريف بمقدم الرسالة

=====

الأسم : أشرف القطب موسى

تاريخ الميلاد : ٢٤ / ٨ / ١٩٦٤

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مساعد باحث بالمعهد القومى للبحوث الفلكية والجيوفيزيكية

التوقيع : أشرف القطب موسى

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## TABLE OF CONTENTS

List Of Figures	Page
List Of Tables	VI
Abstract	IX
	X
<u>CHAPTER 1</u>	
Introduction	1
1-1 Background	1
1-2 Basic Motivation Behind The Current Study.	3
1-3 Objective Of The Thesis.	10
1-4 Scope Of The Thesis.	10
<u>CHAPTER 2</u>	
Strategies For Recent Crustal Movement Studies And Deformation Analysis	13
2-1 Importance And Special Requirements For Monitoring Crustal Deformations.	14
2-1-1 Importance Of Monitoring Crustal Deformations.	14
2-1-2 Special Requirements Of Crustal Deformation Measurements.	15
2-2 Internal Structure Of The Earth.	16
2-3 Types And Causes Of Crustal Movements.	18
2-3-1 Causes Of Global And Regional Crustal Movements.	19
2-3-1-1 Plate Tectonics.	21
2-3-1-2 Associated Earthquake Activities.	26
2-3-2 Causes Of Local Crustal Movements.	30
2-3-2-1 Natural Causes.	30
2-3-2-2 Man-Made Causes	33
2-4 Implication Of Crustal Movements In The Egyptian Territory.	34
2-5 Crustal Movement Monitoring Techniques.	45
2-5-1 Continuous Monitoring Techniques.	46

## Contents (Cont.)

	Page
2-5-2 Discontinues Monitoring Techniques.	50
2-5-3 Other Techniques For Monitoring Crustal Crustal Deformations.	55
2-6 Basic Deformation Parameters.	56
2-7 Functional Relationship Between The Deformation Parameters And Observed Quantities.	62
 <u>CHAPTER 3</u>	 69
Fundamentals Of Optimization Theory	
3-1 Basic Deformations.	69
3-2 Optimization Procedure.	70
3-3 Optimization Solution Algorithms.	72
3-4 Differential Solution.	75
3-4-1 Unconstrained Problems	77
3-4-2 Constrained Problems.	77
3-4-2-1 Equality Constraints.	79
3-4-2-2 Inequality Constrains.	81
3-5 Numerical Solution.	84
3-5-1 Classification	84
3-5-2 Standard Form Of The Linear Programming Problems.	84
3-5-3 Conversion To The Standard Form Of L.P.P..	87
3-5-4 Simplex Algorithm Solution.	89
3-5-4-1 Initial Solution Requirement.	89
3-5-4-2 Testing The Solution Optimality.	91
3-5-4-3 Simplex Algorithm Procedure.	91
3-5 Resulting Cases Of The L.P.P. Solution.	92
3-5-5-1 Alternative Optimal Solution.	94
3-5-5-2 Unbounded Solution.	94.
 <u>CHAPTER 4</u>	 96
Measures Of Quality For Geodetic Networks.	
4-1 Definition Of Quality And Its Different Measures.	97

## Contents (Cont.)

	Page
4-2 Basic Elements Of Least Adjustment Of Geodetic Networks.	99
4-2-1 Parametric Least Squares Adjustment.	100
4-2-2 Conditional Least Squares Adjustment.	104
4-3 Hypothesis Testing.	107
4-4 Outliers Detection.	111
4-4-1 Preliminary Outliers Detection.	113
4-4-1-1 Testing The Disclosure Of Condition Equations.	113
4-4-1-2 Testing The Ratio Of Aposteriori And Apriori Variance Factors.	114
4-4-2 Post Adjustment Data Snooping.	116
4-4-2-1 Classical Approach.	116
4-4-2-2 Baarda Approach.	117
4-4-2-3 Pope Approach.	122
4-5 Precision Criterion.	123
4-5-1 Local Measures Of Precision.	123
4-5-1-1 Standard Error Of Coordinates.	124
4-5-1-2 Absolute Error Ellipse.	125
4-5-1-3 Relative Error Ellipse.	132
4-5-2 Global Measures Of Precision.	134
4-5-2-1 Mean Variance Of The Coordinates Of All Network Points.	135
4-5-2-2 Maximum Eigen Value Of The Covariance Matrix.	135
4-5-2-3 The Average Size Of Absolute Error Ellipse.	136
4-5-2-4 Average Standard Error Of Derived Quantities.	137
4-6 Reliability Criterion.	139
4-6-1 Internal Reliability Measures.	141
4-6-2 External Reliability Measures.	145
4-7 Sensitivity Criterion.	150

## Contents (Cont.)

	Page
4-7-1 Local Measures Of Sensitivity.	151
4-7-1-1 Analytical Measure Of Local Sensitivity.	152
4-7-1-2 Graphical Measure Of Local Sensitivity.	156
4-7-2 Global Measures Of Sensitivity.	157
 <b>CHAPTER 5</b>	 161
<b>Planning And Optimization Of Geodetic Network</b>	
5-1 Basic Requirements For An Optimum Design Of Geodetic Networks.	161
5-2 Classification Of The Geodetic Network Optimization.	164
5-3 Zero Order Design Problem.	167
5-3-1 Constrained Network Adjustment.	170
5-3-2 Free Network Adjustment.	171
5-3-2-1 Moore-Penrose Generalized Inverse.	172
5-3-2-2 Inner Constraints Approach.	175
5-3-2-3 Properties Of The Free Network Solution.	184
5-3-2-4 Choosing The Best Adjustment Method For Deformation Monitoring Networks.	186
5-3-2-5 Transformation From The Best Coordinate System To The Original Adopted Fixed Coordinate System.	189
5-4 First Order Design Problem.	194
5-4-1 Optimization Of Point Positions.	195
5-4-1-1 Criterion Matrix.	195
5-4-1-2 Formulation Of The Problem.	198
5-4-1-3 Solution Of The Problem.	203
5-4-2 Optimization Of The Observational Plan.	206
5-5 Second Order Design Problem.	209
5-5-1 Direct Design.	211
5-5-2 Canonical Design.	216
5-5-3 Simplex Design.	217
5-6 Third Order Design Problem.	221

## Contents (Cont.)

	Page
<b>CHAPTER 6</b>	<b>233</b>
Practical Application Of Optimal Design Of Geodetic Networks For Monitoring Local Crustal Movements.	
6-1 Design Criteria.	233
6-2 Design Requirements For Crustal Movement Monitoring Geodetic Networks.	234
6-3 Design Techniques.	236
6-3-1 Analytical Design.	237
6-3-2 Computer Simulation Design.	239
6-4 Design Stages.	244
6-4-1 The Plan And Establishment Of The Geodetic Network.	244
6-4-2 Planning And Carrying Out The Measurements.	250
6-4-3 Analysis Of Repeated Measurements.	251
6-5 Practical Application To Kalabsha Network.	255
6-5-1 Area Under Investigation.	255
6-5-2 Geomorphology Of The Area.	259
6-5-3 Geology Of The Area.	262
6-5-4 Seismicity Of The Area.	264
6-5-5 Performance Of Kalabsha Network.	267
 <b>CHAPTER 7</b>	 <b>283</b>
Summary, Conclusions And Recommendations	
References.	289
Appendix A.	303
Arabic Summary.	.

## LIST OF FIGURE

	Page
Fig. (1-1) Distribution Of Seismographs Around The North Part Of The High Dam Lake.	4
Fig. (1-2) Locations Of Piezometers Around The North Part Of The High Dam Lake.	5
Fig. (1-3) The North-west Part Of The High Dam Lake, Active Faults And Local Geodetic Networks.	8
Fig. (1-4) The North-west Part Of The High Dam Lake, Active Faults And Regional Geodetic Networks.	9
Fig. (2-1) Constituents Of The Interior Of The Earth.	17
Fig. (2-2) The Earth's Lithospheric Plates And Their Probable Direction Of Movements.	22
Fig. (2-3) Interaction Between Tectonic PLates.	24
Fig. (2-4) Faulting Mechanisms.	25
Fig. (2-5) Reid's Elastic Rebound Model.	29
Fig. (2-6) Tidal Force Due To The Moon.	31
Fig. (2-7) Epicenter Distribution Of All Earthquakes Around Alexandria.	35
Fig. (2-8) General Plan Of The High Dam.	37
Fig. (2-9) Location Of The Aswan Lake.	38
Fig. (2-10) Water Level In The Reservoir For The Period From 1964 To 1988.	39
Fig. (2-11) Faulting System Of Aswan Region.	41
Fig. (2-12) Tectonic Setting Of Sinai And Gulf Of Suez.	43
Fig. (2-13) Geographic Location Of Sabha Island.	44
Technique.	
Fig. (2-14) Continuous Monitoring Techniques.	48
Fig. (2-15) Relative Monitoring Network.	52
Fig. (2-16) Reference Network.	53
Fig. (2-17) Deformation Of A Body.	57
Fig. (2-18) Geometric Interpretation Of Deformation Parameters.	61
Fig. (2-19) X,Y,Z Component Of The Line PQ.	66
Fig. (3-1) Verification Of The Fact	76
$\text{Max.}(F(X)) = -\text{Min.}(-F(X)).$	

## List Of Figure (Cont.)

	Page
Fig. (3-2) Functions With Variable Number Of Stationary Points.	78
Fig. (3-3) Simplex Algorithm Flow Chart.	93
Fig. (4-1) Scheme Of Two Dimensional Geodetic Network.	103
Fig. (4-2) Calculation Of $\mathcal{S}_1^u$ For A specific Probabilities $\alpha$ and $\beta$ .	119
Fig (4-3) Probability Density Function Of Point Position.	127
Fig. (4-4) Error Ellipse And Its Pedal Curve.	130
Fig. (4-5) Calculation Of $\lambda^0$ For A Specific Probabilities $\alpha$ And $\beta$ .	119
Fig. (5-1) Flow Chart For Geodetic Network Optimum Design.	163
Fig. (5-2) Example Of Configuration Defect.	208
Fig. (5-3) Flow Chart For The Direct Solution Of The Second Order Design Problem.	214
Fig. (6-1) Flow Chart For Computer Simulation Method.	240
Fig. (6-2) Various Kinds Of Marks For Horizontal Measurements.	246
Fig. (6-3) Various Kinds Of Levelling Marks.	247
Fig. (6-4) Types Of Monumentation For Horizontal Stations.	248
Fig. (6-5) Types Of Monumentations For Both Horizontal And Vertical Measurements.	249
Fig. (6-6) Maps Of Vertical Movements.	253
Fig. (6-7) Plot Of Isolines Of Vertical Movements.	254
Fig. (6-8) Field Of Deformation In Grid "0.5 *0.5kms".	256
Fig. (6-9) The Main Axis Of Horizontal deformation Within Triangles.	257
Fig. (6-10) Deformation Vectors Of The Network Points.	258
Fig. (6-11) Area Under Investigation And Location Of The Kalabsha Fault.	260
Fig. (6-12) Main Geomorphologic Units Of The Area To Northwestern Part Of The High Dam Lake.	261
Fig. (6-13) Epicentral Distribution Of The Earthquakes Occurred In The Northwestern Area Of The High	266

## VII