

Dr. Robert Kiunsi

**Dean School of Geospatial Science and
Technology**



BIOGRAPHY

Dr. Robert Kiunsi is a Senior Lecturer in the Department of Environmental Science and Management. He has been working at Ardhi University (former Ardhi Institute and University Collage of Lands and Architectural Studies) since 1981 The main areas of expertise in teaching, research and consultancy are Land Degradation, Environmental Planning, Natural Resources Survey, Disaster Management, climate change, Environmental Impact Assessment and Strategic Environmental Assessment

EDUCATION

Dr. Robert Kiunsi has an Advanced Diploma from Ardhi Institute in Urban and Rural Planning. A Postgraduate Diploma in Rural and Land Ecology Survey from ITC, a Masters in Environmental Planning in Developing countries from Nottingham University, a Masters in Science in Rural and Land Ecology Survey from ITC and a PhD on Land degradation from University of Cape Town.

PUBLICATIONS AND REPORTS:

Benouar, D.,Diagne, K., Kiunsi, R., Songore, J. Pelling M, Pharnab, R., Wisner B.,Ndiaye, A. and Yitambe A. 2009 *Towards a safer urban future: conclusion and recommendations*. In Pelling M and Wisner B. (eds) *Disaster risk reduction: Cases from urban Africa*. Earthscan, London (195-210)

R. B. Kiunsi, Lupala, J. 2009 *Building disaster resilient communities*. In Pelling M and Wisner B. (eds) *Disaster risk reduction: Cases from urban Africa*. Earthscan, London (127-145)

R. B. Kiunsi, 2007 Piping and gully erosion in the Southern parts of the Monduli District, Northern Tanzania. *The Journal of Building and Land Development*. Volume 14 No. 1

R. B. Kiunsi and M.E. Meadows 2006 Assessing land degradation in the Monduli District, Northern Tanzania. *Land degradation and Development* **17**:509-525 (2006)

R. B. Kiunsi, 2006, Land degradation in community based irrigation projects in the dryland areas. Case study: Chale and Bahi Irrigation schemes in Dodoma Region, Tanzania. *The Journal of Building and Land Development*. Volume **13 No 1**: 41-58

R. B. Kiunsi, M. Meshack, et al 2006 Disaster vulnerability assessment: Tanzania experience. In Birkmann, J. (ed) *Measuring Vulnerability to Natural Hazards: Towards disaster resilient societies*. United Nations University Press, Tokyo 227-245.

R. B. Kiunsi, 2002, The development and application of a comprehensive land degradation assessment in the Monduli District, Tanzania. PhD Thesis, University of Cape Town, Republic of South Africa

CONTACTS

School of Geospatial Science and Technology
Ardhi University,
P. O. Box 35176, Dar es salaam, Tanzania
Tell.: (office): +255784432121
Tell.:+255784432121
Email:

Dr. Martine Mbakize Hagai

**Department of Geoinformatics and
Geodetic Sciences**



EDUCATION

Ph.D. University of Cape Town – South Africa, 2001

Msc. Degree in Geoinformatics (GIS and Remote Sensing) ITC- Enschede Netherlands), 1994

Msc. Degree in Photogrammetry (London), 1988

Postgraduate Diploma in Geoinformatics (ITC-Enschede-Netherlands), 1993

Postgraduate Diploma in Photogrammetry (London), 988

EMPLOYMENT HISTORY

- | | |
|----------------|---|
| 2007 - Present | Ag. Head Department of Geoinformatics and Geodetic Sciences
School of Geospatial Sciences and Technology, Ardhi University,
Dar es salaam Tanzania |
| 2006 – Present | Member ARU Tender Board, effective 2006/07 to date |
| 2006 – Present | Member of the University Senate |
| 2004 – 2007 | Head Department of Geomatics, then Faculty of Lands and
Architectural Studies University College of Lands and Architectural
Studies, Dar es salaam, Tanzania. |
| 2003 – 2006 | Ag. Director Centre for Information and Communication
Technologies, University College of Lands and Architectural
Studies, Dar es salaam, Tanzania. |
| 2001-Present | LecturerArdhi University, School of Geospatial Science and
Technology, Ardhi University, Dar es salaam, Tanzania |
| 1996-2001 | Assistant Lecturer, University of Dar es salaam, College of Lands and
Achitectural Studies, Dar es salaam, Tanzania. |
| 1987-1996 | Assistant Lecturer, The former Ardhi Institute, Department of land
Surveying, Dar es salaam, Tanzania. |
| 1984-1987 | Teaching Assistant, The former Ardhi Institute, Department of Land
Surveying, Dar es salaam, Tanzania |

1982 – 1984 Land Surveyor, Regional Development Director’s Office- Coast
Region (Kibaha), Tanzania

CONSULTANCY AND PROJECTS MANAGEMENT

1. Translation of (gvSIG open source) GIS software to Kiswahili
 2. Cadastral Surveying of plots in Mbozi Urban Area
 3. Development of a spatial Database for Forest Reserves- Ministry of Natural Resources and Tourism- Wildlife Division-Continued
 4. Application of GIS in Health Sector Reform Programme Support of the Ministry of Health
 5. Aeronautical Information Systems- A Digital Cartography course to Tanzania Civil Aviation Authority
1. Development of WADATA, a Management Information System for the
 2. Ministry of
 3. Water and Livestock Development - Shinyanga Water Resources Department
 4. Upgrading and Training of staff for WADATA Database - Regional Water Engineers –Shinyanga

PUBLICATIONS

(i) IN REFEREED JOURNALS

Application of Snakes and Dynamic Programming optimisation technique in modeling of buildings in informal settlements.

In International Journal of Photogrammetry and Remote Sensing (ISPRS) Journal (July2002) Vol.56, Issue 4 pages 269-282

Central and Distributed Database Approaches in development of a National Geographical Information System in Tanzania. *In Land and Building Journal Vol.4 (1997) No.3*

Performance and Efficiency of Snakes and Dynamic Programming Techniques in Extraction of Buildings for Mapping of Informal Settlement Areas
In Building and Land Development Journal Vol.9 (2002) No.1 pp59-66

Digital Photogrammetric Heritage Sites documentation: Experience from Kilwa Kisiwani, Tanzania, *Accepted for publication in Journal of Building and Land Development Vol.16 (2008 No.1)*

(ii) PAPERS IN CONFERENCES, SYMPOSIUMS AND WORKSHOPS

1. Food Early Warning and Crop Monitoring Using Remote Sensing Data.
2nd NEMC Scientific Conference on Environmental Sustainability in Tanzania: Implications of Climate Change. January 23rd-26th 2006, Moshi, Tanzania
2. Application of Remote Sensing Techniques in monitoring, Mapping and Management of the Environment.
Proceedings of The Scientific Symposium on Environment, Faculty of Science, University of Dar es salaam 23rd –26th September 2002
3. Digital Heritage Documentation and Heritage Database
Proceedings of the International Conference on Bagamoyo a World Heritage, September 9th -12th 2002
4. Extraction of Buildings for mapping of Informal Settlement Areas: A strategy for Formalization of land in the urban poor.
Proceedings of the African Region CASLE Conference on “Promoting Sustainable Land Management in Africa”, 14-17 March 2006 Bagamoyo, Tanzania, pp 146-157
5. Application of Remote Sensing for Africa development. Tanzania experience.
6th African Association of Remote Sensing of the Environment.
6. Predictions of crop yield using NOAA NDVI images- A Strategy towards food sustenance.

*A case study of Mpwapwa District in Tanzania.
2nd NEMC Scientific Conference on Environmental Sustainability in Tanzania: Implications of Climate Change. January 23rd-26th 2006, Moshi, Tanzania*
7. The Role of GIS in Property Tax Management
Local Government Support Project- Project 2: Dar es salaam Upgrading and Institutional Strengthening - Workshop on Preparation of Property Valuation Methodology for Rating in Dar es salaam Local Authorities. 17th – 18th AUGUST 2006, Dar es salaam Tanzania
8. Towards Sustainable Spatial Data Acquisition Techniques for the Development of African Land Management Information Systems. *In Special Symposium by the United Nations Economic Commission for Africa on “Land Management Information Systems in Knowledge Economy”, Discussion and Guiding Principles for Africa, 2008, Addis Ababa Ethiopia, pages 97-103*

(iii) OTHER PUBLICATIONS:

1. **TRAINING MANUALS:**

- (a) Basic Photogrammetry – Elementary Concepts Vol. 1A
Available in the Photogrammetric Section of the Resource Centre of Geomatics Department at Ardhi University
- (b) Basic Concepts of Analytical Photogrammetry
Available in the Photogrammetric Section of the Resource Centre of Geomatics Department at Ardhi University

2. **SEMINAR PAPERS:**

- (a) Use of auxiliary data in the orientation of SPOT images.
Presented at Ardhi Institute 1989
- (b) Elegance of spatial intersection method in determination of perspective centre coordinates. - Presented at the then Ardhi Institute 1990
- (c) Application of 2D projective transformation in map revision.
Presented at Ardhi Institute in 1991
- (d) Evaluation of certainty factors and fuzzy logic against the standard method of conditional probabilities in image analysis and GIS.
Presented at the then Ardhi Institute in 1995
- (e) Modern developments in surveying (Remote Sensing Techniques)
Seminar paper on "Modern Trends in Land Surveying Practice" conducted at Ardhi Institute Dar-Es-salaam, in 199
- (f) Professionalism in Land Surveying,
Seminar paper on "Modern Trends in Land Surveying Practice" presented at Ardhi Institute Dar-Es-salaam, in 1995

ON GOING RESEARCH PROJECTS:

- 5. Photogrammetric documentation of Africa World Heritage sites: A case of Kilwa - Songo Mnara, Tanzania
- 6. Investigation into the possibility of using of Airborne Laser Ranging Technology as an alternative mapping technique in Tanzania.
- 7. Development of effective methods for land use classification from Satellite Images for Tropical Countries.
- 8. Application of remote sensing in coastal resource management - A case of mangroves in part of the East African Coast.

9. Monitoring, Control and upgrading of informal settlements areas. A case study some selected areas in Dar es salaam City.

WORKSHOPS, SYMPOSIUMS, RESEARCH REPORTS AND CONFERENCES ATTENDED

1. 2nd NEMC Scientific Conference on Environmental Sustainability in Tanzania: Implications of Climate Change.
2. Consultative Workshop on Towards Development of a Information Society- Preparations for the World Summit on Information Society.
3. International Conference, Bagamoyo a World Heritage, September 9th -12th 2002
4. Scientific Symposium on Environment, Faculty of Science, University of Dar es salaam 23rd -26th September 2002
5. Consultative Workshop on Distance learning of the University of Dar es salaam
6. The African Region CASLE Conference on “Promoting Sustainable Land Management in Africa”, 14-17 March 2006 Bagamoyo, Tanzania
7. World Bank Institute course on Land Administration in Africa -Searching for a Land Tenure Security 22nd to 25th May 2006, at The Tanzania Global Learning Centre in Dar es- salaam
8. Workshop on Preparation of Property Valuation Methodology for Rating in Dar es salaam Local Authorities. 17th – 18th AUGUST 2006, Dar es salaam Tanzania
9. Stake Holders Workshop on postgraduate on Programmes for the Marine Sciences – Zanzibar. 7th – 8th September 2006
10. Symposium on Land Information Systems in the Knowledge Economy - Economic Commission for Africa, Addis Ababa, Ethiopia, 4-8th Dec 2006
11. East African Quality Assurance Officers Course, Part I Training Workshop August 28 to September, 2007 in Oldenburg and Berlin in Germany
12. East African Quality Assurance Officers Course, Part II Training Workshop January, 28 to 2nd February, 2008 in Dar Es salaam, Tanzania

CONTACTS

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BIOGRAPHY

Dr. Chaula is a Computer Scientist. He is currently employed as Lecturer in the Department of Geomatics, School of Geospatial Science and Technology at Ardhi University (ARU), Dar es Salaam where he has been working since 2007. Dr. Chaula's major fields of specialization are Computer Systems Security, Computer Networks design and implementation, Computer Systems Management, ICT policy development, software projects management, systems auditing, python programming language, e-learning, e-Government, electronic voting, identity management systems, electricity prepaid systems and Geographic Information Systems.

EDUCATION

Ph.D in computer systems science, Stockholm University/KTH, Sweden, 2006.

Degree in Licentiate of Philosophy (PhL, Equivalent to master of Philosophy), Sweden, 2003.

Post graduate diploma in computer science, Stockholm University/KTH, Sweden, 2001.

B. Sc, University of Dar es salaam, Tanzania, 1996.

Certificate European Intensive programme on Information and communication systems security, University of Aegean, Greece, 2001.

EMPLOYMENT HISTORY

2007 - Present Head, Department of Geomatics.

2007 - Lecturer, Department of Geomatics, School of Geospatial Sciences and Technology, Ardhi University, Dar es salaam, Tanzania.

2000 - 2006 Lecturer, LearnIT-Soft tech Consultants Ltd, Dar es Salaam, Tanzania.

1999 - 2000 Manager, Engineer Department, Soft tech Consultants Ltd, Dar es Salaam, Tanzania

1997 – 1999 Systems Engineer, Soft tech Consultants Ltd, Dar es Salaam, Tanzania

COURSES TAUGHT

Web programming BSc. Ardhi University, 2009

GIS for Public Health, MSc. Universit of Dar es slaam 2009

Python programming language, Diploma, Ardhi University 2009

Land Information Systems, Post Graduate Diploma, MSc. Ardhi University 2008

C ++ Programming, BSc. And MSc level, Ardhi University, 2007 to date

Java Programming, Ardhi University, 2007

Introduction to Computer communication technology, Ardhi University, 2007

Information Security management, Invited speaker, International masters programme, Stockholm University, September 2005 to September, 2006

Enterprise networking – NCC Advance international diploma, learn IT, 2000 TO 2004

Software engineering management: BSc. Course, Learn IT, NCC 2001 to 2005

Communication Systems Management: BSc. Course, Learn IT, NCC 2000 to 2005

Decision Support Systems: BSc. Course, Learn IT, NCC 2004

Managing business Projects: Advance international diploma 2004

Business Management: NCC Advance international diploma 2004

Internet and Intranet Security: NCC Advance international diploma 2004

Software Engineering Methods: BSc. Course, Learn IT, 2000 to 2006

PC technician A+-NCC diploma 2000 to 2004

CONSULTANCY AND PROJECTS MANAGEMENT

Developing a Geographic Information System for USAID Tanzania 2008/09 (Responsible as a Team leader)

Developing A Geographic Information System for Land and Property Valuation in the Geographic oil prospecting are in Mtwara 2008 (Responsible as a Project Manager)

Developing Projects Monitoring GIS for USAID Mission Tanzania 2008 (Responsible as a Team Leader)

Review of PPF ICT Strategic Plan for 2008 – 2012 Corporate Strategy 2007
(Responsible as a Team leader)

Developing a web based Property Compensation GIS for AG & P GAS TANZANIA LIMITED, 2008 (Responsible as project manager)

Consultant National service (JKT), Responsible with restructuring Designing and implementing National Service HQ Local area network and Intranet 2007 (Responsible as a Team leader)

Consultant Tanesco LUKU project, responsible as a support engineer 1997 to 2000
(Responsible as a Team leader)

TTCL service order and billing systems. Responsible with site installation and hardware management 1999 to 2000 (Member of the team)

Consultant and Engineering services manager, Soft – Tech Consultants Ltd 1998 to 2000

Design, implementation, testing and training users of Ardhi University Local Area Network 1999 (Responsible as a Team leader)

Installation and management and customer support of TALLY accounting package 1997 to 2000 (Responsible as Team member)

Hardware maintenance for the Swedish Agency for corporation development 1999
(Responsible as a Team leader)

Designing and developing Kilimanjaro Chamber of Commerce Website and business guide 2004 2005 (Responsible as assistant Team leader)

Review of Information and Communication Technology strategic plan for PPF Tanzania 2008 (Responsible as Team leader)

Developing a website fro Tanzania Wild life Division 2009 (Responsible as a team leader)

RECENT PUBLICATIONS

Job Asheri Chaula Louise Yngstrom and Stewart Kowalski, ISA2006, Information Systems Assurance, Security Usability in Search for a user centered security, July 5th 2006 Johannesburg, South Africa.

Job Asheri Chaula Louise Yngstrom and Stewart Kowalski, IEEE/TEDC, July 10th 2006, Technology as a Tool for Fighting Poverty: How Culture in the Developing World Affect the Security of Information Systems, Iringa, Tanzania.

Job Asheri Chaula Louise Yngstrom and Stewart Kowalski, ISA2005, (2005), A Framework for Evaluation of Information systems, 2005 Johannesburg, South Africa

Job Asheri Chaula Louise Yngstrom and Stewart Kowalski, (2004), ISSA2004 Article: Security Metrics and Evaluation of Information Systems Security, 2004 South Africa.

Job Asheri Chaula Louise Yngstrom and Stewart Kowalski (2004) International Common Criteria Conference ICC2004: Article: IT Security Assurance for the Developing World 2004, Berlin, Germany.

Job Asheri Chaula Louise Yngstrom, III2003, Public Key Infrastructure Security and Interoperability Testing and Evaluation 2003, Colombo, SriLanka

TanESCO, Research on information and communication systems security specific objectives were to establish flaws in LIKU systems and suggest remedial steps that should be taken by TanESCO to mitigate a fraud problem, 2002 – 2006

CONTACTS

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Ardhi University
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Dar es Salaam, Tanzania.

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Fax: (+255 022) 2775448, 2775479
E-mails: chaula(@)aru.ac.tz; jobchaula(@)gmail.com

**BIOGRAPHY**

Dr. Msemakweli is a Professional Geomatician, fully registered by the National Council for Professional Surveyors (NCPS), Fellow of the Institution of Surveyors of Tanzania (FIST) and Certified Land Surveyor of East Africa (CLS-EA). He is employed as a Senior Lecturer in the Department of Geomatics, School of Geospatial Sciences and Technology at Ardhi University. Dr. Msemakweli's major fields of specialization are Photogrammetry, Remote Sensing and Geo Information Systems (GIS). He has conducted extensive research projects in automated generation of Digital Terrain Models (DTM) through image matching and has published several papers pertaining to mapping and remote sensing. Besides, he has carried out many consultancy tasks in the fields of cadastral and engineering surveying for the government and parastatal organizations. He was an external examiner for the department of Surveying at Makerere University from 2001, to 2003. On two different occasions, Dr. Msemakweli was engaged as a Visiting Lecturer, at the University of Zimbabwe from August to December 1990, and July 1991 to January 1992, to teach Photogrammetry in the department of Surveying.

EDUCATION

Date	Education Qualification	University/College
1999	Ph.D. Photogrammetry and GIS	Purdue University, West Lafayette, USA
1995	M.Sc. Photogrammetry, GIS and Remote Sensing	Purdue University, West Lafayette, USA,
1985	M.Sc. Photogrammetry	ITC, Enschede, The Netherlands.
1981	Post Graduate Diploma in Photogrammetry	ITC, Enschede, The Netherlands.
1975	B.Sc. Surveying and Photogrammetry	University of Nairobi, Kenya.

CONTINUING EDUCATION

Date	Title	Place
2007	Preparation of Technical and Financial Consultancy Proposals (A three days course)	Beachcomber Hotel, Dar es Salaam, Tanzania
2005	Effective Teaching Methods in Higher Learning Institutions (A five days course)	University of Dar Es Salaam Entrepreneurship Centre (UDEC)
2004	Business Entrepreneurship (A five days course)	UDEC
2001	Digital Photogrammetry with Socet Set 4.2 (A five days course)	University College of Lands and Architectural Studies (UCLAS)

EMPLOYMENT RECORD

Academic Posts

- 1996 - Present Senior Lecturer, department of Land Surveying/Geomatics at UCLAS and Ardhi University (ARU)
- 1989 – 1996 Senior Lecturer, department of Land Surveying at Ardhi Institute (ARI)
- 1985 – 1989 Lecturer, ARI, Dar es Salaam
- 1978 – 1985 Assistant Lecturer, ARI, Dar es Salaam

Administrative Posts

- Jan – Sep 2007 Acting Deputy Vice Chancellor, Academic Affairs, ARU
- 2005 – 2008 Chairman Tender Board at UCLAS and ARU
- Time to time Acting Principal, UCLAS
- 2003 – 2006 Dean, Faculty of Lands and Environmental Engineering, UCLAS
- Time to time Acting Deputy Principal, Academic Affairs, UCLAS
- Time to time Acting Deputy Principal, Planning, Finance and Administration, UCLAS
- 2000 – 2003 Head, Land Surveying Department, UCLAS
- 1986 – 1990 Surveyor-in-charge of legal (cadastral) surveys at ARI
- 1975 – 1978 Acting Regional Surveyor-in-Charge, Tabora region, Tanzania

COURSES TAUGHT

- (i) Photogrammetry
- (ii) GIS
- (iii) Remote Sensing
- (iv) Cadastral Surveying
- (v) Engineering Surveying
- (vi) Professional Practice

CONSULTANCY AND PROJECTS MANAGEMENT

- 2004 Verification and Monitoring of Vertical Alignment and Settlement of the Extensions to

- BoT Twin Towers at Dar es Salaam.
- 1987 176 Industrial plots, Kibaha Urban area
- 1983 522 plots in Igoma, Mwanza municipality
- 1982 Registrar of Buildings plot, Mbezi area, Dar es Salaam City, 12.15 hectares; Registered plan number E'255/60.
- 1982 Vocational Training Centre plot, Tabata Dar es Salaam city, 5.5 hectares; Registered Plan number E'120/24
- 1982 Tanga cement factory plot of about 404 hectares
- 1980 300 plots in Morogoro township *Sites and Services area*

PUBLICATIONS

Msemakweli C.K. 2008, *Optimum Digital Image Data Transformation for Geo-Referencing*; accepted for publication in the Ardhi University Journal of Building and Land Development, Volume 16, Number 1

Msemakweli C.K. and Khamis Khamis K., **2006**, *Towards Improving Systematic Land Registration in Zanzibar. Case Study - Jumbi Pilot Project*; Proceedings of Africa Region CASLE Conference on Sustainable Land Management in Africa, 14-17 March 2006, Bagamoyo, Tanzania, page 362-373.

Msemakweli C.K. and Lyimo A.W., **2002**, *A Fast Technique for Large Scale Digital Map Revision. Case Study - University College of Lands and Architectural Studies (UCLAS) Campus*; Proceedings of Joint ISPRS Commission VI Workshop on Developments and Technology Transfer in Geomatics for Environmental and Resource Management, Dar es Salaam, Tanzania, Volume XXXIV Part 6/W6, page 99 – 105.

Msemakweli C. K., 2001, *Training Aspects of Photogrammetric Mapping in Tanzania*; Proceedings of “African Conference on Real Estates”, Arusha, Tanzania, pp54-61.

Lugoe F.N. and **Msemakweli C.K., 1998**, *The status of the survey and mapping frame in Tanzania and how it affects land management*; in the Journal of Building and Land Development, Volume 5, Number 3, pages 15-21.

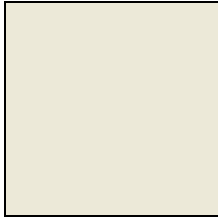
Msemakweli C.K., 1993, *The Elegance of Independent Model Triangulation*; in the Journal of Building and Land Development, Volume 3, number 1, pages 48-53

Msemakweli C.K., 1982, *Remote Sensing - Tanzanian experience*; in the ITC journal of the proceedings of the “Fourth International Seminar on Remote Sensing - Decision Making”, held in Nairobi Kenya, page 166-169.

BOOK REVIEW

Msemakweli C.K., 2000, *ARTHUR, BANNISTER, STANLEY RAYMOND AND RAYMOND BAKER – Surveying Seventh edition, 1998, ISBN 0-582-30249 8*; in the Journal of Building and Land Development, Volume 7, number 1-3, pages 93-95.

<p>CONTACTS Department of Geomatics, School of Geospatial Sciences and Technology, Ardhi University</p>	<p>P.O. Box 35176, Dar es Slaam. Tel: 2550222775004; 2550222617351; 255784302655 Email: msemakwe@aru.ac.tz</p>
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**EDUCATION**

Ph.D.(Geomatics), University of New Brunswick, Canada, 1991 – 1996

Master of Science, Geomatics Engineering, University of New Brunswick, Canada, 1987 – 1990

Master of Science, Civil Engineering, Budapest Technical University, 1974 – 1979

Advanced Diploma, Land Surveying, Ardhi Institute, Dar es salaam, Tanzania, 1972 – 1973

EMPLOYMENT HISTORY

Date :	2003 – 2006
Location	Dar es Salaam, Tanzania
Company	UCLAS
Position	Head, Geomatics Department
Description	Management and development of the academic, research and consultancy programs of the department. Staff and resource management

Date :	1998 – 2002
Location	Dar es Salaam, Tanzania
Company	UCLAS
Position	Director EISCAP Project
Description	Joint UCLAS / ITC regional training program on Environmental Information Management for sustainable development, funded by the Netherlands Government

Date :	1997 – 2000
Location	Dar es Salaam, Tanzania
Company	UCLAS
Position	Dean, Faculty of Land Surveying, Land Management and Valuation, and Environmental Engineering
Description	Overall management and administration of faculty administrative and academic staff and the academic programs of the faculty

Date :	1996 – 2003
Location	Dar es Salaam, Tanzania

Company	UCLAS
Position	Manager of the Geo-Information Center (GIC)
Description	Planning, designing, implementation of UCLAS ICT infrastructure, development of geo-Information technology training programs, staff development and administration, consultancy project procurement and implementation

Date :	2002 – 2003
Location	Cape Town, RSA
Company	University of Cape Town
Position	Visiting African Scholar, Geomatics Department, Faculty of Engineering and the Built Environment
Description	Research on Documentation of Heritage Sites, Teaching undergraduate courses, supervising undergraduate and postgraduate thesis`research.

Date :	1993 – 1994
Location	New Brunswick, Canada
Company	University of New Brunswick
Position	Lecturer Faculty of Forestry, Department of Natural Resources
Description	Curriculum development and teaching an undergraduate remote sensing and air photo interpretation course.

Date :	1991 – 1995
Location	New Brunswick, Canada
Company	University of New Brunswick
Position	Teaching Assistant, Department of Geodesy and Geomatics
Description	Tutorials and seminars for undergraduate and postgraduate students in photogrammetry, remote sensing and digital mapping

Date :	1991 – 1992
Location	New Brunswick, Canada
Company	University of New Brunswick
Position	Research Assistant in remote sensing
Description	Supervision of M.Sc. research in remote sensing and digital image processing, research laboratory maintenance and remote sensing software procurement and testing

Date :	1986 – 1996
Location	Dar es Salaam, Tanzania

Company	Ardhi Institute
Position	Senior Lecturer
Description	Curriculum development Teaching, consultancy and research in photogrammetry and remote sensing, procurement and execution of consultancy projects in topographic and cadastral mapping, supervision & guidance of junior staff

Date :	1983 – 1986
Location	Dar es salaam, Tanzania
Company	Ardhi Institute
Position	Lecturer
Description	Curriculum development Teaching, consultancy and research in photogrammetry and remote sensing, procurement and execution of consultancy projects in topographic and cadastral mapping

Date :	1979 – 1983
Location	Dar es Salaam, Tanzania
Company	Ardhi Institute
Position	Assistant Lecturer
Description	Teaching, consultancy and research in field astronomy, photogrammetry and remote sensing, procurement and execution of consultancy projects in topographic and cadastral mapping

Date :	1979
Location	Dodoma, Tanzania
Company	Capital Development Authority Dodoma
Position	Site Surveyor
Description	Inspection and certification of civil works carried out by contractors employed by the Capital development authority in Dodoma

CONSULTANCY AND PROJECTS MANAGEMENT

1. Consultant, Development of GIS/Remote Sensing curriculum at the National University of Ruanda as part of a joint consultancy project involving Tanzanian, Kenyan, South African and Netherlands Academic and Research Institutions 2004 – 2007
2. GPS (ITRF) Positioning of Air Navigational Devices in Designated Tanzanian Airports – Consultancy Service rendered to the Tanzania Civil Aviation Authority - 1999/2000.
3. Consultant Lake Victoria Environmental Management Program (LVEMP) Consultancy Services tender evaluation - 1998.
4. Consultant Cotton Lint & Seed Board Computerisation Tender Evaluation - 1998.

5. Consultant DHV International BV, Water Resources Management Project; Design and Implementation of a GIS to support management and analysis of water resource data in Morogoro and Shinyanga Region - 1997-1998.
6. Consultant, Department for International Development (DFID) sponsored feasibility study on Computerization within the National Executive Agencies Program. - 1997/1998
7. Consultant, National Environmental Management Council (NEMC): Design of technical specifications for data collection, processing and production of State of Environment Report Data (SOE) - 1997.
8. Consultant, Feasibility Study on the Computerisation of the MD-Architects Business Design Offices - 1997.
9. Consultant, COSTECH Information Technology Training Workshop for Women Scientists (1 Week Workshop covering computer communication, project management software, database management systems and Spreadsheet computing -1997.
10. Consultant, Geoinformation Centre - Development and implementation of two-month short courses in Geoinformation (GIS and Remote Sensing) applications for groups of scientists and employees of various sectors including UDSM, Makerere University, NEMC, Ministry of Lands, Ministry of Agriculture, SUA, MAT Mlingano, Municipal Councils, Ministry of Forestry, National Land Use Planning Commission and private companies.- 1998 – 2002.
11. Consultant, Geoinformation Centre - Development and implementation of two-month short courses in basic and advanced ICT applications for various clients and individuals including the TRC, DCA, Ministry of Works, VETA, NEMC, and Ministry of Lands, Zanzibar Govt Ministry and the general public - 1996 – 2002.

OTHER CONSULTANCY ASSIGNMENTS

12. Consultant, Development of GIS/Remote Sensing curriculum at the National University of Ruanda as part of a joint consultancy project involving Tanzanian, Kenyan, South African and Netherlands Academic and Research Institutions 2004 – 2007
13. GPS (ITRF) Positioning of Air Navigational Devices in Designated Tanzanian Airports – Consultancy Service rendered to the Tanzania Civil Aviation Authority - 1999/2000.
14. Consultant Lake Victoria Environmental Management Program (LVEMP) Consultancy Services tender evaluation - 1998.
15. Consultant Cotton Lint & Seed Board Computerisation Tender Evaluation - 1998.
16. Consultant DHV International BV, Water Resources Management Project; Design and Implementation of a GIS to support management and analysis of water resource data in Morogoro and Shinyanga Region - 1997-1998.

17. Consultant, Department for International Development (DFID) sponsored feasibility study on Computerization within the National Executive Agencies Program. - 1997/1998
18. Consultant, National Environmental Management Council (NEMC): Design of technical specifications for data collection, processing and production of State of Environment Report Data (SOE) - 1997.
19. Consultant, Feasibility Study on the Computerisation of the MD-Architects Business Design Offices - 1997.
20. Consultant, COSTECH Information Technology Training Workshop for Women Scientists (1 Week Workshop covering computer communication, project management software, database management systems and Spreadsheet computing -1997.
21. Consultant, Geoinformation Centre - Development and implementation of two-month short courses in Geoinformation (GIS and Remote Sensing) applications for groups of scientists and employees of various sectors including UDSM, Makerere University, NEMC, Ministry of Lands, Ministry of Agriculture, SUA, MAT Mlingano, Municipal Councils, Ministry of Forestry, National Land Use Planning Commission and private companies.- 1998 – 2002.
22. Consultant, Geoinformation Centre - Development and implementation of two-month short courses in basic and advanced ICT applications for various clients and individuals including the TRC, DCA, Ministry of Works, VETA, NEMC, and Ministry of Lands, Zanzibar Govt Ministry and the general public - 1996 – 2002.

PUBLICATIONS AND REPORTS

1. Mtalo E. G. (2008). Mtalo E. G., A. Mambi, J.P. Makame, A.A. Hassan, R. Ntimizi (2008), Property and Business Reform Outlines for the Property and Business Formalisation Program, Presented to the MKURABITA Steering Committee, Dar Es Salaam
2. Mtalo E. G., A. Mambi, J.P. Makame, A.A. Hassan, R. Ntimizi (2008), Property and Business Reform Proposals for the Property and Business Formalisation Program (First Draft), Presented at MKURABITA Workshop in Dar Es Salaam and Zanzibar,
3. Mtalo E. G. (2007), SDI Development Status in Tanzania: How ready is the country?, A paper presented at the Moscow – Tanzania Investment Centre Joint Workshop on National Land Cadastre, held at the White Sands Hotels, 24-26 Jan 2007.
4. Nyansiro, J.; Mtalo E. G.; Lyimo, J; Njastad O.; Peterson K. (2007), Evaluation and Assessment of GIS Facilities as a tool for Monitoring and Evaluation of biodiversity, Report Submitted to the Ministry of Natural Resources and Tourism, Dar Es Salaam
5. Mtalo E. G. , Mngumi, E. (2005), Heritage Documentation: General Strategies, models, systems and methods for recording and documentation of historical areas, buildings and sites, Paper presented at the Antiquities Workshop, Morogoro, Nov 8-9, 2005

6. Bancy M. Mati, Felix Mtalo and Gerald .E. Mtalo (2004), Geospatial Assessment of hydrological Determinants of the transboundary Mara Basin, Kenya and Tanzania, In: Proc. Of the EARSel Workshop on Remote Sensing for Developing Countries, National Research Centre, Cairo Egypt, 26-29 Sept
7. E. Baltsavias, T. Bouloucos, G. E. Mtalo, J. Niederost, U. Rivett (eds) (2002) Developments and Technology Transfer in Geomatics for Environmental and Resource Management - Proceedings of the Joint ISPRS Commission VI Workshop, 25th – 26th March 2002, UCLAS, Dar Es Salaam, Published by ISPRS Working Groups WGVI/1 & WG VI/3
8. Hagai M., Heinz R., E. G. Mtalo (2002), Application of snakes and dynamic programming optimisation technique in modelling of buildings in informal settlement areas, ISPRS journal of Photogrammetry & Remote Sensing 56 (2002) 269 – 282
9. Rubhera R. A. M, Mato, C. A.M.G. Cramers, F.J.J.G. Janssen, J. H.Y. Katima, E. G. Mtalo (2001), Coupling of GIS with the Drastic Model to Assess Groundwater Vulnerability to Pollution for the City of Dar Es Salaam, Tanzania In: Proceedings of 5th International Conference Difuse/Nonpoint Pollution and Watershed Management, Ed. C. S. Melching and Emre Alp, Milwaukee (WI), June 10-15
10. R. Sliuzas, B. Gorte, Mtalo E. G. (2000), A Comparison of Visual Interpretation and two stage classification system for classifying Urban Development with SPOT XS, In: International Archives of Photogrammetry and Remote Sensing, Vol XXXIII, Amsterdam
11. Mtalo E. G., Kwimbere M. (2000) GPS (ITRF) Positioning Of Airport Navigational Aids In The ITRF Framework, Consultancy Report Submitted to the Tanzania Civil Aviation Authority
12. Mtalo E. G. and Faustin Gwacha (2000), GIS for Health Information Management, Kagera Region Baseline Study, A Paper Presented at the Bukoba HIMS Annual Conference
13. Mtalo E. G., P.Sadiki (2000), Proceedings of The Awareness Seminar for Top Executives of the Ministry of Water, Construction, Energy, Lands and Environment (MWCELE), Zanzibar State University, 5th June – 10th June 2000
14. R. Sliuzas, M. Brussel, B. Gorte, R. Dekker, E. G. Mtalo (eds) (1999) Urbanisation in Dar Es Salaam: The Use of SPOT and ERS for Monitoring Urban Growth and Terrain Modelling, USP-2 report 99-20, USP-2 project 3.1/AP-04, ISBN 90 54 11 290 5, Published by Belleids Commissie Remote Sensing (BCRS), Netherlands
15. Jacob-Aidoo, J., E. G. Mtalo, Bob Kakuyo (1998), National Environmental Information System Frame Work, Jointly prepared for the UNDP EIS Formulation Mission and NEMC
16. Mtalo, E. G. (1997), Fuzzy Sets Theory and Application in Engineering and the Surveying Sciences, Journal of Building and Land Development, Vol. 4, No. 3, pp.1 – 12

17. Mtalo E. G. (1996), Towards a Knowledge Based Approach for Automatic Systems Integration, PhD Thesis, University of New Brunswick
 18. Mtalo E. G. (1990), SLEMS: A Knowledge Based Approach to Soil Loss Estimation, M.Sc Thesis, University of New Brunswick, Fredericton, Canada
- Mtalo E. G. (1979), Independent Models Triangulation Using the Zeiss Stereo Metrograph, M.Sc Thesis, Technical University of Budapest, Hungary**

PROFESSIONAL/RESEARCH EXPERIENCE

Lead Consultant 2008 - 2009: Spatial Data capture, Spatial Database Design and Implementation of a GIS supported tool for mapping and managing valuation survey data and compensation schedules for ARTUMAS in respect of natural Gas exploration and exploitation in Mtwara.

Lead Consultant 2007 – 2008: Reform Design Team for MKURABITA
Specific Tasks: Lead Consultant for the Reform Design Team. Responsible for coordination of the team undertaking policy, legal, institutional reform design activities, Making proposals for real property and business formalization; Reforms include review of the Land Acts No. 4 and 5, Land Policy, Landuse Planning Act, Trade Policy, Employment Act, Mining Act, Forests Act and other interrelated policy and legal provisions.

Consultant 2007: Review of the Parastatal Pension Fund (PPF) ICT Strategic Plan

Client: Parastatal Pension Fund.

Specific Assignments:

1. Evaluation and review of the first five year rolling ICT Strategic Plan
2. Recommendations for appropriate changes for ICT Rolling Strategic Plan

Consultancy (2006 – 2007): Cadastral Survey and Landuse Plan for Africa Mashariki Gold Mine Sites and Adjoining Villages using GIS, digital aerial and satellite imagery

Client: Afrika Mashariki Gold Mine (AMGM), Nyamongo Mara

Specific Assignments

1. Overall project in-charge responsible for planning, design, implementation and supervision of a team of GIS, Cadastral Surveyor, Landuse/Physical Planners, Soil Analyst and Social Economists
2. Design and implementation of a GIS that will support the production of a Landuse Plan and Settlement plan for designated villages surrounding the AMGM site. The GIS will also be used for managing various spatial data layers (orthophoto, Landsat ETM+, digital maps) and social economic survey data.
3. Cadastral survey and title deed acquisition for plots located in the central village of Nyamongo/Nyatongo village agglomeration
4. Coordinating the determination of future resettlement area, design and implementation of a (re-)settlement plan for the designated area.

Research (2003-2007): Wetlands as regulators of water flow and matter transport – development towards sustainable tropical landscapes – collaborative research with UDSM and Jommo Kenyatta University

Client: Inter University Council of East Africa

Specific Assignments

1. Overall in responsible for all GIS/Geoinformatics inputs into the research.
2. Responsible for constructing robust GIS integrated models based on first principles for environmental impact assessment (e.g. prediction of risks of flooding, erosion and eutrophication) under scenarios of changes in wetlands, including the consequences of stabilizing the hydrograph by wetland rehabilitation/restoration.
3. Development of methods and outputs including: remote sensing derived maps of wetlands, land cover and topography; evaluation of remote sensing platforms and methods suitable for wetland and landcover mapping in East and Central Africa; and detection of historical land cover and landuse changes using remote sensing;
4. Development of GIS integrated Decision support and scenario modeling tool for evaluating chemical and physical effects of changes in wetlands, land use/cover, and climate;
5. Capacity building of scientists skilled in geoinformation analysis, processes and modeling approaches.

Research (2002 – 2007): Digital documentation of Archeological Heritage Sites: Case study Kilwa Kisiwani

Client: University of Cape Town (UCT)

Specific Assignments:

1. Supervising PhD students thesis research work on Digital Heritage Documentation
2. Collaborative research with UCT academic staff on African Heritage Database

Consultant (2005-2008): Heritage Documentation Project

Client: Ministry of Natural Resources – Antiquity Division

Specific Assignments

1. Assisting in the design of a unified system for the documentation of national heritage sites and artefacts
2. Site testing of heritage data capture tools designed for the purpose in collaboration with Nordic Heritage documentation experts
3. Recommending suitable formats and forms for the documentation of heritage sites, artefacts documents and data
4. Assisting in the design of suitable heritage digital documentation systems.

Consultant (2005-2006): Evaluation and Assessment of GIS Facilities as a tool for Monitoring and Evaluation of biodiversity

Client: Ministry of Natural Resources and Tourism

Specific Assignments

1. Studying and assessing the strengths, weaknesses, opportunities and threats of GIS facilities as tool for Monitoring and evaluation, in terms of equipment, network infrastructure and human resources.
2. Studying and assessing the available data, data collection methods, data formats, databases, sources of data, data requirements, data access policy and stakeholders.
3. Using the results from the above studies to design monitoring techniques, programmes and systems for Ecosystem/ Nature management by use of satellite images, remote sensing and GIS.
4. Providing input into the design of assessment techniques/systems for monitoring management actions and decisions by MNRT.
5. Providing input for designing integrated monitoring systems to be used by MNRT for monitoring and evaluation of natural and cultural resources

Consultant (2004-2005): Cadastral Survey and GIS for regularisation of unplanned settlements in Dodoma using digital aerial imagery

Client: Capital Development Authority (CDA)

Specific Assignments

1. Planning and execution of a participatory approach for the cadastral survey of Dodoma Municipality unplanned settlements
2. Undertaking Survey Control densification
3. Supervising the execution of the informal settlement regularisation and cadastral survey
4. Designing and implementing a land cadastre for managing the land tenure information within the informal settlement
5. Facilitating acquisition of titles for the property owners of the informal settlement

Consultant (2004-2005): Development of a web enabled spatial information management system for the Kilimanjaro Chamber of Commerce Industry and Agriculture (TCCIA KILI).

Client: IHK of Wiesbaden and TCCIA KILI

Specific assignments

1. Planning and design of TCCIA KILI electronic member register
2. Mapping of TCCIA KILI members business sites using GPS and digital imagery
3. Designing and implementing a GIS to support tracking of TCCIA member business sites
4. Designing a web enabled electronic membership register
5. Facilitating hosting of the TCCIA KILI website, database and GIS components of the system

Consultant (2000 -- 2004): Kagera Region Baseline Study

Client: Ministry of Health/Health Sector Reform Program

Specific assignments

1. Planning and execution of GIS supported baseline study of regional health facilities as

part of a pilot study for introducing GIS applications in health information management at the national level.

2. Input into the Development of a regional health GIS to support management of health services facilities and health statistics in Kagera Region
3. Training of regional health officials and workers in the use of GIS technology for managing health information/statistics

Consultant (2001/2002): Mwanza Informal Settlements Rehabilitation Project

Client: DANIDA/CITY OF MWANZA

Specific Assignments

1. Pre-planning field reconnaissance including onsite negotiations with local property owners, Identification of suitable locations for public access roads, school, religious, health centre sites
2. Planning and implementation of social economic and spatial data capture; database design and implementation for a participatory urban renewal master plan for two informal settlements in the City of Mwanza.

Consultant (2001/2002): Development of a ToR for the Remote Sensing Survey and Mapping of

Forest Catchments Areas

Client: Forest and Bee Keeping Division, Ministry of Natural Resources and Tourism, Tanzania

Specific Assignments

1. Drawing up of specifications for the technical and financial proposals for the Tender for the Survey and development of Forest Management Plans (zonation) for designated forest catchments areas in Tanzania.

Consultant (2000/2001): Amani Forest Reserve Zoning Map and GIS Development

Client: Amani Forest Reserve

Specific Assignments

1. Development of an integrated GIS to support rezoning of Amani Forest Reserve and linking of forest patches with corridors to form a well integrated ecosystem as part of Tanzania's application for the forest reserve to be incorporated into the UNESCO's World Natural Heritage
2. Design and Production of the Amani Forest Reserve Zoning Digital Map;

Research (1999—On-going): Joint UCLAS – UCT research on the Digital Survey and Documentation of Historical Sites in Kilwa

Client: UCLAS/University of Cape Town

Specific Assignments

1. Planning and execution of digital photogrammetric survey of Kilwa Kisiwani Archeological Monuments
2. Development of algorithms and programs for processing the survey data and building 3-D visualisations of the archeological site.
3. Design and creation of a versatile spatial database for documenting all archeological

artefacts typically found in sites such as Kilwa, Bagamoyo and Zanzibar as part of an African Digital Heritage database.

Consultant (1999/2000): Development of Spatial Databases for Mbulu, Monduli and Bagamoyo in support of the EIS Education

Client: Joint ITC-UCLAS EISCAP Project

Specific Assignments

1. Identification and collation of various datasets and information available in the designated areas. This included web-based data search for existing satellite images over these areas, data quality assessment and procurement of necessary image data sets
2. Geospatial database design and implementation, including hardware and software configuration
3. Geospatial data processing for the existing satellite images and topographic map sheets to extract vector and thematic (raster) map layers. Compilation of the map layers and integration with relevant attribute information to produce case study datasets for the EISCAP Project.
4. Development of case study training material through GIS analysis of the datasets and scenario modeling for typical applications.

Research (1998—2002): International Digital Cities Program -- in Collaboration with University of Arizona

Client: University of Arizona/UCLAS

Specific Assignments

1. Overall in-charge of all GIS component of the research project involving the design and application of GIS-based solutions to the study of social economic and environmental change in Dodoma City (Tanzania) based on social economic and remote sensing surveys.
2. Design of a database and GIS to support data management and information extraction from remote sensing images and social economic surveys
3. Development of suitable algorithms and programs to facilitate processing of SPOT image data.
4. Managing the research funds allocated for the Dodoma research

Consultant(1998—2002): Development and Coordination of the EISCAP Training Program, designed to build capacity for EIS in East Africa and the SADC region

Clients: SAIL Foundation of the Netherlands / ITC / UCLAS

Specific Assignments

1. Counterpart Director of the EISCAP Project from 1998 – 2002 responsible for all technical, scientific and financial aspects of the project execution.
2. Conception and development of the project proposal for capacity building in environmental information systems in East Africa and the SADC region which was funded by the Netherlands Government.
3. Implementation and management of the EISCAP project programs in collaboration with counterpart from the ITC. During the period 1998—2002 a total number of 280 participants from all sectors of development attended a series of 8-week courses focusing on GIS and Remote Sensing applications in their respective disciplines/specializations.

These courses were largely practical oriented with considerable field exposure and hands on work with GIS and Remote Sensing tools and software.

4. Managing project funds and personnel (total value funded by the Netherlands Govt. was 1.5 Million USD)

Research (1998/1999): Study of Urbanisation in Dar Es Salaam using SPOT and Radar Imagery – collaborative research with ITC and TNO of the Netherlands

Clients: BCRS Netherlands

Collaborators: ITC and TNO of the Netherlands

Specific Assignments

1. Planning and execution of fieldwork for satellite image ground truthing and social economic data acquisition (survey) within the City of Dar Es Salaam. Identification of existing (past and current) topographic maps. Preprocessing of existing topographic maps and aerial photographs into digital thematic and vector map layers.
2. Design and implementation of a geo-spatial database for the Satellite image data and survey outputs
3. Development of improved algorithms for processing the SPOT image and Radar Images to extract information on spatial temporal changes over a period of 8 years. Processing of the satellite datasets using the improved algorithms to extract change statistics and change maps.
4. Production of the research report and scientific paper.

Consultant (1998/1999): GPS Survey of TCAA Air Navigational Facilities in Tanzania

Client: TCAA

Specific assignments

1. Preplanning study of the available Air Navigational facilities around nine airports and aerodromes in Tanzania. This study included assessment of suitable technologies, human and other resource requirements and budget lines for the GPS surveys of TCAA Navigational facilities.
2. Planning of the GPS survey and coordination of Navigational facilities and Air Navigational obstructions and hazardous structures over the designated airports
3. Management and execution of the GPS surveys. Execution included solution of the scientific problem of transforming the GPS coordinates into the IATA acceptable ITRF system and format.
4. Managing the project funds (total value 50,000 USD)

Consultant (1998): UNDP Program Formulation Mission for the National Environmental Information Systems Program

Client: UNDP/National Environmental Management Council of Tanzania

Specific Assignments

1. Development of a national framework for environmental information management.
2. Evaluation of policy and institutional support base for the development of a national environmental information systems framework.
3. Evaluation of existing technical and scientific support base for the proposed framework.
4. Determination of technical, legal, and institutional requirements for the proposed

framework.

Consultant (1996—2002): Water Resources Management Project

Client: DHV International BV / District Council

Specific Assignments

1. Design and Implementation of a GIS database to support management and analysis of water resource data in Morogoro Regions's Berega Catchment area.
2. Design and development of a GIS database to support water resources management in Shinyanga Region
3. Training of water resources officials and workers in the effective use of database management and GIS technology for water resources and services management.

Consultant (1996-2002): Establishment of the Geo Information Centre at UCLAS, Tanzania

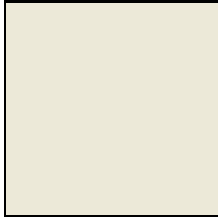
Client: UCLAS

Specific Assignments

1. Development of a strategic plan for the establishment of the first national center dedicated to capacity building in the field of geo-information technology and science.
2. Establishment of the Geo-information Center at UCLAS (in 1996), including staff identification and recruitment, equipment and software acquisition, development of GIS, remote-sensing applications training programs. Coordination and execution of sector targeted geo-informatics training programs from 1998 to date.
3. Management and coordination of all activities related to capacity building (training, research, advisory services) for geo-information and environmental information systems application in various development sectors in Tanzania, East Africa and SADC region

Mr. Saburi John

Department of Geomatics



EDUCATION

M.Sc. Eng. (U.N.B. CANADA) 1976

Diploma in Project Administration and Management (Niel's Brock Copenhagen Business College, Denmark) 1995

B.Sc. (Hons) Surveying & Photogrammetry (Nairobi) 1973.

EMPLOYMENT HISTORY

A. POSTS HELD

2007 – Present Director, Planning and Development, Ardhi University, Dar es salaam, Tanzania

2005 – 2007 Director, Planning and Development, University College of Lands And Architectural Studies (now Ardhi University), Dar es salaam

2004 – 2005 Manager PMU, University College of Lands And Architectural Studies

2004 Coordinator IGU, University College of Lands And Architectural Studies (now Ardhi University), Dar es salaam, Tanzania
(now Ardhi University), Dar es salaam, Tanzania

1996 - Present Senior Lecturer, Dept. of Land Surveying, University College of Lands And Architectural Studies (now Ardhi University), Dar es salaam, Tanzania

1992 – 1996 Principal, Ardhi Institute, (now Ardhi University) Dar es salaam, Tanzania

1992 – 1996 Associate Professor, Dept. of Land Surveying, Ardhi Institute (now Ardhi University), Dar es salaam, Tanzania

- 1991 – 1992 Ag. Principal, Ardhi Institute (now Ardhi University), Dar es salaam, Tanzania
- 1990 – 1992 Director of Studies, Ardhi Institute (now Ardhi University), Dar es salaam, Tanzania
- 1990 Visiting lecturer, Dept. of Surveying, University of Zimbabwe, Zimbabwe.
- 1988 -1990 Senior Lecturer and Head of Dept., Dept. of Land Surveying, Ardhi Institute (now Ardhi University, Dar es salaam, Tanzania.
- 1988 Ag. Head, Dept. of Land Surveying, Ardhi Institute (now Ardhi University, Dar es salaam, Tanzania
- 1985 – 1988 Senior Lecturer Dept. of Land Surveying, Ardhi Institute (now Ardhi University, Dar es salaam, Tanzania
- 1985 – 1986 Ag. Head, Dept. of Land Surveying, Ardhi Institute (now Ardhi University, Dar es salaam, Tanzania.
- 1979-1984 Lecturer, Dept. of Land Surveying, Ardhi Institute, (now Ardhi University), Dar es salaam, Tanzania
- 1978 - 1979 Ag. Head, Dept. of Land Surveying, Ardhi Institute (now Ardhi University), Dar es salaam, Tanzania
- 1976 - 1979 Assistant Lecturer, Dept. of Land Surveying, Ardhi Institute (now Ardhi University), Dar es salaam, Tanzania
- 1973 – 1974 Surveyor Grade III attached to Ardhi Institute (now Ardhi University) as Instructor in Land Surveying, Dar es salaam, Tanzania

B. SERVICES ON COMMITTEES AND BOARDS

- (1) MEMBER, SENATE of the Ardhi University (2007 to date)
- (2) MEMBER, National Council of Professional Surveyors (NCPS) Education (2005 to 2006)
- (3) VICE PRESIDENT Institution of Surveyors of Tanzania (IST) (1998 to 2004)
- (4) EXAMINER, Engineers Registration Board (ERB) (1998-2003)
- (5) MEMBER National Technical Training Advisory Council (NATTAC) (February 1991 – June 1996)

- (6) PRESIDENT, Institution of Surveyors of Tanzania (IST) (1989-1991)
- (7) MEMBER, IAG Commission-Geoid for Africa (1993 todate)
- (8) NATIONAL REPRESENTATIVE. International Union of Geodesy and Geophysics in I.A.G. Commission VII; International Geoid Commission (November 1988 to August 1991). Reappointed in December 1991 - Todate.
- (9) NATIONAL REPRESENTATIVE, International Union of Geodesy and Geophysics in I.A.G. Commission VII; Commission on Recent Crustal Movement (April 1981 todate).
- (10) NATIONAL REPRESENTATIVE, International Union of Geodesy and Geophysics in I.A.G. Commission III; The International Gravity Commission (April 1988 to August 1991). Reappointed in December 1991 – Todate
- (11) MODERATOR East African Land Surveying Examination Board (March 1990 to 1999)
- (12) BOARD MEMBER, East African Land Surveying Examination Board (November 1988 to 1999).
- (13) EXAMINER East African Land Surveying Examination Board (1976-1979 and 1987-1988)

CONSULTANCY AND PROJECTS MANAGEMENT

- (1) Cadastral Surveys and Titling of All TALIRO Properties in Tanzania (1983).
- (2) Cadastal Surveys of Ministry of Defence Properties in Dodoma and Zanzibar (1986)
- (3) Cadastral Survey of More than 2000 CDA Plots in Dodoma Municipality (1986-1988).
- (4) Cadastral Survey and Titling of Sikh Saw Mills (2000Ha) in Muheza, Tanga (1988)
- (5) Cadastral Survey and Titling of Southern Paper Mills farms in Mufindi (3,400Ha) (1988).
- (6) Cadastral Survey and Titling of TanTea Estates in Njombe and Iringa (6,000Ha) (1990).
- (7) Route Survey for Design of Mwanza-Nzega Road, *for Becca-Worley* (1990).

- (8) Route Survey for Design of Dar - Mlandizi Road, *for COWI (1996/97)*
- (9) Utility surveys, Boundary Verification, and topo/detail Survey, Soil Investigations and Environmental Survey of Proposed Mikocheni Market Village, Kinondoni, Dar es Salaam, *for WEBBU-Uronu (1997).*
- (10) Cadastral Resurvey and Titling of TSA Estates in Ubena, Kingolwira, Kimamba and Kilosa, (1997).
- (11) Cadastral Survey and Titling of Kahama Mining Corporation Limited Property Bulyanhulu at Kahama District, (1998).
- (12) Route Survey for Design of Water Pipeline From Smith Sound on Lake Victoria to Bulyanhulu in Kahama District, *for Kahama Mining Corporation Limited. (1998).*
- (12) Route Survey for Spot Rehabilitation of Pugu - Maneromango Road, *for Design Partnership Ltd (1999).*
- (13) Surveying and Titling of Farm No. 1714 (20hectares) at Vikawe Kibaha District; (1999).
- (14) Utility Services Survey of Claudine Centre, Dar es Salaam, *for Webb-Uronu (2000).*
- (15) Surveying and Titling of Farm No. 1820 (5hectares) at Vikawe, Kibaha District; (2000).
- (16) Surveying and Titling of Farm No. 1886 (55 hectares) at Zinga, Bagamoyo District; (2000).
- (17) Control Survey of Mutukula-Muhutwe-Kagoma Road (upgrading Project 136 km) Kagera Region; *for Tanzania Ministry of Works (2001).*
- (18) Surveying, Titling and Topographical/Detail survey Farm No.1929 (39 hectares) for planning of residential neighbourhood to be Developed by M/S Regimanuel (T) Ltd (2001)
- (19) Utility Surveys, Boundary Verifications, Topographical Survey, Soil Investigations and Environmental Survey of the Proposed Old Bagamoyo Road Shopping Centre (plot 66) Dar es Salaam; *for Webb-Uronu (2002).*
- (20) Control Survey of Kagoma-Lusahunga Road (upgrading project 160km) Kagera Region; *for Norconsult (2002)*

- (21) Water Supply Route Surveys of 30 Villages in Land and Mtwara Regions for the JICA – Funded Water and Sanitation Programme 2002/ (2003)
- (22) Topographical Survey and DTM Development of the Dodoma – Manyoni Road, *for Norconsult* (2003)
- (24) Water Supply Route Surveys of 10 Villages in Lindi and Mtwara Regions for the JICA. – Funded Water and Sanitation Programme (2004)
- (25) Water Supply Route Surveys of 15 Villages in Lindi and Mtwara Regions for the JICA – Funded Water and Sanitation Programme (2005).
- (26) Topographical Survey and DTM Development of the Ruaha Mbuyuni-Kitonga Road, *for COWI* (2005)
- (27) Topographical Survey and DTM Development of the Buzirayombo-Kyamyorwa Road, *for COWI* (2005)
- (28) Topographical/Detail Survey (DTM) of Unity Bridge and Approaches on Ruvuma River, *for COWI* (2005)
- (29) Topographical Survey and DTM Development of the Geita-Bwanga-Burzirayombo Road, *for Norconsult* (2005)
- (30) Topographical Survey and DTM Development of Marangu-Tarakea-Rongai-Kamwala Road, *for Norconsult* (2005)
- (31) Topographical/Detail Survey, Boundary Verification and Geotechnical Investigation of the Proposed Zanzibar Matemwe Beach Resort, Zanzibar, *for Webb-Uronu* (2006)
- (32) Topographical/Detail Survey and Boundary Verification of Avia property, Usa-River, Arumeru District, *for Webb-Uronu* (2006)
- (33) Topographical/Detail Survey and Boundary Verification of Farm No. 1442, Gaikrum, Karatu District, *for Webb-Uronu* (2006)
- (34) Topographical/Detail Survey and Boundary Verification of Plots 2,3 and 5 Block “A” Ununio Beach, Kinondoni District, *for Webb-Uronu* (2006)
- (35) Topographical/Detail Survey and Boundary Verification of Plot No. 208 Kunduchi Beach, Kinondoni District, *for Webb-Uronu* (2006)
- (36) Topographical/Detail Survey, Utilities Access Surveys and Boundary Verification of Plot No. 454, Mlimani Area, Dodoma Municipality, *for Webb-Uronu* (2006)

- (37) Topographical/Detail Survey and Boundary Verification of Plot No. 208 Kunduchi Beach, Kinondoni District, for *Webb-Uronu* (2006)
- (38) Topographical/Detail Survey and Boundary Verification of Plots 2,3 and 5 Block “A” Ununio Beach, Kinondoni District, for *Webbu-Uronu* (2006)
- (39) Topographical/Detail Survey and Boundary Verification of Farm No. 1442, Gaikrum, Karatu District, for *Webb-Uronu* (2006)
- (40) Topographical/Detail Survey and Boundary Verification of Avia Property, Usa-River, Arumeru District, for *Webb-Uronu* (2006)
- (41) Topographical/Detail Survey and Boundry Verification and Geotechnical Investigation of the Proposed Zanzibar Matemwe Beach Resort, Muyuni, Zanzibar, for *Webb-Uronu* (2006)
- (42) Topographical/Detail Survey for design of new access road to Spice Island Resort and Hotel, Nungwi, Zanzibar for *Webb-Uronu* (2007)
- (43) Topographical/Detail Survey and Boundary Verification of Hotel Tanzanite, Arumeru District, for Savannah Tours Ltd (2007)
- (44) Topographical/Detail Survey of SDV-TRANSAMI property on Nelson Mandela Highway, Kinondoni District, Dar es Salaam, for *Webb-Uronu* (2007)
- (45) Topographical/Detail Survey and Boundary Verification of Muyuni Beach Hotel, Muyuni, Zanzibar for Dubai World Africa Service Pty (2008)

PUBLICATIONS

A. Journal Papers:

- (1) The Role of the Gravity Field in the Definition of Horizontal Geodetic Networks in Eastern Africa The Journal of Building and Land Development, Vol. 1 (1984) p10-14 Dar es Salaam, Tanzania.
- (2) System 500 on Kilimanjaro Leica Reporter No.44 (2000) p20 – 22. Leica Geosystems AG, CH – 9435, Heerbrugg Switzerland.
- (3) Height of Kilimanjaro Survey Review No. 278 Vol.35 (October 2000) p552 – p562
- (4) Strategies for Computing Geoid Heights in the Determination of the Height of Mountain Kilimanjaro.The Journal of Building and Land Development, Vol. 7 Nos. 1-3 (2000) p13-18.

- (5) Gravity Effects on the Tanzania Primary Levelling Network. The Journal of Building and Land Development, Vol. 7 Nos. 1-3 (2000) p13-18.

B. PAPERS SUBMITTED FOR PUBLICATION

- (i) Datum Transformations for the Tanzania Primary Levelling Network (For publication the Survey Review; 2008 Co-authored with 2 others)
- (ii) Proposal for Modern and Practical Heights (For publication in Journal of Building and Land Development; 2008)

C. REVIEWED PAPERS FOR PUBLICATION

- (i) A neural network model for classification of coastal wetlands vegetation structure with Moderate Resolution Imaging Spectro-Radiometer (MODIS) Data: Part I – Model development. (For The Journal of Building and Land Development 2007)
- (ii) A neural network model for classification of coastal wetlands vegetation structure with Moderate Resolution Imaging Spectro-Radiometer (MODIS) Data: Part II – Model application. (For The Journal of Building and Land Development 2007)

D. TECHNICAL NOTES

- (1) Astrogravimetric Geoid for Eastern Canada Dept. of Surveying Engineering, University of New Brunswick, Fredericton, NB. Canada September, 1980.
- (2) Studies Towards a Heterogeneous Geoid for Canada Dept. of Surveying Engineering, University of New Brunswick, Fredericton, N.B. Canada 1983.
- (3) The Geophysical Inverse Problem Dept. of Land Surveying, Ardhi Institute Dar es Salaam, Tanzania, 1985.
- (4) Vertical Crustal Movement Investigations Along the Dar es Salaam Coastline Dept. of Land Surveying, Ardhi Institute, Dar es Salaam, Tanzania 1987.
- (5) Terrain Models Revisited Tanzania Surveyors Annual Conference Arusha, Tanzania July, 1988 (*Co-authored with Mr. Alphonse L. Mutajwaa*)
- (6) Co-operation in the Training of Surveyors within the SADCC Region- The Ardhi Institute Contribution. First Meeting on Indigenous Self Sufficiency in Surveying and Mapping Manpower for SADCC. Dar es Salaam, Tanzania, March, 1989.
- (7) The Principles of Inertial Positioning Dept. of Land Surveying, University College of Lands and Architectural Studies, Tanzania April, 1997.

RESEARCH REPORTS AND TECHNICAL MANUALS

(1) Geophysics for Land Surveys

Technical Manuals Series, Dept. of Land Surveying, Ardhi Institute, Dar es Salaam, Tanzania 1986 (84 pages).

(2) Earth's Gravity Field and Its Applications in Geodesy

Technical Manuals Series, Dept. of Land Surveying, Ardhi Institute, Dar es Salaam, Tanzania, 1987. (128 pages).
(Co-authored with Mr. Prosper E. Ulotu) (under review)

(3) Proposals for Rigorous Systems of Heights for East Africa

Dept. of Land Surveying Tech. Rep. No. 90-1 Ardhi Institute, Dar es Salaam, Tanzania, 1990 (38 pages).

(4) Affiliation of Ardhi Institute with the University of Dar es Salaam: Its Impact on the Sustainability, Internal and External Efficiency of the Institute. Niels Brock Copenhagen Business College, Denmark, 1995 (32 pages)

(5) Computations of Means Gravity Anomalies for Tanzania From Point Gravity Values.

Department of Land Surveying Tech. Rep. No. 96-1 Ardhi Institute Dar es Salaam, Tanzania 1996.

(6) Mathematics for Geomatics and Surveying. Volume 1.

Lecture Manual, Department of Land Surveying, Univ. Coll. of Lands and Architectural Studies, Dar es Salaam, Tanzania 2000 (154 pages).
(CO-authored with Mrs. Margareth Njau)

(7) Geometrical Geodesy

Lecture Manual, Department of Land Surveying, Univ. Coll. of Lands and Architectural Studies Dar es Salaam, Tanzania

(8) Differential Geometry for Geospatial Sciences

Lecture Manual, School of Geospatial Sciences and Technology (SGST), Ardhi University, Dar es Salaam, Tanzania 2007

- (9) **Aspects of Geophysics for Geomatics and Surveying.**
Lecture Manual, School of Geospatial Sciences and Technology (SGST), Ardhi University, Dar es Salaam, Tanzania (In pre: to be co-authored with E. Saria)
- (10) **Spherical and Ellipsoidal Geometry**
Lecture Manual, School of Geospatial Sciences and Technology (SGST) Ardhi University, Dar es Salaam, Tanzania

WORKSHOPS, SYMPOSIUMS, RESEARCH REPORTS AND CONFERENCES ATTENDED

- (1) **A Regional Gravimetric Geoid for Hudson Bay**
American Geophysical Union and Canadian Geophysical Union Joint Meeting Toronto, Ont. Canada. May, 1980.
- (2) **The Analysis of Relative Crustal Movements Using Strain Techniques**
First IUGG Symp. on Crustal Movements in Africa. Addis Ababa Ethiopia, May, 1991 p. 271-282. *(co-authored with Dr. Diet Schneider)*
- (3) **Determination of the Geoid in Eastern Africa Using Modified Kernels on the GEM10 Spheroid.**
IAG Inter. Symp. on Geodesy for Africa. Nairobi Kenya, November, 1981.
- (4) **Evaluation of Geoid Solutions for Canada Using Different Kinds of Data.**
Proceedings of the IAG Inter. Symp. on Improved Gravity Field Estimations on Global Basis. Humburg Germany, 1983 p. 609 - 624. *(Co-authored with Prof. Petr Vanicek)*
- (5) **Geodetic Studies Towards the Understanding of Geodynamic Phenomena in East African Rift Valley System.**
Proceedings of the 8th Inter. symposium on Recent Crustal Movements. Kobe Japan, December, p. 345. *(Co-authored with Mr. M. Kwimbere, Mr. J. Tairo and Mr. P. Ulotu)*
- (6) **East African Rift Valley Geodynamics System**
Proceedings of the 4th IUGG Inter. Symposium on Recent Crustal Movements in Africa. Nairobi Kenya, November - December 1994 p. 58 - 63. *(Co-authored with Mr. M. Kwimbere, Mr. J. Tairo and Mr. P. Ulotu)*

(7) Optimization in Surveying

Paper presented at the 2nd Inter. Conference on Mathematics and Industry. Univ. of Dar es Salaam, Dar es Salaam Tanzania, September 1999. (Co-authored with Mrs. Margreth Njau)

(8) Managing Student Crises: The Experience of Ardhi Institute

In “Managing University Crises” by T.S.A. Mbwette & A.G.M. Ishumi (Ed). p113 – 120. DUP (1996) Ltd. Dar es Salaam, Tanzania, 2000.

(9) A Preliminary Geoid Model for Africa

Paper presented at the IUGG General Assembly, Sapporo, Japan. (Co-authored with 5 others) 2003

(10) Precise Determination of the Orthometric Height of Mt. Kilimanjaro

Paper presented by Prof. Rui Manuel da Silva Fernandes on behalf of the KILI2008 team at the Winter Meeting of the American Geophysical Union (AGU), San Francisco USA, December 2008

CONTACTS

Department of Geomatics,
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Dar es salaam, Tanzania

Mr. Zakaria Robert Ngereja

Department of Geomatics



EDUCATION

Institutions	Universitat Jaume I, University of MÜNster & New University of Lisbon
Locations	CastellÓN, Spain; MÜNster, Germany and Lisbon, Portugal
Date:	2007 - 2009
Degree	Master of Science in Geospatial Technologies

Institution	University of Dar es Salaam
Location	Dar es Salaam, Tanzania
Date	2001 - 2003
Degree	Master of Science in Engineering Management

Institution	University of Dar es Salaam
Location	Dar es Salaam, Tanzania
Date	1997 - 2001
Degree	Bachelor of Science in Land Surveying

Institution	Ministry of Agriculture Training Institute - Nyegezi
Location	Mwanza, Tanzania
Date	1992 - 1994
Degree/Diploma	Diploma in Irrigation

Training/Short Courses Attended

Institution	International Institute for Geo-information Science and Earth Observation (ITC)
Date	October - December, 2004
Course title	Spatial Data Handling: Databases, GIS and Remote Sensing
Award	Certificate

Institution	University College of Lands and Architectural Studies
Date	September, 2004
Course title	Active Sensors: Principles and Capabilities of providing Core Geoinformation.
Award	Certificate of Attendance

Institution	University of Dar es salaam Computing Centre
Date	November, 2001
Course title	Computer Course in Computer Skills for Executives
Award	Certificate of Attendance

Institution	Ardhi University
Date	2007
Course title	Preparation of Technical and Financial Consultancy Proposals
Award	Certificate of Attendance

EMPLOYMENT HISTORY

Date	2005 – to date
Location	Dar es Salaam, Tanzania
Organization	Ardhi University
Position	Senior Surveyor

Date	2001 – 2004
Location	Dar es Salaam, Tanzania
Organization	University College of Lands and Architectural Studies
Position	Teaching Assistant

Date	1995 - 1996
Location	Bunda, Mara Region
Organization	Virian Tanzania Ltd
Position	Purchasing Clerk

Date	1994 - 1995
Location	Bunda, Mara Region
Company	Tanganyika Wattle Company Ltd
Position	Irrigation Foreman

CONSULTANCY AND PROJECTS MANAGEMENT

- 2007 Participated in the procurement and processing of landsat ETM+ satellite imagery and determination of land cover change at Moyowosi Ramsar wetlands, commissioned by the wildlife division of the ministry of natural resources and tourism, Tanzania.
- 2006 Carried-out as-is survey for Landuse Plan for Nyangoto and Kewanja

villages in Tarime district covering 400 ha.

- 2005 Sub-division survey of Mlimanic city project at the University of Dar es Salaam, Tanzania
- 2002 Location and route survey for fibre optic cable at University of College of Lands and Architectural Studies, Dar es salaam, Tanzania.
- 2001 Cadastral surveying of 250 plots at Mwanza municipal council, Tanzania.
- 2001 Location and route survey for fibre optic cable around University of Dar es salaam, Tanzania.
- 2001 Design and development of spatial databases of boreholes for the Dar es salaam Drilling and Dams Construction Agency, Tanzania.

PUBLICATIONS

Kundi, B.A.T., Ngereja, Z.R. *Exploring GIS in Tanzania*, GIM International, September 2003, Issue9, Vol.17. pp. 84-87.

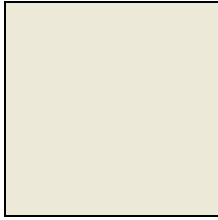
"Coupling of GIS with DRASTIC model to asses ground water Vulnerability to pollution for the City of Dar es salaam, Tanzania" Co-authored with R. R. A. Mato, C. A. M. G. Cramer, F. J. J. G. Janssen, J. H. Y. Katima, E, G. Mtalo, I. Chonya. Proceedings of the 5th International Conference on Diffuse Pollution and Watershed Management June 10 -15, 2001 Milwauke, U.S.A.

CONTACTS

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Dar es Salaam, Tanzania.

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E-mails: ngereja@aru.ac.tz , ngereja@gmail.com



EDUCATION

M.Sc. (Geomatics) – obtained from the University of Dar es Salaam/Ardhi University 2007
B.Sc. (Land Surveying) (Hons.) – obtained from the University of Dar es Salaam 2003.
Dipl. (Education) in Physics and Mathematics – obtained from Monduli Teachers' College 1997.
Advanced Certificate in Computer Applications – obtained from the Computing Centre, University of Dar es salaam 1995

OTHER TRAINING

- i) A three-month course in Geo-information Science and Earth Observation: “*Spatial data handling: Databases, GIS and Remote Sensing*” (ITC, The Netherlands, from September to December 2007). Awarded a Certificate.
- ii) A training course on “*Effective Teaching Methods for University of Dar es Salaam Academic Staff*” (University of Dar es Salaam, 13th – 17th February 2006). Awarded a Certificate.
- iii) ITC Refresher course: “*Combating and Managing Disaster of Forest Fires using Remote Sensing and GIS*” (UCLAS, 4th – 15th October 2004). Awarded a Certificate.
- iv) A training course on “*Project Monitoring and Evaluation*” (University of Dar es Salaam, 14th – 18th January 2004). Awarded a Certificate.
- v) A seminar on “*Preparation of Technical and Financial Proposals*” conducted by the University of Dar es Salaam Entrepreneurship Centre, from 18th to 20th April 2007.
- vi) Participated in “*Africa Region CASLE Conference*” held in Bagamoyo, from 14th to 17th 2006.

EMPLOYMENT HISTORY

2007 - Present Assistant Lecturer Ardhi University, Dar Es Salaam, Tanzania.

2005 – 2007 Tutorial Assistant University College of Lands and Architectural Studies
(Now Ardhi University), Dar es salaam, Tanzania

2003 – 2004 GIS Specialist , a consultant of the Environmental Resources
Consultancy (ERC), Dar Es Salaam, Tanzania

CONSULTANCY AND PROJECTS MANAGEMENT

- i) Survey of 270 plots at Mawelewele in Iringa municipality (February 2009). In this project, I was a project leader and finance manager.
- ii) Survey of 788 plots at Mkalama in Dodoma municipality (November – December 2008). In this project, I was a project leader and finance manager.
- iii) Extension of Controls in Iramba district (July 2008). I was a planning and finance manager.
- iv) Survey of 690 plots at Uyole, Mbeya City (Jan. – February 2007). I was a project leader assistant and finance manager.
- v) Design of Geo-spatial Database for the Iringa District (July – Sept. 2005)
Survey of 42 plots at Mwanalugali, Kibaha (August - Sept.2004)

CONTACTS

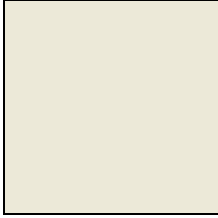
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Phone: +255 713 749 996

E-mail: roberts@aru.ac.tz

Mr. Elifuraha Saria

Department of Geomatics



EDUCATION

Msc. Geomatics, Ardhi University, Dar es salaam Tanzania, 2004-2006

University of Dar es Salaam (Bsc. Land Surveying), Tanzania 1999-2003

Full Technician Certificate (Civil Engineering) Arusha Technical College, Tanzania, 1994 - 1997

EMPLOYMENT HISTORY

2006 – Present Assistant Lecturer in the Geomatics Department, Ardhi University,
Dar es salaam, Tanzania

2008 – Present Part Time Lecturer, Department of Mining and Mineral processing
Engineering, University of Dar es Salaam, Tanzania

2006 – Present Chief Surveyor PAULSAM Geo-Engineering Consultant Co. Limited,
Dar es salaam, Tanzania

2006 Tutorial Assistant in Geomatics Department, Ardhi University,
Dar es salaam, Tanzania

2003-2004 Mine Surveyor, Kahama Mine Cooperation LTD, Shinyanga, Tanzania

2003 Surveyor, Geomatics Engineering and Consultant Ltd, Dar es salaam,
Tanzania.

CONSULTANCY AND PROJECTS MANAGEMENT

Year	Employer	Client	Project executed
2005	BICO	Ngorongoro Conservation Area	Topographical Survey of NCAA plot at Karatu 200 hectares.

		Authority	
2005	UCLAS	UDSM	Cadastral surveying and title acquisition for the sub-divided UDSM plot.
2005	UCLAS	UDSM	Topographical survey of The Institute of Marine Science Zanzibar
2003	Geomatics Engineering and Consultants LTD	MHLUS	Survey of 20,000 plots project for DSM City
2006	Purdue University under NSF funds	Purdue University, ARU and MLHSD	Establishing, Surveying and high end data processing of GPS control for the whole of Tanzania to study Kinematics of East African Rift System.
2007-2008	Purdue University under NSF funds	Purdue University, ARU and MLHSD	Survey and Installing Three Continuous GPS station at Ngorongoro and Longido District to study the Kinematics of East African Rift (Northen Tanzania)
2007	AGI Ltd	Mbeya Cement Company	Consultant to topographical and geological surveys of MCC Limestone and Pozzolana deposits at Songwe (Open Pit survey and Progress plan)
2003	Geomatics Engineering and Consultants LTD	Tanzania Civil Aviation Authority	Setting out survey of the way leave from Mbagala to Somanga
2003	Geomatics Engineering and Consultants LTD	SONGAS – GAS to Electricity Project	Topographical survey of TCAA site at Ukonga site for Office expansion.
2003	Geomatics Engineering and Consultants LTD	Parliament of Tanzania: Dodoma	Topographical survey and CAD output for the construction of the New Parliament Building In Dodoma Tanzania
2003	Geomatics Engineering and	SONGAS – GAS to Electricity Project	Surveyed and Settingout of Gas Valve station along the Songosongo gas -

	Consultants LTD		pipeline project.
2006	Paulsam Geo-Engineering consultant Co. Ltd.	Kiwira Coal and Power Ltd.	Consultant to Topographical and geological surveys of Proposed Kabulo Power Project near Songwe River.
2006	Paulsam Geo-Engineering consultant Co. Ltd.	Kiwira Coal and Power Ltd.	Consultant to Recover and re-establish new Boundary for Kiwira Coal and Power Ltd in Kyela Mbeya
2007	Paulsam Geo-Engineering consultant Co. Ltd.	Tanga Cement Company Ltd	Setting-out Borehole for lithological study of Limestone Reserve at Pongwe Site - Tanga
2007	Paulsam Geo-Engineering consultant Co. Ltd.	Tanga Cement Company Ltd	Setting-out Borehole for lithological study of Pozzolana Reserve at Oldonyosambu site Site -Arusha
2008	Ardhi University	School of Geospatial Science and Technology (SGST)	Mini- Curriculum Review for School of Geospatial Science and Technology (SGST).
2008	Purdue University under NSF funds	Purdue University, ARU and MLHSD	Establishing, Surveying and high end data processing of GPS control for the whole of Tanzania to study Kinematics of East African Rift System.
2009	Ardhi University	Tanzania Portland cement company ltd	Topographical survey and CAD output for the quarry site at wazo Hill and monthly Volume determination of the TPCC stockpile for stock balance

WORKSHOPS, SYMPOSIUMS, RESEARCH REPORTS AND CONFERENCES ATTENDED

Attended a month High End GPS Processing Training at the Purdue University. USA. Where I Processed GPS data with GAMIT-GLOBK software and have initial Velocity to quantify the Kinematics of East African Rift System, 2006.

Attend one week course in Teaching Methodology: Centre of continuing Education, University of Dar es salaam, 2006

Workshop on Space Geodesy Hosted by Inkaba Ye Africa, at Matjiesfontain, Cape Town- South Africa, 2007

PUBLICATIONS

Stamps, D.S., E. Calais, E. Saria, C. Hartnady, J. Nocquet, C.J. Ebinger, and R.M. Fernandes (2008), *A kinematic model for the East African Rift*, Geophys. Res. Lett., 35, L05304, doi:10.1029/ 2007GL032781.

Calais E., N. d'Oreye, J. Albaric, A. Deschamps, D. Delvaux, J. Deverchere, C. Ebinger, R. W. Ferdinand, F. Kervyn, A. S. Macheyeke, A. Oyen, J. Perrot, E. Saria, B. Smets, D. S. Stamps, C. Wauthier, Aseismic strain accommodation by slow slip and dyking in a youthful continental rift, East Africa, Nature, Vol 456, 11 December 2008, doi:10.1038/nature07478

CONTACTS

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BIOGRAPHY

Ms Dorothea Deus is a Geomatician, database and GIS expert working with Ardhi University, Dar es Salaam in the department of Geomatics as an Assistant Lecturer. Ms Dorothea's major areas of specialization are Geographical Information Systems (GIS), Remote Sensing, database design and Global positioning System (GPS). She has carried out numerous consultancies in the same fields. Ms Dorothea is a fellow of the Institution of Surveyors of Tanzania (IST).

EDUCATION

MSc. (Geomatics), Ardhi University (ARU), Dar es Salaam, Tanzania, 2007.

BSc. (Land Surveying), University of Dar es Salaam (UDSM), Dar es Salaam Tanzania, 2004.

Certificate (Databases principles, Geographic Information Systems and Remote Sensing), International Institute for Geo-information Science and Earth Observation (ITC), the Netherlands, 2007.

Certificate (Effective teaching methodology), University of Dar es Salaam (UDSM), 2006.

Certificate (Combating and Managing Disaster of forest fires using Remote Sensing and GIS), University College of Lands and Architectural Studies, (UCLAS), Dar es Salaam, Tanzania, (2004).

EMPLOYMENT HISTORY

2007- Present Assistant Lecturer, Department of Geomatics, Ardhi University (ARU), Dar es Salaam, Tanzania.

2006 - 2007 Tutorial Assistant, Department of Geomatics ,Ardhi University (ARU) Dar es Salaam, Tanzania

PUBLICATIONS

Deus, D (2006), Determination of transformation parameters between Mean Sea Surface and the Geoid for GPS heighting in Tanzania.

Deus, D (2004), Poverty level in Terms of Primary Schools and health facilities Assessments and Monitoring using GIS Techniques. A case of Kinondoni district, Dar es Salaam, Tanzania.

COURSE TAUGHT

Remote Sensing
Geographical Information System,
Land Information System and Management

PUBLICATIONS

Deus, D (2006), Determination of transformation parameters between Mean Sea Surface and the Geoid for GPS heighting in Tanzania.

Deus, D (2004), Poverty level in Terms of Primary Schools and health facilities Assessments and Monitoring using GIS Techniques. A case of Kinondoni district, Dar es Salaam, Tanzania.

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