# **CURRICULUM VITAE**

Personal profile	
Name:	Karanja Faith Njoki (PhD)
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	Nairobi, Kenya.
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	+254 020 318262 ext. 28339 (office)
	Email: faithkaranja@uonbi.ac.ke or faithkaranja@hotmail.com
Date of birth:	1968
Gender:	Female
Marital Status:	Married
Nationality:	Kenyan
Membership of Professional Bodies:	Full Member (MISK)-Institution of Surveyors of Kenya (ISK) and Licensed Surveyor LS(K Full Member African Women in Science and Engineering (AWSE)
	Member for Section 2- Engineering Sciences of the International Academy of Astronautics (IAA)
Designation:	Associate Professor

HF10/15084

PF. No:

# **Key Achievements**

- Mentored over secondary 3,000 girls in Science, Technology, Engineering and Mathematics (STEM)-UNESCO/Government of Kenya Program since 2014
- Chair, Department of Geospatial and Space Technology (September 2017-September 2020)
- Chair, GIS Chapter, ISK (2014-2018)
- Chair, School of Engineering Postgraduate Programmes Committee (2011-2016)
- Chair, College of Architecture and Engineering Representative, Exhibitions and Shows (2013-2016)
- Co-ordinator of the MOU between University of Nairobi and University of Helsinki (2010-2015)
- External Examiner Department of Geomatic Engineering and Geoinformation Sciences, Kimathi University College of Technology (2012-2016)
- External Examiner Department of Geomatics and Land Management, Makerere University (2014 and 2017)
- Mission Idea Contest (MIC)-Regional C-ordinator for MIC in Kenya since 2012.

# **Academic Qualification**

University	Country	Dates	Degree
Kenyatta University	Kenya	2008-2010	MBA(Project Management)
University of Hannover	Germany	1999-2002	Ph.D.(Geoinformatics)
University of Nairobi	Kenya	1994-1996	Masters(Surveying)
University of Nairobi	Kenya	1992-1993	Postgraduate Dipl. Computer Science
University of Nairobi	Kenya	1988-1991	BSc. (Surveying and Photogrammetry)

# **Employment history**

Dates	Institution	Positions Held
Oct19-Todate	University of Nairobi	Chair and Associate Professor, Department of Geospatial and Space Technology
2017-Oct19	University of Nairobi	Chair and Senior Lecturer, Department of Geospatial and Space Technology
2009-Todate	University of Nairobi	Senior Lecturer (GIS, Remote Sensing and Land Surveying)
2003-2008	University of Nairobi	Lecturer (GIS, Remote Sensing, and Land Surveying)
2004-2007	Jomo Kenyatta University	Part-Time Lecturer(GIS, Remote Sensing and Land Surveying)
1997-2002	University of Nairobi	Assistant Lecturer(GIS, Remote Sensing and Land Surveying)

# Research and Publications

# **Refereed Journal Papers**

Odeny, D., **Karanja, F.N**, Mwachala, G., Pellikka, P. and Marchant, R. (2019) Impact of Climate Change on Species Distribution and Carbon Storage of Agroforestry Trees on Isolated East African Mountains. American Journal of Climate Change, 8, 364-386. <a href="https://doi.org/10.4236/ajcc.2019.83020">https://doi.org/10.4236/ajcc.2019.83020</a>

Odera, C.A. and **Karanja, F.N.** (2019) Leveraging GIS in Supply Chain Management for Floriculture Application: Nairobi County, Kenya, Journal of Geographic Information, 11 389-404. https://doi.org/10.4236/jgis.2019.113024

Muhwanga, C.N., Obiero, J.P.O. and **Karanja, F.N.** (2018) Application of Geographic Information Systems in Groundwater Prospecting: A Case Study of Garissa County, Kenya. Journal of Geographic Information System, 10, 439-460. https://doi.org/10.4236/jgis.2018.104023

Odeny D., O., **Karanja F.N.,** Geoffrey, M., Petri, P. and Rob, M. (2018) Comparison and Prediction of the above Ground Carbon Storage in Croplands on the Inhabited Slopes on Mount Kilimanjaro (Tanzania) and the Taita Hills (Kenya). Journal of Geographic Information System, 10, 415-438. https://doi.org/10.4236/jgis.2018.104022

Mwangi, P.W., **Karanja, F.N.** and Kamau, P.K. (2018). Analysis of the Relationship between Land Surface Temperature and Vegetation and Built-Up Indices in Upper-Hill, Nairobi. Journal of Geoscience and Environment Protection, 6, 1-16. https://doi.org/10.4236/gep.2018.61001

Nthuni S., **Karanja F.N.**, Pellikka P., Siljander M, (2017). Testing the Potential Application of Simulated Multispectral Data in discriminating Tree Species in Taita Hills. Journal of Geosciences and Geomatics Vol. 5, No. 5, 243-250.

Oyugi M.O., **Karanja F.N.** and Odenyo V.A. (2017). Modelling the Effect of Land Use and Land Cover Variations on the Surface Temperature Values of Nairobi City, Kenya, Resources and Environment 2017, 7(6): 145-159 DOI: 10.5923/j.re.20170706.01

Oyugi M.O., Odenyo V.A. and **Karanja F.N.** (2017). The Implications of Land Use and Land Cover Dynamics on the Environmental Quality of Nairobi City, Kenya, American Journal of Geographic Information System 2017,6(3): 111-

Nthuni S, Heiskanen J, **Karanja F.N.**, Siljander M, Pellikka P (2015). Tree Species Discrimination using Narrow Bands and Vegetation Indices from Airborne Aisa Eagle Vnir Data in the Taita Hills, Kenya. J Earth Sci Clim Change. 6:310. doi:10.4172/2157-7617.1000310

Oyugi, M.O. & **Karanja F.N**., (2014). Sustainable Urban Development, Product Design and Construction Management: The need for Database and User-Interface Systems for Urban Planning. Africa Habitat Review Journal, 8(8): pp.653-665

**Karanja, F.N.** and Wanyoro, A. K., 2011: Understanding the Spatial Prevalence of Cervical Cancer using GIS in Nairobi, Kenya, Applied Geoinformatics for Society and Environment (AGSE), Vol (1), 287-292, ISSN 978-3-943321-00-5

**Karanja, F.N., 2011**: Effective Planning and Management of Water Resources through Borehole Profile using GIS, A Case Study of Nairobi, Kenya, ICWES 15, 316-325, ISBN 9780858259973: https://search.informit.com.au/documentSummary;dn=957674118715930;res=IELENG

**Karanja, F.N., 2011:** A Spatially Gender-Disaggregated Database for Bursary Allocation to attract Women pursuing Science, Engineering and Technology (SET) in Kenya, ICWES 15, 150-159, ISBN 9780858259973 https://search.informit.com.au/documentSummary;dn=957059230664410;res=IELENG

**Karanja, F.N., 2011:** Mending the Bridge between Higher Institutions of Learning and Industry, a Case Study of School of Engineering, University of Nairobi. Journal of Management, Volume II, 190-199, ISSN 2074-4730

**Karanja, F.N., 2009**: The Role of Geomarketing in understanding the Massification and Expansion of Higher Education in Public Universities in Kenya: Case Study: University of Nairobi. Journal of Management, 2009, Volume 1, 385-397, ISSN 2074-4730.

# **International Conference Proceedings Papers**

#### 2017-2019

**Karanja F.N., 2018:** What the First Kenya University Nanosatellite Precursor Flight 1KUNS-PF means to the Country, United Nations/Brazil Symposium on Basic Space Technology, and "Creating Novel Opportunities with Small Satellite Space Missions" in Natal, Brazil from 11th to14th

September, 2018

**Karanja, F.N. 2017:** Utilization of Space Technology Programs-Current State of Affairs: The Case of the Kenyan Universities Conference Programme on Utilization of Space Technology in Kenya, 9th February, 2017, Nairobi, Kenya.

#### 2014-2016

**Karanja, F.N. 2016:** Space Technology Programmes , the Case of the Kenyan Universities, United Nations/Kenya conference on Space Technology and Applications for Wildlife Management and Protecting Biodiversity in June 2016 Nairobi, Kenya.

Odeny D., Karanja F., Geofrey M., Pellikka P., Philip P., Norfolk O., Rob M. 2016: Projected impacts of climate change on above-ground carbon storage of agroforestry tree species (Albizia gummifera, Mangifera indica, Persea americana) along the elevation gradients of Mount Kilimanjaro and Taita Hills, United Nations/Kenya conference on Space Technology and Applications for Wildlife Management and Protecting Biodiversity in June 2016 Nairobi, Kenya.

#### 2012-2014

**Karanja, F.N. 2013:** From Green Cities to Concrete Cities, A remote sensing perspective, ISPRS conference in May 2013 Hannover, Germany.

**Karanja, F.N. and Ngigi P. N., 2013:** The Role of Remote Sensing in Sustainable Management of Wetlands, THE 5TH AFRICAN LEADERSHIP CONFERENCE ON SPACE SCIENCE AND TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT - ALC-Accra, GHANA 3-5 December, 2013

**Karanja, F.N. 2012:** Aligning Space Science and Technology Curriculum in Universities with the National Agenda in Kenya, United Nations/Japan Nano-Satellite in Symposium in Nagoya, Japan from 9<sup>th</sup> to14<sup>th</sup> October, 2012.

# 2009-2011

**Karanja, F.N., 2011:** Technical and Managerial capacities in implementing Small Satellite Programmes in Kenya, United Nations/Austria/European Space Agency Symposium on "Small Satellite Programmes for Sustainable development: Implementing Small Satellite Programmes: Technical, Managerial, Regulatory and Legal Issues" Graz, Austria, from the 13<sup>th</sup> to 16<sup>th</sup>

September, 2011.

**Karanja, F.N., 2011:** The Role of Space Technology in Landuse and Landcover Mapping in Africa, 4<sup>th</sup> African Leadership Conference on Space Technology, Mombasa Kenya, September 26-28, 2011.

**Karanja, F.N., 2011:** Assessment of critical Engineering Skills relevant for Industrialization, Kenya Institute of Management 3rd Annual International Conference on Industry and Higher education Nairobi, Kenya 28th – 30th September 2011

#### 2006-2008

**Karanja, F.N., 2006:** The Use of GIS and Remote Sensing in defining the Spatial Pattern of Sexual Assault, A Case Study of Nairobi Area, AARSE Conference, Cairo, Egypt Oct.-Nov., 2006.

**Karanja, F.N., 2008:** The role of Geoinformation in poverty reduction in developing countries, International Conference for Women in Engineering and Science, Lille, France July 2008.

Nyadawa, M.O., **Karanja, F.N.** and Njoroge, T.M., **2008**: Application of GIS-based spatially distributed hydrologic model in Integrated Watershed Management: A case study of Nzoia basin, Kenya, Proceedings of the 2<sup>nd</sup> International Civil Engineering Conference on Civil Engineering and Sustainable Development, Mombasa Kenya September, 2008.

#### 2003-2005

**Karanja, F.N., 2004:** GIS/GPS for Facility Mapping and Management, presented at a Training Workshop for School Mapping Project at Kenya Institute of Education, May 2004.

**Kiema, J.B.K., Mulaku, G.C., Karanja, F.N., 2004**: From Surveying to Geospatial Engineering: Proposal for new academic programs at the University of Nairobi. Paper presented at the AARSE Conference, UN-Headquarters, Nairobi, Kenya October, 2004.

**Karanja, F.N., 2004**: Towards an Environmental Information System for monitoring and managing vacant land within a dynamic urban environment. Paper presented at the AARSE Conference, UN-Headquarters, Nairobi, Kenya October, 2004.

**Karanja, F.N., 2005:** Use of GPS/GIS to monitor school enrollment by Gender, Paper presented at the International Conference for Women in Engineering and Science, Seoul, South Korea in August 2005.

#### 2000-2002

**Karanja, F.N.** and Lohmann P., 2000: The contribution of GIS and Remote Sensing in Urban Land Use Negotiation in Developing Countries, Proceedings, IAPRS, Vol. XXXIII, Amsterdam, 2000.

**Karanja, F.N.** and Lohmann P., 2001: Use of temporal knowledge in detecting unplanned developments in urban areas, 2<sup>nd</sup> Symposium, Remote Sensing of Urban Areas, 22-23 June, 2001, University of Regensburg, Germany

**Karanja, F.N.** and Lohmann P., 2001: Monitoring the trend of unplanned developments in an urban area, IEEE/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban areas, Rome, Italy, November, 8-9<sup>th</sup>, 2001

**Karanja, F.N.** and Lohmann P., 2002: Using Developable Land Units as an Indicator of Rate of Growth of an Urban Area, 3<sup>rd</sup> Symposium, Remote Sensing of Urban Areas, 11-13 June, 2002, Istanbul, Turkey.

#### Other Publications

#### Thesis Publication

**Karanja, F.N., 2002**: Use of Knowledge Based Systems for the Detection and Monitoring of Unplanned Developments. DEUTSCHE GEODÄTISCHE KOMMISSION bei der Bayerischen Akademie der Wissenschaften Reihe C, Dissertationen, Heft Nr. 558, 2002, 110pages, ISBN 3 7696 9597 6

#### **Book Contributions**

**Karanja, F.N.** and Lohmann P., 2001: Monitoring the trend of unplanned developments in an urban area, Remote Sensing and Data Fusion over Urban Areas, 192-197. ISBN 0-7803-7059-7

**Karanja, F.N.** and Lohmann P., 2001: Use of temporal knowledge in detecting unplanned developments in urban areas, Remote Sensing of Urban Areas, 43-52. ISBN 3-88246-222-1

# **Postgraduate Supervision**

#### Ph.D (Doctoral)

**Oyugi Maurice Onyango (SES/D.PHIL/07/07):** The effects of Urban Morphology on Environmental Quality of Nairoi City- November 2018

**Nthuni Samuel Mwenje (F80/85221/2012):** Identification of Tree Species using Airborne Hyperspectral Data (Taita Hills)- December 2018

**Odeny Dickson (F80/85601/2012):** Modelling Forest Biodiversity and Carbon Storage in East African Mountains (Taita Hills and Mount Kilimanjaro Areas)-On going

Mwangi Patricia Wanjiku (N85/33297/2015): Modelling the spatial relationship between Built-up Volumes and Urban Heat Island-On going

**Mugo Jane Wangui:** Suitability of Green gram Production in the Arid and Semi-Arid Lands of Kenya under Changing Climate-On going

# MSc (Masters) 2017-2019

**Mutungi A.M., (F56/7040/2017):** Development of a Geovisualization Tool for Clean Development Mechanisms Projects in Kenya

**Kebut D.K., (F56/7560/2017):** Assessment of Soil Erosion Dynamics using Geospatial Technology: Case Study of Lake Baringo Catchment

**Njimu S.K., (F56/8229/2017):** Developing a Web Map for Civil Engineering Applications: A case study of Laikipia County.

**Cherono W., (F56/8439/2017):** Assessing the Impact of Tsetse fly on Livestock Productivity using Geospatial Technologies. Case Study of Kuba South Location, Kwale County.

#### 2016-2018

**Kihara G., (F56/88797/2016):** Application of Web-GIS in Monitoring and Evaluation of Donor Funded Projects, Case Study of National Environmental Trust Fund.

**Gitau J.M., (F56/88248/2016):** Analysis of Land Use Land Cover Changes and its implication on Peri-Urban Agriculture; Case Study Kiambu Sub-County in Kiambu County, Kenya.

**Njeri J.K., (F56/88050/2016):** Analysis of the correlation between Land Use Land Cover Changes and Urban Heat Island Effect using Geospatial Techniques; Case Study: Kiambaa Sub-County, Kiambu County.

#### 2015-2017

**Mutyauvyu M., (F56/83390/2015):** Development of a Tool to Remove Clouds from Optical Satellite Images using Microwave Data.

**Omallo S.O., (F56/80834/2015):** Application of GIS in Assessing Adequacy of Public Health facilities in Kenya: A Case Study of Nairobi County

# 2014-2016

**Wanjara J.W., (F56/74925/2014):** Predicting Land Use Land Cover Change in Thika Municipality

**Burugu A.N., (F56/74733/2014):** Assessing the Impact of Climate Change on Food Security of Communities in Turkana County

# 2013-2015

**Odida O.F., (F56/68326/2013):** Use of GIS in conflict mapping, Case Study Rift Valley Region

**Mbuta K. S., (F56/68360/2013):** Mapping Urban Sprawl and its Impacts-A case study of Ruiru Sub-County, Kiambu County

**Maina L. W., (F56/68890/2013):** GIS for Assessing Pro-Poor Urban Water Sanitation and Hygiene (WASH) services, Case Study MRADI Embakasi Village Nairobi.

# 2012-2014

**Atonya S. C., (F56/81325/2012):** Mapping Geological Structures in Western Mutomo, Kitui County,

A Remote Sensing Approach.

**Wafula S. E., (F56/81053/2012):** Mapping the Physical Constraints to Food Safety in Nairobi's Informal Settlements, A case study of Mathare.

#### 2011-2013

Wairiuko, J.M., (F56/67570/2011): Application of cloud computing in Monitoring Social Cash Transfers; Case Study: Older Persons Cash Transfer (OPCT) Programme in Langata Constituency in Kenya

#### 2010-2012

**Kariuki J.W., (F56/63271/2010):** Use of GIS in solving Power Failure Incidences, Case Study of Roysambu Area, Kasarani Constituency, Nairobi County.

#### 2009-2011

**Mugo, B.M., (F56/78262/2009) 2011:** Optimal Location of suitable sites for Wind Farms using a GIS approach. Case Study of Garissa and Ijara.

#### 2008-2010

**Kavuwa, S.M., (F56/72092/2008) 2010**: Application of Web-GIS as a Tool in Healthcare Management Information System. Case Study: Buruburu Estate.

**Muchigi, H., (F56/71024/07) 2010**: Development of a Prototype GIS based application for production of a Route Sketch Map.

# 2007-2009

**Kirui, H., (F56/71218/2007) 2009**: A GIS-based approach in the determination and selection of the most suitable mobile banking outlet: A case study of Safaricom's Mpesa dealearship.

# <u>2006-2008</u>

**Ngamau, J. K.,** (F56/P/7758/2006) 2008: Using GIS to Develop a River Basin Management Plan for Ena River Basin in Embu and Mbeere Districts. **Njoroge, G.G.,** (F56/P/7747/2006) 2008: Developing a GIS based Nuclear Material Information System (NUMIS): A case study of Nairobi Province-Kenya.

# 2005-2007

**Mwangi J., (F56/P/8766/2005) 2007:** Development of a GIS based Road Pavement Information and Management System in Kenya

**Nyadawa, M.O., (F56/P/8890/2005) 2007:** Application of GIS-based Spatially Distributed Hydrologic Modelling: A case study of Nzoia Basin, Kenya.

**Njeru, B., (F56/P/8787/2005) 2007:** Use of GIS in Real Estate Business Analysis.

#### 2003-2008

**Obura, J.,** (*F56/8075/2003*) **2008:** Animations for Urban Dynamics.

# Postgraduate Theses Examination Masters Theses

**Karimi G., 2005:** 3D VISUALIZATION FOR CULTURAL HERITAGE DOCUMENTATION: A Case Study of the Old PC's Office Building in Nairobi, University of Nairobi.

**Musembi, S.N., 2006:** Visualizing the spatial-temporal patterns of crime in Nairobi, University of Nairobi.

**Kiplimo, J.C., 2008:** Decision Support System for Water Demand Management: A case study of Buruburu Estate, Nairobi, Kenya, University of Nairobi.

**Eric Cantona Kathurima G296-003-002/2014, 2019:** Land Surface Temperature Signature Retrieval for Geothermal Exploration using Landsat 8 Data, Dedan Kimathi University of Technology.

#### **Doctoral Thesis**

**Gidudu, A., 2006:** LAND COVER MAPPING THROUGH OPTIMIZING REMOTE SENSING DATA FOR SVM CLASSIFICATION, University of Cape Town, South Africa, 2006.

**Macharia, W. M., 2018:** Modelling of Geothermal Potential Areas along Part of Kenyan Rift using Remote Sensing and GIS, Dedan Kimathi University of Technology.

# **Professional Training**

Capacity building for corruption prevention committees and Integrity Assurance Officers. 2<sup>nd</sup> April, 2019.

Land Cover Mapping for Agricultural Change Assessment at RCMRD, Two Weeks. 2016

Use of Geographic Technologies for Climate Change, food security and agriculture and of professional development of fellows and mentors,  $9^{\rm th}$  - $19^{\rm th}$  December, 2012, My Community Our Earth Servir East Africa Fellowship Programme.

Enhancing Productivity and Efficiency in Manufacturing for a Global Competitive Industry,  $23^{nd} - 23^{rd}$  November, 2012, Linking Industry with Academia (LIWA)

The role of Professionals in The Devolved Governance Structure, August 2012, Association of Professional Societies in East Africa (APSEA)

Inaugural Survey Expo, 12th - 13th July, 2012, by Oakar Services

Connecting Authorship, Plagiarism, Intellectual Property and Disciplinary Habits, 23<sup>rd</sup> – 24th, 2012, Linking Industry with Academia (LIWA)

Remote Sensing Applications Course at RCMRD, Remote Sensing of the Environment for Sub-Sahara Africa, October 31 to November 1, 2011.

Quality Management Systems, 2011: Implementers Training for ISO 9001:2008 Standard for Middle Level Management by Apex Management Systems-Consultants. 8<sup>th</sup> - 9<sup>th</sup> June.

Leadership Training, 2010: African Women in Agriculture Research and Development (AWARD), November, 2010, Accra Ghana.

Research and Grants Proposal Writing, March 2011: University of Nairobi-Office of Deputy Vice Chancellor Research, Planning and Extension.

Formal Mentoring, 2009: African Women in Agriculture Research and Development (AWARD), October, 2009 Mombasa.

# Professional Experience / Consultancies

**Client:** British Council Newton Fund Workshop

Project: Kenya Workshop Co-ordinator, on "Strengthening Food Security through Integrated Earth Observations & Ecological Assessments of

Ecosystem Services in Kenya"

**Place:** Kenya

**Time:** November 2017-December 2017

Activities performed: Bringing together Early-Career Researchers from Kenya and the UK to devise new ways how Earth observations can support food

security in Kenya.

Client: KoTDA

**Project:** Surveyor Consultant in the Cadastral Survey for the Konza Techno

City.

Place: Konza, Malili, Kenva

**Time:** April 2014-October 2014

**Activities performed:** Carrying out Cadastral Survey of Phase I involving 400

acres and the infrastrucure.

**Client:** National Irrigation Board

**Project:** Consultant in Topographic Survey for Bisanadi Dam

**Place:** Bisanadi, Isiolo County, Kenya

**Time:** May-December 2015

**Activities performed:** Detailed Topographic Survey for Bisanadi Dam.

Client: MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES **Project:** GIS Consultant in the Soil and Water Conservation Measures Survey for UPPER TANA NATURAL RESOURCES MANAGEMENT PROJECT

(UTaNRMP)

**Place:** Upper Tana catchment, Kenya

**Time:** 2014-2015

**Activities performed:** Soil Erosion Modeling and Mapping Erosion Hotspots

Client: UNESCO

Project: GIS Consultant in the Disaster Risk Reduction World Mapping of

UNESCOs Point of Interest

Place: Mathare Area in Nairobi County, Kenya

**Time:** October 2013-July 2014

**Activities performed:** Designing an Ushahidi Platform where the mapped Points of Interest under the UNESCOs thematic areas of Education, Science, Culture and Information and Communication were uploaded.

**Client:** Institution of Surveyors of Kenya (ISK)

**Project:** GIS Consultant in the Research to determine Minimum and Maximum Landholdings.

**Place:** Kisii, Transzoia and Kajiado Counties, Kenya

**Time:** November 2011-February 2012

**Activities performed:** Modeling identified factors that influence minimum and maximum landholdings in this counties.

**Client:** Land Development and Governance Institute (LDGI)

**Project:** GIS Consultant in the Pilot Project to establish a pro-poor Land Information Management System (LIMS).

Place: Kiandutu Slums, Thika Municipality, Kenya

**Time:** September 2011 – June 2012

Activities performed: Designing a Pro-Poor LIMS and collecting relevant data

to populate it.

**Client:** Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa (CHIESA)

**Project:** Supervisor in the Work Package on Land Use and biogeophysical Information.

Place: Taita Hills and Mt. Kilimanjaro

**Time:** Febraury 2011-2015

**Activities performed:** Ph.D Supervision and partner in the Project

**Client:** National Water and Pipeline Co-corporation, Kenya.

**Project:** GIS Consultant in using GIS to generate Borehole Profiles.

**Place:** Nairobi, Kenya **Time:** April-May 2007

Activities performed: Developing a GIS database of all the Boreholes in

Nairobi and then generating profiles on the basis of depth and yield.

**Client:** National Water and Pipeline Co-corporation, Kenya.

**Project:** GIS Constant in using GPS and GIS to Map Water Facilities.

Place: Machakos, Mwingi and Kitui, Kenya

**Time:** May-June 2006

**Activities performed:** Mapping the location of Water Facilities using GPS and Developing a GIS database of all the facilities and creating maps showing their spatial distribution.

## **Awards**

DAAD Scholarship 28.07.1998

Special Social Engagement Award 12.12.2000

#### Referees

# Prof. P. Ngau

Principal, College of Architecture and Engineering

University of Nairobi,

P.O. Box 30197 - 00100 Nairobi

## Prof. A. N. Gitau

Dean, School of Engineering

University of Nairobi,

P.O. Box 30197 - 00100 Nairobi

# Prof. G.C. Mulaku,

Department of Geospatial and Space Technology,

University of Nairobi,

P.O. Box 30197 - 00100 Nairobi

#### Certification:

I, the undersigned, certify that these data correctly describe me, my qualifications and experience.

Signature:

**Date:** 19.12.2019