

Feriha Mugisha Mukuve

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Mugisha

Nationality: Ugandan (UG)

EDUCATION/ACADEMIC QUALIFICATIONS

2012 – 2015	University of Cambridge (UK) – PhD in Engineering (waiting for graduation) Based at the Centre for Sustainable Development, Cambridge University Engineering Department. Cambridge IDB International Scholar. PhD Dissertation: Developed a GIS-based Integrated Water-Land-Energy model for Uganda's Food System. The model analyses connected resource stress vis-à-vis food production, processing, distribution, and consumption, at all scales from local, district, regional to national level. Successful PhD Viva with Minor Corrections. Completed, expected graduation date: 19 th May 2016.
2010 – 2011	University of Cambridge (UK) – MPhil in Engineering (Sustainable Development) Overall degree mark: Top 5% of class Masters dissertation was on spatial modelling of agricultural diffuse pollution in catchments in the UK. Other Courses on Accounting & Finance, Implementing Change towards Sustainability, Project Management, Management of Technology and Innovation, and Strategic Management.
2006 – 2010	Makerere University (UG) – M.Sc. Civil Engineering (Water Resources Engineering) CGPA: 4.64 of 5.0. Top Student. Evaluated the performance of low-skeletonisation, large-scale urban water distribution network models for my M.Sc. dissertation.
2002 – 2006	Makerere University (UG) – B.Sc. Civil Engineering Overall degree mark: First Class Honours CGPA: 4.5 of 5.0. Award: Makerere Engineering Society (MES) Award for Best Water Resources Engineering Student.
Short Courses	April – May 2012: GIZ Global Campus 21 Online. Course: Managing Non-Revenue Water I 29th Jan – 10th Feb 2008: IREC Water Training Centre, Kampala. Course: Lotus Domino Designer, Database Developer 15th – 21st Sept 2007: ESRI EA GIS. Course: Building Geodatabases & GIS for Water Utilities

TEACHING EXPERIENCE & PROFESSIONAL PROFILE

Current teaching position: 2006 – present	Makerere University Kampala (UG) – Assistant Lecturer in the Department of Civil and Environmental Engineering (since 2006) <ul style="list-style-type: none">• Lecturing in the Bachelor of Science Civil Engineering degree program. Modules taught: Construction Technology, Civil Engineering Materials, Water Resources Engineering, Strength of Materials, Design of Structures.• Experience developed in course development, delivery, and assessment. Class sizes: 80 – 100 Students. Years II, III, and IV of Bachelors program• Supervision of Fourth Year engineering project of the Bachelors program.• Assistant Examinations Officer – Department of Civil & Environmental Engineering
2007 – 2010	Geoinformatica Ltd. (UG) – GIS and Modelling Consultant Developed mapping solutions for micro-finance, real estate and advertising companies (AdConcepts Ltd., Jomayi RE Ltd., InfraCo Management Services Ltd.)
June-Aug 2005	Bugiri District Local Government (UG) – Trainee Engineer Design and supervision of labour-based rural road construction (A grade: 82%)
June-Aug 2004	National Water and Sewerage Corporation (UG) – Trainee Engineer On network maintenance and GIS modelling (A+ grade: 92%)

Curriculum Vitae: IDB Science Development Network

PUBLICATIONS

7 peer-reviewed publications. 2 first author top refereed publications. Selected publications

- **Mukuve, F.M.**, Fenner, R.A., 2015. Scale variability of water, land, and energy resource interactions and their influence on the food system in Uganda. *Special Issue of Sustainability Issues in the Food-Energy-Water Nexus. Sustainable Production and Consumption*, 2, 79–95
- **Mukuve, F.M.**, Fenner, R.A., 2015. The influence of water, land, energy and soil-nutrient resource interactions on the food system in Uganda. *Food Policy* 51, 24–37. doi:10.1016/j.foodpol.2014.12.001
- Kizito F., **Mugisha F.**, Ameda E., Kamanyi J., Ngirane-Katashaya G., and Thunvik, R., 2009. Hydraulic modelling as a tool for problem analysis and decision support: Case study of the Naguru water supply system in Uganda., *Journal of Hydroinformatics* (ISSN 1464-7141).
- Kizito F., **Mugisha F.**, Echelai G. A., and Ngirane-Katashaya G., 2009. A web-based Customer Account Management portal for an urban water utility in Uganda. *Proceedings of the AfricaGIS, International Conference*, Kampala, Uganda, October 2009.

CONFERENCES & COMMUNICATIONS EXPERIENCE

Selected major conferences

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| 8 th June 2015 | Paper Presenter: Integrated Multi-scale Food System Modelling. Global Food Security Cambridge Symposium. Cambridge University Strategic Initiative GFS. |
| 21 st –26 th June 2015 | Paper Presenter/Panelist: Scale Variability of Water-Land-Energy interactions in Uganda's Food System. World Food System Conference 2015, Ascona, Switzerland. CFS, ETH Zurich |
| 4 th –9 th Oct 2011 | Conference Participant: 6 th ESRI Eastern African User Conference, Zanzibar, Tanzania. |
| 15 th –18 th Mar 2010 | Paper Presenter: Modelling and DSS for Network Operation: Experiences, Challenges and Future Perspectives. 15 th International African Water Congress, Kampala, Uganda |
| 25 th –30 th Oct 2009 | Paper Presenter: Web-based customer account management for water utilities. AfricaGIS International Conference 2009, Kampala, Uganda |
| 24 th –25 th Sept 2009 | Paper Presenter: GIS for Water Utilities- extended geodatabase construction. 4 th ESRI Eastern African User Conference, Addis Ababa, Ethiopia. |
| 13 th –14 th Sept 2007 | Conference Participant: 2 nd ESRI Eastern African User Conference, Kampala, Uganda. |

SELECTED AWARDS & SCHOLARSHIPS

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| 2015 | In consideration for the IChem Publications 2015 Junior Moulton Medal for best paper |
| 2015 | Cambridge Engineering Department/William George Collins Research-Travel Grant |
| 2015 | Churchill College Research-Travel Grant |
| 2012 | Cambridge IDB International Scholarship. Full PhD scholarship. Nominated based on MPhil excellence to the prestigious IDB Merit Scholarship Scheme for High Technology (MSP) |
| 2010 | NWSC – Kampala Water: Best Staff Member, DSSD |
| 2006 | Makerere Engineering Society (MES) Award for Best Water Resources Engineering |

RESEARCH SKILLS

- Engineering Sustainability, Sustainable Water Engineering, Water Resources Engineering: Conceptualisation, Project Design, Construction/Implementation, Post-commission evaluation.
- Accounting and Finance, Strategic Management, Project Management – Advanced MS Project
- Geo-informatics & GIS systems: AutoCAD/AutoDesk, Google Map-maker, ArcGIS (Geodatabase Modelling & Construction, Server GIS, Web Mapping; ESRI EA Training), FOSS-GIS – PostGIS, Q-GIS, GvSIG
- Hydroinformatics & Network Modelling: EPANet, EDAMS-NA, WaterCAD/WaterGEMS, E-Sankey
- Computer Programming Languages: VB.NET, ASP.NET, JavaScript, VBScript, Fortran, HTML 5, MATLAB, Python, Lotus Domino, MS Visio, Rational Rose. Database Programming: MSSQL, MySQL, PostgreSQL
- Business Process Software: Intalio, ProcessMaker

Curriculum Vitae: IDB Science Development Network

- Office package proficiency: Word Processing, Excel, PowerPoint, Access, Advanced MS Excel for Engineering, MS Publisher, Adobe Illustrator, MS Project. Research/Statistics: SPSS, GenStat, EPIDATA

INTERESTS & RESPONSIBILITIES

2012 – 2015	Treasurer & Web Officer, Cambridge University Eastern Africa Society (CamEAS). [online] http://cam-eas.wix.com/comeas
2014 – present	Director and Chair – Mukuve Foundation (Education and Philanthropic Charity)
2009 – present	Co-Chairman and Pioneer of UCF Savings and Investment Society, Kampala, Uganda
28 th Oct–1 st Nov 2014	Lead Actor & Narrator: 'Sofiatown' Cambridge ADC Theatre. Sold-out headline show
2013 – 2015	Lead singer: Kingsgate Community Church, Cambridge Revolution Service
2006 – 2008	Secretary for Information, Academic affairs and Mobilisation, Daghammerskjold Post-Grad Hall.
2006 – 2008	Makerere University Faculty of Technology –Postgraduate Students Representative
2003 – 2004	Mitchell Hall Representative – Makerere University SMACKOBA Old Boys Association

LANGUAGES

English	Excellent – Advanced level
French	Good – Intermediate-to-Advanced level of competence (3 month course at Cambridge Engineering Language Centre, 6 years at secondary)
German	Basic – basic level of competence (2 years at secondary school)
Swahili	Basic – basic level of competence
Bantu dialects	Excellent – native speaker of Lusoga, Lukiga, Luganda

REFEREES

Dr. Richard Fenner (PhD Supervisor)	Reader in Engineering Sustainability and Course Director, MPhil ESD. Centre for Sustainable Development, Cambridge University Engineering Department. Trumpington Street. Cambridge, UK, CB2 1PZ. Email: raf37@cam.ac.uk
As.Prof. Umaru Bagampadde	Dean, School of Engineering, Makerere University Kampala, P.O. BOX 7062, Kampala, Uganda. Email: bumaru@tech.mak.ac.ug