

THE 7TH ADVANCES IN GEOMATICS RESEARCH CONFERENCE 2023

VENUE: YUSUF LULE CTF2 AUDITORIUM MAKERERE UNIVERSITY

THEME: GEOMATICS EXCELLENCE FOR A MODERN SOCIETY –SUSTAINABLE FIT
FOR PURPOSE SOLUTIONS FOR THE 21ST CENTURY

17th – 18th AUGUST 2023

TIME	ACTIVITY	RESPONSIBILITY
17th AUGUST 2023		
8:00 – 9:00	Registration	Conference Secretariat
9:00 – 9:10	Welcome remarks by Chair Local Organising Committee	Dr. Ronald Ssendendo
9:10 – 9:20	Welcome remarks by Head of Department of Geomatics & Land Management	Dr. Lydia Mazzi Kayondo
9:20 – 9:35	Remarks by the Principal College of Engineering, Design, Art & Technology, Makerere University	Prof. Henry Alinaitwe
9:35 – 9:50	Remarks & official opening by the Vice Chancellor, Makerere University	Prof. Barnabas Nawangwe
9:50 – 10:00	Group Photos	Conference Secretariat
10:00 – 10:30	Tea Break	Conference Secretariat
PLENARY SESSION ONE		
10:30 – 11:00	KEYNOTE PRESENTATION 1 Disrupt or be disrupted - the place of technology and change in accelerating the African land question	Dr. Moreblessings Shoko Senior Lecturer University of Cape Town South Africa
11:00 – 11:30	KEYNOTE PRESENTATION 2	Dr. Moses Musinguzi

	Spatial Infrastructure as a Catalyst for Land Management Decision Making – Are we making any Advances?	Associate Professor Department of Geomatics & Land Management Makerere University
11:30 – 12:00	Resolving the landlord-tenant impasse on Mailo land: Feasibility of the four options in the Land Act – preliminary results from Mityana, Mubende and Kassanda	Dr. Margaret Rugadya
12:00 – 13:00	Plenary Chair/Q&A answer	Dr. Nathan Kibwami
13:00 – 14:00	Lunch	Conference Secretariat
Parallel Session 1	Land Administration, FFP and Land Management	
14:00 -14:20	Need for a Tenure Arrangement for Refugees on Customary land: A case of Uganda.	Sophia Nagujja, Moses Musinguzi, and Lilian Mono Wabineno
14:20 -14:40	The opportunities and challenges of registration of customary land using Certificates of Customary Ownership (CCO)- The case of Uganda	Brian Makabayi, Moses Musinguzi, Hilda Nyamwiza, Maxwell Bariyo Ayebare, and Annest Tumwebaze
14:40 – 15:00	Exploring the Spatial Hedonic Pricing Models for determining Land Value in Wakiso District, Uganda.	Francis Mujjumba, Lilian Mono Wabineno, and John Richard Otukei
15:00 – 15:20	Plenary Chair/Q&A	Dr. Allan Mazimwe
Parallel Session 2	Earth Observation Applications for Agriculture	
14:00 – 14:20	Estimation of Rice yield using Earth Observation Data and partial Least Squares Regression: A case study of Butaleja District	Hilda Nyamwiza

14:20 – 14:40	Quantification of Greenhouse gas emissions from livestock using Remote Sensing and Artificial Intelligence	Evet Naturinda, Fortunate Kemigyisha, Emmanuel Omiya, Jackline Aboth, Anthony Gidudu, and Isa Kabenge
14:40 – 15:00	Crop yield prediction for maize using Machine Learning – A case study of Asiri Farms in Kiryandongo District.	Junior Trevour Ssempijja and Allan Mazimwe
15:00 – 15:20	Plenary Chair/ Q&A	Dr. Brian Makabayi
15:20 – 15:50	Tea Break	Conference Secretariat
Parallel Session 3	Land Use and Land Cover	
15:50 – 16:10	Detecting and predicting land cover change in the cross-Sanaga-Bioko region for sustainable forest management	Epie Njume and Simon Hull
16:10 – 16:30	Assessing the impact of Land Use Land Cover change on Habitat quality - The River Rwizi Catchment Area	Jemimah Kasande and Allan Mazimwe
16:30– 16:50	Urban Heat Island analysis in Mbarara City using Landsat 9.	George Niwomurinzi and Arthur Akanga
16:50 – 17:00	Plenary Chair/ Q&A	Dr. Ismael Wadembere
Parallel Session 4	GIS, Remote Sensing & Modelling	
15:50 – 16:10	Performance of a spectral-based model in the detection of northern leaf blight in maize; a case study of Asili maize farm in Kiryandongo district	Desire Gift and Allan Mazimwe
16:10 – 16:30	Assessment of the potential of Agroforestry practices for carbon sequestration in Mukaka village, Wakiso District	Racheal Sheila Aceng and Allan Mazimwe

16:30– 16:50	Mapping water hyacinth infestation in the Murchison Bay, Lake Victoria Basin, Uganda	Hussein Kiyemba
16:50 – 17:00	Plenary Chair/ Q&A	Ms. Dianah Abeho
18th AUGUST 2023		
PLENARY SESSION TWO		
9:00 – 9:30	KEYNOTE PRESENTATION 3 Urban land use planning using Remote Sensing (RS) and Machine Learning methods	Ms. Vineet Chaturvedi Research Scientist Technical University of Munich
9:30 – 10:00	KEYNOTE PRESENTATION 4 Early Warning Systems in a Changing Climate & Landscape Context - the Role of Space in Disaster Risk Reduction	Ms. Viola Otieno Earth Observation Scientist IGAD
10:00 – 10:20	Plenary Chair/ Q&A	Dr. Fred Omollo
SPONSORS PRESENTATIONS		
10:20 – 10:30	DRONECTOR	
10:30 – 10:40	Digital Earth Africa	
10:40 – 10:50	GMES	
10:50 – 11:20	Tea break	Conference secretariat
Parallel Session 5		
Responsible Land Policy		
11:20 – 11:40	Enhancing Capacities for Responsible Agriculture Investments	Mr. Daniel Kirumira Head of Component RGIL GIZ
11:40 – 12:00	Data Governance to Optimize the Performance of the Uganda Land Information System Infrastructure	William Kambugu, Collins Ssesanga, Eunice Nabakwa
12:00 – 12:20	Securing Communal Land Rights using UAVs and AI	Dianah Rose Abeho, Moreblessings Shoko, Patroba Achola Odera

12:20 – 12:40	Affordable Housing In Uganda: Current Status.	Osbert K Kamukama and Lilian Oryema
12:40 - 13:00	Plenary Chair/Q&A	Dr. Ronald Ssengendo
Parallel Session 6		
Advanced Remote Sensing, GIS and Artificial Intelligence		
11:20 – 11:40	Advancing Remote Sensing Techniques for mapping inland Fynbos Wetland Vegetation	Kevin Musungu, Timothy Dube, Julian Smit, and Moreblessings Shoko
11:40 – 12:00	Modelling the spatial distribution of soil organic carbon	Jane Asasira
12:00 – 12:20	Assessing soil loss in mountainous watersheds using RUSLE 3D and USPED MODELS- a case study of the Manafwa watershed.	Clare Kaijja and Brian Makabayi
12:20 – 12:40	Evaluating the viability of Remote Sensing and GIS Techniques in the identification of potential fishing zones of Nile Tilapia fish on Lake Victoria	Griffin Ainomujuni
12:40 - 13:00	Plenary Chair/ Q&A	Dr. Benard Barasa
12:30 – 14:00	Lunch	Conference Secretariat
Parallel Session 7		
Modern Trends in Geomatics		
14:00 – 14:20	Estimation of precipitable water vapour using Continuous Operating Referencing Stations (CORS) - a case study of SURVNET CORS in Uganda	Mark Hans Sentamu and Brian Makabayi
14:20 – 14:40	Effects of Desert locust outbreaks on land utilization by agro-pastoralists	Benard Barasa, Cosmas Walyaula Watsusi, Paul Gudoyi Makoba, Noah Lutaaya, and John Paul Mugaya

14:40 – 15:00	Comparing the capability of Integrated Cellular Automata-Markov chain model and Sleuth model in monitoring and simulating urban growth	Desire Tracy Paparu and Brian Makabayi
15:00 – 15:20	Plenary Chair/ Q&A	Dr. Lilian Mono
Parallel Session 8	Advances in Geomatics Research I	
14:00 – 14:20	Modelling habitat suitability of bee species under changing climate and land use land cover in Nakaseke, Luwero and Kayunga Districts Uganda.	Brenda Anicia, Anthony Gidudu, Anne M. Akol, and Allan Mazimwe
14:20 – 14:40	Assessment of suitable locations for ecological passages across roads within Murchison Falls National Park	Evelyn Bridget Masaba
14:40 – 15:00	Prediction Of Inundation Due To Kabuyanda Dam Failure And Its Impact On The Communities Of Isingiro District, Western Uganda.	John Calvin Esagu, Bernarda Barasa, Gertrude Akello and Geoffrey Gabiri
15:00 – 15:20	Q&A	Mr. Arthur Akanga
15:20 – 15:40	Tea Break	Conference Secretariat
Parallel Session 9	Advances in Geomatics Research II	
15:40 – 16:00	Time Series Analysis of the Impact of water level variability on the flooded area along the shores of Lake Victoria	Ben Namugera
16:00 – 16:20	Flood Susceptibility Analysis using machine learning	Fosca Akutu
16:20 – 16:40	SBAS-InSAR analysis for deformation monitoring of landslide prone	Alex Yumbu and Patroba Achola Odera

	Murang'a and Nyeri counties in Kenya	
16:40 – 17:00	Q&A	Ms. Maria Ndagire
Parallel Session 10		
Advances in Geomatics Research II		
15:40 – 16:00	Spatial Distribution Of Risk To Aggravated Assault Crime In Kawempe Division, Kampala Capital City.	Musa Mulindwa, Lydia Mazzi Kayondo and Moses Musinguzi
16:00 – 16:20	Integrated Methodology for Wetland Vulnerability Assessment using DPSIR Framework, MCA, and Earth observation datasets.	Thomas Enuru
16:20 -16:40	A Model for Identifying Suitable Living Areas in London: Mitigating the Impacts of Urban Heat Island (UHI) on Public Health	Xiwei Shen, Grant Mosey, Mingze Chen , and Yuxuan Cai
16:40 – 17:00	Q&A	Dr. Brian Makabayi
Plenary Session – Official Closure		
17:00 – 17:10	Closing Remarks by Dean	Dr. Anthony Gidudu Dean -School of the Built Environment MUK