



CURRICULUM VITAE

Dr. Bartholomew Thiong'o Kuria

BSc. (JKUAT), MSc. (STUTTGART), PhD (RUB)

Geomatic Engineer

&

**Senior Lecturer at Dedan Kimathi University of
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PERSONAL DETAILS

Site Name:	Url
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ResearchGate:	https://www.researchgate.net/profile/Kuria-Thiongo
Google scholar:	https://scholar.google.com/citations?user=kuria

CAREER OBJECTIVE

Seeking a position in Geomatics Engineering, Geospatial Information Systems, Remote Sensing and any other related field where I can confidently share my expertise, utilizing my strong research, practical, analytical and communication skills, for both my growth and the institution's growth and success.

EDUCATION

Duration	Degree name	Institution/ University
2020	Project Development and Management No. 8/2020 course (with Distinction)	Kenya School of Government
2017-2018	Doctoral (PhD.) studies in Natural Sciences (Dr. rer. nat.) "Crop mapping using high resolution optical and radar satellite data: case study of maize in Trans Nzoia County, Kenya"	Ruhr-University Bochum, Germany
2014-2016	Doctoral (PhD.) studies in Natural Sciences (Dr. rer. nat.)	University of Bonn, Germany
2009-2011	Master of Science (MSc.) Geomatic Engineering (GEOENGINE) "Differentiation of some important crop cultures in Baden-Wuerttemberg, Germany using	Stuttgart University, Stuttgart, Germany

	TerraSAR-X data”	
2003-2008	Bachelor of Science (BSc.) Geomatic Engineering “Assessment of the effects of encroachment on wildlife population in Ngong Hills forest, Kenya”	Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

BOOKS AND BOOK CHAPTERS

1. **Bartholomew Thiong’o Kuria**; Johanna Anyesi Wanjala; Wisdom Kipkemboi; Simon Wachira Muthee; Martin Wainaina Chege (2023). Let’s Save Our Environment. InterCEN Publishers. ISBN: 978-9914-9679-2-0.

PUBLICATIONS

2. Stefanie Steinbach; Andreas Rienow; Martin Wainaina Chege; Niels Dedring; Wisdom Kipkemboi; **Bartholomew Thiong’o Kuria**; Sander J. Zwart; Andrew Nelson (2023). Low-cost sensors and multi-temporal remote sensing for operational turbidity monitoring in an East African wetland environment. Environmental Science and Pollution Research (Under review).
3. Muthee, S.W., **Kuria, B.T.**, Mundia, C.N. *et al.* (2023). Using the SARIMA model to predict the trends of evapotranspiration and runoff in the Muringato river basin, Kenya. *Stoch Environ Res Risk Assess.* <https://doi.org/10.1007/s00477-023-02534-w>
4. Wisdom Kipkemboi; **Bartholomew Thiongo Kuria**; David Ndegwa Kuria; Arthur W. Sichangi; Charles Ndegwa Mundia; Marcus Goebel; Andreas Rienow (2022). Participatory GIS Tool Development for Environmental and Natural Resources Conservation. Environment, Development and Sustainability journal (Under review)
5. Wisdom Kipkemboi; **Bartholomew T. Kuria**; David N. Kuria; Arthur W. Sichangi; Charles N. Mundia; Johanna A. Wanjala; Simon W. Muthee; Marcus

- Goebel; Andreas Rienow. (2023). Development of a Web-GIS platform for Environmental monitoring and conservation of the Muringato Catchment in Kenya. <https://doi.org/10.1007/s41651-023-00143-3>.
6. Goebel, Marcus, **Thiong'o, Kuria**; Rienow, Andreas (2023). Object-based mapping and classification features for tropical highlands using on Sentinel-1, Sentinel-2, and GEDI canopy height data - A case study of the Muringato catchment, Kenya. <https://doi.org/10.3112/erdkunde.2023.01.03>.
 7. Simon Wachira Muthee; **Bartholomew Thiongo Kuria**; Charles Ndegwa Mundia; Arthur W. Sichangi; David Ndegwa Kuria; Marcus Goebel; Andreas Rienow (2022). Using Swat to Model the Response of Evapotranspiration and Runoff to Varying Land Uses and Climatic Conditions in The Muringato Basin, Kenya. *Modeling Earth Systems and Environment* journal. <https://doi.org/10.1007/s40808-022-01579-0>.
 8. Kirui, B. K., Makokha, G. O., & **Kuria, B. T.** (2022). Calibration and Parameterization of APSIM-Wheat using Earth Observation Data for wheat Simulation in Kenya. *Journal of Agricultural Informatics*, 13(1). <https://doi.org/10.17700/jai.2022.13.1.629>
 9. Evanson Ndung'u Kimani, **Bartholomew Thiong'o Kuria** and Moses Murimi Ngigi. (2021). Analysis of Spatial Factors Affecting Rental House Prices: A Case Study of Nyeri Town Constituency, Kenya. *Journal of Geosciences and Geomatics*. 2021; 9(3):110-123. doi: 10.12691/jgg-9-3-2.
 10. **Kuria, T. B.**, Kirimi, K. F., Gikwa, W. C. and Kuria, N. D. (2020). Maize crop monitoring with sentinel-1 radar satellite- case study of Endebess, Kenya. *Journal of Applied Sciences, Engineering and Technology for Development*. Volume 4, Issue 1. ISSN 2309-0936. <https://jasetd.dkut.ac.ke/publications/Bartholomew-Kuria-2020.pdf>.
 11. Mwobobia, E.G., Sichangi, A.W. & **Thiong'o, K.B.** (2020) Characterization of wheat production using earth-based observations: a case study of Meru

- County, Kenya. *Model. Earth Syst. Environ.* 6, 13–25.
<https://doi.org/10.1007/s40808-019-00699-4>.
12. Njore, C. M., Kimari, C. M., and **Thiong’o, K.** (2019). Initiative aiming to introduce children to maps in Kenya, *Proc. Int. Cartogr. Assoc.*, 2, 93, <https://doi.org/10.5194/ica-proc-2-93-2019>, 2019.
13. Kirimi, F., **Thiong’o, K.**, Gabiri, G., Diekkrüger, B., & Thonfeld, F. (2018). Assessing seasonal land cover dynamics in the tropical Kilombero floodplain of East Africa. *Journal of Applied Remote Sensing*, 12(2), 026027-
<https://doi.org/10.1117/1.JRS.12.026027>.
14. **Thiong’o, K.**, Pasternak, R., Kleusberg, A., Thonfeld, F., & Menz, G. (2015). Separability of Dominant Crop Cultures in Southern Germany Using TerraSAR-X Data.
<https://www.scirp.org/journal/paperinformation.aspx?paperid=56856>.

CONFERENCE PAPERS/ PRESENTATIONS

15. Stefanie Steinbach, Anna Bartels, Martin W. Chege, Neils Dedring, Wisdom Kiokemboi, Simon W. Muthee, Andrew Nelson, **Kuria B. Thiong’o**, Sander J. Zwart, Andreas Rienow (2023). Integrating Low-cost Sensors and Remote Sensing to Monitor Small Reservoirs in Kenyan Wetlands. *42nd EARSeL Symposium, 3-6 July 2023, Bucharest, Romania*.
16. Martin W. Chege, **Kuria B. Thiong’o**, Arthur W. Sichangi, Stefanie Steinbach, Andreas Rienow, (2023). Development of A Geospatial Telemetric Water Quality Monitoring System. *42nd EARSeL Symposium, 3-6 July 2023, Bucharest, Romania*..
17. Eileen N. Mwangi, Martin W. Chege, Esther W. Maina, **Kuria B. Thiong’o** (2022). Development of A Gender Based Violence Emergency Response

- System. *13th AARSE International Conference, 24-28 October 2022, Kigali, Rwanda.*
18. Goebel, Marcus Frederik, **Thiong'o Kuria**, Rienow, Andreas (2022). Classification Features and Object-based Mapping for Heterogenous Tropical Highlands Using a Synergetic Multi-Sensor Approach Based on Sentinel-1, Sentinel-2, and GEDI Data - A Case Study of the Muringato Sub-catchment, Kenya. *41st EARSeL Symposium, 12-16 September 2022, Paphos, Cyprus.*
 19. Wisdom Kipkemboi, **Bartholomew T. Kuria**, David N. Kuria (2022). Assessing The Effectiveness of Participatory GIS Tool for Environmental Conservation of the Muringato Catchment Area. *41st EARSeL Symposium, 12-16 September 2022, Paphos, Cyprus.*
 20. Simon Wachira Muthee, **Bartholomew Thiong'o Kuria**, Charles Ndegwa Mundia (2022). Characterising the Changes in Land Use and Land Cover amid Changing Climatic Conditions using Remote Sensing Techniques in the Muringato Basin, Kenya. *41st EARSeL Symposium, 12-16 September 2022, Paphos, Cyprus.*
 21. Wisdom Kipkemboi, **Bartholomew T. Kuria**, David N. Kuria (2022). Assessing Participatory GIS Tool for Environmental Conservation of the Muringato Catchment Area. *The Living Planet Symposium, 23-27 May 2022, Bonn, Germany.*
 22. Edwin Gitobu Mwobobia, Sichangi A. W. & **Kuria B. Thiong'o** (2019). Characterization of wheat production using Earth-based observations: A case study of Meru County, Kenya, *The 5th DeKUT international conference on science, technology, innovation & entrepreneurship, 13th - 15th November, 2019, Nyeri, Kenya.*
 23. Kirui Benard, **Kuria Bartholomew** and Makokha Godfrey (2019). Assessing the crop health and growth using multi-temporal vegetation indices derived from sentinel-2 imagery: A case study of wheat production in Narok County,

The 5th DeKUT international conference on science, technology, innovation & entrepreneurship, 13th – 15th November, 2019, Nyeri, Kenya.

24. Evanson Ndung'u, **Kuria Bartholomew** and Murimi Ngigi (2019). Analysis of Spatial Factors Affecting Rental House Prices: A Case Study of Nyeri Town Constituency, Nyeri County, *The 5th DeKUT international conference on science, technology, innovation & entrepreneurship, 13th – 15th November, 2019, Nyeri, Kenya.*
25. **Kuria B. Thiong'o** (2019). In-season and Inter-Season Maize Crop Monitoring with Radar Satellites in Trans Nzoia County, Kenya. *The 5th DeKUT international conference on science, technology, innovation & entrepreneurship, 13th – 15th November, 2019, Nyeri, Kenya.*
26. **Bartholomew Kuria**, Fridah Kirimi, Carsten Juergens, Kenneth Mubea (2018). In-season Maize Crop Monitoring with Radar Satellites- case study of Endebess, Kenya. *RCMRD International Conference (RIC), 15-17 August 2018, Nairobi, Kenya.*
27. **Kuria, T. B.**, Kirimi, K. F., Gikwa, W. C. and Kuria, N. D. (2018). Maize crop monitoring with sentinel-1 radar satellite- case study of Endebess, Kenya. *The DeKUT international conference on science, technology, innovation & entrepreneurship, 7th – 9th November, 2018, Nyeri, Kenya.*
28. **Bartholomew Thiong'o Kuria**, Samuel Wanjohi Kibui, David Ndegwa Kuria and Kenneth Mubea (2017). Using Radar Images for Analysis of Small and Large Scale Crop Production in Endebess Sub County. *RCMRD International Conference (RIC), 27-29 September 2017, Nairobi, Kenya.*
29. **Kuria B. Thiong'o**, Alfred Kleusberg, Renee` Pasternak, Gunter Menz (2014). Differentiation of Dominant Crop Cultures in Southern Germany Using TerraSAR-X Data. *The DeKUT international conference on science, technology, innovation & entrepreneurship, 13th – 15th November, 2014, Nyeri, Kenya.*

THESES

1. **Kuria, B. T.** (2018). "Crop mapping using high resolution optical and radar satellite data: case study of maize in Trans Nzoia County, Kenya." *PhD Thesis, Ruhr University Bochum.* <https://hss-opus.ub.ruhr-uni-bochum.de/opus4/frontdoor/deliver/index/docId/6090/file/diss.pdf>
2. **Kuria, B. T.** (2011). "Differentiation of Some Crops in Leingarten and Moessingen, Baden Wuerttemberg, Germany Using TerraSAR-X Data". *MSc Thesis Stuttgart University.* <http://41.89.227.156:8080/xmlui/handle/123456789/381>
3. **Kuria, B. T.** (2008) "Assessment of the Effects of Encroachment on Wildlife Population in Ngong Hills Forest, Kenya". *B.Sc. Project. Jomo Kenyatta University of Agriculture and Technology.*

CONSULTANCIES AND PROJECT REPORTS

1. **Kuria, B. T.** (2022). "Small Scale Crop Mapping using Artificial Intelligence and Machine Learning" consultancy report presented to the Kenya Space Agency (KSA)
2. **Kuria, B. T.** (2022). "Muringato basin abstraction survey consultancy with DeKUTES" consultancy report presented to the Muringato Water Resources Users Association.

GRANTS, CONSULTANCIES AND RESEARCH

SNo.	Project Name	Status	Partner	Amount	Role
1.	Equipment grant to purchase a server, a colored A3 printer, a projector, a projector screen, and a flip chart stand	Complete 2020	Centre for International Migration and Development (CIM), Germany	10,000 EUR.	Grant recipient
2.	CITGI4Muringato Project- “Participatory Approach to Environmental Conservation of the Muringato Catchment Area for Sustainable Management and Enhanced Ecosystem Health” - grant no. 01DG20022	Ongoing (November 2020- October 2023).	Federal Ministry of Education and Research (BMBF) Germany - funder Ruhr University Bochum, Germany- collaborating university	250,000 EUR.	Grant recipient and Project Lead
3.	Small Scale Crop Mapping using Artificial Intelligence and	Complete (December 2021-May 2022)	Kenya Space Agency (KSA)	KES 500,000	Grant Recipient and Research

SNo.	Project Name	Status	Partner	Amount	Role
	Machine Learning				Chair
4.	Muringato basin abstraction survey consultancy with DeKUTES	Complete (November 2021-April 2022).	Water Sector Transfer Fund (WSTF)- funder Muringato Water Resources Users Association (WRUA)- client	KES 400,000.	DeKUT project lead in the DeKUTES consultancy team
5.	Implementation of Research Chair on Operational Space Weather	Ongoing	Kenya Space Agency	KES 1,150,000	Project coordinator assistant at DeKUT

WORKSHOPS, CONFERENCES AND EXPOS ATTENDED

Date	Theme	Venue	Hosts
15 th - 17 th June, 2022	Kenya Space Expo and Conference themed "Leveraging Space Capabilities for National Development" - Panelist and moderator	Sarit Centre	Kenya Space Agency
24 th May 2022	Tackling World Hunger by Promoting Global Earth Observation Education Networks- Panelist	World Conference Center, Bonn	EO Connect team
18 th May	Geospatial solutions to food security- organizer	Lenana	Kenya

2022		Dome, DeKUT	Space Agency and the Remote Sensing Research Group (DeKUT)
2009 (Feb - May)	GIS Specialist, Gath Consulting Engineers, Muthangari drive, Nairobi	<ul style="list-style-type: none"> • Querying and analysis of roads data collected during the Roads Inventory and Condition project • Updating of the roads database as per the project specifications 	
2008 (Aug - Dec)	Kenya Forest Service (KFS), Nairobi, www.kenyaforestservice.org	<ul style="list-style-type: none"> • Mapping of identified forests in the Forest Inventory Project • Updating of the existing forest database • Data querying and analysis 	

PROFESSIONAL AFFILIATION

1. Full Member, Institute of Surveyors of Kenya (ISK) Membership No:
ISK/1751/F/GIS/21.