

PERSONAL INFORMATION **Name: DAN TIGALANA**

📍 Bubugo, Jinja District, Uganda
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✉ danieltigan17@gmail.com

Sex: Male | **Date of birth:** 30/09/1992 | **Nationality:** Ugandan

Passport number: B00134132 | **ID. Number:** CM92008103NFQL

Marital Status: Married

Professional field: Environmental & Textile Engineering

PERSONAL STATEMENT

By training, I am an Environmental and Textile Engineer, holding MSc in Environmental Engineering, MSc and BSc degrees in Textile Engineering. I currently serve as an Assistant Lecturer in the Department of Polymer, Textile and Industrial Engineering, with strong research expertise in sustainable materials, process optimization, and environmental remediation.

EDUCATION BACKGROUND

2023-2025	MSc. Environmental Engineering, Taita Taveta University, Voi, Kenya
2018-2020	MSc. Textile Engineering, Moi University, Eldoret, Kenya
2012-2016	BSc. Textile Engineering, Busitema University, Uganda
2010-2011	Uganda Advanced Certificate of Education, Bukoyo S. S., Iganga
2005-2009	Uganda Certificate of Education, Lubani S. S., Jinja, Uganda
1998-2004	Primary Leaving Certificate, Bubugo P/S, Jinja, Uganda

ADDITIONAL QUALIFICATIONS

2021	ISO 9001:2015 - Quality Management System (QMS) Certificate (16th -29th August) from Alison Institute.
2021	Certificate of project monitoring and evaluation (February-March) from the youth institute of leadership and entrepreneurship development, Kampala, Uganda
2021	Certificate in research writing entitled "secrets to quickly get your research paper published and hasten your research writing", January.
2019	Certificate of natural antimicrobial dyes for textiles (5th – 8th February) from Moi University, Eldoret Kenya with subsequent trainings of the locals in Kitale and Kisumu.
2018	International certificate in frugal innovations and entrepreneurship (1st – 21st September) from Addis Ababa University, Addis Ababa, Ethiopia.

EMPLOYMENT RECORD

S/n	Period	Institution	Designation(s)	Responsibilities
1	February, 2023 - date	Busitema University, Department of Polymer, Textile & Industrial Engineering	Assistant Lecturer	<ul style="list-style-type: none"> Prepare lecture materials and conduct lectures. Set, invigilate and mark tests, course work and examinations. Supervise final year students' research projects Synergy which promotes collaborations with staff members.
2	September, 2019 - January, 2023	Busitema University, Tororo, Uganda; Department of Polymer, Textile & Industrial Engineering	Part-time Lecturer	<ul style="list-style-type: none"> Prepare lecture materials and conduct lectures. Set, invigilate and mark tests, course work and examinations. Supervise final year students' research projects
3	March, 2024 - December, 2024	Kyambogo University, Department of Textile & Leather Technology	Part-time Lecturer	<ul style="list-style-type: none"> Prepare lecture materials and conduct lectures. Set, invigilate and mark tests, course work and examinations.

PUBLICATIONS

Year	Title
2026	Achom, S. F., Tigelana, D., Kwikiriza, M., Kidega, R., Nibikora, I., Kavuma, C., & Lwanyaga, J. D. (2026). Phytoremediation of cyanide-laden mine tailings by lima beans (<i>Phaseolus lunatus</i>). <i>Environmental Challenges</i> , 23, 101454. https://doi.org/10.1016/j.envc.2026.101454
2025	Tigelana, D., Ouma, B. A., Ondiaka, M. N., Nibikora, I., Bongomin, O., & Lwanyaga, D. J. (2025). Lead (II) adsorption by KOH-modified rice straw biochar from battery wastewater: Adsorption optimization, isotherm, kinetic and thermodynamic studies. <i>Environmental Challenges</i> , 21, 101371. https://doi.org/10.1016/j.envc.2025.101371
2025	Bongomin, O., Mwape, M. C., Mpofu, N. S., Bahunde, B. K., Kidega, R., Mpungu, I. L., Tumusiime, G., Owino, C. A., Goussongtogue, Y. M., Yemane, A., Kyokunzire, P., Malanda, C., Komakech, J., Tigelana, D., Gumisiriza, O., & Ngulube, G. (2025). Digital twin technology advancing industry 4.0 and industry 5.0 across sectors. <i>Results in Engineering</i> , 26, 105583. https://doi.org/https://doi.org/10.1016/j.rineng.2025.105583
2023	Tigelana, D., Alunda, B. O., Lee, Y. J., & Moro, K. (2023). Taguchi Design Optimisation of Adsorption of Methylene Blue Dye by Manganese (iv) Oxide Modified Maize Stalk Biochar. <i>Carbon Skelton</i> , 8. https://doi.org/10.20944/preprints202312.0710.v1
2023	Nabuuma, R., Tigelana, D., & Otim, D. (2023). East African Journal of Engineering Effect of Cow Dung Ash and Recycled Concrete Aggregates on the Mechanical and Physical Properties of Concrete: Central Composite Design (CCD) Optimisation. <i>East African Journal of Engineering</i> , 6(1), 167-187. https://doi.org/10.37284/eaje.6.1.1573 .

2022	Musinguzi, A., Tigalana, D., Tumusiime, G., & Ildephonse, N. (2022). Development of antimicrobial cotton fabric application of dye from galisonga parviflora plant. <i>Fascicle of Textiles, Leather Work</i> , October, 37–42. https://ibn.idsi.md/sites/default/files/j_nr_file/AUO-FTL-Vol%2023%20no%201-2022.pdf#page=37
2021	Bongomin, O., Okello, C., Ocen, G. G., & Dan Tigalana. (2021). Agriculture 4.0: The Promises for Sustainable Agricultural and Food Systems. 1st Busitema University Science, Technology and Innovation Symposium 2021 (<i>BUSTIS 2021</i>) Agriculture, January, 0–9. https://nru.uncst.go.ug/bitstreams/3ed40ff5-f86c-4a58-a526-473efef44910/download
2020	Bongomin O., Yemane A., Kembabazi B., Malanda C., Mwape M. C., Mpofu N. S. & Tigalana D (2020). Industry 4.0 Disruption and Its Neologisms in Major Industrial Sectors: A State of the Art. <i>Journal of Engineering</i> , 2020, 45. https://onlinelibrary.wiley.com/doi/pdf/10.1155/2020/8090521

ACADEMIC PLATFORMS

1. ORCID: <https://orcid.org/0000-0003-1870-9811>
2. Researchgate: <https://www.researchgate.net/profile/Dan-Tigalana/research>
3. Google Scholar: <https://scholar.google.com/citations?hl=en&user=neppPK8AAAAJ>

REFEREES

Name	Designation
Assoc. Prof. Ildephonse Nibikora	Deputy Dean and Associate Professor, Department of Polymer, Textile and Industrial Engineering, Faculty of Engineering, Busitema University, P.O Box 236, Tororo-Uganda. Email: nibikora6@gmail.com ; Tel: +256 785 096691.
Prof. Bernard Ouma Alunda	Dean and Senior Lecturer Department of Mechanical and Materials Engineering, School of mines and Engineering, Taita Taveta University, P.O Box 635 - 80300, Voi, Kenya. Email: benard.ouma@ttu.ac.ke ; Tel: +254 708 885944/707 776 829
Prof. Igadwa Josphat Mwasiagi	Professor of Textile Engineering, Department of Manufacturing, Industrial and Textile Engineering, School of Engineering, Moi University, P.O. Box 3900-30100, Eldoret, Kenya. Email: igadwa@gmail.com ; mobile Tel: +254 725 868329.