

CURRICULUM VITAE



Personal information:

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PROFESSIONAL CORES

Materials and Textile engineering, Textile Processing/manufacturing and finishing technologies, Textile/Polymer testing and characterization, Materials and ceramic science, Electrospinning and nanofibers, Biomedical materials, Technical textiles, Functional textiles, Fabric and apparel design, Apparel performance and functionality, interior designs, Quality control and Analytical techniques.

EDUCATIONAL ARCHIEVEMENTS

June 2018 – date;

PhD student in Materials and Textile Engineering; Department of Textiles, Materials and Industrialization Engineering, Moi University – Kenya

Cores;

- Advanced Woven and Non-Woven Structures, Advanced Research Methods in Engineering, Statistics for Research, Medical and Smart Textiles, Advanced Methods in Polymer Characterization and Advanced Engineering Materials in Design & Society, Geotextiles, Industrial Innovation and Entrepreneurship.
- Research on Development of Bacterial Resistant Fabrics through Application of Dye Extracts from *Datura Stramonium*, *Racinus Communis* and Galinsoga Parviflora Plants for Medical Applications (PhD thesis project)

Sept 2011 - July 2013;

Master's Degree in Textile Engineering; Department of Applied science and Technology, Politecnico di Torino-Italy

Cores;

- Technical textiles, Textile Processing/manufacturing and finishing, Electrospinning and nanofibers, Composite materials, Textile Chemistry, Industrial quality management, Mechanics of textile machines, innovation management and product development, Materials testing/characterization, Functional textiles, Polymer chemistry/physics, Non-woven technologies and Biomaterials - Using the following Equipment proficiently (Franz Diffusion cells, XPS, UV Spectrophotometers, FTIR, SEM, NMR, XRD, TGA, DSC and Turbiscan)
- Research on Textile surface modifications to suit various applications in certain fields like Medical, sports, military etc. (Master thesis project).

Aug 2004 - Aug 2008;

Bachelor of Science in Textile and Clothing Technology; Kyambogo University- Kampala

Cores;

- Textile fiber science and technology (Fiber production, classification, blending and processing), Textile processing (Yarn spinning processes and testing), Garment manufacturing (Weaving using handlooms, Dyeing, Printing and Laundry techniques), Knitting techniques, Computing in garment designs, Material science, Mechanics of textile machines, Business and Industrial management, Fashion and design elements, interior designing and decorations.

Feb 2002 – Nov 2003;

Uganda Advanced Certificate of Education (U.A.C.E); Valley College Secondary School

Core subjects;

- Physics, Mathematics, Economics, and Geography

Feb 1997- Nov 2000;

Uganda Certificate of Education (U.C.E); Muntuyera High School Kitunga

Core subjects;

- English language, Commerce, Mathematics, Biology, Chemistry, Physics, Religious education, Geography and History

WORKING EXPERIENCE

Sept 2015 – Date;

Busitema University; Lecturer (Permanent terms), Textile and Ginning Engineering department

Duties:

- Prepares learning materials and delivers lectures to the undergraduate students in the following course units; PTI 1205 Fiber Science and Technology, TEX 224: Fabric Technology, TEX 2105: Yarn forming technology II, TEX 2104 Development Studies, TEX 3101: Man-made fibers, PTI 3104 Polymer Processing, PTI 3104: Gender in Textile and Polymer industries, TEX 4110E Leather and foot wear technology, TEX 1207: Yarn forming technology I, TEX 2204: Yarn forming technology III, TEX 4207E: Composite materials, and TEX 4108E: High performance and Specialty fibres.
- Participates in the review and development of the University curriculum
- Participates in the development of Manuals and Kits for the conduct, supervision and evaluation of practical assignments to students.
- Examines, assesses and marks undergraduate students' assignments
- Undertakes research to support the development of the University academic research agenda
- Supervises students' academic research and industrial practice programmes and activities.
- Participates in the organization and implementation of University academic conferences, seminars and workshops.
- Provides technical support and support supervision to Assistant Lecturers and other junior academic staff.
- Participates in outreach and knowledge transfer.

Training and skills obtained while on this position:

- Good communication skills as I was able to teach students and excel
- Analytical and Research skills as I was able to guide students to carry out their research projects successfully and on time.

September 2015 – Date;

Akola Project Uganda; Consultant in Weaving and embroidery technologies.

Duties:

- Provide prior knowledge and guidance to the Top management on how best the project can be ran for improved overall production and maintaining quality as key.
- Periodic supervision of the weaving and embroidery supervisors and monitoring of the quality of the products produced for improvement.

March 2009 – August 2014;

Kyambogo University; Assistant Lecturer (Part-time), Textile section-Chemistry Department

Duties:

Teaching theory & practicals, continuous assessment of students' work, examining, marking and grading them, Carrying out mentoring lectures, curriculum development, other departmental assignments and Students' research supervision. The following are some of the course units I have taught;

BTC 123: Fiber Technology, BTC 213: Yarn Technology, BTC 224: Fabric Technology, BTC 225: Knitting Technology, DTD 213: Color principles and techniques, BTC 223: Dyeing Technology, BTC 124: Clothing Science, BTC 215: Laundry and Fabric care techniques, BTC 321: Product design and Fashion and BTC 414: Mechanical Behavior of fabrics.

Training and skills obtained while on this position:

- Good communication skills as I was able to teach students and excel very well
- Analytical and Research skills as I was able to guide students to carry out their research projects successfully and on time.

Aug 2009 – Sept 2011;

Maganjo Vocational Institute; Tutor, Textile section.

Duties:

- Teaching textile technology cores (Weaving techniques using handlooms) Research methods, apparel science, Fashion design, Tailoring, dyeing and printing, performance and innovations.

Training and skills obtained while on this position:

- Good communication skills as I was able to teach students and excel
- Good organization skills as I was able prepare a yearly study tour schedule for all the students at different levels and be able to move to many different places hence led to the improvement of students' performance.
- Analytical and Research skills as I was able to guide students to carry out their research successfully and on time

Sept 2008 - Feb 2010;

Velocity Plus Limited Company, Kampala-Uganda (A company that deals in making Uniforms, Gowns, Printing, Dyeing, Consultancy and general works); Productions manager

Duties;

- Production team building, training and retention, Generating new production techniques for the company and guiding employees through them, Monitoring and supervising of operations in production department, Maintaining records and files pertaining to production

Training and skills obtained while on this position:

- Excellent monitoring and supervision skills as I was able to increase the production by over 70% during my time thus exploiting of my ability.
- Research and analytical skills since I was able to discover better methods of production thus increased output.
- Good communication skills as I was able to train employees for better results

CURRENT ASSIGNMENTS

March 2021 – Present;

One of the members selected to verify facilities in different institutions of higher learning for their Programmes' accreditation by the National Council for Higher Education (NCHE)

Sept 2015 – Present;

- Busitema University; A committee member of the time- table drafting and space allocation at the Faculty level.
- A member of the Budgetary and planning committee at Faculty level
- A members of the Departmental research group

November 2015 – Present;

One of the members selected to assess Textile related programmes from different Universities and institutions for accreditation by the National Council for Higher Education (NCHE)

Sept 2013 – Present;

Uganda Textile Society (UTS); Member of the Technical Committee to monitor the society's operations and give technical advice where it is due

Nov 2013 – Present;

Ministry of Education and sports, Kampala-Uganda; One of the members selected to periodically train the trainers in vocational institutions specifically in the field of textile science and Garment construction and make a follow-up to ensure that what was taught is being implemented/followed.

RESEARCH EXPERIENCE

- **A. Musinguzi**, J.I. Mwasiagi, C. Nzila & I. Nibikora (2022). Antibacterial efficacy of the aqueous and ethanolic extracted dyes from *Datura stramonium*, *Racinus communis*, and *Galinsoga parviflora* plant leaves.
<https://www.routledge.com/Advances-in-Phytochemistry-Textile-and-Renewable-Energy-Research-for-Industrial/Nzila-Oluoch-Kiprop-Ramkat-Kosgey/p/book/9781032118710>
- **Musinguzi Alex**, Mwasiagi, J. Igadwa, Nibikora Idephonse, Nzila Charles (2021). Optimization of Process Conditions of Silk Fabric Dyeing with *Galinsoga Parviflora* leaf extract for Antibacterial Application.
<http://textile.webhost.uoradea.ro/Annals/Volumes.html>
- Ocident Bongomin, Gilbert Gilibrays Ocen, Eric Oyondi Nganyi, **Alex Musinguzi**, Timothy Omara (2020). Exponential disruptive technologies and the required skills of industry 4.0
<https://doi.org/10.1155/2020/4280156>
- **Alex Musinguzi**, Josphat Igadwa Mwasiagi, Aaron Wanyama, Onesmas Gumisiriza (2019). Antimicrobial activity of cotton and silk fabrics dyed with *Datura stramonium* (Jimson weed) plant leaf extracts.
DOI: [10.5897/AJMR2019.9108](https://doi.org/10.5897/AJMR2019.9108)
- R.Peila, A.Ferri, M.Mihailiasa, A.Barresi, T.Zelenkova, I.Bevilacqua, **A.Musinguzi** (2014). Study on Transdermal Release from Functionalized Cotton Fabrics with Caffeine – Polycaprolactone Nanocapsules

- Feb 2009 to Date; Research supervision of students' research projects on various topics in Textile Engineering, Technology and Science fields. Some of the recent topics supervised are;
 - *Natural dye extraction from Mirabilis Jalapa flowers and its Efficient Application on cotton and polyester fabrics – March 2022.*
 - *Assessment of silk and cotton knitted fabrics dyed with Hibiscus Rosa-Sinensis (China rose plant) extract -August 2018*
 - *Production of a bioactive fabric using extracts from selected indigenous medicinal plant species-August 2018*
 - *Extraction of fibres from pineapple leaves and spinning yarn-April 2017*
 - *Designing a carpet using acrylic yarn mattress waste paper and upholstery fabric- April 2017*
 - *Application of Moringa Oleifera seed extract for activated sludge thickening- April 2017*
 - *The effect of sawing parameters and wash type on the dimensional stability of knitted garments- November 2016.*
 - *Development of safe antibacterial finish for kitchen fabric- November 2016*
 - *Study of the tensile strength properties of soil reinforced with sisal- November 2016*
- Oct 2014 - Dec 2014; Fiber identification, Classification and DTex measurements for Tax tag numbers (Uganda Revenue Authority research on Textiles)
- Feb 2013 - July 2013; Study on transdermal release from functionalized cotton fabrics with caffeine polycaprolactone nanocapsules (Master research project) and published
- May 2008 to July 2008; A study of the factors that causes yarn breakages in the spinning section (Industrial research; Phenix Logistics Company limited, Kampala- Uganda); (Undergraduate research)

CONFERENCES AND WORKSHOPS ATTENDED

- The 2nd Workshop on Higher Education Partnerships for Sub-Sahara Africa (HEPSSA) – Makerere University Hub from July 15th -16th, 2021.
- The Virtual workshop on validating the findings of the Literature Study on Korean Model and Contribution of Universities to National Economic Development with Recommendations for Africa's Higher Education – by RUFORUM on 14th July 2021.
- The Virtual workshop on the Pre-Summit Academia Dialogue for the Republic of South Sudan – by RUFORUM held on the 8th July 2021.
- The workshop on the econometrics modelling using STATA organized by RUFORUM from 28th June – 2nd July 2021.
- The 1st Busitema University Science, Technology and Innovation Symposium from 24th - 25th June 2021

- The Online Skills Enhancement training sessions on Scholarly writing on; a) Journal article and thesis b) Writing a Systematic review by RUFORUM from 24th – 26th March 2021.
- The Indian ITME Society Virtual Pre-event Buyer Seller Meet and Technical Seminar from 3rd -5th December 2020
- Africa Center of Excellence in Phytochemicals, Textile and Renewable Energy (ACEII-PTRE) Staff Exchange Programme at Busitema University Materials and Textile Labs from 9th to 23rd November 2020.
- The ICPTRE2020 Virtual International Conference on Phytochemical, Textile & Renewable Energy for Sustainable Development from 12th -14th August 2020.
- Training on research writing and publications at Busitema University health campus 2020
- Yearly Mendeley workshops/trainings at Busitema University main Campus.
- Training on Lab safety at Moi University main Campus from 11th -13th November 2019
- Training on writing winning grants and Proposals at Busitema University 2019
- Workshop on Pedagogy skills training at Busitema University main Campus 2019
- A non-residential workshop on Programs writing and Assessment at National Council for Higher Education from from 2nd – 5th April 2019.

OUTREACH ACTIVITIES INVOLVED

- One of the members spear heading the publication of Kasangati Times (Community newspaper) to create awareness in the communities.
- Organizes the students' study tours yearly to various Textile, Polymer and other related manufacturing Industries for the students to acquire technical knowledge as well as advertising our University.
- Registration and Distribution of Mosquito nets (LLINs) and Personal Protective Equipment (PPE) country wide under the theme '*UNDER THE NET CAMPAIGN 2020*' by the Ministry of Health from June 2020 to February 2021 in collaboration with PACE, KPMG, and IDRC.

HANDS-ON TRAINING

- Textile Measuring Technology and Quality Control; USTER Technologies.
- Sericulturing
- Cotton cultivation and ginning processes
- Repair and operation of sewing machines
- Textile mill operations (spinning, weaving, quality control, knitting, processing, garments)
- Plastic blow-molding, Injection molding
- Weaving with hand looms
- Customized fabric dyeing and printing
- Clothing construction techniques

OTHER SKILLS & TRAINING

- Computer packages (Research analytical tools, modeling and simulation, MS Office suite, CorelDraw, R software, Origin)
- Firefighting, first aid, leadership
- Certificate in Research and Writing Skills

SOCIAL SKILLS

- Patron for Busitema University Textiles and Ginning students Association (BUTEGA) from 2017 to Date
- A committee member of the Kampala Ntinda Textile and Apparel Professionals Cooperative Society Limited (KaNTAP) from 2019 to Date.
- A member of the Executive committee of Uganda Textile Society (UTS) from 2013 to Date
- Departmental Examinations/Programme Coordinator from 2015 to 2018
- General Secretary for Organising Textile Exhibitions annually from 2009 to 2011
- Chairperson Kyambogo University Textile and Clothing Association (KYUTECA) in 2008

HOBBIES

- Watching documentaries and comedies
- Reading inspirational literature
- Touring
- Adventuring

REFERENCES:

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- 2) Dr. Nibikola Ildophase
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