


## Curriculum Vitae

### Personal Details

<p><b>Name:</b> Dr. Nchore Bonuke</p> <p><b>Title/Qualification:</b> PhD</p> <p><b>Institution:</b> Kenyatta University</p> <p><b>Department:</b> Plant Sciences</p> <p><b>Designation/Position:</b> Lecturer</p> <p><b>Email:</b> bonuke.shem@ku.ac.ke</p> <p><b>Contact Address:</b> Box 43844, 00100, Nairobi</p> <p><b>Area of Specialization:</b> Plant Pathology/Plant Nematology</p> <p><b>Research Interests:</b></p> <p>- Plant disease Diagnosis &amp; Management</p> <p><b>Google Scholar:</b> <a href="https://scholar.google.com/citations?user=MMSf4a8AAAAJ&amp;hl=en&amp;authuser=1">https://scholar.google.com/citations?user=MMSf4a8AAAAJ&amp;hl=en&amp;authuser=1</a></p> <p><b>ORCID ID:</b> <a href="https://orcid.org/0000-0002-7152-7032">https://orcid.org/0000-0002-7152-7032</a></p>	
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### Academic & Professional Qualifications

2013 - 2016 Kenyatta University (KU), Nairobi, Kenya

**Doctor of Philosophy (PhD) in Plant Pathology (Nematology)**

2008 - 2012 Kenyatta University (KU), Nairobi, Kenya

**Master of Science Plant Pathology (Nematology)**

2002 – 2007 Kenyatta University (KU), Nairobi, Kenya

**Bachelor of Education Science (2<sup>nd</sup> Class Upper)**

### Employment History

- ☒ 2016 – Date Lecturer, Department of Plant Sciences, Kenyatta University.
- ☒ 2014 – July 2016 Tutorial Fellow, Department of Plant Sciences, Kenyatta University.
- ☒ 2013 - 2014 Part-time Lecturer, Department of Plant Sciences, Kenyatta University.
- ☒ 2010-2012 St. Appolonuhs Secondary School, Thika, Kenya.
- ☒ 2009-2010 Kihumbu-ini High School, Gatanga, Thika, Kenya.
- ☒ 2006 – 2009 Kenyatta Girls Secondary School, Thika, Kenya.

### Conference/Workshops/Seminar Papers

- ☒ Malaka Samuel Musime, David Mwongera Thurairia, Maina Mwangi, **Shem Nchore Bonuke**, Hudson Lubabali and Charity Gathambiri (March 2023). Efficacy of selected biofungicides against *Fusarium oxysporum* f.sp. *cubense* infecting bananas in Central

and Eastern regions of Kenya. In: The 1<sup>st</sup> Kenya Agricultural and Livestock Research Organization Scientific Conference. Held from 27<sup>th</sup> – 31<sup>st</sup> March 2023, Nairobi, Kenya.

- ⊗ Samuel Musime Malaka, David Mwongera Thurairira, Maina Mwangi, **Shem Bonuke Nchore**, Hudson Lubabali, Charity Gathambiri. (May 2022). *Fusarium oxysporum* f.sp *ubense* persists as a major threat to banana production in Eastern Kenya. In: The 73rd International Symposium on Crop Protection on 24 May 2022, Ghent, Belgium.
- ⊗ Waswa, Stanous Juma; Waceke, J.W. & **Nchore, S.B.** (2021). Responses of Tree Tomato Varieties to Root-Knot Nematodes. In: The 5th KIBU International Conference (Virtual) on 15th and 16th June 2021, organized by Kibabii University.
- ⊗ Incidence and Prevalence of root-knot nematodes *Meloidogyne* species on selected indigenous leafy vegetables in Kisii and Trans-Mara counties of Kenya at the 12<sup>th</sup> biennial conference, KARI (published).
- ⊗ Use of agro-industrial wastes and organic amendments on the management of root-knot nematodes in *Solanum nigrum* in selected parts of Kenya at the 10<sup>th</sup> ACSS Conference, Maputo, Mozambique, 10-13 October, 2011 (Published).
- ⊗ Use of Farmers Practises in the Management of Root-knot Nematodes on Indigenous Vegetables in Kenya, Nov. 2010. (Abstract and Poster).
- ⊗ Response of African leafy vegetables to *Meloidogyne* spp. in Kenya (at the aGRO 2011-Inaugural Biennial Conference, College of Agriculture and Veterinary Sciences, University of Nairobi, Nairobi, The paper was submitted for Review and Publication in the Journal of Today's Biological Sciences Research & Review (JTBSRR) on May 2013 and published in Vol. 2, Issue 1, page 1-12, June 30, 2013.
- ⊗ Efficacy of Selected agro-industrial Wastes in Managing Root-knot nematodes on Black nightshade in Kenya (at the 1<sup>st</sup> PACN Congress on Agricultural Productivity and Paper submitted for publishing by ISRN on 29<sup>th</sup> April 2012, accepted on 31<sup>st</sup> July and published on October, 2012 in Agronomy).
- ⊗ Incidence, Prevalence & Management of Root-knot Nematodes (*Meloidogyne* spp.) on Selected Indigenous Leafy Vegetables in Kisii and Trans-Mara Counties, Kenya (The 25<sup>th</sup> Postgraduate Seminar at K. University)

## Exhibitions

- ⊗ Oct. 2015 Kenyatta University @30 “Embracing Culture in a Digital Age” Exhibition, 5<sup>th</sup> – 18<sup>th</sup> October, 2015 at Kenyatta University, Nairobi – Kenya.
- ⊗ Nov. 2010 Pan African Agribusiness and Agro-industry Consortium (PanAAC) and Universities, Business and Research in Agribusiness and Innovation (UNIBRAIN) Fair, 26<sup>th</sup> – 27<sup>th</sup> November 2010, Hilton Hotel, Nairobi – Kenya.

## Book chapter

1. Njeru, E.M., Morris Muthini, M., Muindi, M.M., Ombori, O., **Nchore, S.B.**, Runo, S. and Maingi, J.M. 2020. Exploiting Arbuscular Mycorrhizal Fungi-Rhizobia-Legume Symbiosis to Increase Smallholder Farmers' Crop Production and Resilience Under a Changing Climate. In: Singh, B.R., Safalaoh, A., Amuri, A.N., Eik, L.O., Sitaula, B.K. and Lal, R. (Eds.). Climate Impacts on Agricultural and Natural Resource Sustainability in Africa. Springer Nature Switzerland AG. Pp. 470-488. <https://doi.org/10.1007/978-3-030-37537-9>

## Student Co-authored Publications

### i. Peer reviewed

1. Wahome, C., Ombori, O., Maingi, J., Njeru, E., **Nchore, S.**, Kimiti, J., & Muthini, M. 2023. Response of micropropagated tissue culture banana (*Musa* spp.) to acclimatization using arbuscular mycorrhiza fungi. *African Journal of Pure and Applied Sciences*, 4(2), 50-58. <https://doi.org/10.33886/ajpas.v4i2.410>
2. Asande, L.K., Ombori, O., Oduor, R.O., **Nchore, S.B.**, Nyaboga, E.N. 2023. Occurrence of passion fruit woodiness disease in the coastal lowlands of Kenya and screening of passion fruit genotypes for resistance to passion fruit woodiness disease. *BMC Plant Biology*, 23 (544): 1-19
3. Malaka, S.M., Thurairaja, D.M., Mwangi, M., **Nchore, S.B et al.** 2023. *Trichoderma* species have potential in suppressing *Fusarium oxysporum* f. sp *ubense* infecting banana in Kenya. *Journal of Applied Biosciences*. 186: 19655-19665 <https://doi.org/10.35759/JABs.186.10>
4. Malaka S. M, Alwora G. O, **Nchore S. B.** Efficacy of Two New Fungicides against *Colletotrichum kahawae* Infecting Coffee in Kenya. *Curr Agri Res* 2021; 9(2). Available from: <https://bit.ly/3jnn4bT>. DOI: <http://dx.doi.org/10.12944/CARJ.9.2.03>
5. Nyang'au, D, Atandi, J., Cortada, L., **Nchore, S.**, Mwangi, M. and Coyne, D. 2021. Diversity of nematodes on banana (*Musa* spp.) in Kenya linked to altitude and with a focus on the pathogenicity of *Pratylenchus goodeyi*. *Nematology*, 1-11. DOI 10.1163/15685411-bja10119.
6. Waswa, S.J., Waceke, J.W. and **Nchore, S.B.** 2020. Occurrence and Abundance of Phytonematodes in Tree Tomato (*Solanum betaceum* Cav.) Farming Systems in Kenya. *Researchjournali's Journal of Agriculture Vol. 7 | No. 7 August | 2020*. <http://www.researchjournali.com/pdf/5605.pdf>
7. Waswa, S.J., Waceke, J.W. and **Nchore, S.B.** 2020. Diversity of Plant Parasitic Nematodes of Tree Tomato (*Solanum betaceum* Cav.) In Kiambu and Embu Counties, Kenya. *Middle East Journal of Agriculture Research* vol. 9 (3), 605-616.
8. Chepkemboi, A., Maingi, J.M. and **Nchore, S.B.** 2020. Screening of common bean genotypes for resistance against *Xanthomonas campestris* pv. *phaseoli* in Kakamega County, Kenya. *European Journal of Biology*, 5(1): 16-27. **ISSN 2520-4738 (Online)**.

## ii. Conference papers

9. Angeline Chepkemboi, John Maingi, **Shem Nchore:** 2020. Evaluation of Selected Common Bean Genotypes for their Reaction to *Xanthomonas Campestris* Pv. *phaseoli* in Kakamega County, Kenya **Abstract** (ID 323): [Web-Version](#) (html).
10. Muchemi, PK., Kamau, J.W., **Nchore, S. B**, Mathew P. N, Kimaru, S.K. Mwangi, JW, Joyce.W, Florence. M. 2019. Genetic Response of Selected Maize Germplasm Screening for MLND Resistance in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
11. Muchemi, PK, Kamau, J.W., **Nchore, S. B**, Mathew P. N, Kimaru, S.K., Mwangi, JW., Waithira, J., Munguti, F. 2019. The relationship between level of education, Farmers varietal prevalence, control and distribution of Maize Lethal Necrosis in Bomet County. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.

12. Muchemi, PK., Kamau, JW., **Nchore, S. B**, Omwoyo, RO., Kimaru, SK., Mathew, PN. 2019. The use of low Tissue Culture Technology towards food sustainability in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
13. Muchemi, PK., Kamau, JW., Mathew, P.N., **Shem, B.N.** and Mwangi, JW., Kimaru, SK. 2018. The current status of Maize Lethal Necrosis Disease in Nyandarua County, Kenya, Horticultural Association of Kenya
14. Muchemi PK, Kamau, JW., **Shem, B.N.**, Mathew. PN. Omwoyo, RO., Kimaru, SK., 2018. The use of low Tissue Culture Technology towards food sustainability in Kenya. RUFORUM Biennial Conference.
15. Peter Shango, **Nchore, S.B** and Mwangi M. 2019. Assessment and Detection of Maize Chlorotic Mottle Virus Stability in Maize Seeds in Kenya, Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
16. Waswa, S.J., Waceke, J.W. and **Nchore, S.B.** 2019. Occurrence and Abundance of Plant Parasitic Nematodes on Tree Tomato (*Solanum Betaceum* Cav.) in Kiambu and Embu Counties, Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
17. Nyang'au, D, Atandi, J., Cortada, L., **Nchore, S.**, Mwangi, M. and Coyne, D. Occurrence, Abundance and Distribution of Plant Parasitic Nematodes Associated with Bananas (*Musa* Spp.) at Different Altitudes in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.

## **Examined theses**

### **PhD Theses**

Jan 2021: Passion Fruit Woodiness Disease In Coastal Lowlands Of Kenya And Genetic Transformation Of Farmer Preferred Passion Fruit (*Passiflora Edulis* SIMS).

Sept. 2020: Identification and Management of Fungal Pathogens Associated With Stem End Rots of Avocado Fruit in Murang'a County, Kenya.

### **M.SC Thesis**

Nov 2023: Arbuscular Mycorrhizal Fungi and *Trichoderma* Spp on Nutrient Uptake and Water Stress Tolerance in *Vigna Unguiculata* (L.) Walp. (Cowpea).

Aug 2023: Efficacy of Banana Paper as a Carrier for Control Agents for the Management of Root- Knot Nematodes (*Meloidogyne* spp.) on potatoes (*Solanum tuberosum*) in Kirinyaga County, Kenya.

Mar 2022: Correlation Between Maize Lethal Necrosis Disease and Mycotoxin in Maize in Kenya.

April 2021: Management of potato cyst nematodes *Globodera* spp. on potato (*Solanum tuberosum*) using indigenous fungi in Nyandarua county, Kenya.

- Jan 2021: Efficacy of Indigenous Antagonistic Fungi against Root-Knot Nematodes on Tomato In Kirinyaga County, Kenya.
- Jan 2021: Evaluation of Rice Genotypes and Transfer of Blast Disease (*Magnaporthe oryzae*) Resistance To Cultivars In Mwea, Kirinyaga County-Kenya.
- Mar 2020: Effectiveness of *Pseudomonas fluorescens* and Neem Extract in Management of *Fusarium oxysporum* on French Beans in Kirinyaga County, Kenya.
- Feb 2020: Effectiveness of Antagonistic Bacterial Isolates From Kiambu, Nakuru And Laikipia Counties, Against Crown Gall Disease On Roses.
- Feb 2020: Population Growth of Tomato Leaf Miner Moth *Tuta absoluta* and its Indigenous Parasitoids in Nairobi and Kajiado counties in Kenya.
- Sept 2019: Efficacy of entomopathogenic fungi against western flower thrips *Frankliniella occidentalis* (Pergande) on tomato (*Solanum lycopersicum*) in Bungoma county, Kenya.
- Aug 2019: Management of crown gall disease in selected rose flower farms in Kenya by use of Artemisia and ginger extract.
- March 2019: Screening of Supa aromatic rice (*Oryza sativa* L.) F2 population for blast (*Magnaporthe oryzae*) resistance at IRRI-ESA Burundi.
- Jan 2019: Use of Oyster mushroom (*Pleurotus ostreatus*) to degrade used diapers and sanitary pads in selected estates in Thika, Kenya.
- June 2017: Management of Bacterial Wilt-Root Knot Disease Complex Of Tomato And Pepper In The Coastal Region Of Kenya.
- Jan 2017: Neem, Garlic and Aloe Extracts Use in the Management Of Postharvest Potato Soft Rot Caused By *Erwinia carotovora* Bacteria.
- Jan 2017: Effects Of *Azadirachta indica*, *Allium sativum* & *Lantana camara* Leaf Extracts On Root-Knot Nematode Management On Tomatoes In Mwea-East, Kenya.
- Jan 2017: Effects of Inorganic Nitrogen Fertilizer On Root-Knot Nematode *Meloidogyne* spp. In Greenhouse Sweet Pepper (*Capsicum annum* L.) Production In Kenya.

### **Research Projects**

- 2023 – date Management of root-knot nematodes and potato cyst nematodes using Furfural chemical treated banana fiber paper on Irish and sweet potatoes.
- 2023 – date Characterization and Management of Tamarillo Dieback Disease in selected counties of Kenya.
- 2023 – date Characterization and management of Selected Fungal Pathogens Causing Cassava Root Rot Disease in selected counties of Kenya.
- 2023 – date Diversity, Cultivar Resistance and Biological Management of Root-knot nematodes on Taro (*Colocasia esculenta* (L.) Schott.), in Kirinyaga and Murang'a Counties, Kenya.
- 2023 – date Occurrence, Detection and Characterization of *Potato Spindle Tuber Viroid* in *Solanum tuberosum* L. in Selected Counties of Kenya.

- 2022 – date Incidence and Chemical Management of Powdery Mildew (*Erysiphe polygoni* L.) on Greengrams in Kilifi County, Kenya.
- 2022 – date Potential of *Trichoderma* Spp and *Pseudomonas fluorescens* for the management of *Aspergillus flavus* on peanuts in Nyamira County Kenya.
- 2022 – date Assessment of Blast Resistance in Rice Cultivars With Varying Zinc and Anthocyanin Content.
- 2022 - date Application of Gis & Remote Sensing Techniques in Modelling Conservation Biocontrol in Agricultural Landscapes in Kenya.
- 2021 – date Effectiveness of Endophytes and Entomopathogenic Fungi on Greenhouse Whitefly Vector of Tomato Infectious Chlorosis and Tomato Chlorosis Viruses on Tomato in Kiambu and Kirinyaga Counties, Kenya.
- 2019 – 2023 Characterization and Biocontrol of Pathogenic Microorganisms Associated With Commonly Grown Banana Cultivars in Embu, Kisii and Nyamira Counties of Kenya.
- 2018 – date Interaction Between Potato Cyst Nematodes (*Globodera* Spp.) and Bacterial Wilt (*Ralstonia solanacearum*) in Potato in Nyandarua County, Kenya.
- 2018-date Virulence, Diversity and Management of *Fusarium oxysporum* f.sp. *cubense* infecting Bananas in Tharaka Nithi County, Kenya.
- 2018 – 2020 Phenotypic Characterization of Common Bean Genotypes for Resistance to *Xanthomonas campestris* pv. *phaseoli* Constraining Bean Production in Western Kenya.
- 2017-2021 Occurrence, Abundance and Distribution of Plant Parasitic Nematodes Associated with Bananas (*Musa* Spp.) at Different Altitudes in Kenya.
- 2017-2020 Management of Plant Parasitic Nematodes on Tree Tomato (*Solanum Betaceum* Cav.) in Kiambu and Embu Counties, Kenya.
- 2016-2017 Efficacy of Two New Fungicides Against *Colletotrichum kahawae* Infecting Coffee in Kenya.
- 2016-2021 Characterization and biocontrol of pathogenic microorganisms associated with commonly grown banana cultivars in Embu, Kisii and Nyamira counties of Kenya.
- 2016-2020 Assessment and detection of maize chlorotic mottle virus stability in maize seeds in Kenya.
- 2016-2020 Management of common bean genotypes for resistance against *Xanthomonas campestris* pv. *phaseoli* in Kakamega County, Kenya.
- 2013-2016 Management of Root-Knot Nematodes (*Meloidogyne* spp.) on African Nightshades in Selected Parts of Kenya.
- 2009-2012 Incidence, prevalence and management of root knot nematodes (*Meloidogyne* spp.) on selected indigenous leafy vegetables in Kisii and Trans-Mara counties, Kenya.

## Funded Projects

- ☒ Regional approach towards addressing invasive quarantine pests of potato in East and Southern Africa, with a focus on Potato Cyst Nematode (PCN). The STDF Project Grant (STDF/PG/809).
- ☒ Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’. Our Erasmus+ grant agreement number 618814-EPP-1-2020-1-BE-EPPKA2-CBHE-JP.
- ☒ Exploiting arbuscular mycorrhizal fungi-rhizobia-legume tripartite symbiosis to increase crop production and resilience in semi-arid tropics of Kenya. **Vice Chancellor research grant 2017**
- ☒ Characterization and Non-Chemical Management of Root-Knot Nematodes (*Meloidogyne* spp.) on African Nightshades in Selected Parts of Kenya. **HORTINLEA -a funding initiative for global food security (GlobE) of the German Federal Ministry of Education and Research and the German Federal Ministry for Economic Cooperation and Development**

## External Review

July 2023 External Reviewer for B.Sc and M.Sc Nematology course modules for Moi University, Eldoret, Kenya. Facilitated by Nemedussa Project in co-ordination by Ghent University, Gent, Belgium.

## Short Trainings attended

- Aug-Sept. 2023 Academic writing skills Training for scientists, funded by the World Bank and Facilitated by Centre of Excellence in Agri-Food Systems and Nutrition (CEAFSN) in collaboration with RUFORUM, from 28<sup>th</sup> August to 1<sup>st</sup> September 2023.
- Aug. 2023 Short traineeship on Entomopathogenic nematodes at Stellenbosch University, Cape Town, South Africa, organized by Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’ from 13<sup>th</sup> - 19<sup>th</sup> August 2023.
- Aug. 2023 Proposal writing, funded by the World Bank and Facilitated by Centre of Excellence in Agri-Food Systems and Nutrition (CEAFSN) in collaboration with RUFORUM, from 31<sup>st</sup> July to 4<sup>th</sup> August 2023.
- Aug. 2023 R Studio Training for scientists, funded by the World Bank and Facilitated by Centre of Excellence in Agri-Food Systems and Nutrition (CEAFSN) in collaboration with RUFORUM, from 7<sup>th</sup> August to 11<sup>th</sup> August 2023.
- April 2023 The Advanced Pesticide Safety and Sprayer Calibration Training Course. Organized by Soybean Innovation Lab, Facilitated by Illinois University, USA and IITA Africa.
- April 2023 The Integrated Pest Management Online Training Course. Organized by Soybean Innovation Lab, Facilitated by Illinois University, USA and IITA Africa.

- Feb. 2023 Online Training-The Floor is Yours (Create Scientific Posters with Impact) on 6<sup>th</sup> February 2023 from 12-2pm (EAT). Organized by Nemedussa Project in coordination by Ghent University, Gent, Belgium.
- June 2022 TOTEMK First coaching session (Training of trainees process) on 2<sup>nd</sup> June 2022 from 3-5 pm.
- Nov. 2021 – Feb. 2022 Workshop II for Training of Trainers for Teacher Education and Management in Kenya. Organized by The Finish Government in Collaboration with Helsinki University and Laurea Universities Finland. University of Nairobi, Distance Learning.
- Nov. 2021 Workshop II for Training of Trainers for Teacher Education and Management in Kenya. Organized by The Finish Government in Collaboration with Helsinki University and Laurea Universities Finland. University of Nairobi, Taifa Hall from 8-10 November 2021.
- Oct. 2021 Short traineeship on Nematode Diversity organized by Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’
- Feb - Mar. 2021 Short traineeship on Nematode Diversity organized by Erasmus+ Programme 2020 for Capacity Building in Higher Education ‘Nematology Education in Sub-Saharan Africa-NEMEDUSSA’
- Sep - Oct. 2020 Cyber Security Awareness Course at Kenya Education Network, Nairobi, Kenya.
- Mar. 2019 Training on ‘Theory of Change’, Kenyatta university, Nairobi on 15<sup>th</sup> March 2019
- Mar. 2019 Campus-Nexus training, Kenyatta University, Nairobi on 19<sup>th</sup> March 2019
- Mar. 2019 Sensitization training on university website and staff profile updates, Kenyatta University, Nairobi from 4<sup>th</sup> -18<sup>th</sup> March 2019
- Mar. 2019 E-Learning training for Lecturers, Kenyatta University, Nairobi on 7<sup>th</sup> March 2019.
- Feb. 2019 Leadership training, Kenyatta University, Nairobi on 21<sup>st</sup> February 2019 from 2-4 pm.
- Nov. 2018 Campus-Nexus training, Kenyatta University, Nairobi on 8<sup>th</sup> November 2018.
- Sept. 2018 IBP content development training, Kenyatta University, Nairobi on 10<sup>th</sup> September 2018.
- Jul. 2017 Grant writing training, held at Kenyatta University, Nairobi from 26<sup>th</sup> – 27<sup>th</sup> July 2017.
- Mar. 2016 Vegetable standards and audit at Real IPM Thika, Kenya from 18<sup>th</sup> – 19<sup>th</sup> March 2016.
- Sep. 2015 HORTINLEA Summer School, 2015, held at Werbellin, Berlin, Germany from 8<sup>th</sup> – 13<sup>th</sup> September 2015.
- Nov-Dec. 2014 Molecular diagnostics at Humboldt University of Berlin from 3<sup>rd</sup> Nov – 12<sup>th</sup> Dec. 2014.
- Sep. 2014 HORTINLEA Summer School, 2014, held at Kenyatta University, Nairobi, Kenya from 4<sup>th</sup> – 11<sup>th</sup> September 2014.



- Jun. 2012 PACN–INASP Workshop on Scientific Writing & Grant Application, University of Nairobi, Chiromo Campus 4-6 June 2012.
- Mar. 2012 Successfully facilitated a farmers and extension officers workshop and Training on Diagnosis and Management of Major Biotic Stressants of Agricultural Crops organized by The Gatsby Charitable Foundation, NIESA, RUFORUM and School of Agriculture and Enterprise Development, Kenyatta University held on 9<sup>th</sup> and 10<sup>th</sup> March 2012 at KUCC, Kenyatta University.
- Mar 2010 Training course on Plant Nematode Diagnostic; Nematode Sampling, Extraction, Application of Morphology and Taxonomy in Identification, Management of Nematodes and Biostatistics in Nematology, held at the Department of Plant and Microbial Sciences, Kenyatta University and organized by KU and KARI.
- Jul 2008 Training course on the marking of Chemistry and Biology Examinations by KNEC at Chania High School, Thika.

### **Conferences/Workshops /Seminars/Webinars Attended**

- Jan 2024 International webinar on Women, Science and Society, organized by Bioingene on 8<sup>th</sup> January 2024.
- Dec 2023 International (Online) Seminar on Marine Fungi, organised by MycoIndia, MycoAsia and Pondicherry University on 17.12.2023 (Sunday) from 9 am – 5 pm.
- Dec 2023 Webinar "Potato Late Blight: Unlocking Microbial Solutions for Farmers" organized by Crop Health and Protection Team on 4<sup>th</sup> December 2023 from 3-5 pm EAT virtual.
- Dec 2023 Webinar on Millets for Sustainable Future – A Perspective on Abiotic Stress and Biological Nitrification Inhibitors by Dr. Arindam Ghatak, Senior Scientist, Molecular Systems Biology (MOSYS), Department of Functional and Evolutionary Ecology, University of Vienna, Austria. Organized by Bioingene on 2<sup>nd</sup> December 2023 from 11.30 am to 1.30 pm EAT Virtual.
- Nov 2023 The 12th Conference of the SEB – K and 5th International Conference of NAPRECA – K, a virtual conference jointly organized by the Society for Ethnobotany – Kenya (SEB – K) and the Natural Products Research Network for Eastern and Central Africa – Kenyan Chapter (NAPRECA – K), November 25th, 2023
- Nov 2023 16<sup>th</sup> PANEMA Webinar on Unlocking the Potential of Black Soldier Fly Frass Fertilizer and Chitin-Rich Exuviae for Improved Potato Yields and nematode management. Presented by Mr. Emmanuel Anendo from ICIPE Duduville Campus on 17<sup>th</sup> November 2023 from 11 am (virtual).
- Oct 2023 15<sup>th</sup> PANEMA Webinar on Alleviating the influence of Root-Knot Nematodes on Tomato Plants in Nigeria with compounds derived from native flora. Presented by Dr. Julius Bulus, Ahmadu Bello University, Zaria, Nigeria on 27<sup>th</sup> October 2023 from 2pm (virtual).
- Sept 2023 Webinar on Integrating Innovation and Product Development in Research, Kenyatta University. Organized by the Directorate of Innovation Incubation &

University-Industry Linkages on Friday 29th September 2023 from 10.00 - 11.30am.

- Sept 2023 Webinar on Soybean Insect pest Management: Insect pest identification and management. Organized by Soybean Innovation Lab and facilitated by University of Illinois, USA and IITA Africa on 27<sup>th</sup> September 2023 from 4-6 pm.
- Sept 2023 RUSA Sponsored International Level Webinar Biofacet-“Fungal Genomics and its Implications” on 3<sup>rd</sup> September 2023 from 8-11 am.
- Aug 2023 Webinar on Intellectual Property Rights. On 26<sup>th</sup> August 2023 from 8.30- 11.30 am, organized by Bioingine, India.
- Aug. 2023 Strategies for Writing a Winning Grant Proposal-Budgeting Webinar. on 2<sup>nd</sup> Aug. 2023 from 10 am to 12pm, organized by The Division of Research Innovation & Outreach (RIO) through the Directorate of Research and Dissemination, Kenyatta University, Nairobi, Kenya.
- June 2023 Turnitin Webinar Session-Accelerate Paper-Based Marking with Gradescope: Using Gradescope to simplify grading and to simplify student outcomes, on 29<sup>th</sup> June 2023 from 16.00hrs EAT, organized by Turnitin and University of Dundee.
- June 2023 Research to Commercialization Webinar: Tipping negotiations in one’s favour on 15<sup>th</sup> June 2023 from 4.00 Pm to 5.00 Pm, organized by Viktoria Ventures Solutions in partnership with Kenya National Innovation Agency (KeNIA) and RISA.
- May 2023 Seminar on PhD/PG supervision and being supervised on 12<sup>th</sup> and 13<sup>th</sup> May 2023. Hosted by the Department of Educational Management Policy and Curriculum Studies, Kenyatta University, Kenya in collaboration with University of Kwazulu Natal, South Africa.
- April 2023 Writing research publications and Supervision models Workshop on 14<sup>th</sup> April 2023 from 9.00 am to 1.30pm. Hosted by the Department of Educational Management Policy and Curriculum Studies, Kenyatta University, Kenya in collaboration with University of Kwazulu Natal, South Africa.
- Mar. 2023 The 1<sup>st</sup> Webinar on Soybean Rust Management: Rust Resistant Varieties. Organized by Soybean Innovation Lab and facilitated by University of Illinois, USA and IITA Africa on 30<sup>th</sup> March 2023.
- Mar. 2023 The 2<sup>nd</sup> Pan African Nematology Network (PANEMA) Conference from 1-3 March 2023 in Mbombela, South Africa. Organized by University of Mpumalanga, South Africa and University of Ghent, Belgium.
- Feb. 2023 KENET Web Conference: Computer Science and Information Systems (CSIS) Quarter 1 webinar on "Exploiting Remote Sensed Data and Machine Learning to Actively Monitor Crop Health " by Dr. Dennis Kaburu, Jomo Kenyatta University of Agriculture and Technology. The webinar was held on Friday, 17<sup>th</sup> February 2023 from 2:00P.M to 3:30PM.
- Feb. 2023 Research to Commercialization Webinar: Value Proposition through the lens of a researcher on 16<sup>th</sup> February 2023 from 11.00 am to 12.00 noon, organized by Viktoria Ventures Solutions in partnership with Kenya National Innovation Agency (KeNIA) and RISA.

- Feb. 2023 European Funding for Research & Innovation in Green Topics – Services and Support in Proposal Preparation Through the Bavarian Research Alliance on 2<sup>nd</sup> Feb. 2023 from 2 pm to 5pm, at The International Culture and Language Centre, Kenyatta University, organized by The Division of Research Innovation & Outreach (RIO) through the Directorate of Research and Dissemination, Kenyatta University, Nairobi, Kenya.
- Jan. 2023 IP Protection and Management webinar, on 26<sup>th</sup> January 2023 from 11.00 am to 12.00 noon, organized by Viktoria Solutions in partnership with Kenya National Innovation Agency (KeNIA).
- Jan. 2023 Horizon Europe – Africa Initiative II - Focus on Kenya, on 24<sup>th</sup> January 2023 from 11.00 am to 1.30pm Virtual organized by The Ministry of Education, Science and Technology, Kenya.
- Nov. 2022 Is Kenya ready for GMO? Webinar on GMO Technology on 21<sup>st</sup> November 2022 from 9.30-1.10pm EAT, virtual, organized by The Division of Research Innovation & Outreach (RIO) through the Directorate of Research and Dissemination, Kenyatta University, Nairobi, Kenya.
- Nov. 2022 The 5<sup>th</sup> PANEMA webinar on 4<sup>th</sup> Nov. 2022 at 11:00 CET/ 12:00 SAST / 13:00 EAT, on “Enset (*Ensete ventricosum*) landraces associated parasitic nematodes and their relation to *Xanthomonas* wilt disease in Gurage, Ethiopia”. By: Fetta Negash Gerura (Jimma University).
- Nov. 2022 Harnessing Indigenous Foods for Food Security and Disease Prevention. Time: Nov 4, 2022 10:00-1.00pm, virtual. Organized by MMUST.
- Sept. 2022 The 3<sup>rd</sup> PANEMA webinar on Friday 2 September 2022 at 12:00 CEST/ SAST, or 13:00 EAT. Topic: Occurrence and diversity of nematodes of banana (*Musa* spp.) linked to altitude with a focus on pathogenicity of *Pratylenchus goodeyi* in Kenya. By: Douglas Nyang’au (Kenyatta University).
- June 2022 Webinar on Adopting Gradescope to transform digital assessment at the University of Edinburgh, on 9<sup>th</sup> June 2022 from 10-12 noon via zoom.
- May 2022 FLAIR Project Farmers Workshop on 28<sup>th</sup> May 2022 at Izaak Walton Inn Hotel-Embu, Kenya.
- May 2022 The 73<sup>rd</sup> International Symposium on Crop Protection, which was held on 24 May 2022 as a fully virtual event, Ghent, Belgium.
- May 2022 Virtual training on the new research information system (KENRIS) and science, Technology and Innovation (STI) mainstreaming by NACOSTI on 19<sup>th</sup> May 2022 from 9.00am to 12.00pm.
- May 2022 KENET Virtual Lab (VLAB) workshop for researchers on 16-18 May 2022.
- May 2022 University of Nairobi Faculty of Education Booth - Open Day 2022, from 6<sup>th</sup> – 7<sup>th</sup> May 2022.
- April 2022 TOTEMK seminar on 28<sup>th</sup> April 2022 virtually.

- April 2022 University of Nairobi CEES Webinar on 19<sup>th</sup> April 2022 from 2pm.
- Mar. 2022 TOTEMK combined workshop session between the TOT 1 and TOT 2 participants Held at Strathmore University School of Humanities and Social Sciences on 31<sup>st</sup> March 2022.
- Mar. 2022 Sensitization Workshop on Grant Administration and Management on Wednesday 16<sup>th</sup> March 2022, organized by the Division of Research Innovation and Outreach, Kenyatta University.
- Feb. 2022 NEMEDUSSA Consortium workshop at Sirikwa Hotel Eldoret from 21-22 February 2022. Organized by Moi University Kenya and University of Ghent, Belgium.
- Feb. 2022 The 1<sup>st</sup> Pan African Nematology Network (PANEMA) Conference from 23-25 February 2022 in Eldoret, Kenya. Organized by Moi University Kenya and University of Ghent, Belgium.
- Feb. 2022 Seminar on “Impacts of Science, and Biotechnology in times of pandemics. Organized by NACOSTI-Kenya and ICGEB, on Friday 4<sup>th</sup> February 2022, from 11 am to 3 pm.
- Jan- Feb. 2022 KU COVID -19 Training Webinar Series.
- Sept 2021 Virulence and Diversity of *Fusarium oxysporum F.sp. Cubense* Infecting Bananas in Tharaka Nithi County, Kenya. Tropentag 2021, hybrid conference: Towards shifting paradigms in agriculture for a healthy and sustainable future, September 15 - 17, 2021, organised by University of Hohenheim, Germany.
- Sept 2021 Nyanga’u D, Maina M, Nchore SB, Coyne D. Diversity of nematodes of banana (*Musa* spp.) in Kenya with reference to altitude and banana types. In: 3<sup>rd</sup> Phytosanitary Conference Virtual Edition ‘Enhancing phytosanitary systems for healthy plants, safe and sustainable trade’, Nairobi, 13-16<sup>th</sup> September 2021.
- Sept 2021 Shango P, Maina M. Nchore SB. Assessment and detection of maize chlorotic mottle virus stability in maize seeds in Kenya. In: 3<sup>rd</sup> Phytosanitary Conference Virtual Edition ‘Enhancing phytosanitary systems for healthy plants, safe and sustainable trade’, Nairobi, 13-16<sup>th</sup> September 2021.
- July 2021 Transformative Research Supervision Webinar. Organized by AFELT, on 30<sup>th</sup> July 2021.
- July 2021 Commercialization of Research Virtual workshop. By Prof. Thomas Bayer, Vice President of Internationalization and Transfer and Director of Africa Institute and Centre for Research on Service Sciences (CROSS), Neu-Ulm University of Applied Sciences. Organized by Director, Innovation Incubation & University-Industry Linkages, On July 13<sup>th</sup> and 14<sup>th</sup> July 2021.
- June 2021 The 5th KIBU International Conference (Virtual) on 15th and 16th June 2021, “Mitigating The Post Covid-19 Impact On The Realization Of Sustainable Development Goals” Organized By Kibabii University, Bungoma, Kenya, from June 15-16 2021.
- May 2021 Global Research Ethics: Workshop for University-based Researchers in Africa. Organized by University of Edinburgh, UK, 28<sup>th</sup> May 2021.
- May 2021 Research Webinar III Programme: Transforming how we Develop Research Capacity

in Institutions of Higher Learning (Teaching Research Methods Remotely). Organized by AFELT, on 26<sup>th</sup> May 2021.

- Sep. 2020 Tropentag 2020 virtual conference: Food and Nutrition Security and its resilience to Global Crises, ATSAF E.V, Germany, 9-11 September 2020.
- Oct. 2019 Kenyatta University Biennial research and innovation Conference “Research and Innovation for the achievement of the SDGs and Kenya’s Big Four Agenda”, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
- Jun. 2019 NEMEDUSSA Project Proposal Development Workshop, held from 17<sup>th</sup> – 18<sup>th</sup> June 2019 at ICIPE Duduville Campus, Nairobi, Kenya.
- Nov. 2018 ENABLE Horticulture Project organized by Kenyatta university, KEFAAS, NRF and KALRO, held at Kenyatta University, Nairobi on 22<sup>nd</sup> November 2018.
- Sept. 2018 Seminar on Ecology of tree endophytes, by Prof. Suryanarayanan, Kenyatta university, Nairobi from 6<sup>th</sup> -10<sup>th</sup> September 2018.
- Sep. 2017 Tropentag 2017 conference “Future Agriculture: Social-ecological transitions and bio-cultural shifts”, 20<sup>th</sup> – 22<sup>nd</sup> September, 2017 in Bonn, Germany.
- Jun. 2017 Seminar on intellectual property rights, held at Kenyatta University, Nairobi on 28<sup>th</sup> June 2017.
- May 2017 Publishing-connect-ku-Elsiever Author workshop, held at BSSC Room 14, Kenyatta University, Nairobi on 19<sup>th</sup> May 2017.
- Oct. 2016 RUFORUM Fifth Biennial Conference 2016, Cape Town, South Africa, 17-21 October 2016.
- Nov. 2015 2<sup>nd</sup> International Conference on Biodiversity for Food and Nutrition, 23<sup>rd</sup> November, 2015 at Safari Park Hotel, Nairobi, Kenya.
- Sep. 2015 Tropentag 2015 conference on ‘Management of land use systems for enhanced food security, conflicts, controversies and resolutions’, 16<sup>th</sup> – 18<sup>th</sup> September, 2015 in Berlin, Germany.
- Aug. 2015 Soil degradation, Root health and Food security in Africa: How will future crop production systems impact Nematology and soil ecology research? Held on 3<sup>rd</sup> August, 2015 (The year of soil) at ICIPE, Nairobi, Kenya.
- Jun. 2013 Program for Training of Academic Members of Staff, School of Pure and Applied Sciences, Kenyatta University Held at Student Business Centre from 10<sup>th</sup> – 13<sup>th</sup> June 2013.
- Nov. 2012 ‘Applying Research To Regional Challenges Of Leadership and Citizenship’ During the 25<sup>th</sup> Postgraduate Seminar Held at Business and Student Services Centre, Kenyatta University From 27<sup>th</sup> – 29<sup>th</sup> November 2012.
- Mar. 2012 Nematology seminar at International Livestock Research Institute (ILRI) HUB on Thursday 8<sup>th</sup> March 2012 from 2.00 pm to 6.00 pm.
- Nov. 2011 1<sup>st</sup> PACN Congress on Agricultural Productivity, 21-23<sup>rd</sup> November, 2011 in Accra, Ghana.
- Sept. 2011 aGRO 2011-Inaugural Biennial Conference from 26-28 September, 2011. (Presented a paper).

Nov. 2010 12<sup>th</sup> KARI Biennial Scientific Conference 2010 from 8-12 Nov. (Presented a paper).

Nov. 2010 Pan African Agribusiness and Agro-industry Consortium (PanAAC) and Universities, Business and Research in Agribusiness and Innovation (UNIBRAIN) Fair, 26<sup>th</sup> – 27<sup>th</sup> November 2010, Hilton Hotel, Nairobi – Kenya.

## **Supervision of Postgraduate Students**

### **Ph. D**

#### **i. Graduated**

- Muchemi Kariuki Peterson (2015-2023): Molecular characterization of maize germplasms and screening for resistance to maize lethal necrosis disease in Nyandarua County, Kenya (PhD). Defended successfully on 10<sup>th</sup> February 2023.

#### **ii. On-going**

- Asamba Mica (2023-): Characterization and management of fungal root rot of cassava in selected agro-ecological zones in Kenya (PhD).
- Chepkemboi Sharon (2022-Date): Application of Gis & Remote Sensing Techniques in Modelling Conservation Biocontrol in Agricultural Landscapes in Kenya (PhD).
- Mavuze Maxwell Mbalanya (2018-Date): Occurrence and management of plant parasitic nematodes on sugar beets (*Beta vulgaris* L.) using compost manure in Nyandarua, Kenya (PhD).

### **Masters**

#### **i. Graduated/Completed**

- Malaka Musine Samwel (2023): Virulence, Diversity and Management of *Fusarium oxysporum* f.sp. *cubense* infecting Bananas in Tharaka Nithi County, Kenya (Msc).
- Peter Shango (2023): Assessment and detection of maize chlorotic mottle virus stability in maize seeds in Kenya (Msc).
- Nyang'au Nyagwonda Douglas (2021): Occurrence, abundance and distribution of plant parasitic nematodes associated with bananas in banana production areas, Kenya (Msc). Graduated.
- Waswa Stanlous Juma (2021): Occurrence of Plant Parasitic nematodes on Tree Tomato Plant (*Solanum betaceum* Cav.) and the Efficacy of Bio-control Agents in Kiambu and Embu Counties, Kenya (Msc). Graduated.
- Chepkemboi Angeline (2020): Phenotypic characterization of common bean genotypes for resistance to *Xanthomonas campestris* pv. *phaseoli* constraining bean production in Western Kenya (Msc). Graduated.

#### **ii. On-going**

- Lucy Wangu Muchiri (2023- ): Diversity, Cultivar Resistance and Biological Management of Root-knot nematodes on Taro (*Colocasia*

*esculenta* (L.) Schott.), in Kirinyaga and Murang'a Counties, Kenya.

- Anita Nunu (2022-Date): Evaluation Of Blast Resistance In Rice Cultivars With Varying Zinc And Anthocyanin Content in Mwea, Kenya (MSc).
- Laurent Nyambu (2022-Date): Occurrence, Detection and Management of Potato Spindle Tuber Viroid in *Solanum tuberosum* in Selected Counties of Kenya (MSc).
- Marial Makur Paweer (2022-Date): Effectiveness of Endophytes and Entomopathogenic Fungi on Greenhouse Whitefly Vector of Tomato Infectious Chlorosis and Tomato Chlorosis Viruses on Tomato in Kiambu and Kirinyaga Counties, Kenya (MSc).
- Permenus Machora (2022-Date): Potential of *Trichoderma* Spp. and *Pseudomonas fluorescens* for the management of *Aspergillus flavus* on peanuts in Nyamira County Kenya (MSc).
- Kisanya Magoma (2021-Date): Occurrence and Management of Powdery Mildew (*Erysiphe polygoni* L) on Greengrams in Kilifi County, Kenya (MSc).
- Nyadero Boniface Okello (2020-Date): Efficacy of *Pseudomonas fluorescens* against Aflatoxin (Afb<sub>1</sub>) of Maize in Tana River and Lamu Counties, Kenya (Msc).
- Kamore Harrison Kibe (2019- Date): M.Sc Project-Characterization and biocontrol of pathogenic microorganisms associated with commonly grown banana cultivars in Embu, Kisii and Nyamira counties of Kenya (Msc).

### **Membership to professional bodies**

1. Pan African Nematology Network (PANEMA)
2. Society of Ethno Botany of Kenya (SEB) and NAPRECA-K

### **Administrative Positions Held**

#### **i. Recognized administrative positions**

- October 2019: Acting Chairman, Department of Plant Sciences
- Nov 2018- Jan 2019: Acting Chairman, Department of Plant Sciences
- July 2016 – July 2020: Examinations coordinator, Department of Plant Sciences
- September 2022-date: Section Head, Plant Pathology, Department of Plant Sciences, School of Pure & Applied Sciences
- October 2020-date: School of Pure & Applied Sciences Collaboration committee member
- October 2022-date: Committee member, Academic Field Trips Organization and Planning
- Sept 2020 – 2022: Chairperson, Occupational safety and health committee
- July 2016- 2020: Chairperson Examination moderation committee
- July 2016- 2020: Chairperson, marks verification committee
- July 2016- 2020: Committee member, staff appraisal and recruitment committee

July 2016- date: Committee member, research and Innovation  
July 2016- 2020: Committee member, Quality management and safety committee  
Sept 2016- 2020: Intellectual property rights Departmental representative

**ii. Other responsibilities in the university**

September 2023-date: Academic advisor, First years' group 2023

**Memoranda of Agreement/understanding**

**i. Signed and active**

- ⊗ Kenyatta University and Harper Adams University UK (Bilateral)
- ⊗ Kenyatta University and 16 other institutions from Africa and Europe (Multilateral)

**ii. Underway**

- ⊗ Kenyatta University and ICIPE and IITA (Bilateral)
- ⊗ Kenyatta University and PCPB (Bilateral)

**Community engagement/contributions**

1. Co-patron Kenyatta University Biology Students Club
2. Pioneer in developing the 1<sup>st</sup> short education clips/videos used as models in training KU staff on development of educational clips for virtual lab

**Hobbies**

1. Watching nature documentaries
2. Gardening
3. Networking
4. Biology club activities

**Referees**

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