

Contact Information

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Education

Institutions	Dates	Award/Qualification
Makerere University	2017 - 2022	Ph.D. in Mathematics
University of Pune	2007 - 2009	MSc. in Mathematics
Mbarara University of Science and Technology	2001 - 2004	Bsc.Ed: Mathematics, Physics

Supervisors	Level	Thesis/Dissertation title
Prof. David Ssevviiri and Dr. Alex Samuel Bamunoba	Ph.D	Reduced modules relative to functors

Work Experience

Sep 2016 - to date	Lecturer, Busitema University;
Jan 2010 - Aug 2016	Assistant Lecturer, Busitema University;
Mar 2005 - Jul 2007	Physics and Mathematics teacher at St. Augustine's college-Wakiso;
Sep 2004 - Feb 2005	Physics and Mathematics teacher at Kyeizooba Girls' School.

Courses taught Abstract Algebra I, Rings and Modules, Calculus I & III, Group Theory, Complex Variables, Elements of Mathematics, Real Analysis I & II, Linear Programming and Ordinary Differential Equations.

Supervision of Students

2023	MSc. student: Diana Nekesa, Busitema University, ongoing
2022-2023	BSc.Ed student: Emmanuela Cherop, Busitema University, to graduate in June 2023

Supervision of Students on School Practice

Period	No. of students	University	Area of supervision
Mar - Apr, 2022	21	Busitema University	Mukono and Wakiso
Mar - Apr, 2021	19	Busitema University	Mukono and Kapchorwa
Jun - Jul, 2018	23	Busitema University	Busia and Tororo
May - Jun, 2010	12	Busitema University	Mityana and Lyantonde

Examination of Dissertations

- Oct 2022 Guma Darius, The dual of local cohomology modules, Makerere University.
Jul 2022 Nabasirye Susan, Application of Computational Fluid Dynamics in Simulation and Optimization of a Fluidized Sugar Bed Dryer. A Case Study of Kakira Sugar Industry, Jinja-Uganda, Busitema University.
Apr 2022 Ayub Nabende, Modelling Sewage Overflow through Manhole-pipe Drainage Sewer Systems using Computational Fluid Dynamics Busitema University.

Major Areas of Research Interest

Areas of research interest: Rings and Module theory, Homological algebra, Torsion theory, Radical theory, local cohomology. I am also interested in Algebraic Geometry.

Research and Publications

- ◇ **Kyomuhangi, A.**, & Ssevviiri, D. (2023). Generalised reduced modules. *Rend. Circ. Mat. Palermo, II. Ser.* **72**(1), 421–431. <https://doi.org/10.1007/s12215-021-00686-8>
- ◇ **Kyomuhangi, A.**, & Ssevviiri, D. (2020). The locally nilradical for modules over commutative rings. *Beiträge zur Algebra und Geometrie/Contributions to Algebra and Geometry*, **61**(4), 759–769.
- ◇ Asaph Keikara Muhumuza, Fulgensia Kamugisha Mbabazi, Rebecca Muhumuza Nalule, Abubakar Mwasa, **Annet Kyomuhangi**, Stephen Kadedesya, (2022). Enhancing Research Output in Higher Institutions of Learning: A Case Study of Busitema University Research Model, *The Uganda Higher Education Review*, **9**(2).
- ◇ **Kyomuhangi, A.**, (2022) Reduced modules relative to functors, <http://196.43.133.114/handle/10570/9462>.
- ◇ **Kyomuhangi, A.**, & Ssevviiri, D., (2023) On coreduced modules. *Under review*.
- ◇ **Kyomuhangi, A.**, & Ssevviiri, D., Applications of the radical formula. *Ongoing*.

Conferences, Workshops, Summer Schools, Seminars and other trainings

- ◇ Stakeholders' workshop for developing new programs of MSc. and Ph.D. in Mathematics for Busitema University at Benedictine Fathers' Retreat centre, Nyangole - Tororo on 12th January 2023.
- ◇ Team building workshop organised by Eastern Africa Network for Women in Basic Sciences (EANWoBAS) on 6th – 7th January 2023 at Hotel La Vena, Entebbe road.
- ◇ Writing workshop organised by Eastern Africa Network for Women in Basic Sciences (EANWoBAS) on 15th December 2022 at Hotel La Vena, Entebbe road.
- ◇ Weekly African Mathematics Seminar, details can be found on <https://sites.google.com/view/africa-math-seminar/home>.

- ◇ Weekly IIT Bombay Virtual Commutative Algebra Seminar, details can be found on <https://groups.google.com/d/msgid/virtual-ca-seminars/CAAbEtB5und0crwVk5Uq9ZVAOFwpLLkT6gZ0Un4t1THh7pV>
- ◇ Mini-course on Graded ring geometry, 1st – 2nd September 2022 at Makerere University.
- ◇ ICTP-EAUMP School on Mathematical Programming and Algorithms, hosted by University of Nairobi from 11th – 29th July, 2022.
- ◇ Writing Retreat organized by Faculty of Science and Education Busitema University, July 3 – 8, 2022 at Benedictine Fathers' Monastery Nyangole - Tororo.
- ◇ Algebraic Geometry lectures by Dr. Dominic Bunnett, June - July 2022 at Makerere University
- ◇ International Research and Innovations dissemination conference, May 9 - 10, 2022 at Speke Resort Munyonyo, Kampala.
- ◇ Eastern Africa Algebra Group(EAALG) Workshop on Introduction to Homological Algebra and Discrete Geometry, 13th - 16th December 2021 at Makerere University.
- ◇ Lunch seminar for the Institute of Mathematics and its applications, University of Reading on 16th December, 2021.
- ◇ Attended virtually the EAUMP-ICTP School: Topics in Concrete Mathematics (smr 3604) hosted by University of Rwanda, 11th – 20th August, 2021.
- ◇ Conference on Rings and Polynomials organized by TU Graz, Graz, Austria, 19th - 24th July, 2021.
- ◇ 6th Strathmore International Mathematics Conference held in Strathmore University, 28th June - 2nd July, 2021.
- ◇ International conference titled Emerging Trends in Pure and Applied Mathematics (ICETPAM-2021), 21st - 22nd June, 2021.
- ◇ International E-Conference on Pure and Applied Mathematical Sciences (ICPAMS-2021), 7th -10th June, 2021.
- ◇ International Webinar on Focusing on Mathematical Models and analysis of COVID-19 Crisis, jointly organized by Office of International Affairs, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India and Lappeenranta University of Technology, Finland, 17th - 18th June, 2020.
- ◇ Event on Collaborative introduction to the algebra software Macaulay2 organized by Abram Gannibal Project, 27th May, 2020.
- ◇ EAUMP-ICTP summer School on Algebraic Topology and its Applications held at Makerere University, Kampala, Uganda, 14th - 31st July, 2019.
- ◇ 4th Network meeting for Sida and ISP-funded PhD students and postdocs in Mathematics that took place at Bishoftu, Ethiopia, 5th – 9th August, 2019.

- ◇ Advanced research methods organized by Directorate of research and graduate training of Makerere University, 10 - 21 September, 2018.
- ◇ Scholarly writing and communications organized by Directorate of research and graduate training of Makerere University, 20th - 23rd March, 2018.
- ◇ Philosophy of methods organized by Directorate of research and graduate training of Makerere University, 12th - 23rd June 2017.
- ◇ Third Network meeting for Sida and ISP-funded PhD and Post-doc students in Mathematics that took place at Imperial botanical beach hotel, Entebbe, Uganda, 20th – 24th August, 2018.
- ◇ EAUMP-ICTP summer school and Workshop on Homological Methods in Algebra and Geometry II, University of Dar-es-Salaam, Tanzania, 9th – 20th July, 2018.
- ◇ Summer school on Inverse Problems, Makerere University, 13th – 15th November, 2017.
- ◇ 3rd Conference on Inverse Problems in Africa, Makerere University, 6th – 10th November, 2017.
- ◇ HERS-EA inaugural Academy from 2nd - 7th July, 2017 at Grand Global Hotel, Kampala, Uganda.
- ◇ Development of Online PGDIE programme in June, 2017 for Nagongera campus, Busitema University.
- ◇ Online course development for open and distance learning training, 9th - 13th January, 2017 in Tororo sponsored by Common Wealth of Learning.
- ◇ E-resources workshop held at Makerere University, 8th – 10th August, 2016
- ◇ Workshop on research proposal writing, publications in peer reviewed journals and outreach organised by Busitema University and held at Prime Hotel, Tororo, 21st - 22nd July, 2016.
- ◇ HEI-ICI workshop on Mathematics Education and Working Life Relevance held at Makerere University in collaboration with Lappeenranta University of Technology, Finland, 8th –12th December, 2014.
- ◇ HEI-ICI workshop on Mathematics Education and Working Life Relevance held at Makerere University in collaboration with Lappeenranta University of Technology, Finland, 3rd - 12th December, 2013.
- ◇ Curriculum Review for Faculty of Science and Education, Busitema University in 2012.
- ◇ Programming in “C”, Algorithms & Flow charts & Programming Techniques, organised by Byte Computer Academy, Pune - 1, India, 2nd May – 2nd July 2008.
- ◇ Performance Management workshop by Competitive Choices Limited at St. Augustine’s college - Wakiso, 28th – 29th December, 2006.

Membership

- ◇ Busitema University Academic Staff Association (BUASA).
- ◇ Eastern Africa Algebra Research Group (EAALG).
- ◇ Uganda Mathematical Society (UMS).
- ◇ Mfano Africa.
- ◇ Alumni of Higher Education Resource Services, East Africa (HERS-EA)
- ◇ Uganda Women Mathematicians (UGAWOM)
- ◇ Eastern Africa Network for Women in Basic Sciences (EANWoBAS)
- ◇ African Women in Mathematics (AWMA)
- ◇ African Women in Algebra (AWA), AWA ID: AWA2, <https://africanwomeninalg.wixsite.com/alge>
- ◇ Organization for Women in Science for the Developing World (OWSD)

Awards, Grants, Fellowships and Scholarships

- ◇ EMS-CDC grant of 2,000 Euros towards organizing the Women in Sage-Uganda workshop, April 2023;
- ◇ CIMPA grant of 3,000 Euros towards organizing the Women in Sage-Uganda workshop, March 2023;
- ◇ EMS-CDC grant of 1,200 Euros to attend the research school, PRAGMATIC 2023 at University of Catania, Italy;
- ◇ Eastern Africa Network for Women in Basic Sciences (EANWoBAS)-Uganda grant of 2,000 dollars towards organizing the Women in Sage-Uganda workshop, January 2023;
- ◇ International Mathematical Union Committee for Women in Mathematics (CWM) grant of 3,000 Euros towards organizing the Women in Sage-Uganda workshop, January 2023;
- ◇ African Women in Mathematics (AWMA) grant of 1,500 Euros towards organizing the Women in Sage-Uganda workshop, January 2023;
- ◇ Busitema University Research and Innovation Fund (BU-RIF) of UGX 15,000,000 under the project: “Enhancing Research Capacity in Mathematics with Industry through Development of New MSc. and Ph.D. in Mathematics”, Project Grant No.: 07/DGRSI-/2022-2023;
- ◇ Makerere - Sida Bilateral Research grant to attend 4th Network meeting in Addis Ababa (Ethiopia), 2019 - August;
- ◇ Makerere - Sida Bilateral Research grant to attend 3rd Network meeting at Entebbe (Uganda), 2018 - August;
- ◇ Makerere - Sida Bilateral Research grant to attend Summer school at University of Dar-es Salaam, July 2018;

- ◇ Makerere - Sida Bilateral Research Scholarship to study PhD (Math), 2017;
- ◇ Indian Council for Cultural Relations (ICCR) Scholarship to study MSc. in Mathematics at University of Pune, India in 2007;
- ◇ Government of Uganda sponsorship to study BSc.(Education) Degree, 2001 - 2004.

Organisation of Scientific Meetings

- 2023 Event Coordinator for the RUN4MATH6 (6th RUN4MATH) marathon and mentorship that took place on March 18, 2023 at Buyala Junior Primary School, Mpigi-Uganda.
- 2023 Secretary, Women in Sage-Uganda workshop, to take place in September, see <https://sites.google.com/must.ac.ug/wis-uganda/home>

Other Responsibilities and outreaches

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| Feb 21, 2023 to date | Secretary, Welfare committee, Faculty of Science and Education, Busitema University |
| Feb 21, 2023 to date | Member of Academics, Curriculum issues committee, Faculty of Science and Education, Busitema University |
| 2023 | Coordinator, Uganda Mathematical Society activities, Busitema University |
| Mar 27, 2023 to date | Academic staff representative, Interim Committee, Busitema University In-House Retirement Benefits Scheme Nagongera Campus |
| Jan 31, 2023 | Represented Busitema University in the inaugural breakfast meeting for Women in Energy and Extractives Network Limited by Uganda National Oil Company (UNOC) at Sheraton Hotel, Kampala |
| Jan 7, 2023 to date | Welfare, Eastern Africa Network for Women in Basic Sciences (EANWoBAS)-Uganda |
| Sep 21, 2022 | Chairperson, women fundraising Archdeaconry house project, Rugando C.O.U, Katerera, Rubirizi |
| Mar 22, 2022 | Facilitator - Linear Algebra for the Artificial Intelligence & Interdisciplinary Research Group, Faculty of Engineering, Busitema University. |
| 13th March 2021 | Supported mothers, elderly and babies with food and clothings in Podut and Yoboke villages, Tororo. |
| Jan 5 - 10, 2020 | Facilitator, 1st Math Camp organized by Uganda Women Mathematicians (UGAWOM) at Mbogo Junior School-Uganda |
| 2013 - to date | Finance secretary for Department of Mathematics saving scheme, Busitema University; |
| 2013 - 2018 | In charge of staff welfare, Department of Mathematics, Busitema University; |
| 2013 - 2016 | Examination coordinator, Department of Mathematics, Busitema University |
| 2012 - 2015 | One of the contact persons for the HEI-ICI project at Busitema University. |

Referees

- Prof. David Ssevviiri Department of Mathematics, Makerere University,
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