



MULUNGUSHI UNIVERSITY

PURSUING THE FRONTIERS OF KNOWLEDGE



2022

ANNUAL REPORT

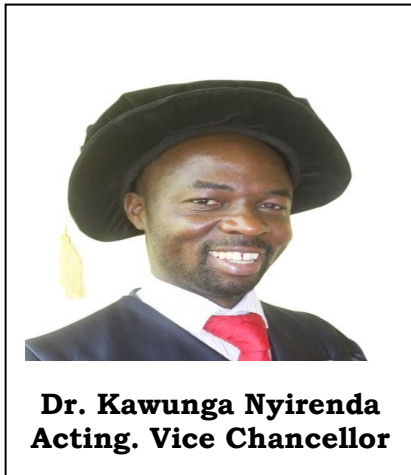
RESEARCH, PUBLICATIONS, CONSULTANCY AND QUALITY ASSURANCE

MULUNGUSHI UNIVERSITY
Pursuing the frontiers of Knowledge

**RESEARCH, PUBLICATIONS, CONSULTANCY AND QUALITY
ASSURANCE**

2022 ANNUAL REPORT

FOREWORD



The 2022 research, publications, consultancy and quality assurance annual report highlights some of the key milestones achieved during the year with regard to research and innovation by Mulungushi University (MU). The report also reflects on the improvements made ever since the first annual research report was produced in 2020.

The university has not only remained focused in providing both undergraduate and postgraduate programmes but resolute on ensuring that it continues promoting quality education through innovative research and consultancy by both students and academicians. Successes recorded in

this regard have been made possible through collaborations with the industry and other higher institutions of learning in resolving some of the societal problems as need be. The past three years were among the most challenging for the university considering the impact of the COVID-19 pandemic across education systems. Despite numerous challenges, the university ensured that research remained part of the core business of the university staff and students.

This 2022 Annual Research report presents the status of research activities undertaken, publications, consultancies and quality assurance related issues. Key achievements include the university participating in the 2022 Times Higher Education (THE) World University Rankings based on research with regard to the 17 Sustainable Development Goals. The data for the 2023 university rankings has been submitted to the THE and we anticipate to perform better this year considering recorded milestones. MU produced a total of (134) research outputs of which 73.1% were journal articles co-authored by MU staff and others by MU staff collaborating with researchers outside MU, 16.4% were researches, 1.5% were book chapters and 9.0% were consultancies. Additionally, the university has been running the Mulungushi University Multidisciplinary Journal (MUMDJ), for a third year running. It is gratifying to announce that the journal was finally assigned the International Standard Serial Number (ISSN): 2958-3926 by the International Center for the Registration of Serial Publications on 8th December, 2022. The status of the journal will not only improve knowledge sharing, global visibility and impact but also act a source of revenue for the university through the charging of reasonable publication fees for would be authors.

It will be remiss of me to not thank the out-going Director of the Directorate of Research and Postgraduate Studies (DRPS), Dr. Adrian Phiri who held the position for six (6) years and the Research Coordinator (RC) Mr. Bwalya Bupe

Bwalya for his two and half years contribution to the Directorate. The two coordinated university related research and ensured that policies, systems and processes for the functioning of the Directorate were put in place. Policies developed under their leadership include the Research Policy, Consultancy Policy, Quality Assurance Policy, Research Ethics Policy and the Postgraduate Guidelines and Regulations among others. It is my wish that those who will be appointed and assume the two positions will ensure that the Directorate is managed in a robust manner and build recorded gains.

I cordially invite you to take your time to appreciate Mulungushi University's exciting research and quality assurance matters for the year 2022.

Dr. Kawunga Nyirenda
Acting Vice Chancellor

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ACRONYMS

HEA	Higher Education Authority
HIV	Human Immunodeficiency Virus
MU	Mulungushi University
MUMDJ	Mulungushi University Multidisciplinary Journal
PI	Principal Investigator
QAP	Quality Assurance Policy
RARE	Responsible Accountable Relevant and Ethical
SSET	School of Sciences, Engineering and Technology
SANR	School of Agriculture and Natural Resources
SBS	School of Business Studies
SOE	School of Education
SMHS	School of Medicine and Health Sciences
SNAS	School of Natural and Applied Sciences
SSS	School of Social Sciences
ZAQA	Zambia Qualification Authority

1. INTRODUCTION

Universities exist to ensure that they help to provide practical solutions to the needs of society, it is for this reason that Mulungushi University (MU) strives to continue being responsible, accountable, relevant and ethical (RARE) in serving its country, region and world at large through combining learning and innovative research that promotes sustainable development and assured improved standards of living.

As the third largest public university in Zambia, the need to be a completely rounded competent university in its mastery to foster knowledge acquisition and skills is what the university strives to achieve. In addition, the university ventures to ensure that its students emancipate their autonomy through critical thinking, creativity and evaluation of the things around them. As a university, we anticipate to expand in the provision of quality education and research, as well as be more aggressive in submitting grant applications to a diverse set of funders to support research, and use some of the funds to support postgraduate students and university infrastructure. This will only be achieved through the hard work of all staff and a collaborative spirit of all the seven (7) schools and departments.

Since the establishment of the university, the quality and quantity of publications have flourished overtime across various fields of study, both internally and internationally. The formation of research groups within the university has not only helped academicians motivate one another but also encouraged interactions between junior and senior academic members of staff. This in turn has assisted in provoking thoughtful and purposive research mentorship across career stages including masters' students.

This 2022 annual research report gives an update on the progress of some of the major research activities undertaken by the university during the year and review

2. MULUNGUSHI UNIVERSITY RESEARCH GRANTS

For the third year in a row, MU has continued to provide support through internally sourced funds to conduct mini-research. During the year under review, the university awarded twelve (12) academicians a total of ZMW643 093 for projects to be undertaken between September 2022 and September 2023, representing a 27% increase from the ZMW 500 000 awarded to ten (10) projects in 2021 (Table1).

Additionally, all the ten (10) research projects funded during the 2021 research grant awards have been successfully completed (Table 2).

Table 1. 2022 Mulungushi University Funded Research Projects

Table 1: List of Awarded MU 2022 Funded Projects				
SCHOOL OF NATURAL AND APPLIED SCIENCE				
SN	Name of PI	Names of Researchers	Title of Project	Budget
1	Dr. Manyika David	Mr. Peter Banda	Automatic Vehicle Number Plate Recognition System -A prototype	K50000
		Dr. Agripa Hamweendo		
SCHOOL OF MEDICINE AND HEALTH SCIENCES				
2	Dr. Uthman Ademola Y.	Mr. John Mulemena	Evaluation of the role of an aqueous extract of guava leaves (<i>psidium guajava</i>) on the Frontal cortex, Pancreas and Liver of diabetes type 1 in Wistar rats	K49550
		Mr. Kingsley Kamvuma		
		Dr. Sam Beza Phiri		
		Dr. Michelo H. Miyoba		
3	Mr. Warren Chanda	Mr. John A Mulemena	Detection of the presence of CRE and ESBL- producing organisms in routine specimens from in- and out-patients at LCH	K50000
		Mr. Kingsley Kamvuma		
		Mr. Christopher N Phiri		
SCHOOL OF SOCIAL SCIENCES				
4	Mr. Bwalya Bupe Bwalya	1. Dr Sepiso Masenga	Correlates and complications of uncontrolled type II diabetes Mellitus (T2DM). CoCUT. Study.	K88985
		2. Dr Katema Mwamba		
		3. Memory Ngosa		
		4. Sendy Banda		
5	Yordanos Gebremeskel	Mr. Idan Lichilo	Household energy needs, preferences, and utilization pattern in Zambia	K50000
		Mr. James Mulenga		
6	Christabel Ngongola	Dr. Meki Kombe	Comparative study of factors associated with Menstrual Poverty among rural and urban Upper Primary Schools During the COVID-19 era in Kabwe District of Central Province of Zambia	K50000
		Mr. Bwalya Bupe Bwalya		
7	Mwansa Acientos	Dr Daniel Mauzu	Effect of corruption, utility services, regulation and business performance (focusing on exports, labour productivity, employment growth, investment in assets, access to credit) among Zambian firms	K50000
SCHOOL OF BUSINESS STUDIES				
8	Dr. Njebele Musawa	Mr. Clement Mwaanga	Assessing the preliminary effect of Shifting from Actual Loan loss Provision to Expected Credit Loss Model on earnings smoothing by financial institutions in Zambia.	K50000
		Mr. Walume Mushala		
9	Mr. Clement Mwaanga	Dr. Moulen Siame	University-related factors influencing technopreneurial intentions of stem students. A comparative study of public and private universities	K50000
		Mr. Kelly Chungu		
SCHOOL OF EDUCATION				
10	Mrs. Mary Mbewe	Dr Mwaka Siluonde	Tradition and Social Change: A study of current chisungu	K55335
		Mrs Victoria Phiri		

			female initiation teachings in selected communities in Lusaka, Kabwe and Chipata District	
SCHOOL OF AGRICULTURE AND NATURAL RESOURCES				
11	Mr. Nchimunya Bbebe	Dr Kalirajan	Towards Realizing the Potential of Marama Beans (<i>Tylosema esculentum</i>) as a Food and Income Security Crop for Drought Prone Areas of Zambia	K49223
SCHOOL OF ENGINEERING AND TECHNOLOGY				
12	Mr. Luckson Simukonda	Mr. Brian Halubanza Dr. Malunga Mwape	“Smart irrigation systems for small-scale farmers using low cost hardware: Case study of Kabwe and Kapiri districts of Zambia”	K50000

Table 2: 2021 MU Funded Research Projects Completion Status Report

SCHOOL OF SCIENCE ENGINEERING AND TECHNOLOGY				
SN	Name of PI	Researchers	Title of Project	Status
1.	Mr. George Mweshi	1. Ass. Prof. D. Kunda 2. Dr. Macmillan Simfukwe	A Nature and Biologically Inspired Computational Optimization Toolkit for Mulungushi University	<i>Project Completed Manuscript submitted to the journal</i>
2.	Mr. Brian Halubanza	1. Ass. Prof. D. Kunda 2. Dr. Jackson Phiri	A framework for an early warning system for the management of the Spread of Locust invasion based on Artificial Intelligence Technologies.	<i>Project Completed & Paper Published</i>
3.	Mr. Edwin Moyo	1. Mr. Mushala Wamulume 2. Chilayi Mayondi	An investigation into the perceived socio economic and cultural factors influencing teenage pregnancy in Zambia.	<i>Project Completed and Article in Progress</i>
SCHOOL OF MEDICINE AND HEALTH SCIENCES				
4.	Dr. Benson M. Hamooya	1. Dr. Katongo H. Mutengo 2. Mr. Wilson Zimba 3. Dr. Sepiso Masenga	Cardiovascular disease, predictors and anthropometric diagnostic values Among metabolic syndrome HIV positive patients in Sybsaharan Africa (CAP MetS- study).	<i>Project completed</i>
5.	Dr. Uthman Ademola Y.	1. Mr. J. Amos Mulemena 2. Mr. Kingsley Kamvuma 3. Dr. Sam Beza	Histological and Histochemical changes in the Pancreas and Brain of Diabetic Wistar Rats Treated with Aqueous Extract of Cactus	<i>Project Completed and two articles published</i>
SCHOOL OF SOCIAL SCIENCES				
6.	Dr. Mulenga C. Mulenga	1. Mr. Yordanos Gebremeskel 2. Dr. Musawa N. Njebele 3. Mr. Innocent Shatamuka	Determinants of Financial Inclusion and Gender Gap in Zambia	<i>Project Completed and Article submitted to MUMDJ</i>

7.	Dr. Masole Siachisa	1. Mrs. R. B Shula 2. Ms. S Mulima 3. Mr. S. Mushoke 4. Mr. P.R. Ngulube	Examining the effectiveness of Ward Development Committees in implementing the Decentralisation Policy in Chibombo District (2015-2020).	<i>Project Completed</i>
SCHOOL OF BUSINESS STUDIES				
8.	Mr. Drayton Muchochoma	1. Mr. Deressa E. Chere 2. Mushala Wamulume 3. Dr. Musawa Njebele	An Evaluation of CAMEL model on Zambian commercial banks' performance.	<i>Projected Completed</i>
9.	Ms. Mary Lubinda	1. Dr. Gift Kaira	The Role of Public Universities in Empowering Communities with Entrepreneurship Skills	<i>Project Completed Article submitted to MUMDJ</i>
SCHOOL OF EDUCATION				
10.	Dr C. Meki Kombe	1. Dingase M. Ngulube 2. Beatrice Mwansa	Women and politics in Zambia: Motivation, challenges, and resilience	<i>Project completed and Article in Progress</i>

3. RESEARCH PUBLICATIONS, BOOK CHAPTERS AND CONSULTANCY

Overall, there was an increase in the number of publications and consultancies undertaken in the year under review. In particular, a minimal increase in journal articles published in peer reviewed scientific journals was recorded in 2022 in comparison to 2021 from 80 to 84 articles. While no book was published, four book chapters were published. In addition, the number of consultancies undertaken by academicians increased from 8 in 2021 to 12 in 2022 Table 2.

Table 2: List of publications produced by lecturers per school

SN	School	No. Research Articles	No of Books	No. Book chapters	No. Consultancies
1	School of Agriculture and Natural Resources	12	0	0	1
2	School of Business Studies	4	0	0	3
3	School of Education	7	0	2	1
4	School of Medicine and Health Sciences	27	0	0	0
5	School of Natural and Applied Sciences	13	0	1	1
6	School of Engineering and Technology	7	0	0	1
6	School of Social Sciences	14	0	1	6
	Total	84	0	4	12

CHAPTER ONE

DIRECTORATE OF RESEARCH AND POSTGRADUATE STUDIES



The Directorate of Research and Postgraduate Studies (DRPS) has continued to provide leadership in the coordination of research and consultancy for the university ever since it was established in 2014. All activities are undertaken to ensure that the university through the DRPS provides leadership in providing solutions to diverse issues we are facing as a country and continent by providing an inclusive view with empirical evidence, thereby creating an environment for sustainable development. All this can only be achieved via interdisciplinary research across various

subject areas of interest bringing together academia (local and international) and industry.

I am pleased to equally acknowledge that, all the good work the Directorate is doing would not be possible without the efforts of both academic and technical staff from the seven (7) schools of the university spread across the three campuses. Together, we have shown that we are an innovative jurisdiction that actively seeks out new and better ways of doing things for the betterment and further improvements in bridging the gap between theory and practice.

As you read this report, you will learn how the university is making headways in utilizing the skills to make Mulungushi University a RARE university and be a beacon of excellence by meeting the needs locally and regionally, with the agility to deliver on its core mandate consistently, responsively and sustainably.

The year 2022, being a year when the country and universities were just recovering from the COVID-19 pandemic meant that most members of staff had reduced chances of conducting research and even collaborating with other researchers from other higher learning institutions and the industry too. Despite these challenges, the university has proven itself as a strong, focused and resilient institution within its short existence by ensuring that it still found some resources to provide mini-research funds to its academic staff to engage in research through internally funded resources. In addition, some academic staff conducted some consultancies in the face of the aftermath of the pandemic. Further, a total of \$ 1 462 was refunded to academic staff who had published in journals outside the MUMDJ. This outstanding result and other successes demonstrate that MU has the capacity to respond quickly, efficiently, and effectively to unforeseen events.

The DRPS was equally active in ensuring that it continued to write technical research and consultancy proposals to ensure that it brought in extra funding to the university coffers. Eight research/technical proposals were submitted to the organizations that floated the bids (Table 3), the outcomes for each of the submitted proposal are indicated in the same table.

Table 3: Research Grants and Proposal Submitted by DRPS and current statuses

SN	Title	Type	Funder	Outcome	Amount
1	Use of ICT in Education Computer Science Department in collaboration with DRPS	Research Grant	SPIDER	Second Stage of Approval	SEK 596 943.68
2	Survive to Thrive Project	Research Consultancy	World Vision	Not Funded	ZMW 562 000.00
3	Environmental and social safeguards audit for Strengthening climate resilience in the Kafue sub-basin (SCRiKA) project	Research Consultancy	Ministry of Green Economy and Environment with support from the African Development Bank.	No Feedback	\$37 959.90
4	Sector performance of the Joint water and sanitation and environment sector (JWSER)	Research Consultancy	GIZ	No Feed Back	\$ 32 000.00
5	Gender analysis of the business environment in Zambia	Research Consultancy	USAID	Not Funded	ZMW 1 287 700.00
6	Reform Agenda for Public Universities in Zambia	National Assignment Research /Consultancy	Ministry of Education	In progress	-
7	Indigenous Knowledge System (IKS)- A tool kit for Climate Change Early Warning and Adaptation in Zambia: (IKS-CCEWAZ)	Research	National Science and Technology Council (NSTC)	Awaiting feedback	ZMW 800,000
8	Sustainable food security through climate-friendly organic farming and improved environmental management in the central province of Zambia for Environment Africa Zambia, Kabwe	Consultancy	Environment Africa	Not awarded	ZMW 146,000

2023 Mulungushi University Conference Organizing Status Report

The conference organizing committee has been meeting to help facilitate the holding of the conference chaired by the Director – DRPS and with representation from all the schools including the university library. Following a series of meetings, the committee has done the following:

- ✚ Coined the conference theme and its accompanying sub-themes
- ✚ The period for the conference set for study break in June 2023

- ✚ Advert for the conference to start running once management approves the budget and the programme
- ✚ Letters to would be sponsors and keynote speakers to be sent immediately management approves the budget and programme
- ✚ The budget and all the committee's resolutions to be submitted to management for approval
- ✚ Identified the venue – Mulungushi University

2023 The Times Higher Education Ranking

The Directorate submitted information to the Times Higher Education Ranking based on the information beginning 1st January to 30th November, 2022 against the 17 Sustainable Development Goals that the university qualifies on. The feedback will be provided in the first quarter of 2023.

Conferences

Several academic staff participated in the conferences across various disciplines. In addition, as an institutional we participated and exhibited at the jointly hosted National Research and Innovation Symposium by the Ministry of Education and University of Zambia on 1st December 2022 at UNZA.

Quality Assurance

In addition, the quality assurance office within the university was responsible for coordinating both internal and external programmes accreditation and reviews to ensure the programmes offered by the university remain relevant and responsive to the local and international market including the industry especially for new graduates seeking employment.

a) Quality Assurance policy

A quality assurance policy was developed and submitted to management and awaits approval by the university Council.

b) Registration of the MU qualifications on the Zambia Qualification Framework (ZQF) and accreditation with HEA

During the year 2022, the university managed to develop, submit, review and re-submit learning programmes to Higher Education Authority (HEA) for accreditation and registration with Zambia Qualification Authority (ZAQA). The table below shows the HEA and ZAQA status for MU learning programmes.

Table 4: Status of MU Learning programmes Developed, Accreditation and Registration

No.	Learning programmes	Number
1.	Developed	110
2.	Reviewed	36
3.	Submitted to HEA	120
4.	Accredited with HEA	73
5.	Registered with ZAQA	40
6.	Being accredited with HEA	43
7.	Rejected by HEA	4

c) Data base for learning programmes accredited with HEA and ZAQA registration

The Directorate in conjunction with ICT are in the process of developing the database for the learning programmes accredited with HEA and registered with ZAQA. The database is expected to be operationalized in 2023.

CHAPTER TWO

SCHOOL OF AGRICULTURE AND NATURAL RESOURCE



Dr Chansa Chomba
Dean SANR

The School of Agriculture and Natural Resources (SANR) is a student and industry responsive, production-oriented school which is based on applied sciences. It also provides a caring environment for the students and ensures that they are equipped with knowledge, skills and the right attitudes necessary for a competent cadre of graduates that are able to respond to the industry's needs.

Moreover, access to learning continues to be promoted in order to advance social transformation and redress.

This is being done in accordance with the principle of freedom of inquiry and research that leads to advanced knowledge creation through collaboration. Specifically, the school continues and will continue to engage in research related to animal, plant, soil and climate sciences, and agricultural engineering among others. As such, the school shall continue to focus on ensuring that the environment is student centered and responsive to the national development agenda.

Research Groups

The School of Agriculture and Social Sciences has a total of six (6) research groups spread across three departments namely:

- i. Agricultural Bio-Systems Technology Research Group Crop Production Systems
- ii. Agribusiness
- iii. Livestock Production System
- iv. Natural and Environmental Systems
- v. Hydrology and Earth Science

Publications

- i. Nyirenda, V.R., Phiri, D. and **Chomba, C.**, 2023. Identifying multiple wildlife species-crop interactions using network analysis. *Journal for Nature Conservation*, vol 71, p.126329, ISSN 1617-1381, <https://doi.org/10.1016/j.jnc.2022.126329>
- ii. Nyirenda, V.R., Namukonde, N., Lungu, E.B., Mulwanda S., Kalezu K., Simwanda M., Phiri D., **Chomba C.**, Kalezhi J., and Lwali C.A. (2022). Effects of phone mast-generated electromagnetic radiation gradient on the distribution of terrestrial birds and insects in a savanna protected area. *Biologia* 77, 2237–2249 (2022). <https://doi.org/10.1007/s11756-022-01113-8>

- iii. **Mphande, W.**, Farrell, A.D., Grove, I.G., Vickers, L.H. and Kettlewell, P.S., 2022. Metabolic and film antitranspirants both reduce drought damage to wheat yield despite having contrasting effects on leaf ABA. *Journal of Agronomy and Crop Science*, 208(2), pp.143-157. <https://doi.org/10.1111/jac.12567>
- iv. **Mphande, W.**, Farrell, A.D., Vickers, L., Grove, I.G. and Kettlewell, P., Film Antitranspirant Yield Increase of Droughted Wheat Associated with Inhibition of Both Aba and Transpiration. Available at SSRN: <https://ssrn.com/abstract=4067262> or <http://dx.doi.org/10.2139/ssrn.4067262>
- v. **Simfukwe P.**, Edward, S.M. and Alfred, D., 2022. Accessing Future Mixed Beans Yield in Zambia under a Changing Climate Scenario. *International Journal of Plant, Animal and Environmental Sciences*, 12, pp.175-186. <https://doi.org/10.26502/ijpaes.4490144>
- vi. Walubita, M., **Nchimunya, B.** and Tembo, L., 2022. Assessment of Pull-and Push Technologies in Managing Spodoptera frugiperda in Maize and Multivariate Analysis of Associated Variables. *Asian Journal of Research in Crop Science*, 7, pp.30-37. <https://doi.org/10.9734/AJRCS/2022/v7i230138>
- vii. **Silengo, M.**, 2022. Natural Hazards Governance in Zambia. In *Oxford Research Encyclopedia of Natural Hazard Science*. <https://doi.org/10.1093/acrefore/9780199389407.013.446>
- viii. Banda, D.C. and **Musaba, E.C.**, 2022. What makes small-scale tilapia farmers in Northern Province, Zambia, good at their jobs? *Asian Journal of Agriculture and Environment*. Vol 1. No. 1. <https://doi.org/10.53402/ajae.v1i1.198>
- ix. **Malunga, M.M.**, Cho, M.A., Chirwa, P.W. and Yerokun, O.A., 2022. Land use induced land cover changes and future scenarios in extent of Miombo woodland and Dambo ecosystems in the Copperbelt province of Zambia. *African Journal of Ecology*, 60(1), pp.43-57.
- x. Yusuf, U. A., Kafula, F., Kaimba, K., Kalipenta, W., Kabwe, H., Mulemena, J. A., Kamvuma, K. M., Phiri, S. B., Miyoba, M., Mesole, B. S., **Phiri, A.**, Bwalya, B. B., & Zimba, W., 2022. The Role of an Aqueous Extract of Cactus on Histopancreatic Architecture in Streptozotocin Induced Diabetes Mellitus in Wistar Rats. *European Journal of Pharmaceutical Research*, 2(2): 11-16. <https://ej-pharma.org/index.php/pharma/article/view/30>
- xi. Yusuf, U.A., Kabwe, H., Kafula, F., Kalipenta, W., Mulemena, J., Phiri, S.B., Miyoba, M., Phiri, A., Bwalya, B.B., Luambia, I.N. and Simushi, P., 2022. Streptozotocin and diabetes: Modulatory role of an aqueous extract of cactus on kidney histo-architecture of model. *GSC Advanced Research*

and *Reviews*, 12(2),
<https://gsconlinepress.com/journals/gscarr/>

pp.164-172.

Books

None

Book Chapters

None

Conference Papers/Presentations

None

Research

None

Consultancy

None

Partnerships and Linkages

1. Häme University of Applied Sciences (Finland)
2. Karelia University of Applied Sciences (Finland)
3. International Center for Living Aquatic Resources Management ((ICLARM), also known as World Fish)
4. GIZ
5. Disaster Management and Mitigation Unit (DMMU)
6. Water Resources Management Authority (WARMA)

Research Grants/Funded

None

Collaborative Projects

None

Future Research Areas

None

Community Engagement

None

CHAPTER THREE

SCHOOL OF BUSINESS STUDIES



Dr Choolwe Mwiiya
Dean SBS

The School of Business Studies (SBS) was among the first academic units established following the transformation of the National College into Mulungushi University in 2008. In its current form, the school offers thirteen (13) Undergraduate Degree programmes and eight (08) Postgraduate Programmes organized under the Department of Business Studies and Department of Law, Labour and Human Resource Management respectively.

The school is the pioneer in introducing Commerce; Entrepreneurship; Labour and Employment Relations programmes; and Communication programmes in Zambia. These programmes ensure the production of versatile graduates who can perform multifarious and other specialized functions as economists, accountants, marketers and managers. Further, the research output of the faculty has been steady in recent years, although a more effort need to be done to ensure considerable increase in output within the school.

Research Groups

The School of Business Studies has six (6) research groups spread between the two departments. The following Research groups and Principal Investigators have been created:

- i. Business Management
- ii. Communication and Public Administration
- iii. Accounting and Finance
- iv. Socio-legal studies and justice systems
- v. Labour, FDI and organizational behavior
- vi. Human Resource Management, wellness and career development

Publications

- i. **Chungu K., and Mwaanga C.** 2022. The Student's perception of marketing strategies and the impact on the university's performance. Sarcouncil Journal of Entrepreneurship and Business Management <https://doi.org/10.5281/zenodo.7125390>
- ii. **Simfukwe K.M., 2022.** The role of medical evidence in determining the cause of death in murder cases in Zambia. Journal of Modern Law and Policy, 3 (1), 1-12 <https://doi.org/10.47941/jmlp.1116>
- iii. Mbulo, D., **Musawa, N., Mwaanga, C. and Lubinda, M.S.,** 2022. The Effect of Internal Controls and the Audit Committee on financial Accountability in

local Authorities. *MULUNGUSHI UNIVERSITY MULTIDISCIPLINARY JOURNAL*, 3(1), pp.1-11.

<https://research.mu.ac.zm/research/index.php/mu>

- iv. **Mwaanga, C.**, Van Zyl, C. and Shambare, R., 2022. Environmental factors and the formation of students' entrepreneurial intentions: perspectives from Zambia. *African Journal of Educational Management, Teaching and Entrepreneurship Studies*, 7(2), pp.20-38.
<https://www.ajemates.org/index.php/ajemates/issue/view/10>

Books

None

Book Chapters

None

Conference Papers/Presentations

1. Mrs Simfukwe K. Delegate at the Global South Dialogue on Economic Crimes (2nd Annual Conference) held virtually from 6th to 7th 2022 organised by UK colleagues
2. Mrs Simfukwe K. Delegate at the Global South Dialogue on Economic Crimes (2nd Annual Conference) webinar held virtually from 6th to 7th 2022 organized by UK colleagues
3. Dr. Mwaanga C. Delegate at the workshop organized by the Ministry of Education (Innovation Africa) held in Lusaka at Ciela Resort and Spa in Lusaka in November, 2022
4. Dr. Mwaanga C. Delegate at the workshop organized by ZUPAC themed "Online Teaching and Evaluation Skills in the use of ICT Tools" held at Mulungushi University in Kabwe in October, 2022
5. Dr. Mwaanga C. Delegate at the workshop organized by The Ministry of Commerce and Industry on application of standards for leather value chain phase III held at Walusungu Lodge in Kabwe from 20th to 23rd November, 2022
6. Dr. Mwaanga C. Delegate at the workshop organized by The Ministry of Commerce and Industry / COMESA on Developing a framework for mutual recognition agreement for import and export of grains held at Chaminuka Lodge in Lusaka October, 2022

Research

None

Consultancy

1. Dr Clement M. Capacity building to participating SMEs/Firms in the implementation of the regional hides and skins traceability system and other BDS for COMESA ALLPI

2. Dr Clement M. Training SMEs on the application of standards for leather value chain and other BDS for COMESA ALLPI
3. Dr Clement M. Training SMEs on CERTIFICATION OF Eco-friendly leather and leather products and other related BDS for COMESA ALLPI

Awards

The school received several awards for its best graduating students from a number of supporting institutions, including ACCA, Indo Zambia Bank, Zambia National Commercial Bank Plc, ZSIC, ATLASMARA AND First National Bank (FNB).

Partnerships and Linkages

During the course of 2021 Technical Education, Vocational and Entrepreneurship Training (TEVET) and GIZ certified the school to offer level 1 Paralegal Training

The school also concluded discussions with Chartered Institute of Management Accountants (CIMA) for a Memorandum of Understanding regarding student, staff and alumni access to our financial leadership programme (FLP). Pending is the signing of MOU

The School of Business also submitted a joint proposal to the EU for the Erasmus Programme collaborate with The University of West Attica- a Public University based in Greece. This was approved by the European Union Commission covering a period of seven (7) years.

Research Grants/Funded

1. **Mwaanga C., Chungu K., Siame M.,** and Moyo E. (2022). University-related factors influencing technopreneurial intentions of stem students: A comparative study of public and private universities. Funded by Mulungushi University
2. Mr. Moyo E., **Wamulume M, and Mayondi C.** completed his research titled *an investigation into the perceived socio economic and cultural factors influencing teenage pregnancy in Zambia.*

Collaborative Projects

The school continues to collaborate with other institutions of higher learning among them being Evelyn Horne Collage of Applied Arts and the Zambia Institute of Mass Communication (ZAMCOM) which these institutions have since graduated some students

Future Research Areas

None

Community Engagement

The school was represented in a Radio presentation at Radio QFM engaged in sensitization and media awareness on the rights of domestic workers in Zambia.

CHAPTER FOUR

SCHOOL OF EDUCATION



Dr Gift Kaira
Dean SoE

Established in 2015, the School of Education (SOE) is one of the fastest growing schools at Mulungushi University. The school offers degree qualifications in teacher training in various fields of study ranging from science to art-based programmes, in line with the primary and secondary school curriculum. Through its highly qualified, competent and experienced staff, the school strives to continue graduating students who will be socially responsive and skilled in effective communication

Since inception, the school has expanded and now offers postgraduate programmes in Education, History, Linguistics, Literature, Agricultural Science and Civic Education. The school also offers postgraduate diploma and certificate courses in teaching methodology for graduates who would like to attain a teaching qualification through face-to-face or online modes of learning. Programmes offered by the school have benefitted many practicing teachers and other education professionals to excel in the field of education as well as others.

Aside teaching, in the year under review, the school continued to participate in research and consultancy in order to contribute to the university's mission of providing high quality academic programmes, research and consultancy services through stakeholder engagement. Notably, the school's engagement in research and consultancy continues to grow steadily from year to year considering the increased outputs recorded in 2022.

Research Groups

The School of Education has a total of three (3) research groups spread across three departments. The following research groups have been established namely:

- i. Education management and administration
- ii. Humanities and social science in education
- iii. Social Sciences

Publications

1. Chilufya, J., **Chola, D.K.** and Mainde, D., (2022). Linking digital-media to youths 'political engagement in selected learning institutions in Chongwe district. International Journal of Education Humanities and Social Sciences. ISSN: 2582-0745. Vol 5, No. 01. <https://doi.org/10.54922/IJEHSS.2022.0359>.
2. Muyuni, A.P., Moonga, I. and Chola, D.K., 2021. A Historical Transformation of Socio-Economic Life of Small Scale Traders of

- Mulungushi Community from 1972 to 2020. *Mulungushi University Multidisciplinary Journal*, 2(2), Pp.34-45.
3. Moonga, I. And Muyuni, A., 2021. An Evaluation of Comprehensive Sexuality Education as A University Course. *Mulungushi University Multidisciplinary Journal*, 2(2), Pp.11-18.
 4. Marongwe, N., **Meki-Kombe, C.**, Kobusingye, L., & Machingura, V. (2022). Exploring the Hurdles faced by Emerging Female Researchers: Experiences and Reflections from Four Selected African Universities. *African Journal of Gender, Society and Development* (formerly *Journal of Gender, Information and Development in Africa*), 11(4), 157-180.
 5. Soka Chunda and **Gift Kaira** (2022). The Role of Language In Uniting Two Different Ethnic Groups: A Case Of Tumbuka Language In Chasefu District, Eastern Province Of Zambia. *MUMDJ*, Vol 3 No. 1, 2022
 6. Lillian Muleya and **Gift Kaira** (2022). An Analysis of the Strategies Used in Translating Tonga Idioms and Culturally Bound Expressions in Choma District, Zambia. *MUMDJ*, Vol 3 No. 1, 2022
 7. Joseph Kiwala, Victor Chikampa and **Ireen Moonga**: An empirical evaluation of the psychometric properties of the Sherer et al. general self-efficacy scale on the Zambian sample. *MUMDJ*, Vol 3 No. 1, 2022

Books

None

Book Chapters

1. Chakraverty, D., Lévesque, M., Qi, J., **Meki-Kombe, C.** and O'Carroll, C., (2022). Capacity building through mobility and its challenges. *Doctoral Education*, p.133. University College London Press.
2. Mason, S., Lévesque, M., **Meki-Kombe, C.**, Abel, S., Balaban, C., Chiappa, R., Grund, M., Joubert, B., Kuchumova, G., Mantai, L. and Main, J., (2022) Reflections from early-career researchers on the past, present and future of doctoral education. *Doctoral Education*, p.124. University College London Press.

Conference Papers/Presentations

1. **Moonga Ireen** presented a paper titled "A Unity in Diversity: Could Technology be the Messiah?" on International Day of Mother Tongue Celebrations held at UNZA, 21 February 2022
2. Carol M. Mubisi, **Dr Gift Kaira** and **Dr Charity Meki Kombe** presented a paper titled, "Need and feasibility of online examinations in high institutions of learning in the sub-region: lessons from the COVID-19 pandemic" at the 38th Association for Education Assessment in Africa.
3. **Moonga, Ireen** presented papers at the 1st Educational Research Association of Zambia (ERAZ) Conference that ran from 3rd to 4th November, 2022.

4. **Mary Mbewe** presented a paper titled “collecting female initiation objects in colonial Zambia at University of Cologne in Germany.
5. **Dr. Charity Meki Kombe** and **Mr. Leonard Sakakombe** attended a workshop on Inclusive Education in Chongwe from 18-26 April 2022 sponsored by Norwegian Association for the Disabled (NAD) in conjunction with MOE
6. **Dr. Charity Meki Kombe**, Hasunga George, Ali Karam and Sumunchembi B presented a paper titled “Impact of COVID-19 on the administration of school-based assessments and learners’ performance in final examinations in selected schools across Zambia” at the 38th AEAA Conference held at Avani Hotel, Livingstone – August 2022.
7. **Dr. Charity Meki Kombe** and **Mtonga Dingase E.**, presented a paper on “Qualitative Insights on Experiences of Administering School- Based Assessment during Covid-19 Crisis at a Public Secondary School in Kitwe District – Zambia” at the 38th AEAA Conference held at Avani Hotel, Livingstone – August 2022.
8. **Mbewe Mary**, was part of the panel discussion on ‘Museums Memory and Heritage in Southern and East Africa’ Museum Lab 2022, Module 3 Cape Town.
9. **Mbewe Mary**, Seminar presentation and display in museums, Stellenbousch University Museum.
10. **Mbewe Mary**, Presented a paper on the WWII Polish refugee Camp in Mbala, Zambia: Memoriation through local narratives and Motomoto Museum Exhibitions
11. **Dr Charity Meki Kombe** delivered a keynote address at the Zambia Secondary School Symposium hosted by the Ministry of Education titled: “Striving for Inclusion in 21st Century Learning and Assessment: Leaving no one behind.”
12. **Dr. Charity Meki Kombe** was appointed to be on the editorial committee constituted by the Examinations Council of Zambia, which reviewed papers presented at the 38th Association for Education Assessment in Africa conference.
13. **Dr Charity Meki Kombe** appointed to the Editorial Board of the Kwame Nkrumah International Journal of Business, Education, Humanities and Natural Sciences

Research

1. Mary Lubinda, **Dr Gift Kaira**, Musawa Njebele concluded their research on the “Role of Universities in Empowering Communities with Entrepreneurship Skills” (completed).
2. Dr Charity Meki Kombe, Dingase M. Ngulube, Beatrice Mwansa concluded their research on “Women and politics in Zambia: Motivation, challenges, and resilience” (Completed.)

Consultancy

Dr. Charity Meki Kombe, (2022). Survey on continuity of learning in schools amidst the COVID-19 Pandemic initiated by Ministry of Education and Zambia Education Coalition with support from UNICEF

Awards

Mr. Chola awarded funding by MU as Research Fellow to pursue his PhD's at University of Pretoria in South Africa.

Partnerships and Linkages

Dr Charity Meki Kombe participated in the Study of the U.S. Institutes (SUSI) Youth, Workforce Development, and Closing the Skills Gap program – Virtual program at University of Montana, Missoula, USA after being nominated for the programme under the US Scholar Exchange Programmes

Research Grants/Funded

1. Christabel N, Bwalya B.B., and **Dr Kombe CM** 2022 MU Research Funds. The research project titled “*Comparative study of factors associated with Menstrual Poverty among rural and urban Upper Primary Schools during the COVID-19 era in Kabwe District of Central Province of Zambia.*”
2. Mbewe, M. 2022 MU research funded project titled *Tradition and Social Change: A study of the current chisungu teachings in selected communities of Lusaka, Kabwe and Chipata.*

Collaborative Projects

1. **Dr Charity Meki Kombe** collaborated with Newlin Marongwe (Walter Sisulu University, **South Africa**); Loyce Kobusingye (Makerere University, **Uganda**); and Viola Machingura (Great Zimbabwe University, **Zimbabwe**) in a projected titled “*Exploring the Hurdles faced by Emerging Female Researchers: Experiences and Reflections from Four Selected African Universities.*”. A journal article was published through the collaboration.
2. **Dr Charity Meki Kombe** collaborated with scholars from various countries including United States of America, Japan, Sweden, United Kingdom. Australia, South Africa, China just to make a few on a book project titled: “Towards a Global Core Value System in Doctoral Education” in which she co-published two book chapters.

Future Research Areas

None

Community Engagement

1. School of Education represented the University at the Kabwe Arts festival held on 30th August 2022.
2. The school staff raised funds amounting to K1500 to help a vulnerable student buy food and other groceries in the school.

3. School of Education sponsored a graduation award worth K1600 for the best performing 4th year student in the year 2021/2022
4. School of Education staff raised K1504 and bought foodstuffs and other essential items for a vulnerable 4th year student.
School of Education staff raised funds and bought assorted groceries that were donated to inmates at Mukobeko Correctional Services.
5. **Dr Charity Meki Kombe** an alumnus of the Study of U.S Institutes (SUSI) for scholars organized and facilitated a training workshop for unemployed graduate teachers of Kabwe District drawn from Mulungushi University, Eden University, Parglory University, Kwame Nkrumah University, Malcom Moffat College of Education, Immaculata College of Education, and University of Zambia. The training was conducted in partnership with Motivational Speaker, Mr. John Banda and **Dr Mwaka Siulonde** to equip participants with pertinent skills and knowledge to engage in entrepreneurship.

CHAPTER FIVE

SCHOOL OF MEDICINE AND HEALTH SCIENCES



The School of Medicine and Health Sciences (SoMHS) offers both undergraduate and postgraduate programmes based on two campuses located at Livingstone Teaching Hospital where the MBChB and Biomedical Sciences are offered and the Kabwe Town Campus in Kabwe district of Central Province where the Pharmacy and Nursing programmes are offered. Throughout the year under review, both academic and student of the school were highly active in research.

The school is committed creating and maintaining an environment that promotes high quality service provision and fosters excellence in education and research. The school strives to promote and maintain the highest standards of behavior to provide a healthy and safe learning environment and to better serve society. In addition, the SoMHS is committed to improving the general health of all people through education, research, development, and application of new knowledge in the basic and clinical medical sciences. The school also continues to focus on transparency, collaboration, accountability, and representative participation in pursuit of its services.

Research Groups

The school has two (2) research groups spread between the two departments.

- i. Ethno-Pharmacology Research Group (EPRG)
- ii. Hypertension, HIV/AIDS, Nutrition, Diabetes & Dyslipidemia (HAND)
- iii. Medical Education Research & Innovation group
- iv. Hypertension and Salt Research group
- v. Phytopharmacology & natural products research group
- vi. Public Health Sciences Research group

Publications

1. Kampamba M, Ezeala CC, Hikaambo CN, Gono Bwalya AG. *Opuntia stricta* (Haw): A review on its chemical composition, putative in-vitro antidiabetic mechanism of action and potential pharmacological uses in chronic disease. *Journal of Pharmacognosy and Phytochemistry* 2022;11(2):1-8. DOI: 10.22271/phyto.2022.v11.i2a.14359
2. Zimba, W. (February, 2022). Psychological Stress, Function and its Effects on Human Health, *Journal of Research in Humanities and Social Science*, Volume

10 ~ Issue 2 (2022) pp: 41-48 ISSN (Online):2321-9467
<http://www.questjournals.org/jrhss/papers/vol10-issue2/Ser-2/G10024148.pdf>

3. Zimba, W. (March, 2022). Reflecting on Health Promotion Campaigns: Key lessons from persuasive communication theories for responding to COVID-1, *Journal of Research in Humanities and Social Science*, Volume 10 ~ Issue 3 (2022) pp: 13-19 ISSN (Online):2321-9467
<http://www.questjournals.org/jrhss/papers/vol10-issue3/Ser-2/C10031319.pdf>
4. Malumani, M. (2022). Molluscum Contagiosum - A Therapeutic Challenge. *Medical Journal of Zambia*, 48(3), 356-357. Retrieved
5. Kingsley Kamvuma*, Yusuf ademola, Warren Chanda, Michelo Miyoba, Sam Bezza Phiri, Christopher Newton Phiri and John Amos Mulemena. The Correlation of Tuberculosis Smear Results and Immuno-suppression with CD4+ Counts as Surrogate Among HIV Infected Patients *Acta Scientific Microbiology* 5.2 (2022): 02-09. DOI: 10.31080/ASMI.2022.05.0995
6. Hikaambo, C., Chisanga, T., Kampamba, M., Muyenga Akapelwa, T., Chimombe, T., Chulu, M., Nanyangwe, N., Kabuka, R., & Mudenda, S. (2022). *Antibacterial Activity of Cassia abbreviata Oliv Bark Extract against Escherichia coli and Staphylococcus aureus*. 16, 161.
7. Hikaambo, C., Kaacha, L., Mudenda, S., Nyambe, M., Chabalenge, B., Phiri, M., Biete, L., Muyenga Akapelwa, T., Mufwambi, W., Chulu, M., & Kampamba, M. (2022). Phytochemical Analysis and Antibacterial Activity of *Azadirachta indica* Leaf Extracts against *Escherichia coli*. *Pharmacology & Pharmacy*, 13, 1–10. <https://doi.org/10.4236/pp.2022.131001>
8. Kampamba, M., Maingaila, V., Muyenga Akapelwa, T., Mudenda, S., Biete, L., Mufwambi, W., Banda, M., Phiri, M., & Hikaambo, C. (2022). Assessment of Knowledge, Attitude and Practices towards the Disposal of Unused and Expired Medications among Students of Private Medical Universities in Lusaka, Zambia. *Pharmacology & Pharmacy*, 13, 49–68.
9. Mudenda, J., Hamooya, B.M., Tembo, S. *et al*. Diagnostic accuracy of *Schistosoma* immunochromatographic IgG/IgM rapid test in the detection of schistosomiasis in Zambia. *JoBAZ* 83, 4 (2022).
10. Masenga SK, Pilic L, Malumani M, Hamooya BM (2022) Erythrocyte sodium buffering capacity status correlates with self-reported salt intake in a population from Livingstone, Zambia. *PLoS ONE* 17(3): e0264650. <https://doi.org/10.1371/journal.pone.0264650>
11. Saleem M, Rahman S, Elijovich F, Laffer CL, Ertuglu LA, Masenga SK, et al. Sox6, A Potential Target for MicroRNAs in Cardiometabolic Disease. *Curr Hypertens Rep*. 2022.
12. Animoku Abdulrazaq A, Mesole Samuel Bolaji, Okpanachi Omachonu Alfred, Yusuf Uthman Ademola and Shember Pascal Bemseer(2022). The Role

Of Ascorbic Acid On Mercury Induced Molecular Changes And DNA Alteration In Rats. NBSJ. 2:5-12.

13. Masenga, S.K., Hamooya, B., Hangoma, J., Hayumbu, V., Ertuglu, L.A., Ishimwe, J., Rahman, S., Saleem, M., Laffer, C.L., Elijovich, F., Kirabo, A., 2022. Recent advances in modulation of cardiovascular diseases by the gut microbiota. *J Hum Hypertens* 1–8.
14. Munsaka SM, Hamoya BM, Malumani M, Chiluba BC, Masenga SK. Blood Pressure Monitoring Variation in Routine Antiretroviral Therapy Clinic Visits: A Cross-Sectional study. *Journal of Preventive and Rehabilitative Medicine*. 2022;4: 53–58.
15. Samuel B. Mesole , Uthman A. Yusuf , Alfred O. Okpanachi, Elvis T. Godam, Nsoni F. Bumbangi, Abdulrazak Animoku. (2022). Immunomodulatory and Antioxidant Effects of Eugenol on Aluminium Chloride-Induced Neurotoxicity in Wistar Rats. *NJN*. 13(1):20-28.
16. Masenga SK, Pilic L, Hamooya BM, Nzala S, Heimburger DC, Mutale W, Koethe JR, Kirabo A, Munsaka SM, Elijovich F. Immediate pressor response to oral salt and its assessment in the clinic: a time series clinical trial. *Clin Hypertens*. 2022 Sep 15;28(1):25. doi: 10.1186/s40885-022-00209-2. PMID: 36104796; PMCID: PMC9476589.
17. Mutengo KH, Masenga SK, Mwesigwa N, Patel KP and Kirabo A (2022) Hypertension and human immunodeficiency virus: A paradigm for epithelial sodium channels? <https://pubmed.ncbi.nlm.nih.gov/36093171/>
18. Masenga, S.K, Povia, J.P., Choonga, M.E., Hamooya, B.M., A “return to health” is associated with blood pressure increase after a year of antiretroviral therapy in people with HIV, *American Journal of Hypertension*, 2022;, hpac094. <https://doi.org/10.1093/ajh/hpac094>
19. Munsaka, S., Hamooya, B., Sinkala, M., Malumani, M., & Masenga, S. (2022). Correlates of Hypertension among Persons Living with HIV at Livingstone Central Hospital: A Crosssectional study. *Medical Journal of Zambia*, 49(1), 4 - 16. <https://mjz.co.zm/index.php/mjz/article/view/1096>
20. Yusuf, U. A., Kafula, F. *et al* (August, 2022). The Role of an Aqueous Extract of Cactus on Histopancreatic Architecture in Streptozotocin Induced Diabetes Mellitus in Wistar Rats, *European Journal of Pharmaceutical Research*, Vol 2| Issue 2. <https://doi.org/10.24018/ejpharma.2022.2.2.30>
21. Yusuf, U. A., Kafula, F., Kaimba, K., Kalipenta, W., Kabwe, H., Mulemena, J. A., Kamvuma, K. M., Phiri, S. B., Miyoba, M., Mesole, B. S., Phiri, A., Bwalya, B. B., & Zimba, W. (2022). The Role of an Aqueous Extract of Cactus on Histopancreatic Architecture in Streptozotocin Induced Diabetes Mellitus in Wistar Rats. *European Journal of Pharmaceutical Research*, 2(2): 11-16. <https://ej-pharma.org/index.php/pharma/article/view/30>
22. Uthman Ademola Yusuf , Hellen Kabwe, Francine Kafula, kalande Kaimba, Wandi Kalipenta, John Mulemena, Sam Beza Phiri, Michelo Miyoba, Adrian

- Phiri, Bwalya Bupe Bwalya, Isabel Namfukwe Luambia, Precious Simushi and Aminat Adejoke Yusuf (2022). Streptozotocin and diabetes: Modulatory role of an aqueous extract of cactus on kidney histo-architecture of model. *GSC Advanced Research and Reviews*. 12(02), 164–172.
23. S Kapanga, JA Mulemena, K Kamvuma, Christopher Newton Phiri, Warren Chanda. Prevalence and correlates of urogenital schistosomiasis in school-going children - *Infectious Diseases Now*, 2022. <https://www.sciencedirect.com/science/article/pii/S2666991922002068>
 24. Thresa N Mwansa, Kingsley Kamvuma, John Amos Mulemena, Christopher Newton Phiri, Warren Chanda. Antibiotic susceptibility patterns of pathogens isolated from laboratory specimens at Livingstone Central Hospital in Zambia- *PLOS Global Public Health*, 2022. <https://www.medrxiv.org/content/10.1101/2022.05.19.22275336v1>
 25. Hamooya, B.M., Halwiindi, H., Heimbürger, D.C., Miyoba, M., Mutengo, K.H., Bosomprah, S., Mutale, W., Masenga, S.K., 2022. T-Lymphocytes predict metabolic syndrome among people with HIV in Zambia. *Annals of Epidemiology* 75, 86. <https://www.sciencedirect.com/science/article/abs/pii/S1047279722001867?via%3Dihub>
 26. Masenga SK, Povia JP, Mutengo KH, Hamooya BM, Nzala S, Heimbürger DC, Munsaka SM, Elijevich F, Patel KP and Kirabo A (2022) Sex differences in hypertension among people living with HIV after initiation of antiretroviral therapy. *Front. Cardiovasc. Med.* 9:1006789. doi: 10.3389/fcvm.2022.1006789. <https://pubmed.ncbi.nlm.nih.gov/36465432/>
 27. Masenga SK, Côté HCF, Hunt PW. Subclinical cardiac disease in children with perinatally acquired HIV is associated with inflammation. *AIDS*. 2022 Dec 1;36(15):2213-2214. doi: 10.1097/QAD.0000000000003384. PMID: 36382437. <https://pubmed.ncbi.nlm.nih.gov/36382437/>

Books

None

Book Chapters

None

Conference Papers/Presentations

1. **Dr Benson M. Hamooya.**, 2022. Was a presenter /delegate at the workshop organized by the American College of Epidemiology held virtually in September, 2022.
2. **Dr Sepiso K Masenga.**, (2022). Attended a workshop organized by Vanderbilt Institute for Global Health in the USA from 1 – 28th October, 2022

3. **Dr Sepiso K Masenga.**, (2022). Attended a workshop organized by Global Alliance for Chronic Diseases Implementation held virtually
4. **Dr Sepiso K Masenga.**, (2022). Was a presenter at a workshop organized by Consortium of Universities for Global Health in the USA in April, 2022
5. **Dr Benson M. Hamooya.**, 2022. Was a presenter at the workshop organized by the Vanderbilt Global Health Grand Round held virtually in December, 2022.
6. **Dr Benson M. Hamooya.**, 2022. Was a presenter at the workshop organized by INSIGHT held virtually in December, 2022.

Research

1. Dr Benson M Hamooya: Risk of metabolic syndrome and weight gain, and their relationship with integrase strand transfer inhibitor (INSTI)-based antiretroviral therapy among adults with HIV in Zambia (MetSWI-study) with funding from INSIGHT amounting to **\$8 000**
2. Dr Sepiso K Masenga: Impact of clinical laboratory testprofile on the Acute Kidney injury at Livingstone University Teaching Hospital: The ICLaTA study funding from IFCC's task force on outcome laboratory medicine amounting to **CHF 10 000**

Consultancy

None

Awards

None

Partnerships and Linkages

The school has linkages with the following:

- Vanderbilt University
- ST Mary's University
- Kamuzu University of Health Sciences, Malawi
- University of Zambia School of Medicine SHEPIZ project
- Consortium of Universities for Global Health (CUGH)
- Evelyn Hone College, Zambia

Research Grants/Funded

1. Dr Yusuf Ademola: Evaluation of the role of an aqueous extract of guava leaves (*Psidium guajava*) on the Frontal cortex, Pancreas and Liver of diabetes type 1 in Wistar rats
2. Mr Warren Chanda Detection of the presence of CRE and ESBL- producing organisms in routine specimens from in- and out-patients at Livingstone Central Hospital

Collaborative Projects

None

Future Research Areas

None

Community Engagement

The school regularly engages in community-based projects through its CBE programs.

CHAPTER SIX

SCHOOL OF NATURAL AND APPLIED SCIENCES



Dr George Mukupa
Dean SNAS

The School of Natural and Applied Sciences (SNAS) spans an entire range of scientific teaching and research, from pure and fundamental discovery that advances our understanding of the world around us to the direct application of science and technology which transforms and improves lives as well as sustaining the environment. The school produces graduates at both postgraduate and undergraduate levels who do not only understand science but are relevant to industry as well.

The school consists of three departments namely: Department of Physics, Department of Mathematics and Statistics as well as the Department of Chemistry and Biology, with a total of eight (8) programmes. The school is also teaching foundation sciences for pre-medicine and pre-engineering students.

Research Groups

The school has a total of five (5) research groups spread across departments as follows:

- i. Mathematics and Statistics
- ii. Chemistry
- iii. Physics
- iv. Microbiology and Biotechnology
- v. Laboratory Science

Publications

1. Nagalingam, M., Rajeshkumar, S., Balu, S.K., Tharani, M. and **Arunachalam, K.**, 2022. Anticancer and Antioxidant Activity of Morinda Citrifolia Leaf Mediated Selenium Nanoparticles. *Journal of Nanomaterials*, 2022. Article ID 2155772, 7 pages, 2022. <https://doi.org/10.1155/2022/2155772>
2. Rajeshkumar, S., Santhoshkumar, J., Parameswari, R.P., Saravanan, S., Balusamy, S.R. and **Arunachalam, K.**, 2022. Degradation of Toxic Dye and Antimicrobial and Free Radical Potential of Environmental Benign Zinc Oxide Nanoparticles. *Bioinorganic Chemistry and Applications*, 2022. Article ID 4513208, 10 pages, 2022. <https://doi.org/10.1155/2022/>
3. Rajeshkumar, S., Santhoshkumar, J., Vanaja, M., Sivaperumal, P., Ponnaniakajamideen, M., Ali, D. and **Arunachalam, K.**, 2022. Evaluation of zebrafish toxicology and biomedical potential of aeromonas hydrophila mediated copper sulfide nanoparticles. *Oxidative Medicine and Cellular*

- Longevity*, 2022. Article ID 7969825, 12 pages, 2022.
<https://doi.org/10.1155/2022/7969825>
4. **Munsaka, S.**, Kaimoyo, E., Arunachalam, K., Ng'uni, D., Chikoti, P. and Sharma, N., (2022). Characterization of Selected Zambian Rice (*Oryza sativa*) Accessions using Simple Sequence Repeat (SSR) Markers. *Indian Journal of Agricultural Research*, 1, p.6.
 5. Sharma, N., Meher, A.K., Bhagwani, H., Chahar, D., Yadav, N., Kohli, V., Shourie, B., **Arunachalam, K.** and **Siankuku, M.**, 2022. Myco-remediation of Dairy Wastewater by Naturally Attenuated *Aspergillus* sp. Responsible for Sulfate Reduction. *Pollution*, 8(2), pp.611-619. DOI: 10.22059/POLL.2021.332245.1215
 6. **Jere, S.**, Offen, E.R. and Basmanebothe, O., 2022. Optimal Investment, Consumption and Life Insurance Problem with Stochastic Environments. *Journal of Mathematics Research*, 14(4), pp.1-33.
 7. Komunte, M., **Kasumo, C.** and Masanja, V.G., 2022. Reducing the Possibility of Ruin by Maximizing the Survival Function for the Insurance Company's Portfolio. *Journal of Mathematics*, ol. 2022, Article ID 2771223, 8 pages, 2022. <https://doi.org/10.1155/2022/2771223>
 8. **Matindih, L.K., Banda, P.J.** and Mukonda, D., 2022. On M-Asymmetric Irresolute Multifunctions in Bitopological Spaces. *Advances in Pure Mathematics*, 12(8), pp.490-504. doi: [10.4236/apm.2022.128037](https://doi.org/10.4236/apm.2022.128037).
 9. Obakachi, V.A., Kehinde, I., Kushwaha, N.D., Akinpelu, O.I., Kushwaha, B., Merugu, S.R., **Kayamba, F.**, Kumalo, H.M. and Karpoormath, R., 2022. Structural based investigation of novel pyrazole-thiazole Hybrids as dual CDK-1 and CDK-2 inhibitors for cancer chemotherapy. *Molecular Simulation*, 48(8), pp.687-701. <https://doi.org/10.1080/08927022.2022.2045016>
 10. Pathan, T.K., Merugu, S.R., Kozlanská, K., Vojáčková, V., Kryštof, V., Mokoena, S., **Kayamba, F.** and Karpoormath, R., 2022. Development of pyrimidine-cinnamamide hybrids as potential anticancer agents: A rational design approach. *Journal of Molecular Structure*, 1267, p.133594. <https://doi.org/10.1016/j.molstruc.2022.133594>
 11. Bwalya, M.D. and **Simwatachela, H.**, 2022. Evaluation of Nuclear Morphology in Buccal Epithelial Cells of Smokers: A Case Study at Mulungushi University. *International Journal of Innovative Science and Research Technology*. Vol 11. Issue 9. ISSN No:-2456-2165
 12. Manyika K.D., **Hamweendo, A.**, et al. "On radiation protection and climate change – a summary". *Physics & Astronomy International Journal*. Volume 6 Issue 3 – 2022

13. Zimba, A., **Mukupa, G.** and Chama, V., 2022. Emerging Mobile Phone-based Social Engineering Cyberattacks in the Zambian ICT Sector. *arXiv preprint arXiv:2212.13721*.

Books

None

Book Chapters

Kalirajan Arunachalam, George Mukupa, (2022). “Microbial Nanotechnology for Bioremediation of Pollutants” in “Emerging Technologies and Advanced Techniques for Waste Treatment and Energy Production”. ISBN: 978-93-94174-07-8. DOI: <https://doi.org/10.20546/EP/B-04-XX>

Conference Papers/Presentations

1. **Dr. Kayamba** attended the instrumentation training from 5th September to 17th September 2022 in India.
2. **Banda D.** attended and completed the one week course for Analytical Chemistry training course which was funded by the Organisation for the prohibition of Chemical Weapons (OPCW) in Warsaw, Poland. He returned on Sunday, 16th October, 2022.
3. **Dr. Mukupa G, Daka J and Moyo E** attended the Zambia Association of Public Universities and Colleges (ZAPUC) workshop on E-Learning and Open Distance Learning Management Systems held at Mulungushi University from 10th to 12th October, 2022.

Research

1. **Mr. Moyo E., Wamulume M, and Mayondi C.** completed his research titled *An investigation into the perceived socio economic and cultural factors influencing teenage pregnancy in Zambia.*

Consultancy

1. **Simwatachela H.,** conducted a two cycle of a short courses in Laboratory Quality Management System April and June , 2022.

Awards

1. Mr Stanley Jere completed the PhD studies successfully. He also graduated on 20th October, 2022 at University of Botswana.
2. Mrs Abigail Mbozi awarded funding by MU as Research Fellows to pursue her PhD's at University of the Witwatersrand in South Africa

Partnerships and Linkages

1. **Simwatachala H.**, attended a consultative meeting organized by The AUDA-NEPAD Centre of Excellence in select countries to share up-to-date information on the genome editing innovations. from 10th to 14th October, 2022 in Lusaka- Zambia

Research Grants/Funded

1. **Dr Manyika D., Banda P.**, and Dr. Hamweendo A., awarded the 2022 MU funded research project

Collaborative Projects

None

Future Research Areas

None

Community Engagement

1. **Ms. Mbozi A** was nominated for TWAS Competition.
2. **Mr. Moyo E** offered motivation talks to Fatima Girls secondary school in Ndola as part of MU advertising and marketing of programmes from 15th September to 16th September, 2022.
3. **Simwatachala H.**, took the Bachelor of Science in Laboratory Technology students to the National Forensic Lab in Lusaka on 18th November, 2022.

CHAPTER SEVEN

SCHOOL OF ENGINEERING AND TECHNOLOGY



Mr. Brian Halubanza
Dean SET

The School of Engineering and Technology (SET) was established in 2022 after a split from the older school previously called the School of Science, Engineering and Technology. The current school offers programmes in engineering, computer science and Information Technology. The school continues to work diligently to enhance its academic and research mission and partnerships to ensure alignment to institutional objectives and societal needs.

The school recognizes its responsibility to participate in governance of the university, including the implementation of educational programs, research, and continuing education programs. The school strives to implement its programmes in ways which will develop and maintain the engineering, computer science and Information and Communication Technology competence of the students at the undergraduate and postgraduate levels.

Research Groups

The School of Sciences Engineering and Technology has a total of four (4) research groups spread across four departments.

The following research groups are established in the school:

- i. Data Mining and Software Engineering
- ii. Geomatics and Civil Engineering
- iii. Electronics, power/energy, and control engineering
- iv. Mechanical Engineering

Publications

1. **Halubanza, B.**, Phiri, J., O.Y Nkunika, P., Nyirenda, M., & Kunda, D. (2022). Toward Locust Management: Challenges and Technological opportunities, Sikaunzwe, Zambia. Zambia ICT Journal, 6(1), 61-65. <https://doi.org/10.33260/zictjournal.v6i1.152>
2. **Halubanza, B.**, Phiri, J., Nyirenda, M., Nkunika, P.O.Y., Kunda, D. (2022). Detection of *Locusta migratoria* and *Nomadacris septemfasciata* (Orthoptera: Acrididae) Using MobileNet V2 Quantized Convolution Neural Network, Kazungula, Zambia. In: Silhavy, R. (eds) Cybernetics Perspectives in Systems. CSOC 2022. Lecture Notes in Networks and Systems, vol 503. Springer, Cham. https://doi.org/10.1007/978-3-031-09073-8_43

3. **Zimba, A.**, 2022. A Bayesian Attack-Network Modeling Approach to Mitigating Malware-Based Banking Cyberattacks. International Journal of Computer Network & Information Security, pp.25-39, 2022. DOI: 10.5815/ijcnis.2022.01.03
4. **Hamweendo, A.**, and Nsofu, C.I. et al. “High Entropy Alloys for Bone Tissue Engineering: Recent Developments in new methods of Manufacture”. IntechOpen, 2022. DOI: 10.5772/intechopen.106353
5. Manyika K.D., **Hamweendo, A.**, et al. “On radiation protection and climate change – a summary”. Physics & Astronomy International Journal. Volume 6 Issue 3 – 2022
6. Kalezhi, J., Chibuluma, M., Chembe, C., **Chama, V.**, Lungo, F. and Kunda, D., 2022. Modelling Covid-19 infections in Zambia using data mining techniques. *Results in Engineering*, 13, p.100363.
7. **Zimba, A.**, Mukupa, G. and **Chama, V.**, 2022. Emerging Mobile Phone-based Social Engineering Cyberattacks in the Zambian ICT Sector. *arXiv preprint arXiv:2212.13721*.

Books

None

Book Chapters

None

Conference Papers/Presentations

1. **Mr Halubanza B.**, presented at a seminar whose theme was “Accelerating the realization of Sustainable Development Goals (SDGs) through Artificial Intelligence (AI) and Machine Learning (ML) solutions” (The 3rd Calestous Juma Seminar
2. **Mr Halubanza B.**, presented at a seminar whose theme was “The role of artificial intelligence in National Development”. The presentation was entitled - “AI opportunities in Agriculture (African Migratory and Red Locust Detection using AI)”, Southern Sun Hotel, Lusaka, Zambia, 30th Nov 2022

Research

1. Dialysis Research: A Project supported by Lusaka Alpha Medical Limited and Baxter (RSA).

Consultancy

1. Miss Victoria Chama conducted a short course in Web Design and Digital Marketing

Awards

None

Partnerships and Linkages

None

Research Grants/Funded

1. Dr Manyika D., Banda P., and **Dr. Hamweendo A.**, awarded the 2022 MU funded research project

Collaborative Projects

1. The Engineering Institution of Zambia (EIZ) picked three projects from our Civil Engineering students to be presented at this year's EIZ symposium in Livingstone (Jackson Daka, King Bisanka and Yoba Mwale)
2. MoU between Czech Technical University (CTU) and Mulungushi University had commenced to collaborate with MU in various research areas as well as staff/student exchange programmes.
3. Civil Engineering section is involved in a number of projects under RDA

Future Research Areas

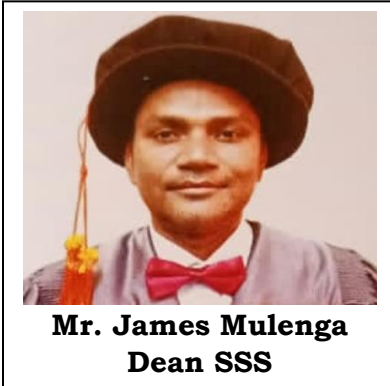
The school is working on the establishment of Artificial Intelligence Centre of Excellence under the Department of Computer Science and IT. Others include the Reverse Engineering research for the Dialysis Machine under the Department of Engineering.

Community Engagement

None

CHAPTER EIGHT

SCHOOL OF SOCIAL SCIENCES



Throughout the existence of MU, the School of Social Sciences has been one of the homes for the study of social sciences. Its distinctive academic excellence is rooted in forward thinking and continuously engaged in responding to societal needs.

The school continues to be at the forefront of offering demand driven programmes and research in the three departments, namely economic, political and administrative studies and social development studies. It continues to provide transformative programmes thus bringing in new understandings about the happenings of the world. All this is being done by instilling the belief and curiosity, boundless, creativity making our students ready for life-long learning that prepare them for the world.

Members of staff continue to be an intellectual epicenter for research through applied knowledge that not only informs but also informs decision making within the university and global society. This is all made possible by hard working academic staff and students with the school. Therefore, the school is well positioned in the pursuit of the RARE excellence in all its activities.

Research Groups

The School of Social Sciences has nine (9) research groups spread across four departments.

The following research groups and principal Investigators have been established in the school:

- i. Public Sector, Trade and Development economics Environment and natural resources, small and medium enterprises, labour markets
- ii. Health economics, demography and population studies
- iii. Development Studies
- iv. Psychology
- v. Social Anthropology and Social Work
- vi. New Public Management, Local Government Administration and Public Policy
- vii. International Peace and Security and Crisis Management
- viii. Democracy Human Rights and Electoral Governance. Mulikita

Publications

1. Kasonde KE, **Bwalya BB**, Nyirenda ET, Mapoma CC, Sikaluzwe M, Chimpinde K, Songolo GI. Association between sexual violence and unintended

- pregnancy among married women in Zambia. *BMC Public Health*. 2022 Aug; 22:1491. <https://doi.org/10.1186/s12889-022-13881-8>.
2. Banda A, Nyirenda ET, Mapoma CC, **Bwalya BB**, Moyo N. Influence of infant and young child feeding practices on stunting in children aged 6 – 23 months in Zambia. *Adv Nutr Food Sci*. 2022 Feb; 7(1), 117-127. <https://doi.org/10.21203/rs.3.rs-333111/v1>
 3. Mwansa, Y. and **Chikampa, V.**, 2022. A correlation of perceived organisational justice, job satisfaction and task performance among public service employees in Zambia. *Mulungushi University Multidisciplinary Journal*, 3(1), pp.36-43.
 4. Yusuf, U.A., Kafula, F., Kaimba, K., Kalipenta, W., Kabwe, H., Mulemena, J.A., Kamvuma, K.M., Phiri, S.B., Miyoba, M., Mesole, B.S., Phiri, A., and **Bwalya B.B.**, (2022). The Role of an Aqueous Extract of Cactus on Histopancreatic Architecture in Streptozotocin Induced Diabetes Mellitus in Wistar Rats. *European Journal of Pharmaceutical Research*, 2(2), pp.11-16.
 5. Sinvula, L., **Chikampa, V.**, **Mataka, B.** and Moonga, F., 2022. An empirical study on the influence of training on affective job commitment and employee task performance among public service workers in Zambia. *Mulungushi University Multidisciplinary Journal*, 3(1), pp.23-35.
 6. **Mwansa A**, Fundamentalism, Terrorism and Democracy: The 2003 Iraq War and the Extremism of Ideologies, *Archives of Political Science Research*, Vol 3, No.1, pp1-15
 7. Muwowo M., **Chikampa, V.** and Muyuni, A., 2022. An empirical study on the influence of social media addiction on employee engagement and organisational citizenship behaviour among public service workers in Zambia. *Mulungushi University Multidisciplinary Journal*, 3(1), pp.12-22.
 8. **Bwalya, B.B.**, Mapoma, C.C., Phiri, M., Munkombwe, B. and **Mulenga, J.N.**, 2021. Demographic and Socio-economic Correlates of Birth Registration and Having Birth Certificates. *Mulungushi University Multidisciplinary Journal*, 2(2), pp.46-60.
 9. Kiwala, J., **Chikampa, V.** and Moonga, I., 2022. An empirical evaluation of the psychometric properties of the Sherer et al. general self-efficacy scale on the Zambian sample. *Mulungushi University Multidisciplinary Journal*, 3(1), pp.44-51.
 10. Yusuf, U.A., Kabwe, H., Kafula, F., Kalipenta, W., Mulemena, J., Phiri, S.B., Miyoba, M., Phiri, A., **Bwalya, B.B.**, Luambia, I.N. and Simushi, P., 2022. Streptozotocin and diabetes: Modulatory role of an aqueous extract of cactus on kidney histo-architecture of model. *GSC Advanced Research and Reviews*, 12(2), pp.164-172.
 11. Mwansa, C., **Bwalya, B.B.** and Mwenya, R., 2021. An assessment of online learning among students of higher learning institution in the midst of COVID-19 lock down: A case study of Levy Mwanawasa Medical University in Lusaka district of Zambia. *Mulungushi University Multidisciplinary Journal*, 2(2), pp.1-10.

12. **Siachisa M**, 2022, Political transition: Policy Change and Implementation in Zambia, Routledge University Press
13. Namooobe, S., **Bwalya, B.B., Onukogu, O.B.** and **Kafula, S.**, 2021. An evaluation of the agro-dealers' role in enhancing diversification among farmers of Chibombo district of Zambia. *Mulungushi University Multidisciplinary Journal*, 2(2), pp.19-33.
14. Kalezhi, J., Chibuluma, M., Chembe, C., Chama, V., **Lungo, F.** and Kunda, D., 2022. Modelling Covid-19 infections in Zambia using data mining techniques. *Results in Engineering*, 13, p.100363.

Books

None

Book Chapters

1. **Mulenga J**, Mulenga CM submitted a book chapter on Manufacturing Sector in Zambia submitted has been accepted to be published in the book titled "Oxford Handbook on Zambian Economy"

Conference Papers/Presentations

None

Research

1. Mulenga, C.Mulenga, **Mulenga, J., Gebremekel, Y,** Nsama Musawa. Submitted a report on determinants of gender gap in financial inclusion

Consultancy

1. Chishimba S. **Mulenga J.N.**, Kasonde M.E., Shula and **Bwalya B.B.** (2022). Cost benefit and affordability analysis of clean energy alternatives/products for productive and reproductive purposes for POWER Action women beneficiaries in ten (10) provinces and thirteen (13) districts in Zambia contracted by NGOCC
2. **Mulenga J.N.**, (2022). New SME definition and model for Zambia. Contracted by ZIPAR
3. Mulenga M.C., and Mulenga J.N., (2022) Implications of BREXIT on COMESA, contracted by COMESA.
4. **Mulenga J.N.**, (2022). Trade Performance in Zambia. Diagnostic Integrated Trade Study. Ministry of Commerce Trade and Industry and Extended Integrated Framework
5. **Bwalya B.B.**, Baseline Assessment for the USAID Expanding Water and Sanitation Project conducted in four (4) provinces and twelve (12) districts of Zambia sanctioned by Research Triangle Institute (RTI)

Awards

Mr. Bwalya Bupe Bwalya and Mrs. Kunda Kaliba Chishimba awarded funding by MU as Research Fellows to pursue their PhD's at University of the Witwatersrand and University of Pretoria in South Africa respectively

Partnerships and Linkages

1. Mr Bwalya BB under the department of economics was co-opted as a Trainer/Field Supervisor for the 2022 Post Enumeration Survey under the Zambia Statistics Agency for Central Province to help collect data to evaluate the quality of 2022 Census of Population and Housing from 2nd November – 31st December, 2022.

Research Grants/Funded

1. Mr Bwalya B.B., Dr Masenga S., Dr. Katema M., Memory N., and Sendy Banda (2022). Correlates and complications of uncontrolled type II diabetes Mellitus (T2DM). CoCUT. Study.
2. Gebremeskel Y., Mulenga J.N., and Lichilo I., (2022). Household energy needs, preferences, and utilization pattern in Zambia
3. Ngongola C., Bwalya B.B., and Dr. Kombe M.C., Comparative study of factors associated with Menstrual Poverty among rural and urban Upper Primary Schools During the COVID-19 era in Kabwe District of Central Province of Zambia
4. Mwansa A., and Mauzu D., (2022). The impact of corruption and businesses regulation on performance of businesses

Externally funded Consultancy:

1. Dr MN. Mulikita was selected by the Ministry of Foreign Affairs to lead a consultancy on Zambia's Country Structural Vulnerability and Resilience Assessment (CSVRA).
2. Dr MC Mulenga led a consultancy on the Economics of Tobacco Control funded by African Capacity Building Foundation.
3. Dr MC Mulenga is also leading a consultancy on the Impact of Brexit on COMESA funded by COMESA and EU.

Collaborative Projects

1. The School initiated collaborations with the University of Fort Hare, South Africa

Future Research Areas

1. Under-five Child Survival and Associated Risks Factors in Zambia
2. Association between Sexual Violence and Unintended Pregnancy among Married Women in Zambia
3. Contraceptive use and fertility preferences among sexually active males in Zambia

4. Impact of Zambia joining AfCFTA on trade flows, revenue and welfare.

Community Engagement

Materials for COVID-19 prevention were purchased and were planned to be donated to Katuba Primary School. However, the donation was postponed to first quarter 2022 as result of both teams getting into the exam period in the last quarter of 2021.

CHAPTER NINE

MULUNGUSHI UNIVERSITY MULTIDISCIPLINARY JOURNAL

As the university continues to strive to be a leader in research and innovation, it has established a journal that has been running for the past three years, since its inception in 2020 December, the Mulungushi University Multidisciplinary Journal (MUMDJ). From the time it was launch, the MUMDJ has seen five editions published and at the time of producing this report, the sixth issue was under review. During the year under review, seven (7) publications were made in June of 2022 <https://research.mu.ac.zm/research/index.php/mu/issue/view/5>.

Notably, not only has the journal been a success in terms of publishing high quality research articles but it has also provided a platform for academicians (local and international), students and other practitioners to disseminate research information with the wider community using online platforms.

Following the successful publication of five issues, the MUMDJ was on December 8, 2022 issued with International Standard Serial Number (ISSN): 2958-3926 by the International Centre for the Registration of Serial Publications (CIEPS – ISSN International Centre).

In order to make journal even more visible, the university through the DRPS is proposing that the MUMDJ continuously be part of the announcements that appear on the university website. It is anticipated that the journal will continuously provide an avenue for people to share knowledge within the academic circles and among policy makers.