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BOTHO UNIVERSITY
INTERNATIONAL RESEARCH
CONFERENCE 2020

BOTHO UNIVERSITY INTERNATIONAL RESEARCH CONFERENCE

BOOK OF ABSTRACTS
26TH NOVEMBER 2020

CONFERENCE THEME:

**RESEARCH AND INNOVATION FOR SUSTAINABLE
DEVELOPMENT IN THE AGE OF THE
FOURTH INDUSTRIAL REVOLUTION**

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VC'S WELCOME REMARKS



Dr. Sheela Raja Ram - Botho University Vice-Chancellor

At Botho University we have been internally focused on pedagogy that seeks to build the required skills among our staff and students to think innovatively about sustainability and to apply this knowledge to solve the everyday challenges of our communities. The knowledge gained from the research presented at this conference and ensuing discussions will support the university immensely as we embark on our journey towards more student centric pedagogy that is aligned to sustainable development.

Botho University's vision is to produce graduates that contribute towards building a self-reliant and prosperous Africa. It is hoped that the theoretically and empirically based knowledge disseminated at this conference can take us one more step towards sustainable socio-economic change and improving human well-being on the continent. Based on this premise, the papers to be presented at this virtual conference seek to address a wide range of sub-themes which include: Technology, Corona Virus pandemic and Global health, Business and Industry: Solutions for a sustainable future, Virtual reality, Artificial intelligence, Digitization and sustainable innovation in the 21st century, Interdisciplinary approaches towards innovation and sustainable development in the 21st Century, Challenges in the generation and supply of sustainable energy in sub-Saharan Africa, Tourism, hospitality and sustainable socio-economic development, Digital economy and sustainability.

We are so pleased to have scholarly contributions from around the world. I must thank my colleagues for their pioneering effort in hosting this conference virtually. I want to thank the chairperson, various committee members and stakeholders that have contributed immensely in no small measure to the successful hosting of the BUIRC 2020. We are also grateful for significant contribution made towards conference sponsorship by Emerald Group Publishing, Coursera and Gabz FM and other stakeholders for their continued support toward scholarly activities. On behalf of Botho University management and staff, I welcome you all to the BUIRC 2020 conference deliberations.

THANK YOU ALL.

BUIRC 2020 INTRODUCTORY REMARKS BY

Botho University Vice-Chancellor
Dr. Sheela Raja Ram

26 November 2020

On behalf of Botho University, I am delighted to welcome conference presenters, delegates and other stakeholders to the **BUIRC 2020**. The theme of this year's conference dwells on our current concerns – 'Research and Innovation for Sustainable Development in the age of Fourth Industrial Revolution'. The ongoing pandemic has further highlighted the importance of sustainable development and it is important that this topic be debated and discussed from an interdisciplinary perspective.

ABOUT BOTHO UNIVERSITY



ABOUT US

Botho University (BU) was established in Botswana in 1997 and has rapidly evolved over the years to become a leading multidisciplinary high-quality tertiary education provider in the SADC region.

All our programmes have been developed with inputs from industry thus our graduates are ready to hit the ground running.

Botho University was one of the first local tertiary institutions in Botswana to be accredited by the Human Resources Development Council (HRDC) and by BQA in 2018 as an Awarding Body under the new BQA regulation.

All programmes are approved by the Botswana Qualifications Authority (BQA), the Council on Higher Education (CHE) in Lesotho and the National Council for Higher Education in Namibia. Botho University currently offers programmes through five faculties, namely: Faculty of Business & Accounting, Faculty of Computing, Faculty of Engineering and Applied Sciences, Faculty of Health and Education and Faculty of Hospitality and Sustainable Tourism.

All BU programmes have been developed with input from corresponding industries, thus graduates are ready to hit the ground running. Currently, BU offers qualifications from certificate level to master's degree level, with plans in place for doctoral programmes to be rolled out soon. With over 6000 students and almost 500 staff members and growing, BU is a dynamic and exciting place to be.

Botho University also offers a diverse range of programmes for in-service professionals and organizations. Under the Marketing and Corporate Training Department, there are over 200 short-term professional development programmes, which can be customized to meet the client's requirements. We are currently located in four different campuses located in Gaborone, Francistown

and Maun in Botswana as well as Maseru in Lesotho and Windhoek in Namibia.

Botho University's strategic focus is to increase student diversity by attracting international students. Apart from Botswana and Lesotho, we already have several students from other countries in the region such as South Africa, Namibia, Zimbabwe, Zambia, Democratic Republic of Congo, and Ethiopia amongst others. Botho University also has several international partnerships with well-known institutions such as the University of Venda in South Africa, Ohio University, Black Hills State University and Wayne State University in the USA, Indian School of Mines, and Manipal University in India. Students studying with Botho University have an immense opportunity to take advantage of these international partnerships through our student exchange programmes. Our students have embarked on ground breaking internship projects in India, KTH in Sweden and travelled to the USA and the UK gaining international exposure, all being part of our immense focus on graduate employability.

Botho University firmly believes in providing its students with a superior learning environment. The university has continually invested in excellent infrastructure and the latest technology driven learning resources. The Gaborone campus is well known for

being of international standard and many national and international events, such as the prestigious 2015 African Youth Games, have been held on the university premises due to the quality of the facilities. The new state-of-the art campus in Francistown sits on the banks of the Tati River and is fitted with LED lights to conserve energy.

Academic rigor combined with excellence in all extracurricular activities, ensures that Botho University graduates possess a potent combination of skills. BU is one of the top ranked sporting institutions in Botswana having won all the top accolades and championships in the country. This is not surprising because we have extensive sporting facilities for basketball, netball, volleyball, soccer, and chess.

Botho University is driven by the core values of excellence, leadership, and innovation, and aims to become a centre of excellence in higher education and a driver for positive social change. Our focus on quality has resulted in Botho University becoming the only University in Botswana with a **BOS ISO 9001:2008** certification and later upgraded to **BOS ISO 9001:2015**. With an impeccable reputation for quality in the market, Botho University graduates are leading the way in transforming the economy.

ABOUT BOTHO UNIVERSITY

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Our Lesotho Campus

The Kingdom of Lesotho is an independent country, with a population of roughly 2 million people, which has the unusual distinction of being surrounded by another country, the Republic of South Africa. It is one of the three remaining monarchies in Africa. The Lesotho Government is a parliamentary or constitutional monarchy.

Botho University has a state-of-the-art campus in Maseru Mall, with students studying across four faculties. Faculty of Business & Accounting offering bachelors degree programmes such as BSc (Hons) in Business Management, BSc (Hons) in Accounting and BSc (Hons) in Finance. Faculty of Health and Education offering BEd (Hons) in Primary Education and BSc (Hons) in Health Information Management and lastly the Faculty of Computing offering BSc (Hons) in Computing and BSc (Hons) in Mobile Computing.

Botho University's Lesotho campus is located in the beautiful capital of Maseru, which is also the largest city.

Our Eswatini Campus

Botho University is now in Eswatini, and in full operation as per the ESHEC authority in accordance with section 19 of The Higher Education Act of 2013, with effect from July 2019. BU goal in Eswatini is to offer academic programmes of high intellectual and entrepreneurial nature in fields that meet the needs of the Eswatini economy, in order to develop a nation that is already proud of its culture.

Focusing on teaching and learning, research, community engagement and internalization, Botho University Eswatini will constantly address the unique needs, competencies and characteristics of the Eswatini environment, with the ultimate goal of cementing our position as the preferred higher education institution within the Eswatini Higher Education sector.

This will be achieved through the offering of academic programmes from the Faculties of Computing, Health & Education and Business & Accounting. This approach will unearth the envisioned focus areas of business, accounting, computing, health and education. It is important that the identified focus areas need to be addressed in an all-inclusive manner to achieve the vision and strategic objectives of the University.

Our Namibia Campus

Botho University Namibia offers NCHE (National Council for Higher Education) registered programmes namely BSc (Hons) in Computing, BSc (Hons) in Business Management and BSc (Hons) in Health Information Management

The campus opened doors to students in August 2018 after duly getting registered with NCHE and has currently started its intake with a 100% scholarship to the students of Namibia.

Windhoek is the capital and largest city of the Republic of Namibia and the the social, economic, political, and cultural centre of the country. Nearly every Namibian national enterprise, governmental body, educational and cultural institution is headquartered there.

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BOTHO UNIVERSITY INTERNATIONAL ONLINE RESEARCH CONFERENCE

 26th November 2020

 9:00am – 5:30 pm CAT

 Zoom



CONFERENCE THEME:

RESEARCH AND INNOVATION FOR SUSTAINABLE
DEVELOPMENT IN THE AGE OF THE
FOURTH INDUSTRIAL REVOLUTION

SUBTHEMES:



- Technology, Corona Virus Pandemic and Global Health, Business and Industry solutions for a sustainable future



- Virtual Reality, Artificial intelligence, Digitalization and Sustainable innovation in the 21st Century.



- Interdisciplinary approaches towards innovation and sustainable development in the 21st Century.



- Challenges in the generation and supply of sustainable energy in sub-Saharan Africa



- Tourism, hospitality and sustainable socio-economic development



- Digital Economy and sustainability

GUEST SPEAKER

Ms. Myra T. Sekgororoane

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Ms. Myra T. Sekgororoane

The founder Chief Executive Officer of the Botswana Tourism Organisation in 2006, Myra rejoined the organisation in 2019 again as CEO, to re-engineer and set the organisation for future competitiveness.

Myra's professional background is in the hospitality and tourism industry. She is an experienced executive with extensive operational, strategic planning and business leadership experience of over thirty years gained in various executive positions in the hospitality and tourism industry both locally and internationally.

She has served and continues to serve as an experienced Non-Executive Director of a number of Botswana's blue chip companies.

KEYNOTE SPEAKER

Karl J. Guggenmos, MBA, AAC



Karl J. Guggenmos, MBA, AAC

Karl J. Guggenmos is the owner of Culinary Solutions International, a consulting company based in Cranston, RI. He is a World Association of Chefs Societies Global Master Chef and Dean Emeritus of Johnson & Wales University in Providence, RI. He is also on the Advisory Board to the Goldring Center for Culinary Medicine Tulane University Medical School, member of the Academic Board of At-Sunrice Global Chef Academy in Singapore and senior consultant to Healthy Meals Supreme in Princeton, NJ, which provides medically tailored meals for patients with chronic diseases.

Mr. Guggenmos earned a Bachelor of Science degree in Food Service Management from Johnson & Wales in Charleston, SC, and a Master's in Business Administration in Organizational Leadership from Johnson & Wales in Providence. Between 1988 and 2015, he held several positions at Johnson & Wales University, including university dean of culinary education overseeing the culinary programs at all JWU campuses, dean of the College of Culinary Arts at the Providence campus, and director of culinary education at the Charleston campus. Earlier in his career,

he served as chef, executive chef, manager, and owner of various restaurants and other culinary concerns in various locations in the United States and West Germany.

For several decades, Mr. Guggenmos has been involved in a wide array of culinary consulting projects. Representative activities include consulting on the design of a teaching kitchen for Tulane Medical School; kitchen design and menu planning for Wentworth Mansion, Texas Steak House and Saloon, and Carolina Ice Palace; and recipe development for Beefalo dishes for

Bear Claw Ranch in Wyoming. His most recent projects include participating in the 2018 Food Meets Health Conference at Tulane Medical School, as well as judging the National ProStart culinary skills competition, International Young Chef Olymiad in India and International Young Chaine'de Rotisseur's international Young Commis Competitions. He served on Advisory boards to Tyson Foods and Starbucks. He has been a keynote speaker at a wide range of international conferences, including the National Conference for Food Protection, The U.S. Army Quarter Master General Conference, Gourmet Abu Dhabi, and the World Gourmet Summit in Singapore, among others.

Mr. Guggenmos is a recipient of the Chaine des Rotisseurs Silver Star Medal, the Presidential Medallion of the American Culinary Federation, and the Diplome of Honor of the Academie Culinaire de France. In 2015, he was named an Education Ambassador of Rhode Island. He was also a torch bearer of the 2002 Olympic Games

PANELISTS



Mrs. Sethebe Manake

Founder and director of Vantage Properties, Sethebe Manake has been in the real estate industry for over 14 years, in various management roles in listed companies including as CEO of Letlole La Rona in Botswana. Sethebe sits on various development boards including the Kweneng District Physical Planning Board, the Local Enterprise Authority board. She has previously chaired the Business Botswana Sector Committee, the Botswana National Youth Council Stakeholders Engagement Committee, sat as Vice President of the Real Estate Institute of Botswana and Secretary General of the Women In Business Association of Botswana.

A chartered surveyor in Real Estate Investment and Finance with the Royal Institute of Chartered Surveyors. She holds an undergraduate degree in property studies from the university of cape town and a Masters Degree in Strategic Management from the university of Derby. Sethebe has several certificates in Business Center Development and Investment Management for Developing countries.

Sethebe is a strong believer that real estate data, though a largely scarce resource across the continent, is the solution to all the affordable housing and general resolution of development related problems in Africa.

Vantage Properties is leading the transformation of the real estate industry with their robust automated valuation platform, transitioning the valuation process

from manual to virtual promoting objective, reliable property valuations, democratizing real estate information and optimizing business efficiency for the value chain stakeholders.

A winner of the Business Excellence Award for Women in Male Dominated Industry 2016, Conferred Global Female Impact Award 2017, Top 100 Women In Developing Countries to Watch in 2018.



Mr. Labi Kapo

Labi Kapo is a Master Goldsmith (Diamond Mounter) who learned his craft in London - one of the first Africans to work in the UK jewellery industry. Boasts 44 years' experience in the jewellery industry at bespoke level of manufacturing and clientele. An Entrepreneur and CEO leading Akapo Jewels (Pty) Ltd in South Africa for 18 years. The company that Labi heads (Akapo Jewels) is an accredited training and services provider for ten years as well as an ISO 9001 certificated company that offers specialised training to the youth of the continent of Africa and Internationally. A specialist in Platinum techniques and antique jewellery as well as rare artifacts.



Mr. Oabona Kgengwenyane

Mr. Oabona is a trained Strategy and Project Management Facilitator with over 16 years experience. He has coupled this with being an entrepreneur having founded both X-Pert Group in Botswana and InnoLead Consulting to become one of the leading consulting firms in Botswana. Mr. Oabona aims to steer InnoLead Consulting to becoming the management company of choice in the Botswana market on Programme/Project Management and Strategy Consulting. This will be achieved through a leading team of Botswana citizen consultants who are dynamic, passionate and highly qualified in their areas of focus.

Mr. Oabona has facilitated complex strategy and projects for blue chip organisations in Botswana in the Mining, Financial, Government and Parastatal organisations. He has directed PMO implementations for mining companies and government ministries including advising on construction projects' project management governance, systems and controls. He has been invited as guest speaker at international events such as the 2004 JCI Conference in Fukuoka Japan where the speaker line-up included Steven Covey.

Specialties: Strategy Programme Management, Project Management, Change Management, Scenario Planning, Strategy and Project Facilitation, PMO Consulting, Performance Management, Balance Score Card, Technology Management and Cattle Farming

PANELISTS



Mr. Oabona Kgengwenyane

Victor Shabani holds computer science majors in electronic commerce and business management, with over 14 years' extensive business experience in the ICT space as a computer system engineer, ICT Consultant, technology entrepreneur and thought leader. (SEE CV Attached For areas of knowledge)

He has completed courses on Cloud Services and Architecture, NFC and RFID Technology, Blockchain Technology, Internet of Things, Digital Transformation, Business Intelligence, Big Data and Data Science. He is currently on an MIT SMR Leadership Development programme, and is taking Artificial Intelligence plus Machine Learning courses.

Mr. Shabani consults and advises clients on digital transformation, digital economy strategies, and approaches, models, as well as helping them transition the businesses into the evermore disruptive 4IR. Part of his current work involves the delivery of best in class Performance Management Systems as well as Learner Management Systems for enterprise clients in the private and public sector.

Mr. Shabani has a long history of driving conversations on national radio as a technology thought leader on digital transformation and emerging technology trends. He continues to actively take part in conversations at local and international conferences such as the 2018 International ICT For Sustainable Development Conference and the 2019 Dakar African Union (AU) Electronic Commerce Conference

among others, where he participates as a panellist and/or discussant.

More than anything else, Victor identifies first and foremost as an entrepreneur, and currently holds a 2010 Ministry of Trade Award for Best Youth-Led Business in the Service Providers Sector. Victor Shabani is a strong innovator, problem solver and business strategist who is intimately active on advising various technology projects and start-ups businesses.



Prof Izael Pereira Da Silva

Professor Da Silva is a renewable energy specialist with over 20 years of experience in research and academic leadership. Currently, he is a Professor and the Deputy Vice-Chancellor for Research and Innovation at Strathmore University. He holds a PhD and a Master of Science (MSc) in Electrical Engineering, with a specialisation in Power Systems, from the University of Sao Paulo, as well as a Bachelor of Science (BSc) in Electrical Engineering, with a specialisation in Power Systems and Telecommunications, from the Federal University of Parana.

A qualified engineer, he is a member of several engineering societies both within and outside Africa. He is also a Certified Energy Manager with the Association of Energy Engineers (AEE), and an Accredited Energy Auditor with Kenya's Energy and Petroleum Regulatory Authority (EPRA).

Over the years, he has worked with government ministries, development agencies (like GIZ, Sida, the World Bank, etc) and industry stakeholders (within and outside Africa) in research and research-related projects, with the objective of deepening the linkage between industry and academia. His research interests are renewable energy, the Sustainable Development Goals (SDGs), energy efficiency, climate change mitigation and adaptation, demand-side management, energy conversion, energy utilisation and conservation, renewable energy technologies, and renewable energy policies. He has written and published extensively on Renewable Energy and Energy Efficiency.

BUIRC 2020 LOCAL ORGANIZING COMMITTEE



Mr. Ravi Srinivasan	(Pro-Vice-Chancellor & Director-Internationalisation & Communication)
Dr. Ivy Rose Mathew	(PVC- Academics & Quality)
Mr. Golekanye Setume	(DPVC –Communications)
Mr. Tom Ochieng Atonga	(Senior Manager - Library, Teaching & Research Excellence Department)
Mr. Arun Gandhi	(Senior Manager–Marketing Communications and Corporate Training)
Mr. Brighton Banda	(Senior Team Leader : Blended and Distance Learning Campus)
Prof. Olumide Jaiyeoba	(Head of Department of Graduate Studies in Business and Accounting)
Mr. Alois Mhundwa	(Assistant Manager – Library ,Teaching & Research Excellence Department)
Mrs. Thokozile Dumedisang	(Assistant Manager – Marketing communications and Corporate training)
Ms. Olivia Nthoi	(Senior Lecturer : Faculty of Hospitality and Sustainable Tourism)
Mrs. Keitumetse Sono	(Lecturer: Faculty of Health and Education)
Ms. Kate Nkoko	Team Leader- Library ,Teaching & Research Excellence Department
Mrs. Catherine Mogotsi	(Senior Librarian- Library ,Teaching & Research Excellence Department)
Mrs. Kelemwork A. Kassahun	(Senior Librarian- Library ,Teaching & Research Excellence Department)
Lesego Jay	(Assistant Librarian- Library ,Teaching & Research Excellence Department)
Mr. Lesego Lefatlho	(Technical Officer - Blended and Distance Learning Campus)

REGISTRATION LINK AND PAYMENT INFORMATION

BUIRC

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INTERNATIONAL RESEARCH
CONFERENCE 2020

BUIRC Registration Link:

<https://mailchi.mp/117d813711d2/buirc-26th-november-2020>

Botho University Banking Details.

Account Name: Botho University (Pty) Ltd

Bank Name: First National Bank (FNB)

Account Number: 6212 861 4527

Branch Code: 284567 (Kgale View)

Swift Code: FIRNBWGX

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PAPER PRESENTERS

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Dr. Maria Inês Pinho

(Cultural and Social Studies Department, IPP
– Escola Superior de Educação (Portugal))



Prof. António Abreu

Adjunct Professor at Information System
Department, IPP- Instituto Superior de
Contabilidade e Administração, (Portugal)



Prof. João Vidal de Carvalho

Adjunct Professor at Information System
Department, IPP- Instituto Superior de
Contabilidade e Administração, (Portugal)

TITLE OF THE PAPER:

The use of new technologies in Dark Tourism processes: the case study of the Portuguese chapels of bones

ABSTRACT:

The year 2020 will forever be known for the appearance of the pandemic COVID-19. With such a phenomenon, the use of technologies started to make even more sense. Indeed, and suddenly, in March of the same year, individuals were forced to avoid socializing and to cancel or drastically reduce tourism practices. This sector of the Economy, which helped countries like Portugal both to get out of the financial crisis known as Troika, is now entering a technical bankruptcy without the support of the other sectors of the Economy. Tourism seems to be forgotten, while financial resources are drained for

the health sector and for the search for a miraculous vaccine.

At the same time, the word “death” returns to daily conversations, in parallel with other words such as confinement, protection, mask or hand washing. This phenomenon that is so fashionable in the arts (through the “still lifes” current) and in the European baroque culture of the 16th and 17th centuries, seems to emerge again. And with that the practices of Dark Tourism. Among these practices, visits to bone chapels stand out. Before the pandemic, such visits were organized using a research service such as “google maps”. The impossibility of going

to the sites personally requires that they adhere to the use of technologies applied to Tourism. Among them, the ArcGIS / ESRI application stands out. The present work intends to demonstrate that the use of technologies can be one of the arguments for the sustainability of Dark Tourism, as well as in the script of the Chapels of Bones.

KEY WORDS:

Dark tourism, Chapels of Bones, ArcGIS/ ESRI application, Covid-19, Death.

PAPER PRESENTERS



Mrs. Arundhathi Thangeda

Arundhathi is a senior lecturer at Botho University in the department of Health Information Management under the Faculty of Health and Education. She holds a Master's degree in Science (M.Sc.-Zoology) from Osmania University in India. She has a Master's in Education from Alagappa University, India and a Master's degree in Arts (M.A.-English)



Mr. Bokamoso Ephraim Masikara

Mr. Masikara holds a Bachelors of Sciences (Hons) in Health Information Management from Botho University. He currently serves in one of the largest Private Hospitals in Botswana and also serves in different committees of an organisation set to promote and advocate for the development and nurturing the health information management sector in Botswana



Mr. Oaitse Hubona

A young health information management professional currently working at the ministry of Health Headquarters as a health assistant officer-monitoring and evaluation. Oaitse is the co-founder of Botswana health information Association Management and Youth African Leaders Initiative (YALI) graduate/alumni, cohort9.

TITLE OF THE PAPER:

Knowledge, Attitude and Practice Towards COVID-19 Among the Public in Botswana: A Cross-Sectional Study.

ABSTRACT:

The cases of COVID19 in Botswana are increasingly going high in an alarming rate despite the implementation of the stringent measures such as extreme social distancing, regulations that enforce wearing of masks, taking of temperature at every facility, contact tracing as well as mandatory quarantine at the points of boarder entry. Factors associated with the skyrocketing of COVID19 are not yet established, however the studies in other countries have been attributed to social behavioral attitudes, knowledge, and practices by the society. This study sought to investigate knowledge, attitudes, and practices toward COVID19 by Batswana. The cross-sectional study was used to

collect data, thanks to the online survey that captured data from 224 participants. To assess and abstract percentage, and identify factors associated with knowledge, attitudes, and practices toward COVID-19 the data was run through graphs facilitated by Microsoft excel. The results of this study showed that the participants were knowledgeable albeit there are factors that led to that have been discussed herein; the COVID19 knowledge percentage score was 62% indicating high level of knowledge. The attitudes percentage score was 60.5% score demonstrating positive attitudes by the participants. It has been established through this study that women have higher knowledge, a negative attitude, and fewer practices toward COVID19 relative to men.

The study also established that adults have better KAP relative to the youth. The results abstracted from this study has brought to light the gaps that should be closed; interventions to address the vulnerable groups like men and youth so to improve their KAP toward covid19, that is the group the study has shown they are at risk. Community outreach programs like health education and promotion should be initiated tailored to the vulnerable groups to reduce the spread of COVID-19 and save lives.

KEY WORDS:

Attitude, Knowledge. Practices, COVID-19.

PAPER PRESENTERS



Bertha Nametso Tema

Bertha is a seasoned professional with outstanding skills in applied research and evaluation in Biological Sciences, such she acquired from her qualification as a Bachelor of Science (Microbiology and Biochemistry) graduate from the University of Cape Town. Moreover, she holds a Master of Science qualification in Applied Microbiology (Food Microbiology)



Mr Pearson Chaurura

Pearson is currently the Head of Department and a Senior Lecturer in the Faculty of Health and Education, Department of Health Information Management at Botho University. He oversees departmental operational activities of 5 campuses (Gaborone, Francistown, Lesotho, Namibia and – Eswatini). He is currently pursuing his PHD studies in Microbiology and holds three master's degrees in applied microbiology, Business Administration and Education (Higher Education)

TITLE OF THE PAPER:

Aeromonas hydrophila in tilapia (*Oreochromis niloticus*) and catfish (*Clarias lazera*): A potential public health risk in Botswana.

ABSTRACT:

Fresh tilapia (*Oreochromis niloticus*) and catfish (*Clarias lazera*), just like in many parts of the world, is a common relish in Botswana. These fish are sourced from many fishermen in informal fish markets across Botswana.

The degree to which water beds are contaminated, which is caused by human and animal activity, and how fish is handled during and after fishing, greatly influences the microflora of fish. And amongst the common constituents of the microbial population, is the pathogenic rod-shaped gram-negative anaerobic *A. hydrophila*. Therefore, in this study fresh tilapia and

catfish from informal markets in Botswana was collected; to establish *Aeromonas* Plate Count (APC), to study the antibiotic patterns of associated *A. hydrophila* as well as detect for virulence genes. 140 samples of fish were collected and analyzed; high prevalence of *A. hydrophila* was discovered, with Gaborone acquired fish showing higher microbial loads than the Maun collected fish.

Moreover, tilapia had higher microbial prevalence than tilapia. 94 *A. hydrophila* isolates were identified by the API 20 E strip test. 25.5% of the isolates showed multiple-resistance Oxacillin, Novobiocin, Penicillin G, streptomycin and Tetracycline while 1.1% showed joint-resistance to Oxacillin, Novobiocin, Penicillin G and Streptomycin.

60.6%. Furthermore, All *A. hydrophila* isolates were also proven to possess the virulent genes; hemolysin *asa1*, extracellular hemolysin *ahh1*, heat-stable cytotoxic enterotoxin *ast* and cytotoxic enterotoxin *act*, using multiplex PCR. Fresh tilapia and catfish associated *A. hydrophila* that possess these virulent genes as well as antimicrobial-resistance, posing as a significant public health in Botswana where fish are widely consumed.

KEY WORDS:

Fish, *Aeromonas* load, *A. hydrophila*, Multi-joint-antibiotics resistance, Virulence factors

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Mr M. T. Gombiro

Mr M. T. Gombiro: has worked as a lecturer in Business Management for the past 6 years. His current postgraduate research is on Customer Relationship Management (CRM) in Service SMMEs. His research interests are in Brand Management, Consumer Behaviour, Customer Relationship Management (CRM), E-commerce and Digital Marketing. He has taught courses such as Marketing Management, Strategic Marketing And E-Business



Dr. Chinandu Mwendapole

Dr. Chinandu Mwendapole has a Bachelor Degree in Industrial Design, Masters in Design Manufacturing and a PhD in Design Knowledge and Intellectual Property Rules". Her research interests include knowledge and rights, cultural knowledge and the design process, design entrepreneurship, innovations systems and models. . She has published articles in the: Journal of Design and Technology Education: International Journal; PULA: Botswana Journal of African Studies; and the International Journal of Cultural and Creative Industries. In addition, she has two book chapters to her name.



Dr. Suresh Shanmugasundaram

Dr. Suresh Shanmugasundaram has been serving as academician and researcher for about two decades and is currently working as Professor, Department of Engineering under the Faculty of Engineering & Applied Sciences at Botho University, Botswana. He graduated his Bachelor of Engineering in Computer Science & Engineering from Bharathiar University, India. Then he graduated his Master of Science in Computer Networks from Middlesex University, London. His areas of interest include Grid Computing, Cloud Computing, Hive Computing, High Performance Computer Networks, Distributed Computing and Engineering Education. He has represented various International Conferences as International Technical Committee Member, Sessional chair and keynote speaker.



Mr Shashikanth Gosada

Mr Shashikanth Gosada: has Bachelor Degree in Jewellery Design and Management from Manipal University, India and a MBA in Operations Management. He also worked in the Gold and Diamond Jewellery Industry for 4 and Half years. He co-authored a book titled: Factory at your Desk by Shashikantha Gosada and Adithya Acharya Lambert Publications.

TITLE OF THE PAPER:

Purchased in Botswana: A study on the Purchasing Patterns of Inland Tourists visiting Botswana.

ABSTRACT:

The main purpose of this study was to gain an understanding of international tourists purchasing patterns of jewellery in Botswana. The secondary objectives were to determine the type of jewellery tourist's purchase, the retail outlets they purchase from and the factors behind their purchasing patterns and preferences. The study made use of a quantitative methodology utilizing an inland tourist exit survey administered at Botswana's main exit points main between September–October 2019.

The population of the study included international tourists visiting Botswana for wildlife, shopping, business and recreational tourism. The findings showed that the majority of international tourists who bought jewellery were married, business and wildlife tourists. The types of jewellery that they purchased the most included fashion neckwear, diamond jewellery and precious jewellery neckwear. The major factors behind customer's preferences towards Botswana jewellery included design, price, sentimental value, workmanship, quality, brand name, innovation, craftsperson reputation, and store environment. In terms of purchase locations, most international tourists brought from branded Jewelry stores clothing stores and street stalls. Further analysis and other findings are also discussed, and recommendations for future research are put forth in this study.

KEY WORDS:

Shopping Tourism, Jewellery, Inland tourism, Purchasing patterns

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Dr. Kabelo L. Mauco

Dr. Kabelo L. Mauco holds a PhD in Telemedicine from the University of KwaZulu-Natal Durban, South Africa. An avid e-health researcher with research interests focused on creating evidence and policies to guide the implementation of e-health in developing countries. With several journal publications and conference presentations on the subject matter, Dr. Mauco has also contributed a book chapter titled "Telemedicine in low resource settings: a case for Botswana" In Health information systems and the advancement of medical practice in developing countries. He is also a regular reviewer for the Journal of Medical Internet Research



Mrs. Julia Tshabang

Mrs. Julia Tshabang holds an MSc in Applied Microbiology (Environmental) from the University of Botswana. Her research interests include environmental influences on health and disease. Some of her previous work include; Effects of the wet and dry cycles on alkaline phosphatase in soils of the Okavango Delta, Prevalence of Candidiasis in Gaborone, Investigation of Klebsiella outbreaks in the Neonatal ward at Princess Marina, Lead poisoning in under 5-year-old children in Botswana



Mrs. Arundhathi Thangeda

Mrs. Arundhathi Thangeda is a senior lecturer at Botho University in the department of Health Information Management under the Faculty of Health and Education. She holds a Master's degree in Science (M.Sc.-Zoology) from Osmania University in India. She has a Master's in Education from Alagappa University, India and a Master's degree in Arts (M.A.-English) from Kakatiya University in India. She presented research papers at various conferences and has done few publications. Arundhathi's research areas of interest include Education, e- Health and Environmental studies.

TITLE OF THE PAPER:

Critical Analysis of Parenting Apps to Prevent Unintentional Injury in Newborn Babies and Toddlers: Suitability for Application in the context of a Developing country.

ABSTRACT:

Injuries have been documented as a major killer of children worldwide. In Sub-Saharan Africa, unintentional death rates among children and teenagers are the highest in the world. According to the world report on child injury prevention, these deaths may be attributed to unintentional injuries such as traffic injuries, drowning, poisonings, burns and falls. Due to varying cultural and socio economic factors existing in both developing and developed countries, causes of child unintentional injuries may differ.

Provision of anticipatory guidance for parents has been recommended as an effective strategy to prevent injuries among young children. Organisations such as WHO, UNICEF and CDC have also launched various programs targeted at child and adolescent injury prevention. Recent developments have also seen various stakeholders presenting technology based child injury prevention apps with varying success. The aim of this study is to conduct a structured literature review and critical analysis of published studies on technology based interventions for unintentional child injury prevention; and to determine if any are suitable for use in the context of a developing country such as Botswana. A search was conducted in three databases; Google, Google Scholar and EBSCOhost to locate relevant studies on the subject matter. Inclusion

criteria were; full paper, English language and peer reviewed. Search terms used were; "child injury", "child injury prevention", "child injury AND apps", "child injury prevention AND apps", "e-health AND child injury prevention", "injury prevention AND apps". Only the first 100 Google and Google scholar links were reviewed. The final papers to be included for critiquing will be based on a consensus by all the authors. Since this is an ongoing study, results are not yet available.

KEYWORDS:

accidents and injuries, developing countries, e-health, unintentional injury, child development

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Dr Robert Pfumbudzayi Machera

Dr Robert Pfumbudzayi Machera is currently working at Botho University in Botswana as Dean Faculty of Business and Accounting. He has a passion in computerised accounting software and digital platforms, as evidenced through certifications in Sage Pastel Accounting, Digital Teacher (e-Teacher - Blackboard) and FinTech Disruptive Innovation: Implications for Society. He has been awarded a Golden Key membership certificate for top academic performer at postgraduate level (PhD) class of 2020 at North West University Mafikeng Campus, in South Africa. His doctoral thesis focused on developing a framework

to enterprise risk management and sustainability in micro-lending companies in Botswana. The topics and themes covered in his thesis are in the areas of micro-lending companies, financial reporting, audit and assurance, entrepreneurship, corporate governance, and sustainability in business enterprises. His research work has been published in renowned international journals and he has presented on national, regional, and international conferences.



Prof. Wedzerai Musvoto

Prof. Wedzerai Musvoto is a Professor of Finance at North West University - Mafikeng Campus in the School of Business and Governance. The following are his qualifications: BCom Accountancy, Bachelor of Accountancy Honours (BACC-Hons), MCom - Finance, PhD in Finance, CIMA and ACCA. He is a Member of the Institute of Directors of Southern Africa. He subscribes to Membership of the Golden Key International Honour Society. He has been given 5 awards for the best paper writing in renowned international journal articles. He has published more than 30 peer reviewed journal articles. He has supervised significant number of both Masters and PhD students

TITLE OF THE PAPER:

MICRO - LENDING IN BOTSWANA: PERCEPTIONS AND VOICES TOWARDS BUSINESS CONTINUITY.

ABSTRACT:

This paper focuses on the perceptions and voices towards determining challenges which contribute to the closure of micro lending entities in Botswana. In recent years there has been a sharp decrease in the number of micro-lending companies in Botswana. In Botswana, micro-lending companies have decreased from a total of 993 to 243 from the periods 2009 to 2013. Botswana's economy is dependent on small businesses. This decrease represents a significant threat to the country's economic

growth. The study employed a qualitative research design. Interviews were used for data collection. Thematic analysis was used to summarize the data. The results indicated that management in this sector applied autocratic leadership which affected employee morale and productivity. Furthermore, the results have shown that the sector did not consider employee empowerment and recognition as factors which motivate employees and drive an enterprise. Finally, the results indicated that majority of micro-lenders were not using accounting as a tool for decision-making. The study recommends the use

of transformational leadership in the Non - Bank Financial Institutions Sector. In addition, micro-lenders may adopt the use of Capital Adequacy Ratio, in which cloud computing could flag non-performing ratios and going concern problems on a daily basis.

KEYWORDS:

Micro-lending; enterprise risk management; performance; growth; competitiveness; going concern and Capital Adequacy Ratio.

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Shantha Indrajith

Shantha Indrajith, Senior Lecturer, Botho University, Botswana.

With a blend of experience of 28 years in the academy and the industry as a lecturer, practicing lawyer, accountant & Manager, he has authored four books for Institute of Chartered Accountants of Sri Lanka (ICA-SL) & Association of Accounting Techniques of Sri Lanka (AAT-SL) and presented and published research papers at international conferences and journals. He has got academic & Professional qualifications in three disciplines, Law, Management & Accounting. Law graduate (LLB) of University of Colombo, Sri Lanka, International Management –MBA(UK) from University of Wales



Prof. Fulu Netswera

Prof. Fulu Netswera, Executive Dean, Faculty of Business Management Durban University of Technology With more than 22 years of experience within the higher education, research and innovation sector, in Qualitative Social Research, Quantitative Social Research and Sociological Theory. He has supervised more than 17 postgraduate students and continues to supervise at TUT, UNISA, University of Limpopo, Durban University of Technology and Cape Peninsula University



Prof Jan. A Meyer

Prof Jan. A Meyer is a Professor and the Deputy Director of the NWU Business School; North West University, responsible for coordinating Teaching and Learning for the School across the three sites of delivery. He completed his South African Air Force career (21 years) as the Logistics Coordinator, AFB Swartkop with the rank of Colonel. He holds a PhD from the University of Pretoria (2002), Masters in Business Leadership from UNISA (1995), Certificate in Logistics Management from the University of Pretoria (1991) and a Bachelor's Degree in Political Science (UNISA, 1990).

TITLE OF THE PAPER:

Networks and Networks of Innovation for Green Knowledge and Innovation with Mode 3 and Quintuple Helix Model.

ABSTRACT:

Social problems such as green knowledge and innovation, poverty, hunger are complex problems. Both scientific and non-scientific knowledge together can resolve them. Even though nonlinear research has a greater impact, universities conventionally produce linear knowledge and innovation with Mode 1. The remedy is to reconfigure the conventional system enabling the production of green knowledge and innovation needed for sustainable development in Knowledge-based economies.

There are two types of tools that can be developed in this regard, managerial tools

or system tools. The proposed system tool called the networks of innovation was developed under the system theory. It enables the reconfiguring of the conventional knowledge production process. The reconfiguration facilitates creating green knowledge and innovation with Mode 1, 2, 3, Triple Helix Model, Quadruple Helix Model, and Quintuple Helix Model.

The proposed system tool was developed with the secondary data collected from the documents and primary data collected from universities' internal stakeholders under the interpretivist approach. Accordingly, eight subsystems with their rationale and their elements were identified first. After

that, the monitoring and control system was designed. Finally, all subsystems were integrated as an Innovation Network of Green University system. The system so developed is significant in many respects. Users of the system enable understanding of how subsystem elements interact with each other; How subsystems interact and interdependent with each other, and how subsystems respond to the micro and macro environment changes.

KEY WORDS:

System theory, Managerial tools, System tools, Innovation Network, Mode 1, Mode 2, Mode 3, Helix Models.

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Mr Isaac Chidaura

Mr Isaac Chidaura is a Senior Lecturer & Director of Research at Awil College, Gaborone. His areas of specialization are acting, narrative, scriptwriting, and directing for both stage, film and TV. Chidaura has more than 10 years of University teaching & Research experience. He is a PhD scholar in Creative and Performing Arts

TITLE OF THE PAPER:

AN EXPLORATION OF FORMS OF DIGITAL PIRACY USED BY PIRATES IN THE ZIMBABWEAN MUSICAL THEATRE INDUSTRY.

ABSTRACT:

Contemporary Afro-Zimbabwean digital musical arts piracy has reached unprecedented levels in Zimbabwe. In response to the scourge of piracy and in an effort to complement both the NACZ and the government, this study serves to investigate forms of digital piracy that exist in the Zimbabwean musical theatre industry. This study is grounded in two theories: Intellectual Property Rights (IPR) theory and by Indigenous Knowledge Systems (IKS) theory. Data was gathered through focus group discussions, questionnaires, in-depth

open-ended interviews and participant observation. Data was also collected through a study of digitally pirated music video tapes, tape recordings, television programs on digital musical related piracy, radio programs on digital musical theatre piracy, interviews, live theatre/film and band performances, and an organizational survey of digital musical arts piracy. The literature survey included sources such as books, journals, newspapers and organizational records on internet reports, as well as the NACZ and Zimbabwean government regulations. The major finding of this research is that, digital musical piracy in the Zimbabwean

musical arts industry could be categorized into three groups which are; identity piracy, end-user piracy and commercial piracy. The study recommends Zimbabwean legislature to effectively administer, manage and enforce copyright in order to curb piracy for sustainable development of the creative arts industry.

KEY WORDS:

Forms, digital piracy, Zimbabwean, musical theatre arts, pirates, exploration.

PAPER PRESENTERS

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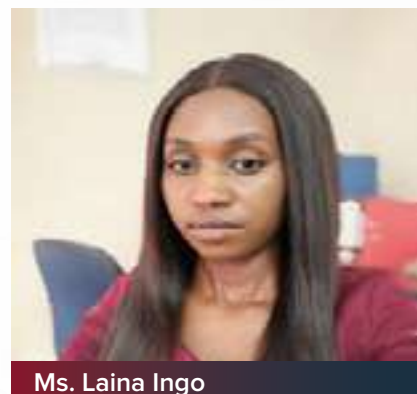
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Pearson Chaurura



Ms. Daphney Shiningeni



Ms. Laina Ingo

Pearson Chaurura.- PHD Microbiology (in prog); MSc Applied Microbiology; MEd Higher Education; MBA; BSc Applied Biology & Biochemistry; PGDHE, PGDM, CSM. Mr Pearson Chaurura is currently the Head of Department and a Senior Lecturer in the Faculty of Health and Education, Department of Health Information Management at Botho University

Ms. Daphney Shiningeni is a lecturer for Health Information Management at Botho University Namibia. She has a BSc in Microbiology and a master's degree in Microbiology obtained from the University of Namibia in 2014 and 2017 respectively. She obtained a Postgraduate Diploma in Education from the International University of Management in 2018. She has published one article entitled the Prevalence of pathogenic bacteria in street vended ready-to-eat meats in Windhoek, Namibia.

Ms. Laina Ingo obtained her Master's degree in Medical Biochemistry from JSS Academy of Higher Education and Research in India. Her master degree focused on the study of MicroRNAs as diagnostic markers for bacterial sepsis and its correlation with patient outcome. Currently she is a lecturer at Botho University, lecturing Health Information Management modules.

TITLE OF THE PAPER:

EXPRESSION OF MICRORNAS IN A SET OF ICU SEPSIS PATIENTS:
A CASE STUDY OF AN INDIAN HOSPITAL

ABSTRACT:

Sepsis represents a serious medical condition characterized by a whole-body inflammatory state called systemic inflammatory response syndrome, which is caused by a suspected or proven severe infection. MicroRNAs are small non-coding proteins, which regulate gene expression at post-transcription level and have been used as diagnostic and prognosis markers of sepsis. The study investigated the expression of selected miRNAs in sepsis patients and compare it to that of normal health controls and correlate the level of miRNAs expression with severity of sepsis and outcome. MiR-21, MiR-150, MiR-155, MiR-181b, MiR-125b and MiR-133a were

studied. The expression of miRNAs was assessed using qRT-PCR. The expression of the target miRNAs were normalized to the reference internal control primer (U6) and relative to the controls. Expression of each miRNAs in relation with clinical outcome during the management of sepsis was compared statistically to conclude the miRNA profile pattern in sepsis.

The comparison between cases and controls showed that, there was a statistically significant decrease in the cases when compared to controls on day 1. There was a positive correlation between the miR-155 and SOFA score but it was not statistically significant ($P=0.744$). However, miR-21, miR-150, miR-181b, miR-125b and miR-133a

showed a correlation negative and it was not statistically significant. The microRNAs showed no statistically significant difference between day 0, day 3 and day 7.

The results showed that miR-155 had a positive correlation and miR-150 had a negative correlation when compared to the SOFA score. All the miRNAs were upregulated. This might be due to small sample size.

KEY WORDS:

miRNA, sepsis, intensive care unit, gene expression, real-time PCR

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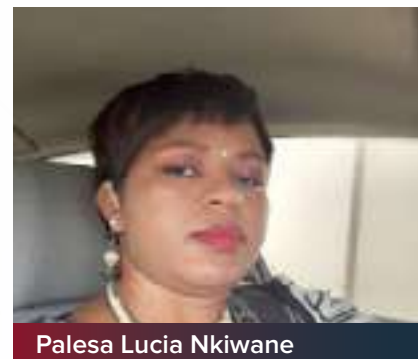
Lihotetso Gloria Matee

Lihotetso Gloria Matee is currently a Communication and Study Skills Lecturer in the Faculty of Health and Education at Botho University in Maseru-Lesotho. She has been in the teaching profession for over 12 years. She holds a Master of Arts in Education Degree from National University of Lesotho where she did Advanced Curriculum Studies and Language Education in 2019. She also has a Bachelor's Degree in Education from National University of Lesotho where she majored in English Language and African Languages in 2005. In addition to her professional role as an educator, she is one of the founding members of Sesi website. Sesi is a website meant to assist individuals interested to learn Sesotho Language, culture and tradition.



Nthabiseng Motlohi

Nthabiseng Motlohi is a lecturer in the Faculty of Health and Education in the Department of Health Information Management at Botho University, Maseru Campus. She holds a Master's degree in Pharmaceutical Sciences (Biopharmaceutics) and a Bachelor's honours degree in Pharmacy. Nthabiseng has a career that spans a decade in pharmaceutical manufacturing, retailing, teaching and research. She has presented her research findings at local and international conferences since 2014.



Palesa Lucia Nkiwane

Palesa Lucia Nkiwane is a Sociolinguist, a Language Practitioner and a Senior Lecturer as well as an academic Counselor. She teaches Communication and Study Skills in the Faculty of Health and Education at Botho University Maseru-Lesotho. Palesa has 16.5 years' experience in tertiary institutions teaching where she has held positions from Lecturer, Senior Lecturer and a Coordinator of the Communication and Study Skills Department. She has worked in different tertiary institutions. In various leadership and individual contributor roles, her responsibilities include; Module designing, lecturing, departmental coordinating as well as academic advising and counseling.

TITLE OF THE PAPER:

EMERGING PERSPECTIVES AND CHALLENGES FOR VIRTUAL COLLABORATIVE LEARNING IN A TERTIARY INSTITUTION: A CASE OF LESOTHO.

ABSTRACT:

The current study seeks to investigate the emerging perspectives and challenges which lecturers and students in the Faculties of Business and Accounting (FBA), Health and Education (FHE) and Computing (FOC) encounter in utilising Virtual Collaborative Learning during their classes in one accredited Institution of Higher Education in Maseru district Lesotho. The study will adopt a dual-theoretical framework in order to validate the findings.

The study will be buttressed by constructivism paradigm, qualitative design as well as qualitative case study. Purposive sampling technique will be employed in this study. A sample of fifteen (15) FBA students, fifteen (15) FHE students, fifteen (15) FOC students and, five (5) lecturers from

each faculty will be used as participants of the study. This qualitative case study will be based on online questionnaires with the participants for data collection. Data will be generated based on the themes which will emerge. Based on the findings, it will be concluded as to whether or not the use of Virtual Collaborative Learning as a student-centred technique in institutions of Higher Education is of essence.

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Prof Ushe Makambe

Prof Ushe Makambe is an Associate Professor in the Faculty of Business and Accounting at Botho University, Botswana where he has been teaching for the past 13 years. His research focuses on knowledge management as business strategy, organisational and authentic leadership, marketing of services, general management, and the role of higher education in the social and economic development of Botswana. He has published a book and about 35 research articles in peer-reviewed journals including Emerald. Ushe has also presented papers at peer-reviewed research conferences in Spain, South Africa, Ghana, and Botswana. He has successfully supervised over 15 master's dissertations since graduating with a doctoral degree in 2017 with a good number scoring distinctions.



Ms Gaobotse Ngwisanyi

Ms Gaobotse Ngwisanyi is a secondary school teacher in Mathematics. She is currently teaching at Gaborone West Junior Secondary School in Botswana. She started teaching in 2004 after graduating with a Diploma in Secondary Education from Molepolole College of Education. She completed her Bachelor's Degree in Secondary Education with the University of Botswana in 2015. In 2019, she graduated with the Commonwealth Executive Master's in Public Administration with the Botswana Open University. Her research focuses on project management and implementation in education as the anecdote of effective project management in the Botswana education system.

TITLE OF THE PAPER:

Reviewing the implementation of the Strengthening Mathematics and Science in Secondary Education (SMASSE) Project by the Ministry of Basic Education, Botswana.

ABSTRACT:

Owing to the poor performance in mathematics and science by secondary school pupils in Botswana, the Ministry of Basic Education (MOBE) decided to implement the Strengthening of Mathematics and Science in Secondary Education (SMASSE) project to improve learner performance. This study therefore sought to evaluate the execution of the SMASSE project and identify the challenges

bedevilling its implementation. The study adopted a survey design and quantitative methodology where data was collected using a self-administered questionnaire. Data was analysed through the Statistical Package for Social Sciences (SPSS). The findings of the study revealed daunting challenges in the implementation of the SMASSE project such as inadequate top management support, ineffective communication of the project triple constraints, inadequate definition of project goals and inadequate funding. The study proffered suggestions to enhance

the effectiveness of project management in the MOBE as well as assisting in revamping policy development initiatives for project management.

KEY WORDS:

Project management, SMASSE, Project effectiveness, Project implementation, Triple constraints, Scope, Time

PAPER PRESENTERS



Prof Ushe Makambe

Prof Ushe Makambe is an Associate Professor in the Faculty of Business and Accounting at Botho University, Botswana where he has been teaching for the past 13 years. His research focuses on knowledge management as business strategy, organisational and authentic leadership, marketing of services, general management, and the role of higher education in the social and economic development of Botswana. He has published a book and about 35 research articles in peer-reviewed journals including Emerald. Ushe has also presented papers at peer-reviewed research conferences in Spain, South Africa, Ghana, and Botswana. He has successfully supervised over 15 master's dissertations since graduating with a doctoral degree in 2017 with a good number scoring distinctions.



Ms Oakantse Aobakwe Mmusi

Ms Oakantse Aobakwe Mmusi is an Information Technology officer with the Universal Access and Service Fund (UASF) stationed at Maleshe Village, Tsabong, Botswana. Her work focuses on computerising teaching and learning processes at the local primary school. She has been working under this school connectivity project since February 2018 after obtaining her Honours degree in Computer Systems Engineering at the Botswana Accountancy College in 2017. Her research focuses on the effects of technology acceptance in the adoption of internet banking. Inspired by this project, Mmusi's interest is on the use of technology to enhance education and business practice.

TITLE OF THE PAPER:

Perceived Usefulness and internet banking adoption at a selected bank in the Kgalagadi district, Botswana.

ABSTRACT:

Perceived usefulness (PU) stimulates the adoption of a technology. Premised on the Technology Acceptance Model (TAM), this study sought to examine the effects of PU on the adoption of internet banking by customers of a selected bank in Botswana. A descriptive survey design and the quantitative methodology were adopted. Data was collected from 120 respondents who were randomly selected.

The findings of the study revealed that PU played a protuberant role in internet banking adoption based on the Pearson correlation which was statistically significant and a stepwise regression indicating that 49.1% of the variance of the use of internet banking could be accounted for by PU.

KEY WORDS:

Technology Acceptance Model, internet banking, perceived usefulness, adoption, customers, Botswana

PAPER PRESENTERS



Dr Senate Moshoeshoe

Dr Senate Moshoeshoe first obtained a Diploma in Biomedical Science at National Health Training College, followed by B-Tech degree in Biomedical technology (Cum Laude) at Nelson Mandela Metropolitan University, Port Elizabeth. Thereafter she acquired her Bsc Honours Medical microbiology at University of Free State (UOFS), and M-Tech in Biomedical technology at Central University of Technology, Bloemfontein. She completed her Doctor of health sciences degree on comparative study of P450's in Mycobacterial and Streptomyces.

She is currently a Senior lecturer at Botho University in the faculty of Health and Education. Areas of interest include non-communicable disease and Microbiology. She has also worked in several Laboratories as a Technologist.

TITLE OF THE PAPER:

Dairy Consumption and Related Foodborne Illness In Maseru

ABSTRACT:

Purpose - The objective was to determine the prevalence and perceptions on milk and/or milk products consumption by the community.

Design/Methodology - The sample survey method was determined as the appropriate technique for data collection in this study. Sampling procedure was a stratified two-stage cluster sample. The cluster sample comprised of developed planned areas, semi-unplanned areas, and unplanned area households.

Households were from the selected residential areas (villages) within the constituencies of the Maseru City Council area. Taking into consideration a fact of density per area, in constituencies with households numbering less than 10 000, 5 villages were selected, while in constituencies with more than 10 000 households 10 villages were selected. A sample size of 5% of households per selected villages was taken. Forty-five (45) residential areas were identified within

Maseru. Representative samples of three hundred (300) households were selected as samples within these areas.

Findings - The All the households (n=300) indicated milk and/or milk products consumption out of which 17% (0.17; CI = 0.13 to 0.21) reported to have experienced foodborne illness due to consumption. None of the respondents indicated consumption of raw milk. The commodities implicated most commonly were sour milk (41.7%; CI = 32.1–52.0) and fresh milk (39.6%; CI = 30.1–49.8), followed by yogurt (14.2%; CI = 8.5–22.9) and cheese (4.4%; CI = 1.7–10.7). Prevalence of complaints in low income households was 18.7%, followed by high income households - 16.7 %, and middle income households-15.1%.

The odds of complaints occurring in households ranged from 0.13 to 0.21 with an average of 0.20. The interval from 0.130 and 0.212 represents a 95% confidence interval for the proportion of households in which the dairy was alleged to be the causative agent. The prevalence of symptoms was highest in age group 31- 40 and lowest in the age groups <10 and 51- 60. Both males and females were affected by the symptoms.

However there seemed to be an evident variation between the two groups as 65% (59/91) females and 35% (32/91) males experienced symptoms. There isn't a significant difference between illnesses due to sour milk and as compared to fresh milk however the non-overlapping error bars for cheese and yoghurt against sour and fresh milk denote a significant variation among the two food groups. There was no significant variation in pattern of reporting by enumeration area. The study denotes that between 12.75% to 21.25% of all the households complained of dairy related foodborne illness as defined by the range of $17\% \pm 4.25$.

Originality/Value – The study highlights the burden of foodborne illness in milk and or/ dairy products. The results calls the attention of the relevant authorities for surveillance, consumer awareness, management and monitoring of food safety regulations and policy.

KEY WORDS:

Foodborne illness, dairy, consumer perceptions, prevalence, food safety

PAPER PRESENTERS



Shantha Indrajith

Shantha Indrajith, Senior Lecturer, Botho University, Botswana.

With a blend of experience of 28 years in the academy and the industry as a lecturer, practicing lawyer, accountant & Manager, he has authored four books for Institute of Chartered Accountants of Sri Lanka (ICA-SL) & Association of Accounting Techniques of Sri Lanka (AAT-SL) and presented and published research papers at international conferences and journals. He has got academic & Professional qualifications in three disciplines, Law, Management & Accounting. Law graduate (LLB) of University of Colombo, Sri Lanka, International Management –MBA(UK) from University of Wales



Kgosietsile Onthametse

Kgosietsile Onthametse holds BA (English and Environmental Science), PGDE, MBA-International Business, and is a Certified Associate - Fundamentals of Digital Teaching & Learning (Blackboard). He is an award winning lecturer in the Education department, with over 8 years of experience. Currently he serves as the incumbent Acting Head of the said department. His areas of interest include Curriculum development and design, Sustainable use of natural resources, Sustainable education, Online teaching and learning, Interpersonal communication, Inter/Cross-cultural communication, strategic communication and management, lean change management, crisis communication and public speaking. Kgosietsile is also a corporate trainer, and a practicing public speaker



Prof. Marcos Ferasso

Prof. Marcos Ferasso has a Bachelor's degree in Management (2002) and Specialist in Business Management (2005). International Specialist in Local development (2006) by International Labour Organization - United Nations, Turin, Italy. Prof. Ferasso concluded a perfectioning course on Strategic management of local and regional development. He holds a M.Sc. degree in Management by Federal University of Rio Grande do Sul (2009) with international exchange period at Euromed-Marseille Business School in Marseilles, (France) in 2008, working as visiting professor(exchange student). Prof. Ferasso also holds a Ph.D. in Management by Federal University of Parana with exchange period at Forsyth Technical Community College, Winston-Salem, North Carolina, United States of America (2018). Prof. Ferasso concluded his Postdoctorate in Contemporary Organizational Studies at Meridional Faculty - IMED, Prof. Ferasso also concluded a Postdoctorate at the Centre d'Expertise Santé, Innovation, Bien-Etre et Politiques Publiques of KEDGE Business School in Marseilles, France (2019). Currently, Prof. Ferasso is Visiting Researcher at KEDGE Business School in Marseilles campus (France) and Assistant Professor at Unochapeco University (Brazil).

TITLE OF THE PAPER:

**Green Corporate Governance for Greening Universities:
A Non-Linear Model of Innovation Analysis.**

ABSTRACT:

This research has had as goal to ascertain how universities' stakeholders perceive the reconfiguration of Corporate/University Governance to enable the production of green knowledge and innovation needed for sustainable development. A questionnaire was applied to 89 academic stakeholders (90% confidence level, 5% relative tolerable error), consisting in three interrelated Likert items, grouped under the Green

Corporate Governance (GCG) construct. The perceptions of five universities' stakeholders (Professors, Senior Lecturers, Academic Managers, Non-Academic Managers and Students) were successfully collected. Chi-Square tests reflected that all the stakeholders agreed with the view that the reconfiguration of the university governance system is warranted. The analysis of data (contingency tables) revealed a chi-square test statistics lower than the chi-square value, signifying that all five stakeholders perceive in the same direction that the conventional

university governance system is needed to be reformed. This research brings contributions to policy makers, governors, and managers of university/education system to take appropriate actions for reconfiguring the university governance system towards green corporate governance.

KEY WORDS:

Green University. Corporate Governance. Sustainable Development. Non-Linear Model of Innovation. Green Structure. Green Strategy. Green Leadership.

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Mr. Sivakumar Venkataraman

Mr. Sivakumar Venkataraman is working as a teaching fellow in Department of Health Information Management, Faculty of Health and Education, Botho University, Botswana.

He holds three master degree follows as Master of Computer Application, Master of Philosophy in Computer Science and Master of Education in Higher Education and currently pursuing Ph.D. in Computer Science at Botswana International University of Science & Technology, Botswana

He holds the certificates of Certified Ethical Hacker and Cisco Certified CCNA Cyber Ops.

Conference and Journal Publications

- Number of Conferences: 09
- Number of Journals : 09
- Number of Book Chapter: 01

Area of Interest: Education, Cybersecurity, Education, Data mining and Big Data



Mrs. Subitha Sivakumar

Mrs. Subitha Sivakumar is presently a Senior Quality Assurance officer, New Era College, Botswana. She hold the following degrees Bachelor of Science in Computer Science, Master of Computer Application, Master of Philosophy in Computer Science and Master of Education in Higher Education am currently pursuing Ph.D. in Computer Science at Botswana International University of Science & Technology, Botswana. She has 20 year of teaching and administration experience at institutions of higher learning in Botswana and India. She has published papers in the areas of Data mining, Cybersecurity, and contemporary issues in higher education. She is a certified CISCO CCNA Cyber Ops

TITLE OF THE PAPER:

Assessing the Cyber Security Awareness- Are we heading for a cyber pandemic during COVID 19?

ABSTRACT:

As the world reels from the impact of the pandemic, individuals and associations across have enormously been affected by the infection. The effect has left various individuals interfacing with work environments from home over the globe. This new standard has additionally left numerous vulnerabilities in the field of security. This paper plans to feature security issues and awareness among the staff in the

educational institutions in Botswana. The responses to the survey indicate numerous insights into the understanding with a majority of the team in educational institution adopting different security measures. The study also highlighted.

KEY WORDS:

Vulnerabilities; Cybersecurity Awareness; Pandemic; COVID 19

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Ms. Babli Kumari

Ms. Babli Kumari is a Health professional with over 9+ years of experience in academics and corporate hospital.

She currently works at Botho University, Botswana as a Senior Lecturer and in the department of Health Information Management. She has done her Post graduate from Manipal University In MSc. Hospital Health Information Administration. She also holds MBA from KSOU, Mysore. She also holds a higher education degree and a certified diabetes educator.



Bokamoso Ephraim Masikara

Bokamoso Ephraim Masikara holds a Bachelors of Sciences (Hons) in Health Information Management from Botho University. He currently serves in one of the largest Private Hospitals in Botswana and also serves in different committees of an organisation set to promote and advocate for the development and nurturing the health information management sector in Botswana

TITLE OF THE PAPER:

Knowledge and Awareness of Cervical Cancer: A study Amongst Staff and Students of a Private University in Botswana.

ABSTRACT:

This study was to evaluate the status of awareness and knowledge about cervical cancer in Botho University amongst female staff and students. Cervical cancer in Botswana just like in many other developing countries is a condition of public health interest due to its current prevalence and its possibility of growth in the future. A descriptive cross-sectional study design was used and the study population was selected.

Majority of the research participants were students who amounted to 73% of the total number of participants while the academic staff amounted to 15% and the rest of them being part of the non-academic staff. The general knowledge about cervical cancer amongst females is not impressive and that the willingness to learn is low. The general awareness of the existence of the condition was very impressive but they are not well knowledgeable about the disease at large. The statistics is indicative of the need to

familiarise and increase dispensation of information about cervical cancer.

KEY WORDS:

Cervical cancer, Knowledge, Awareness, Symptoms

PAPER PRESENTERS



Dr. Aparna Kadiyala

Dr. Aparna Kadiyala is currently a lecturer at Botho University under faculty of Health and Education. Her educational qualifications include Doctor of Philosophy in Education (Science Education); Master of philosophy in Education; Master of Natural Science Education; Master of Science; Bachelor of Science; Bachelor of Education. She has 19 years teaching experience in Botswana and has worked previously in institutions such as at University of Botswana, and Tonota College of Education. Her teaching experience encompasses various aspects

of Science Teacher Education and Biological Sciences. She has taught at various levels of education which encompasses Bachelor's Degree in Secondary Education-B.Ed. (Science Education); Post- Graduate Diploma in Secondary Education-PGDE (Science Education); Diploma in Secondary Education-DSE (Science Education); Diploma in Primary Education-DPE (Science Education); Bachelor of Science; Cambridge Advanced Levels (Biological Sciences); Higher International General Certificate of Secondary Education Level (Biological Sciences); International General Certificate of Secondary Education- Cambridge (Biological Sciences), Intermediate Education / + 2 level (Science) and Secondary school science subjects. She had contributed to laboratory practical manuals development in science education, and currently completed content development for B.Ed. Primary Science Education modules. Research Publications include both from science education and health education. The recent publications and conference presentation includes the Learners attitudes towards Health Information Management and Their Self-Efficacy beliefs; factors affecting Alcohol consumption among university learners;

Status of e- learning in Higher education, The effect of alcohol use and academic performance; preservice science teachers knowledge and understanding on the nature of science; factors affecting preservice science teachers understanding of nature of science; Inservice and preservice teachers views on gender and gender equity in education. Future research interests include pedagogical issues related to health education and science teacher education. Main Research interest over the past five (5) years:

Pedagogical issues related to Science Teacher Education (Pre and In-service) and health education: Quality of practical work, process skills, pedagogical content knowledge, Teaching and assessment competencies, nature of science and pedagogy of science, learners conceptual understanding and their academic performance, Technology in teaching and learning, Outcome based education, health and safety in education, Nutrition and health and educational equity in STEM etc.

TITLE OF THE PAPER:

The factors associated with Lecturers' awareness on gender roles, stereotypes and gender equity in pedagogy of Science, Technology, Engineering and Mathematics in Higher Education

ABSTRACT:

The aim of the present study is to determine the factors associated with awareness on gender roles, stereotype and gender equity in pedagogy of science, technology, engineering and mathematics education. Possessing egalitarian views on gender roles can promote the gender equitable classroom practices. The descriptive research using survey method, with random sampling to select sample size 200 used for current study. The research instruments include an "gender roles and gender stereotypes" and

"gender equity in pedagogy" scale is used in the present study. Lecturer awareness levels will be categorized into low, medium and high by percentiles. The chi-square test is used to find out association between the selected factors and awareness on the gender roles, stereotypes and gender equity. Factorial ANOVA is used to find significant interaction of selected variables and scores on gender roles and stereotypes and gender equity. The Independent sample t-test and One-Way Analysis of Variance results (ANOVA) is used to find out the significant difference between science, technology, engineering and mathematics lecturers on awareness

of gender stereotypes and gender equity. Pearson Product – moment correlation which were computed to determine the correlation between gender roles and stereotypes, and gender equity.

KEY WORDS:

Egalitarian views, Gender roles, gender stereotypes, gender equity, gender equitable classroom practices, science, technology, engineering and mathematics lecturers, sex, age group religion, educational qualifications, economic status, and teaching experience.

PAPER PRESENTERS



Mrs. Subitha Sivakumar

Edward Chikuni is a Professor in the Faculty of Engineering, Botho University. His area of expertise is Engineering Education, Energy and Power Systems. He has a BEng (First Division) Electrical Engineering from the University of Sierra Leone, an MSc in Electrical Power Engineering from the University of Manchester (UMIST) and a PhD (Electrical Engineering) from the University of Wales. His 20 years of academic experience has included teaching major Universities in Zimbabwe, Namibia and South Africa. He has over 25 years' industrial

experience acquired during his tenure of senior positions in the Railways and major private sector industries. Prof. Chikuni is registered as a Professional Engineer in the United Kingdom, Botswana, Zimbabwe and South Africa. He is also a Certified Measurement & Verification Professional (CMVP). His consulting experience has included assignments funded by World Bank and Regulatory Authorities in Zimbabwe. He has published over 60 scientific articles in refereed Conferences and Journals.

Prof. Lovemore Gunda
Prof. Joseph Mudare
Prof. Henerica Tazvinga

TITLE OF THE PAPER:

Optimization of a Solar-Wind Hybrid Power System using HOMER.

ABSTRACT:

Many electrical power generation projects fail to kick off due to poor financial planning. The use of Hybrid Optimization Model for Electric Renewables (HOMER) can assist in the economic evaluation of the power system and enable effective financial planning. In this paper, a feasibility study of a hybrid power system based on wind and solar energy is performed using the software. The power system uses batteries for storage. The batteries use their charging and discharge capabilities to both regulate

the DC bus voltage and supply power when generating systems cannot meet load demand. The objectives of the optimization were to minimize cost and allowing at most 5% load shedding while minimizing storage capacity. A sensitivity analysis was done to determine the sensitivity of the energy production to the ratio of wind penetration to solar penetration in the system. It was observed that higher solar penetration gave more reliability but with increased capital expenditure. However, the use of more than one small wind turbines gave better energy harvest from the wind than using

one big turbine in the site which has low wind speeds. The hybrid solution with more than one small wind turbines and higher solar penetration proved to be the optimal solution for the development of the hybrid system. The outcomes of this work are important for policy and decision makers as well as for communities who do not have access to energy.

KEY WORDS:

optimization; HOMER; renewable energy; hybrid power system.

PAPER PRESENTERS



Mrs. Subitha Sivakumar

Edward Chikuni is a Professor in the Faculty of Engineering, Botho University. His area of expertise is Engineering Education, Energy and Power Systems. He has a BEng (First Division) Electrical Engineering from the University of Sierra Leone, an MSc in Electrical Power Engineering from the University of Manchester (UMIST) and a PhD (Electrical Engineering) from the University of Wales. His 20 years of academic experience has included teaching major Universities in Zimbabwe, Namibia and South Africa. He has over 25 years' industrial

experience acquired during his tenure of senior positions in the Railways and major private sector industries. Prof. Chikuni is registered as a Professional Engineer in the United Kingdom, Botswana, Zimbabwe and South Africa. He is also a Certified Measurement & Verification Professional (CMVP). His consulting experience has included assignments funded by World Bank and Regulatory Authorities in Zimbabwe. He has published over 60 scientific articles in refereed Conferences and Journals.

Prof. Lovemore Gunda
Prof. Joseph Mudare
Prof. Henerica Tazvinga

TITLE OF THE PAPER:

Application of Matlab/Simulink in Design, Modeling and Simulation of a Solar-Wind Hybrid Power System

ABSTRACT:

The global increase in demand for electric power, the depreciation of fossil fuel resources and the need to reduce carbon emissions has necessitated the need to utilize renewable energy sources. The development of renewable energy based power systems is still in the growth phase and researches are being done to make them both reliable and efficient. In this paper, a hybrid power system has been modeled, designed and simulated using Matlab/Simulink for implementation in Zimbabwe. The system is based on solar-PV and wind

for power generation while employing battery storage to ensure reliability. The main components of the system are the solar-PV system (2.5kW), the wind power system (2.5kW) and the storage. A modular approach has been used to develop the hybrid power system model. Meteorological data for Plumtree, Zimbabwe has been used to evaluate the system generation capacity. The results have shown that the solar PV and the wind power systems have moments of zero generation when implemented separately but when combined and coupled with battery storage, the system gives up to 90% power availability. The complementary

action of wind and solar has been demonstrated and it is apparent that the use of a hybrid solar-wind power generating system gives a more reliable supply than when the sources are acting independently. This work has potential to contribute to the energy strategy of the country and to boost the economy through investments in the energy sector as well as to climate change mitigation and achievement of sustainable development goals.

KEY WORDS:

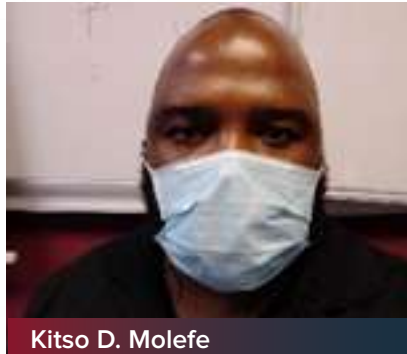
renewable energy; solar-PV; wind; hybrid power system

PAPER PRESENTERS



Dr Emmanuel Zhanda

Dr Emmanuel Zhanda is a lecturer in the Faculty of Business and Accounting at Botho University in Botswana with more than 17 years' experience in teaching at tertiary level. He has a PhD in Human Resources Management-Public Administration at the University of Botswana, a master's in business administration from Zimbabwe Open University, a Master in Higher Education from Botho University and a Bachelor of Business Studies (Honors) Degree from the University of Zimbabwe. He has presented papers at South Africa International Conference in Educational Technology (SAICET), South Africa International Conference in Educational (SAICE), Botho University International Research Conference (BUIRC). His research interests include education, public administration, human resources management and marketing management.



Kitso D. Molefe

Kitso D. Molefe is the Computing Lecturer in the Faculty of Computing at Botho University in Botswana with more than 15 years' experience at tertiary level. He has an MSc in information Systems, BSc Hons in Computer Applications Degree from the University of Sunderland, ICDL, MCP, MSCA, MCDBA, MSCE vendor certifications from Microsoft™. He made paper presentations in Gaborone in October 2014 and 2015 at the Botho University International Research Conference (BUIRC), Botswana. His research interests are into small IT starter up businesses, entrepreneurship, IT Manufacturing, Internet of things relationship marketing, app developments and education. He aspires to start his PhD in IT which covers research on the business, economic, and organizational implications of digital and information technologies.

TITLE OF THE PAPER:

Undergraduate Students Perceptions of Online Learning: A Comparative Analysis with in -Class Learning.

ABSTRACT:

The traditional modes of teaching and learning are in the modern era been subjected to the reality of change. Technological innovation particularly the advent of internet has not only transformed the way institutions, communities, and individuals interact but has also changed the way people learn, share information and create new ideas. This study aims to make a comparative analysis of undergraduate students' perceptions on the benefits and drawbacks of online learning vis-à-vis in-class learning. The study was motivated

by the extra-ordinary change that was brought about by COVID-19 that saw most institutions of higher learning being caught unawares and up-to now educationists are still grappling with effective ways of teaching, learning and assessment. The methodological approach adopted is a survey research strategy and quantitative approach for both data collection analysis. A sample of 100 students were used from two tertiary institutions in Francistown. The study found out that both online and in-class learning have inherent benefits as well as some drawbacks and therefore blending the two modes of instruction

generates synergistic advantages. The study recommends that there is need to integrate social media in online teaching and learning in higher education so as to take advantage of the spread of Web 2.0 technology that has transformed the social space.

KEY WORDS:

Online learning, in-class learning, blended learning, deep learning, distance learning

PAPER PRESENTERS



Ms. Rosah Basadi Botlhoko

Rosah Botlhoko's professional caliber is grounded on Strategic Management and Education as currently evidenced by her current position as the Assistant Dean who spearheads the day-to-day functionality of

Botho University Campus in Eswatini. She is the pioneering leader of the institution. Her leadership potential has propelled her to the rank of becoming an Assistant Dean, an elevation which within the Educational Fraternity is rare for women especially in a space that is male dominated. Rosah is conscientious and hardworking professional whose philosophy of education, leadership and management is contagious. Before this appointment, Rosah was heading the most critical department of the University, which is the Admissions Department. She led the department for 10 years; building very motivated and talented workforce across the 3 campuses of the university (Gaborone, Francistown and Maseru in Lesotho).

Her key area of strength is strategic planning and management. She is an innovative Administrator and motivator who does

not only lead, but also empowers and emancipates those that she leads. She believes in the paradigm of lifelong learning and it is for this very reason that she has facilitated a chain of in-service training workshops and seminars for those she leads. It is on the basis of the above that she has been credited by her colleagues as a mentor, team player and a change maker. Rosah has had tremendous impact on the sphere of Higher Education and Leadership in Botswana and Eswatini. Her outstanding and contagious devotion to education especially in the field of management has made her a result oriented leader and her fairness, openness and ethics are absolutely admirable. She is certainly a jewel in the academy and a promising young female leader in educational governance.

TITLE OF THE PAPER:

An Assessment of People's Knowledge, Attitudes and Practices in the midst of the current escalation of COVID-19 cases in Botswana

ABSTRACT:

Through an assessment of people's level of Knowledge, attitudes and practices towards COVID 19, this study aims at an attempt to delve on the varying schools of thoughts and getting to the core insights pertaining to what exactly could be the central underlying factors regarding the escalation of the COVID 19 cases in Botswana. The escalation of the COVID 19 cases in Botswana is currently an undisputable cause for concern within the public health spectrum. There is therefore a contention that COVID 19 is spreading in Botswana because people have not received enough knowledge about the disease and on the other hand there is a school of thought that the disease spread because of people's attitudes which influence their practices towards the disease, contributing to the skyrocketing numbers of

infected people in the country. From another dimension, there is an observation made to the effect that people must be continuously educated about the dangers of the disease; how to stop the spread and also the best practices to engage into.

A cross sectional survey, is being conducted within Botswana, using a simple random technique. A questionnaire with closed ended questions has been designed using SurveyMonkey. To facilitate social distancing measures in multiple zones, this survey is online, using social media platforms. This means there is no need for anybody to physically meet people to give them questionnaires on printed paper. The survey instrument has 4 questions on demographics characteristics, 10 items on Knowledge, 6 items on attitudes and 7 items on practices. The data analysis of the study entails descriptive statistics. This study is still ongoing. Preliminary findings will be

presented to show a trend to be observed as the study continues. The trend may change as more responses are collected.

The current findings portray that 99% of people have heard about COVID-19, and 90% of them have heard about COVID-19 from Television (TV) other than any source. In general people in Botswana have good knowledge about COVID-19, display positive attitude and maintain good practices towards the disease. 99% of respondents agree that COVID 19 is a very serious disease and its spread in Botswana is quickly increasing. However, there is a 3% which believes that COVID-19 just doesn't exist.

KEY WORDS:

COVID 19, People, Knowledge, Attitudes, Practices, Botswana

PAPER PRESENTERS



Gladness Tladi

Tladi is citizen of Botswana and the founder of an Energy Management and Sustainability Consultancy named Master Biz Solutions (Pty) Ltd in Gaborone, Botswana. Her role is to assist energy firms and businesses in all other sectors together with government departments to develop their sustainability programs. She uses sustainability tools such as Life Cycle assessments to identify areas of environmental impact to reduce cost, risk, energy and waste for a product or process. Her voluntary work involves assisting farmers with energy efficiency practices

and renewable technologies that will help improve their yields.

Her interest in energy efficiency and sustainability started while she was a high school science teacher. Her fascination on how businesses may be sustainable drove her to enrol for a BCom Risk Management at the University of South Africa (UNISA). Her passion for energy management motivated her to pursue an MBA specialising in Energy and Sustainability with the University of Cumbria (UoC).

TITLE OF THE PAPER:

Challenges in the Generation and Supply of Sustainable Energy in the Sub-Saharan Africa

ABSTRACT:

This study was conducted to find out the challenges faced by power producers and suppliers in the Sub Sahara Africa (SSA) region as they venture into sustainable energy technologies and/or renewable energy technologies. Actions to meet such challenges were also discussed. The SSA region is characterised by power producers that do not fully utilize sustainable or renewable energy sources due to complicated, new technologies that are costly. The research compared challenges that are faced by other regions with those faced by the SSA region. A qualitative research method was adopted in this study. A deductive approach was used to extract data to be used in a framework designed to identify challenges. The research started by identifying sustainable energy sources

in the region so that their challenges may be identified. The study used various case studies around the SSA region and other regions. The major challenges identified for the SSA region are the continued use of fossil fuel subsidies, energy supply monopolies, a lack of an updated record of information on the SSA region, a lack of adequate maintenance and outdated infrastructure, a higher cost of generating electricity, regulatory and macroeconomics risks in sustainable energy schemes, large capital required to fund sustainable energy projects and negative social impacts. Risks posed by the novel Covid-19 pandemic were also illustrated.

KEY WORDS:

Sustainable Energy (SE), Sustainable Development (SD), Renewable Energy Technologies (RET)

PAPER PRESENTERS

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Senate Lesaoana

Senate Lesaoana is currently a lecturer at Botho University in the Health Information Management Department. She holds a Bachelor's degree in Computer Science and Information Systems from Nelson Mandela Metropolitan University (NMMU). She received her Master's in the field of Medical Informatics from the University of Amsterdam (UvA). Her Master's thesis extended the Labrique et al. (2013) mhealth & ICT framework that enumerates the various applications of mobile technology in healthcare particularly in private health facilities in rural and low resource settings. Her areas of interest are e-health and epidemiology



Nthabiseng Motlohi

Nthabiseng Motlohi is a lecturer in the Faculty of Health and Education in the Department of Health Information Management at Botho University, Maseru Campus. She holds a Master's degree in Pharmaceutical Sciences (Biopharmaceutics) and a Bachelor's honours degree in Pharmacy. Nthabiseng has a career that spans over a decade in pharmaceutical manufacturing, retailing, teaching and research. She has presented her research findings at local and international conferences since 2014. Her research interests are public health pharmacy, expanding clinical roles of community pharmacists, traditional medicine, and community based interventions to improve chronic disease management.



T.Jaoane

TITLE OF THE PAPER:

Impact of Covid-19 Related Lockdown on Lesotho Students in Institutions of Higher Learning.

ABSTRACT:

Background: The emergence of the COVID-19 global pandemic has created unprecedented state of emergency worldwide. As a way to curb the spread of, countries employed lockdowns. The national lockdown in Lesotho resulted in the closure of businesses, school and academic institutions. The continuous spread of the pandemic and delays in opening of schools across the country is expected to impact the life of students in institutions of higher

learning in Lesotho. The aim of this study is to investigate the impact of COVID-19 movement restrictions on students in institution of higher learning in Lesotho and their coping mechanisms.

Methods: A cross-sectional study using online survey will be conducted in learners aged ≥ 18 years. A semi-structured questionnaire will be disseminated to students at institutions of higher learning through online platforms. Collected data will be coded, captured and analysed using

statistical package for social sciences (SPSS). Descriptive statistics including frequency and their means will be presented in form of frequency tables and graphs.

Conclusion: Conclusion will be drawn based on the study findings. The results of the study will inform decision making processes at tertiary institutions to address teaching and learning challenges that emerge as a result of outbreaks/pandemics

PAPER PRESENTERS



Evita Tlhobogang

Evita Tlhobogang is a final year student at Botho University enrolled in the program, BSc (Hons) in Network Security and Computer Forensics. She is audacious and dynamic who also won Miss Botho University Francistown as a first year in 2016. She takes the initiative to continuously be an agent of change in the community and better the lives of people, especially children by providing the primary students in her neighborhood with free tutoring services. She always maintained a cumulative GPA of no less than 3.0 out of 4.0 and was selected to participate in the BOTHO-UNIVEN exchange program where she schooled at the University of Venda, South Africa for a semester. she is the President of the University's oratory club. She is now stepping into the area of research in information security.



Annamalai Alagappan

Annamalai Alagappan is a Senior Lecturer at Botho University, Botswana, currently serving as the Head of the department in Faculty of Computing. He is also a research scholar who has published research papers in various Journals and conferences. He has got a vast experience of about 15 years in academics and 5 years in the IT industry. He is a Certified Ethical Hacker & Cisco Cyber Operations Specialist. His research areas are Cyber Security, IoT, Image Processing and technology in education.

TITLE OF THE PAPER:

The need of applying data Governance and Security for COVID'19 contact tracing in Botswana.

ABSTRACT:

Across the globe, COVID19 heightened the already uncontrollable cyber-crime and safeguarding the personally identifiable information of people, has never been more crucial. In Botswana, 2018 saw the enforcement of the Data Protection Act which highlighted the details of how data that belongs to the people, data owners, should be treated and safeguarded by the data controllers. Identity theft ranks as the

second most common cybercrime according to ENIGMASOFTWARE.COM (2020) and Botswana's current contact tracing system may as well facilitate this crime by how personal data is stored. This research proposes method to apply data governance and security for the data collected during the COVID '19 contact tracing registration that happens across the country in various places.

PAPER PRESENTERS



Leungo Lara Gabolemogwe

My name is **Leungo Lara Gabolemogwe** of the age of 23 years old and student ID of 1614812. I am a final year student at Botho University in Gaborone. I am highly competent with managing database, filling and a good computer administrator. I am a self-driven individual which enables me to work on my own without supervision. I have strong interpersonal skills that help me to relate with various people and to work in teams. Even under a significant pressure I possess a strong ability to perform effectively. I am interested in Reading, Dance, Puzzle games and Travelling.



Ms. Babli Kumari

Ms. Babli Kumari is a Health professional with over 9+ years of experience in academics and corporate hospital.

She currently works at Botho University, Botswana as a Senior Lecturer and in the department of Health Information Management. She has done her Post graduate from Manipal University In MSc. Hospital Health Information Administration. She also holds MBA from KSOU, Mysore. She also holds a higher education degree and a certified diabetes educator.

TITLE OF THE PAPER:

The impact of implementing of electronic medical records system in Julia Molefhe Clinic in Botswana

ABSTRACT:

The purpose of this study was to investigate impacts of using electronic medical record in health institution in Botswana however was more focusing on those impacts in Julia Molefhe Clinic. The researcher aimed at making recommendations for better usage of EMRs in Botswana. The study used qualitative research methodology to gather information and the study design is retrospective study design which involves secondary collection of data.

KEY WORDS:

EMR, Health records, Implementation, IPMS, Patient data.

PAPER PRESENTERS



Neo kabelo

Neo kabelo studying health information management and doing my final year, I care so much about people and seeing them losing their lives really hit hard.



Ms. Babli Kumari

Ms. Babli Kumari is a Health professional with over 9+ years of experience in academics and corporate hospital.

She currently works at Botho University, Botswana as a Senior Lecturer and in the department of Health Information Management. She has done her Postgraduate from Manipal University In MSc. Hospital Health Information Administration. She also holds MBA from KSOU, Mysore. She also holds a higher education degree and a certified diabetes educator.

TITLE OF THE PAPER:

An Investigation of high Mortality Rates at Julia Molefhe Clinic Block 9 Gaborone.

ABSTRACT:

Maternal mortality is a burden to various countries and they are trying their best but the cases are still escalating. The objectives of this research is to find the causes leading to high maternal deaths 2, To determine factors contributing to pregnancy complication and causing high maternal deaths and lastly to assess the impacts of high maternal mortality. This research found out that hemorrhage is the most causes of maternal deaths, this is whereby a woman loses a lot of blood during child birth or after, this cause is influenced by socio economic disadvantages women have. Questionnaire was used to collect data and qualitative was used to analyse data

KEY WORDS:

Maternal, mortality, pregnancy, foetus, postpartum

PAPER PRESENTERS



Mr. Keabetswe Kgakololo

TITLE OF THE PAPER:

Up-Grade For Ministry of Education Local Area Network

ABSTRACT:

The upgrade of LAN for Ministry of Education; benefited the organization with the ever-increasing needs of;

This project states the up grade of L.A.N for Ministry Of Education. It has been long overdue for the organization to enhance to the latest standards of technology. The ministry has a problem with network which derails them for their daily duties. All system of the Government such as GABS (Government Payment Systems), SLMS (Student Loan Management System) etc. are not functioning well due to obsolete material. It takes hours for the system to execute the task due to low bandwidth, old standardized Cable Management and old network equipment like switches. For instance, the GABS system it is a very crucial system that do payment for all activities that are within the government. At times it takes days with the problem of network down thus creates backlog and also stops the staff for execution their duties.

It is evident that at this era it needs technology for online meetings and web seminars, so it calls for an upgrade. Technology keeps changing and the old equipment are to be removed while adapting to change. The project upgrade will improve the daily activities of staff and easy communication to all stake holders. The main aim of the project is to increase internet speed, to enhance accessibility, security and also adapt to the technological change of the latest standards.

KEY WORDS:

Network Infrastructure, Reliability, Performance, Security and Flexibility.

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