

BITRI Newsletter

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2022 International Women's Day @BITRI

#BreakTheBias



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FOREWORD



I am pleased to author the foreword of this BITRI quarterly newsletter, and I invite you to engage the stories and articles through which we continuously inform you regarding our progress towards achieving our Mandate and the lofty ideal communicated through our Vision Statement.

On behalf of the institute, its internal and external stakeholders, I take this opportunity to welcome two new members of staff. At the beginning of 2022, Dr Mataba Tapela joined us in the role of Executive Director – Natural Resources and Materials, and Dr Mareledi Gina Maswabi, assumed to the position of Researcher in the Energy division. Both Dr Tapela and Dr Maswabi bring on board the requisite set of expertise and experience that will propel BITRI towards being a customer-centric R&D institute that delivers technology solutions that transform people's lives. I invite you to peruse their profiles on page 15. BITRI has maintained a rich vein of collaborations and stakeholder engagement initiatives in line with our tag line, which reads '*Technology Solutions From You, To Us, For You*'.

It is through engagements that BITRI forges partnerships and collaborations only possible through synergetic give and take between the institute and its partners. One of such, is the Biogas Project, which during the Botswana Biogas Conference 2021, stakeholders got to learn of its positive impact in contributing towards the drive towards clean energy, empowerment of beneficiaries and stakeholders. Over the four-year period beginning in 2017, BITRI served as the Project Implementer and in collaboration with the United Nations Development Programme (UNDP) serving as the Quality Assurance Partner, the Ministry of Environment, Natural Resources, Conservation and Tourism (MENT), the Department of Waste Management and Pollution Control, the beneficiaries, and other important partners, the project achieved impressive outcomes against set targets. Read the story on page 4.

It is through engagements that BITRI forges partnerships and collaborations only possible through synergetic give and take between the institute and its partners.

As is custom, BITRI joined the rest of the world on the 8th of March annually and during the month of March to commemorate International Women's Day (IWD) and International Women's Month, respectively. The hashtag #BreakTheBias envisions a world in which women and girls do not face any structural injustices and biases in pursuit of their passions and purpose. Our women at BITRI and the men as supporters and collaborators have steadfast belief in this mantra, and our young female researchers Kediemetse Mothibedi-Selala and Oboneilwe Judith Motlhabi share their perspectives and journeys in this regard (see page 10 and 11).

We've learned that success in our journey to deliver '*Technology solutions that transform lives*' as per our Vision Statement requires unwavering commitment from all stakeholders: our staff in applying themselves to developing solutions that provide real solutions; the Board and Management in giving direction to the institutional vision and initiatives; inventors and innovators (internal and external) conjuring novel solutions; stakeholders organisations and end users working in collaboration with BITRI to ensure relevance and applicability of the solutions; and our financiers offering support to ensure the realisation of our Mandate. We once again assure you that despite the daunting challenges that lie ahead, we still maintain clarity in our Vision to advance the frontiers of applied research for the betterment of the quality of the lives for our countrymen, and beyond borders.

Prof. Shedden Masupe PhD, SMIEEE, Pr.Eng
Chief Executive Officer

BITRI Participates in the Botswana Biogas Conference 2021

Botswana Institute for Technology, Research and Innovation (BITRI) and stakeholders held the Botswana Biogas Conference 2021 in December at the Gaborone International Convention Centre (GICC).



During his speech and during an interview on the side lines of the Botswana Biogas Conference 2021, the Minister of Mineral Resources, Green Technology and Energy Security, Honourable Lefoko Moagi highlighted the Government of Botswana's commitment to the transition to renewable energy.

Held under the theme ‘Biogas for Botswana: Solutions to Energy & Environmental Challenges’, the conference brought together stakeholders who shared the various interventions they contributed towards the project, as well as insights looking to the future. The conference also assessed the successes and challenges of the project, as well as the rollout of the project going forward.

When delivering the Keynote Address, the Minister of Mineral Resources and Green Technology (MMGE) Honourable Lefoko M. Moagi said the Government of Botswana has taken a lead in promoting energy efficiency and the use of renewable energy.

“My Ministry has completed the National Energy Policy (NEP), the Integrated Resource Plan (IRP), as well as the Renewable Energy Strategy (RES) which will be used by Government for planning purposes, programmes, and project implementation. The Government of Botswana has planned to reduce greenhouse gas emissions by 15% by year 2030, from the baseline of 2010” Minister Moagi elaborated.

“The steady development of renewables is driven, above all, by the aspiration for sustainable development. Climate change is an issue for which renewable energy can, and must play a key role. The reason for the central role of renewables is obvious – renewables are fully or almost carbon-free,” Minister Moagi further added.

The project, titled “Promoting Production and Utilization of Biogas from Agro-waste in South-Eastern Botswana (Biogas Project)”, began in January 2017 and will end in January 2022, with it aim to facilitate low-



The BITRI Chief Executive Officer during the Botswana Biogas Conference 2021.

The Government of Botswana has planned to reduce greenhouse gas emissions by 15% by year 2030, from the baseline of 2010” Minister Moagi elaborated.

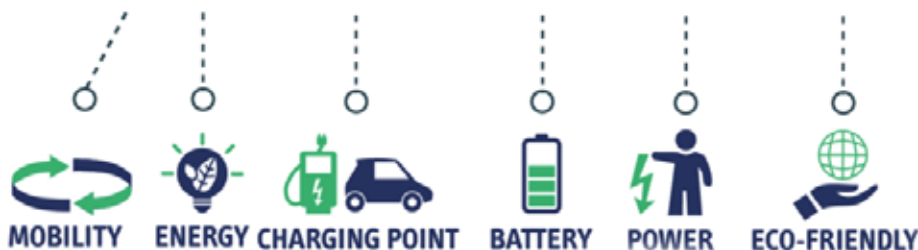
carbon investments in the production and utilization of biogas from agro-waste in the South-East, Southern, Kgatleng and Kweneng Districts. BITRI was allocated the research and innovation component, and UNDP Botswana, Department of Energy (DOE) under the MMGE, and Water Utilities Corporation (WUC) are the key partners. DOE is implementing the project on behalf of Ministry of Environment, Natural Resources Conservation and Tourism (MENT) represented by Department of Waste Management and Pollution Control (DWMPC).

The Government of Botswana (GoB) and the United Nations Development Programme (UNDP) are the principal implementation partners of the project, and the Global Environment Facility (GEF) is the main financier. The BITRI CEO Prof Shedden Masupe, and Executive Director Technologies Dr. Sebusang Sebusang attended the conference.

The Energy Division Senior Researcher, Dr Edward Rakgati was part of the panel discussion during the conference. It was revealed that the project has supported the training of 69 small-scale digester masons and the capacity building of 16 biogas trainers in six vocational training institutes. In addition, 200 small-scale digesters were built, with the goal of developing a feasibility study report for a medium-scale digester for the Botswana Meat Commission in the future (BMC).

Other significant achievements of the project include the development of biogas and fuel standards, the upgrade of renewable energy feed in tariffs, as well as the development of the Integrated Waste Management Bill. The project supports the NDP11 of Botswana which speaks of improving security of supply, equitable access to affordable modern energy, increasing the share of renewables and offsetting the country’s carbon footprint through renewables.

E-MOBILITY



E-Mobility Consultative Workshop

The e-Mobility project team held the e-Mobility Promotion Strategy consultative workshop on 3rd March 2022. *The workshop was focused on component one of four being the development of an Institutional Framework, e-Mobility Strategy and Mobility Policy.* This component was driven by the Ministry of Tertiary Education, Research, Science and Technology in partnership with the UNDP. Consultants were engaged to develop the e-Mobility Promotion Strategy.

In his welcome remarks the Chief Executive of BITRI Professor Shedden Masupe said the consultation was important because it is through the stakeholders' feedback that the assignment will be relevant.

He emphasized to the audience that it is important that they give honest feedback. He further elaborated that phase one of the project, which begun last year, is mainly focusing on training students on e-Mobility while phase 2 will focus on design and prototype. He further said an e-boat has already been designed by Ali Boats in Maun.

For her part on behalf of the UNDP Permanent Resident Representative Ms Chimbidzani Bratonozić also emphasized that the stakeholder feedback is important because they know the country better and what would be suitable for it. She clarified that they are involved in the project after Ministry of Tertiary Education, Research, Science and Technology reached out to them in 2021 requesting for collaboration in undertaking the exercise as part of developing a comprehensive National Electric Mobility Promotion Strategy for Botswana. She said the consultative workshop is an exciting step because it is key in the sustainability transition that is needed.

She further said the e-mobility project is important for "reaching the aims of the Paris Agreement of keeping global temperature rise to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. The electrification of the transportation sector is rewarding in the long-term as it will lead to lower carbon emissions in addition to reduced pollution from automotive fleets achieving improved health conditions, reduced

transportation fuel costs, national savings on fossil fuel imports and opportunities for green job creation".

In conclusion she applauded the Botswana Government for the progress made so far and called for support from all players.

The e-Mobility project is part of the National Electric Mobility Project which the Botswana Institute for Technology Research and Innovation (BITRI) is undertaking on behalf of Government through the Ministry of Tertiary Education, Research, Science and Technology.

The project is organized into four (4) fundamental components; Development of an Institutional Framework, i.e e-Mobility Strategy, e-Mobility Policy etc; Development of an Electric Vehicle and an Electric Boat; Capacity development through TVETs and private sector participation.



BITRI Part of the IP Summer School

Botswana Institute for Technology Research and Innovation (BITRI) was part of the IP Summer School official Launch under the theme 'IP for Business Success'. The event was held in Kasane from the 31st of January to the 1st of February and in Maun from the 3rd of February to the 4th of February.

Delivering the keynote address, the Minister of Employment, Labour Productivity and Skills, Honourable Machana Ronald Shamukuni said the relevance of the summer school in meeting the national aspirations of transforming the economy cannot be overemphasised.

“We believe that by the end of this two-day workshop, you would be able to know what Intellectual Property is and how it relates to your daily lives, particularly your business.

This is the backbone of societal wellbeing in terms of advancing prudent resources utilization, uplifting our economies to benefit from the advancements of innovations, “ Hon. Shamukuni emphasised.

When delivering her presentation during the panel discussion, the BITRI Director of Research and Partnerships began by giving an overview of the BITRI Mandate, the importance of Intellectual Property Rights, and how BITRI collaborates with small and medium enterprises. Dr Mbongwe shared that BITRI was established to conduct needs-based research and development in accordance with national priorities.

The mandate of the organisation calls for the identification, development and/or adaptation of appropriate technology to provide sustainable innovative solutions through co-creation and collaboration in line with the needs of Batswana.

Dr Mbongwe further highlighted that the BITRI philosophy is espoused in the tagline “Technology Solutions From You, To Us, For You”, which in essence, translates to BITRI convert ideas into innovations in partnership and for the end users, some of which are SMEs. She gave examples of mobile phones, consumer goods in supermarkets, and the traditional baskets weaved in Botswana as some of the creations of the mind.

In outlining the various ways in which innovations are protected, she added that the options available for SMEs include registration of a patent in terms of inventions, as in some instances, the IPR can be protected through registration of trademarks, copyrights, and trade secrets. Dr Mbongwe urged SME operators to take the necessary steps to register and protect their IPR, from whence they will be granted IPR for their creations, allowing them limited monopoly and commercial exploitation of their inventions and innovations., as well as the privilege to licence them to other enterprises.

The aim of the IP School is to demonstrate how critical intellectual property is to businesses enterprises, especially in the tourism sector. The training is meant to equip participants with knowledge, understanding and skill on intellectual property application and practices in a business environment.

The key partners in the initiative were Companies and Intellectual Property Authority (CIPA), Department of Research Science and Technology, Local Enterprise Authority, BITRI, Ministry of Tertiary Education, Research, Science and Technology, Botswana, and The Voice Newspaper.

TECHNOLOGY SOLUTIONS
FROM YOU
TO US
FOR YOU

2022 International Women's Day @ BITRI

#BreakTheBias

Tuesday 8th March marked the commemoration of International Women's Day. The 2022 theme is **#BreakTheBias**. The theme calls for a world with no bias, stereotypes and discrimination, where diversity, equitability, and inclusivity are embraced and are the order of the day.

At BITRI, we celebrate and value our women across all levels of operations and business units.



Desiree Okatswa



Maitshoko Machai



Gape Selelo, Segomotso Bagwasi, Karabo Moswetsi, and Kgomotsego Motlopi



Dineo Tshiamo, Katlego Rapelang, Onneile Gabasekwe, Oratile Semong, Bellah Pule, and Phatsimo Kgatlane.



Phatsimo Matshediso-Elijah, Bridget Ramotlatsi, and Kebaeditse Mompoti.



Kesego Itshepeng



Tsothe Mabusela, Annita Mmani, Galeboe Kefalotse, Mphule Dipao, and Onneile Bashapi.

Passionate about Chemistry!

After leaving senior secondary school, Kedi was not sure of the career path she would pursue, but she knew that she wanted to do work that she would enjoy and apply herself to the best of her ability. Kedi enrolled for a BSc general at the University of Botswana (UB) while still figuring out her vocation.

While at university, she fell in love with Chemistry, from whence she opted for a single major in the subject. During vacations, Kedi would work as an assistant researcher for some of her chemistry lecturers, in the process, developing her research skills.

Upon completion of her undergraduate degree, Kedi was hired by Ministry of Agriculture (now the Ministry of Agricultural Developmental and Food Security) where she worked at the National Veterinary lab as a chemist.

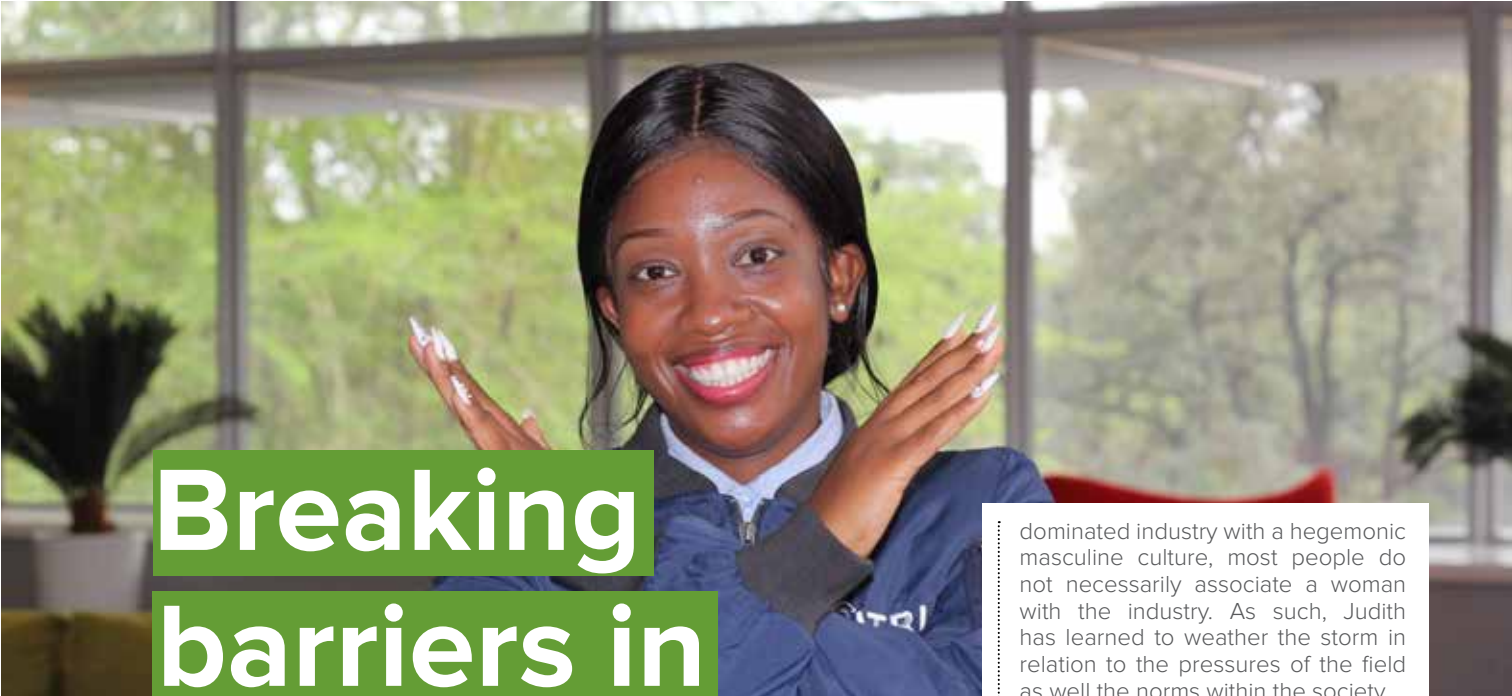
It is while holding this role that Kedi learnt operation, maintenance and troubleshooting of different analytical equipment, and her interest in analytical chemistry flourished. Kedi also did courses on laboratory management systems (ISO 17025 and Auditing) while working as an internal auditor in the lab, which led her to improve her knowledge in method validation and accreditation processes.

The knowledge she acquired came in handy when she embarked on her Master's degree by thesis at Rhodes University. Kedi, through the work she did for her thesis enhanced her



research skills and developed the confidence to do research work that can have a meaningful contribution to society.

In 2014, Kedi joined BITRI after completing her Master's degree. At BITRI, Kedi uses her acquired research skills to develop novel materials for purification of water under Water Filtration team in the Nanomaterials division. She is currently pursuing her PhD through the Tshwane University of Technology.



Breaking barriers in the field of Engineering

Ms. Oboneilwe Judith Motlhabi is an Associate Researcher at BITRI, and the focus of her role is on the beneficiation of natural resources and waste to produce sustainable construction materials. Judith thrives on the idea of transforming what is known to be of lesser importance “waste” into usable sustainable material.

Judith graduated with a Civil Engineering degree from the University of Botswana. Her experience includes project planning, engineering designs, construction supervision, and project management under the International Federation of Consulting Engineers’s FIDIC Conditions of Contract. She has been involved in various projects covering

roads infrastructure, stormwater management, water reticulation, wastewater treatment, and sanitation. Construction of Palapye bus rank, Gabane Infrastructure project, and Molepolole water and sanitation project.

Judith Motlhabi joined the Association of Consulting Engineers Botswana Future Leader (FL) as a member in 2019, she served as the Business Development Committee Lead in the FL Council until 2021. She then served as ACEB FL Vice-Chairperson until November 2021.

As a student, Judith excelled in mathematics and science, and she was drawn to engineering as she viewed it to be challenging and interesting. As Engineering is a male-

dominated industry with a hegemonic masculine culture, most people do not necessarily associate a woman with the industry. As such, Judith has learned to weather the storm in relation to the pressures of the field as well the norms within the society. Ms. Motlhabi was raised in a family setting in which there were more males than females, and her parents did not assign them traditional gender roles.

As a result, each one of the children in the family went through similar experiences, including tending to livestock and doing domestic chores such as cleaning and cooking. With that background, she was awakened to the reality that any human being with passion and dedication can do exceptionally well in any industry or vocation they may choose to pursue.

Given her background and experience, Judith believes that women have the capacity to change how society perceives them, and they can excel in their chosen careers and all aspects of life. Her advice to other women is that they ought to choose a career that they are enthusiastic about because one would be much committed to endure the lows and highs in their career if they are driven by passion. She also advises that women would thrive if they were to empower each other.



The Beef Production Virtual National Stakeholder's Workshop

The Botswana Institute for Technology Research and Innovation (BITRI) hosted a virtual national stakeholder's workshop titled "*Harnessing Biotechnology to Improve Beef Production*" on Wednesday 23rd of February 2022.

In his Welcome Remarks, the Executive Director Natural Resources and Materials Dr Mataba Tapela commended the Biotechnology

unit for organising and hosting the workshop, which, through the active engagement of relevant stakeholders, would go a long way in addressing relevant issues facing the beef sector. The main speaker, Dr. Maitshwarelo Ignatius Matsheka, who is the Senior Researcher in the Nanomaterials division gave a broad overview of research activities carried out by his research group under the Biotechnology for human and animal health thematic

area. Dr Matsheka informed the audience that their research group uses recombinant DNA technology (genetic engineering) and plants as 'bio-factories' to develop diagnostic solutions for animal and human health with the aim of developing affordable, simple to use point-of-use diagnostic devices in key areas of need for Botswana.

The concerned ongoing projects are the "Development of Diagnostic kit for the detection of Beef Measles" led by Dr Tiroyaone Tshikantwa; "Development of Diagnostic kit for Lumpy Skin Disease Virus for the Cattle Industry" led by Kefentse Tumed. He also touched on the whole genome sequencing of SARS-CoV-2 and surveillance work done by his group and explained how the Nanopore sequencing technology could be used for veterinary diseases of importance such as foot and mouth disease.

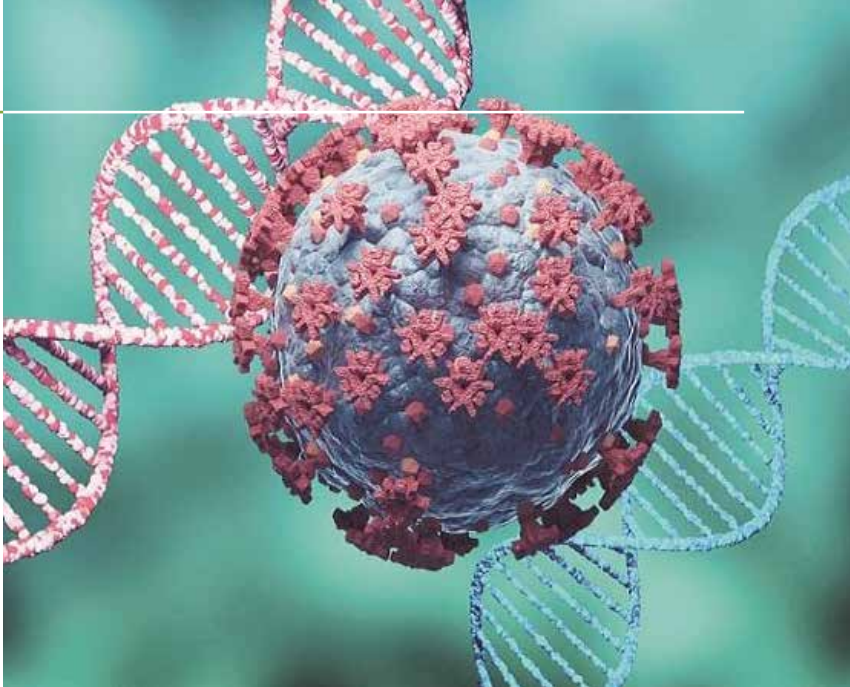
Dr Matsheka shared that the objectives for the first two projects include developing portable, easy-to-use, and affordable point-of-use diagnostic kits for onsite detection of both Beef Measles and Lumpy Skin Disease as these diseases are economically significant due to their negative effect in cattle productivity. Dr Matsheka imparted that Botswana Meat Commission (which is BITRI's partner in the Beef Measles project) estimated that 11% of cattle the abattoir slaughters are infected with Beef Measles. This factor, Dr Matsheka added, is significant since cattle that are heavily infected with Beef Measles are condemned and not sold to the lucrative European Union (EU) market.

“The provision of a rapid diagnostic assay for the detection of Beef measles in the field would be a useful tool to both BMC and farmers. Thus, BITRI has been developing a lateral flow immunoassay diagnostic strip for cattle infected with *T. saginata* (Beef Measles)”, Dr Matsheka elaborated.

Regarding the Lumpy Skin Disease Virus project, Dr Matsheka communicated that the mortality rate of the disease is between 1 and 3%, with the disease also negatively affecting Botswana’s access to the EU beef market. Other negatives of the disease are that it causes reduction in milk production, can result in abortion, can cause temporary and permanent sterility, and has the ability to spread rapidly. Currently, field diagnosis is done through observation of clinical signs (like other diseases, such as Bovine herpesvirus, Bovine papular stomatitis (Parapoxvirus)), and laboratory diagnosis requires sample transportation to laboratories. Dr Matsheka said that the process is expensive, can take up to 2 months to get results, and those factors provide a window for the rapid spread of the disease. With no recognised rapid point of care/field test for lumpy skin disease diagnosis kit, Dr Matsheka said his team identified an opportunity for addressing this need.

The Q&A session during the workshop had two main goals. The first goal was premised on the fact that BITRI’s in its current strategic plan, have identified vaccine research and development as a priority. Consequently, stakeholders were engaged to make inputs into regarding the most pertinent veterinary disease which should be targeted and having given an overview of the institute’s ongoing research projects.

The second goal was that after gaining an understanding of BITRI’s capacity in Biotechnology, the stakeholders were asked to contribute towards challenges facing the beef industry that BITRI should seek to address.



BITRI Receives Funding for SARS-CoV-2 Genomic Surveillance

Botswana Institute for Technology Research and Innovation (BITRI) has received funding worth £21,722.00 from the United Kingdom’s Foreign, Commonwealth and Development Office to continue work on genomic sequencing and surveillance of SARS-CoV-2. This funding will be administered through extension of the TIBA framework collaboration agreement.

Part of this project involves training of interns for a period of two months. The training commenced on the 21st of March 2022. The interns will be hosted under the Biotechnology unit in the Nanomaterials Department and will be trained on SARS-CoV-2 Nanopore whole genome sequencing. During their tenure, the interns will learn molecular biology skills and Bioinformatic analysis of sequencing data.

BITRI and BDF Signs MoA



The Botswana Institute for Technology Research and Innovation (BITRI) Chief Executive Officer Prof Shedden Masupe (right) and the Botswana Defence Force (BDF) Commander Lieutenant General Placid D. Segokgo (left) exchanging the signed Memoranda of Agreement (MoA).

The Botswana Institute for Technology Research and Innovation (BITRI) Chief Executive Officer Prof Shedden Masupe and the Botswana Defence Force (BDF) Commander Lieutenant General Placid D. Segokgo signed a Memorandum of Agreement (MoA) intended to establish longstanding cooperation and collaborative efforts to address the technological needs of the BDF and enhance the generation of new knowledge at BITRI.

The MoA covers areas that include but are not limited to telecommunications, electronics, software development, aircraft engineering and other related mutually beneficial areas of collaboration. The MoA is valid for a period of 5 years.

The BDF entourage was also taken on a facilities tour of the BITRI Centre for Material Science (CMS) and the Additive Manufacturing and Prototyping Centre, where they learnt about services relevant to their operations.



Senior Product Designer, Mr Shorn Molokwane showing BDF Deputy Commander Major General Mpho Orebotse Mophuting a sample of a customised part the BITRI Additive Manufacturing and Prototyping Centre had fabricated for a client. The BITRI CEO Prof Masupe and the BITRI team led the BDF entourage in a familiarisation tour intended to enhance their awareness about the services provided by BITRI and their relevance to the BDF's operations.



The Botswana Defence Force (BDF) Commander Lieutenant General Placid D. Segokgo appending his signature to the Memorandum of Agreement (MoA).

The signing ceremony was held at the BITRI boardroom at Maranyane House.



The Botswana Institute for Technology Research and Innovation (BITRI) Chief Executive Officer Prof Shedden Masupe signing the MoA on behalf of the research and development institute.



BITRI Senior Researcher in the Nanomaterials division, Dr Ipe Mavunkal explaining the relevance of the filtration technologies to the needs of the BDF entourage led by the BDF Deputy Commander Major General Mpho Orebotse Mophuting (in army uniform) during a facilities tour of the BITRI Centre for Material Science (CMS).

The Nanomaterials Division has three main areas of research, namely Filtration, Diagnostics and Mineral Beneficiation.

BITRI Staff

Appointments & Promotions



Dr. Mataba Tapela
- Executive Director -
Natural Resources and
Materials

Dr Mataba Tapela has been appointed the Botswana Institute for Technology Research and Innovation (BITRI) Executive Director – Natural Resources and Materials. Dr Tapela's career is driven by opportunity for professional growth and of propelling institutions to high performance levels, and as Executive Director, he is charged with overseeing research and development in the thematic areas of Building Material Science, Climate Change, and Nanomaterials. Dr Tapela served the Botswana University of Agriculture and Natural Resources (BUAN) as a Lecturer and Senior Lecturer in Agricultural Engineering and Geoinformatics from 1992 until 2021.

He joined BITRI in January 2022, bringing with him a wealth of experience with over 24 years in academia, research, executive leadership, consultancy, and publication in peer-reviewed research journals. He has over 12 years' experience serving in Executive Management roles at BUAN, starting as Deputy Dean of

the Faculty of Agriculture, then Acting Principal and eventually becoming the founding Acting Vice Chancellor of the university. Dr Tapela counts amongst his notable achievements, his role in leading the transformation of the institution (formerly known as Botswana College of Agriculture) from a college to a university, resulting in a refocused and re-energized organization in just 4 years.

Dr Tapela graduated from University of Botswana in 1992 with a Bachelor of Science (Agriculture) degree and from Iowa State University, USA with a MSc (obtained in 1996) and PhD (achieved in 2001) in Agricultural Engineering (Power and Machinery). He is currently a member of several National and International committees including the Africa Think-Tank to Respond to Emerging Technological Issues in Africa Agriculture, Botswana UNESCO Commission, and the Botswana Bureau of Standards Technical Committee on Agricultural Machinery.



Dr. Mareledi Gina Maswabi
-
Researcher - Energy

Dr Mareledi Gina Maswabi has joined Botswana Institute for Technology Research and Innovation (BITRI). In the role of Researcher – Energy, Dr Maswabi is responsible for executing and implementing projects under the Energy division. Dr Maswabi is passionate about sustainable development, particularly in the areas of energy and climate change, and she had been active in developing energy and climate change related policies and programmes for more than 14 years.

Prior to joining BITRI, Dr Maswabi held the position of Head of Policy at the Department of Energy under the Ministry of Mineral Resources, Green Technology and Energy Security (MMGE). Prior to that, she was Head of Renewables in the same department. During this time, she led the development of the recently adopted National Energy Policy of Botswana as well as the Renewable Energy and the Energy Efficiency Strategies.

Dr Maswabi holds a Doctor of Philosophy (PhD) degree from Korea University KU-KIST Green School obtained in 2020. Her dissertation, titled 'Towards Low Carbon Development: An Analysis of Botswana's Energy Sector Transformation' focused on factors that can facilitate or forestall transformation of the electricity system of Botswana from over-reliance on coal to increasing the contribution of renewables (especially solar), as well as improving energy efficiency of the energy system. She also has a Master of Science (MSc) in Applied Microbiology from the University of Botswana and a Master of Business Administration (MBA – General) from Management College of Southern Africa (MANCOSA). She graduated with BSc undergraduate degree in which she majored in Biology and minored in Environmental Science, and she received the UB Foundation Scholarship for Postgraduate Studies.



Fleetell® - Fleet Management System

Fleetell®, a fleet management system developed by BITRI, supports the day-to-day management of organizational fleet, with the aim to reduce and minimize overall costs related to fleet mismanagement/misuse and optimize fleet management process efficiencies. This allows for data analytics to be used in daily decision making of organization while effectively managing their fleet.

Features and Benefits include:

- Vehicle Inventory Management
- Vehicle Requests and Allocation Workflow
- Live Vehicle Tracking
- Key Usage Parameters Capture
- Alerting
- Reporting

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