

## BIUST CELEBRATES 2021 GRADUATES

At an auspicious Graduation Ceremony held recently on a virtual platform across multiple media channels, Botswana International University of Science and Technology, and various stakeholders celebrated 263 students that earned their hats as the university's 2021 graduates.

The institution's new alumni graduated in various courses of study from the BIUST's two faculties, that is the faculty of Engineering & Technology and Faculty of Sciences. The Graduation, which is the sixth since the inception of BIUST was held under the Theme; 'Leveraging science, engineering and technologies for design thinking in the changing world'.

Amongst other dignitaries that graced the virtual celebration ceremony were the University's Chancellor and also former President of the Republic of Botswana Dr Festus G. Mogae, the Vice-Chancellor Professor Otlogetswe Totolo, Minister of Tertiary Education, Research, Science and Technology Honourable Dr Douglas Letsholathebe, BIUST Council Chairperson Mr Balisi Bonyongo and principals of various organisations.

The Managing Director of Lucara Botswana PTY LTD Naseem Banu Lahri was the key Speaker. While the graduates received their attainments, several others, recognised as best achievers, celebrated twofold as they also received academic excellence awards from various organisations.

The Awards included the LEA Student Life Award that was scooped by Sello Amantle Tracy, the Botswana Innovation Hub Award that went to Tshekiso Opelo, the Botswana Oil Award won by Tom Obakeng and Morupule Coal Mine award that was bestowed Potli Tlotlo Kearata.

Other winners include Makgoeng Kabelo Ben who won the Botswana Vaccine Institute Award, Kemiso Kabo with the Bank Gaborone Award. Moshe Thato Jacob



BIUST Vice Chancellor, Prof. Otlogetswe Totolo awarding the Chancellor's Award to Agolame Puoetsile

scooped the BOCRA Award, Oromeng Katlo won the Khoemacou Award, and the Square Kilometre Array Award went to Karabo Keaotshepha. Lebogang Kabelo Lovemore walked home with the Debswana Award and the BTCL Award, Mokgotsi Mothusi bagged Letsatsi Investment Award.

For his distinctive achievement, the overall best graduate of the day Puoetsile Agolame Motlalekgosi excelled with a troika of awards being the BIFM Award, Liberty Life Award and the prestigious Chancellor's Award.

The key speaker, Naseem Banu Lahri relayed hearty congratulations to the BIUST graduating Class of 2021 and expressed pride that they had weathered the storms of last year that shook the entire globe. She encouraged graduates to continue with their hard work, to avail themselves, open their eyes and spot opportunities and strive to make an impact either as entrepreneurs or employees.

She said she had learnt recently from other captains of the mining industry that confessed that BIUST had produced graduates of repute that were contributing immensely to the industry and encouraged the new alumnae to follow suit.

"You are considered a great asset to the mines. This should instil a sense of pride in all of you and awaken the spirit of carrying the legacy that those who came before you are creating. You were trained and taught by the best, and the best you will be wherever you will be," she said.

The BIUST Vice-Chancellor Professor Totolo applauded the staff and students for demonstrating a resolute spirit of resilience and commitment to enabling the university to realise its core mandate despite the challenges brought by the novel covid-19.

"It is by your commitment we are gathered here today, as a testimony that you have all fulfilled your roles and commitment to learning and acquiring skills that are necessary to develop the STEM fraternity. I, therefore, congratulate the Class of 2021 and thank you for having chosen to study in the distinct international and the only specialised university in Botswana," he said.

He expressed confidence that the University's graduates would contribute positively to developing Botswana and showcasing a competitive edge as BIUST entrepreneurship and business modules equip them with necessary knowledge in business aspects. He further edged the

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## EDITOR'S NOTE



Welcome to our October edition. This edition comes at a time when the world is adjusting to embracing the 'new normal'. Despite the negative repercussions that this novel pandemic has presented, it has also presented beyond imagination the use of information technology as the University successfully held its Class of 2021 Graduation and Girls Excelling in Mathematics & Science virtually.

This edition also features some of the recently promoted academic staff and the visit by the Palapye Member of Parliament Hon Onneetse Ramogapi. The newsletter team urges BIUST community to continue adhering to COVID-19 Protocols. If you want to take part and submit any article, kindly contact [barutir@biust.ac.bw](mailto:barutir@biust.ac.bw) and [gachalaw@biust.ac.bw](mailto:gachalaw@biust.ac.bw).

**Mrs. Rebecca Richard**

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graduates to be good ambassadors that would carry the good name of the university and hoist its flag up high. The vice-chancellor acknowledged Stanbic Bank that is the graduation diamond sponsor.

For his part, Honourable Minister Dr Letsholathebe applauded the BIUST for working tirelessly to groom practical and creative problem-solving experts in science, technology, engineering and mathematics (STEM).

He noted that the University had positioned itself as the hub of academic excellence, commercial attractiveness and socially relevant in line with the National

Vision 2036 objectives.

With various research projects, he said BIUST had become synonymous with research, creativity and innovation, and has become a hub for leveraging STEM for design thinking in the ever-evolving world. Various unique problem-solving science, engineering and technology-based projects have erupted from this very institution, he added.

He revealed that his Ministry was seriously pondering on the Post-Graduate Scholarship programmes to aid research-focused institutions such as BIUST that needed a critical mass of postgraduates who focuses on research to bring solutions. In conclusion, he appealed to private and

non-governmental sectors to work with BIUST and lead the country towards a



Wear mask



Wash hands



Use soap & Antibacterial gel



# BIUST REWARDS CLASS OF 2021 TOP ACHIEVERS



BIUST Vice-Chancellor, Professor Otlogetswe Totolo



BIUST Chancellor H.E. Dr. Festus G. Mogae conferring Degrees



Minister of Tertiary Education, Research Science and Technology Hon. Dr. Douglas Letsholathebe



Guest Speaker, Lucara Botswana (Pty) Ltd Managing Director, Ms. Naseem Lahri



Director of Ceremony Ms. Itumeleng Mangole, Manager Marketing and Communications



Stanbic Bank HOD Business & Commercial Client Segment, Calistas Chijoro Presenting the Diamond Sponsor



Liberty Life Business Development Consultant, Mr. George Mawe, presenting Best Student in Faculty of Sciences Award to Agolame Puoetsile



BIFM C.E.O. Ms. Neo Bogatsu presenting the Best Student in Mathematics & Statistics to Agolame Puoetsile



BVI Chief Executive Officer, Mr. Andrew Madeswi presenting the Best Student in the Department of Biological Sciences and Biotechnology to Kabelo Ben Makgoeng



LEA Chief Financial Officer, Mr. Godfrey Molefe and the Student Life Award recipient, Ms. Amantle Tracy Sello



BIH Director of Innovation & Technology, Dr. Budzanani Tcheba presenting the Best Student in Electrical, Computer & Telecommunication Engineering Award to Opelo Thekiso



BOCRA Director Broadcasting & Corporate Communications, Mr. Aaron Nyelesi presenting the Best Student in the Department of Computer Science & Information Systems to Thabo Jacob Moshe



BIUST Vice-Chancellor Prof. Otlogetswe Totolo awarding the Chancellor's Award to Agolame Puoetsile



Ag. DVCAA, Prof. Elisha Shemang presenting the Best Student in Civil & Environmental Engineering to Mothusi Mokgosi



Debswana Mining Company Head of Technical Services, Mr. Bakani Mothabani presenting the Best Student in Chemical, Materials & Metallurgical Engineering Lebogang Lovemore



Khoemacau Copper Mine Vice President- Human Resource & Communications, Mrs. Mmama Mhlanga Fischan presenting the Best Student in Earth & Environmental Science to Katlo Oromeng



BTCL Key Relationship Manager, Corporate Accounts, Ms. Agang Motogelwa presenting the Best Student in the Faculty of Engineering Award to Kabelo Lovemore Lebogang



Botswana Oil C.O.O, Mr. Mosetlho Kenamile presenting the Best Student Mechanical Energy & Industrial Engineering to Obakeng Tom



Square Kilometer Array Director, Mr. Kgomotso Thelo presenting the Best Student in Physics & Astronomy Award to Karabo Keaotshepa

## MAIN SPONSOR



**B**otswana International University of Science and Technology (BIUST) hosted its 2021 Top Achievers Awards Ceremony in Palapye last week. The awards ceremony followed the University's sixth (6) graduation ceremony which was held virtually on September 24 where it conferred degrees to a total of 268 Graduands (224 Undergraduates and 44 postgraduates being; 96 BSc, 128 BEng, 29 MSc, 11 MEng and 4 PhDs) from different academic disciplines.

When speaking at the graduation ceremony which was held under the theme "Leveraging on Science, Technologies and Engineering for Design thinking in the changing world", the guest speaker, Lucara Botswana Managing Director Naseem Lahri applauded the graduates for their resilience; for displaying the spirit of warriors in the depths of despair. "I stand in pride and awe of you all, having weathered the storm of the last year of your studies to get to where we are today..."

We celebrate and thank you for playing your part in reminding us that there is still hope and that hope reveals itself through wonderful rays of sunlight bearing achievements such as yours today," she said. Lahri said the theme for the graduation reflected the University's appreciation and alignment with the ever changing and complex nature of industry in its various forms. "As professionals from different fields, including mining where I am from, we recognise design thinking as a highly creative process to address human needs in today's world," she said.

Design thinking, she said, is where our heads should be; "It is the driving force in global business with giants such as Google, Facebook and Apple attesting to its notable effect.

Lahri said for a University such as BIUST, design thinking should be the air that its educational offering breathes, because in design thinking, there is a reform in teaching and learning that allows learners and researchers to have the freedom to generate ground-breaking solutions. "Design thinking supports teams and allows them to get behind hard-to access insights and apply a collection of hands-on methods to help find innovative solutions," she said.

She commended BIUST for adopting problem-based learning pedagogy which promotes problem-solving and development of design mindset. The Minister of Tertiary Education, Research, Science and

Technology Hon, Dr. Douglas Letsholathebe recognised BIUST as one of the key players in the economic transformation equation as the country advances towards a knowledge-based economy.

"The University has positioned itself as the hub of academic excellence, commercial attractiveness and socially relevant in line with the National Vision 2036 objectives. Indeed, the BIUST staff and students have done a commendable job under testing times as the world and the nation at large grapples with the COVID-19 pandemic. BIUST has become synonymous with research, creativity and innovation, you cannot mention research in this country without mentioning BIUST," he said.

Dr. Letsholathebe hailed BIUST and the class of 2021 for making the country proud indicating that as a hub for leveraging STEM for design thinking in the ever-evolving world, various unique and problem-solving science, engineering and technology-based projects have erupted from the institution. "Projects such as the Square Kilometer Array, Botswana Satellite 1, and Drones for Health spear-headed by zealous and passionate BIUST staff and students, have never gone unnoticed," he said.

The Minister said they will continue to support BIUST and its graduates because research is the only tool which can help them advance the mandate of his ministry of transforming the economy from resource-based to a knowledge-based economy. He further implored the graduates to continue to be ambassadors of innovative thinking in this ever-evolving world. "Never quit at any point for you are the drivers of change that this country and the world seek," he said. Dr Letsholathebe said his Ministry is seriously considering the Post-Graduate Scholarship programmes, research-focused institutions like BIUST need a critical mass of Post-graduate who will focus on research to bring solutions.

Meanwhile, BIUST Vice Chancellor Professor Otlogetswe Totolo said despite the challenges brought by the novel COVID-19, BIUST staff and students have demonstrated a resolute spirit of resilience and commitment to enabling the University realise its core mandate. "It is by your commitment that we are gathered here today as a testimony that you have all fulfilled your roles and commitment to learning and acquiring skills and knowledge necessary to develop the STEM fraternity. I therefore congratulate the Class of 2021 and thank you

for having chosen to study in distinct, international and the only specialised university in Botswana," said Prof Totolo.

Professor Totolo expressed confidence that graduates will contribute enormously and positively to developing Botswana showcase a competitive edge as BIUST introduced entrepreneurship and business modules to equip its graduates with necessary knowledge on business aspects as well as Chinese language to help them penetrate the global market where negotiations with potential investors and manufactures will be crucial. "I therefore urge graduates to be ambassadors and fly BIUST flag up high," he said.

Prof Totolo further said: "Currently Botswana is striving to shift from a resource-based economy to a knowledge-based economy, which propels organisations to create new value proposals in an endeavor to design products to suit this movement. It is therefore no doubt that due to COVID-19 restrictions, organisations are seeking new dimensions to acclimatise to this ever-evolving environment and BIUST is no exception," he said.

He said the University has introduced online teaching in which students attend lessons virtually at the comfort of their hostels. In addition Professor Totolo said BIUST continues to make impact on its research output, citing the "Pan African Planetary and Space Science Network" project which is in collaboration with five (5) African universities geographically distributed.

"This project is funded by the European Union at a tune of BWPI 8.0 million, which is aimed at supporting the development of skills and innovative workforce in Africa. This project is aimed at promoting sustainable development in the African continent through the exploration of the existence of life in space and other planets," he explained. He also said it will also contribute immensely towards the promotion of socio-economic development and enhance contribution towards effective participation of countries and scholars in joint-research and learning for improved human capital development.

"The research projects of this nature are many, it is worth noting that we continue to work with reputable universities, research institutions, funders, and have been funded a cumulative to a tune of BWPI 6,8 million for the period under review by local, regional and international organizations," said Prof Totolo.



## 2021 AWARD WINNERS

**Student Life Award** • Amantle Tracy Sello



## ACADEMIC AWARDS

### FACULTY OF ENGINEERING AND TECHNOLOGY

Best Student in the Department of Chemical, Materials & Metallurgical Engineering

• Kabelo Lovemore Lebogang



Best Student in the Department of Civil and Environmental Engineering

• Mothusi Mokgosi



Best Student in the Department of Electrical, Computer & Telecommunications Engineering

• Opelo Tshekiso



Best Student in the Department of Mechanical, Energy & Industrial Engineering

• Obakeng Tom



Best Student in the Department of Mining and Geological Engineering

• Tlotlo Kearata Poti



Best Student in the Faculty of Engineering and Technology

• Kabelo Lovemore Lebogang



### FACULTY OF SCIENCES

Best Student in the Department of Mathematics & Statistical Sciences

• Agolame Motlalekgosi Puoetsile



Best Student in the Department of Chemical and Forensic Sciences

• Kabo Oganeditse Kemiso



Best Student in the Department of Physics and Astronomy

• Keaotshepha Karabo



Best Student in the Department of Earth and Environmental Science

• Katlo Oromeng



Best Student in the Department of Biological Sciences and Biotechnology

• Kaelo Ben Makgoeng



Best Student in the Computer Science and Information Systems

• Thabo Jacob Moshe



Best Student in the Faculty of Sciences

• Agolame Motlalekgosi Puoetsile



Valedictorian • Agolame Motlalekgosi Puoetsile



# BIUST & BIHL UNEARTH GIRLS STEM PASSION

By: Rebecca Richard



Maun Senior Secondary School students

In an endeavor to encourage greater participation of young girls in Science, Technology, Engineering, and Mathematics (STEM), The Botswana International University of Science and Technology (BIUST) recently collaborated with the Botswana Insurance Holdings Limited (BIHL) Trust and hosted Girls Excelling in Mathematics and Science for senior schools.

The event held under the theme “Acknowledged space and re-imagining the identity of girls in STEM” strives to discuss issues of equity and the representation of women in careers focused on Science, Technology, Engineering and Mathematics (STEM), equip young girls with the tools and skills that will help them build a successful career focused on STEM; and to find solutions to some of the problems that affect our girls' ability to be attracted to and retained in careers STEM-focused careers.

Giving welcome remarks BIUST Vice Chancellor, Prof Otlogetswe Totolo emphasized the need for young girls' mentorship by institutions in STEM to nurture, cultivate and develop their interest in STEM-focused careers. “The Sustainable Development Goals (SDGs) speak to a reduction in gender disparity in terms of education and empowerment of women.

GEMS@BIUST aims to influence and encourage young women to be future leaders and subsequently increase their participation in private and public decision-making” he said. He acknowledged that women in science face numerous challenges and the time for that cycle to be broken has long elapsed. He urged leaders, academics, and policymakers to design and develop initiatives, programs and policies that would specifically address the obstacles women face.

Prof Totolo commended the mentors for taking the initiative to bridge the gap and ensure that the young girls have an opportunity in pursuing a career in STEM. The five-day event unearthed the young girl's passion for STEM as it accorded them a chance to receive counselling on positive self-image, team-building exercises, as well as leadership exercises. The schools that benefitted from this virtual initiative are Shakawe Senior School, Ghanzi Senior School, Mahupu Unified Secondary School, Matsha College, Maun Senior School and Tsabong Unified Secondary School.



Mr Ontiretse Bagwasi

## HACKATHON 21 ACCELERATES THE KNOWLEDGE BASED ECONOMY VEHICLE

By: Tshegofatso Teseletso

A knowledge-based economy calls for smart thinking and a practical problem solving mindset; This year's hackathon competition has proven that indeed our youth are more than capable to see to the realization of this national vision.

CPA officer Ms.Tshegofatso Teseletso had a question and answer moment with Mr. Ontiretse Bagwasi one of the experts behind the BIUST Hackathon project.

**QUESTION:** Kindly introduce yourself and your team to our readers.

**ANSWER:** My name is Mr Ontiretse Bagwasi and my team members are Dr Thabo Semong, Dr Mmoloki Mangwala, Mr Bonolo Nyoni and Dr Boyce Sigweni.

**Q.** What is the mission and objective of this year's hackathon?

**Answer:** To promote STEM awareness in all school levels through problem solving using programming both software and hardware in scratch.

**Q.** How many schools registered to be part of the hackathon?

**Answer:** Primary Schools 3  
Junior Schools 14  
Senior Schools 12  
Tertiary and out of school 11 teams

**Q.** Take us through the scratch program lesson training that you imparted to the diverse schools.

**Answer:** We created a programme for training students on computer programming using scratch. The level of content varies from primary to senior schools, but we teach students on how to solve problems using software programming, animation, sound programming and hardware programming using different hardware sensors. We have different sensors ranging from sound sensors, ultrasound sensors, flame sensors etc. which enable students to read different types of inputs and use the knowledge we impart to them to build innovative solutions.

**Q.** The Hackathon 21 statement problem is more focused on tourism; why did you choose this industry?

**Answer:** The tourism industry has been hard hit by covid 19 and we wanted to stimulate innovation from learners and address the current challenges faced by the tourism industry. We are very happy with the kind of solutions that were brought by the competing teams.

**Q.** How will problem solutions assist this sector?

**Answer:** I wish the Botswana tourism industry stakeholders would have attended

the presentation sessions. They would have appreciated the innovative solutions that came from the learners and supported some of them to full implementation. Some of the projects were in line with advertising and virtual tours so, they would have taken the tourism activities to the rest of the world.

**Q.** Which companies have partnered with the Hackathon this year and how did they assist?

**Answer:** Carerra Holdings was the main partner of this year's hackathon and they sponsored our team to a tune of P25 000. They have good CSR initiatives which are aimed at promoting innovation among the youth and they promised to keep supporting us in unearthing talent from our school programmes. Thank you, Mr Chirag Patel, for the partnership.

**Q.** How is the Hackathon beneficial to learners, the youth and the country in general?

**Answer:** Some of the youth who participate in Hackathons are unemployed, so this is an opportunity for them to showcase their abilities and show potential employers that they should be given a chance in the workforce. As for the younger generation which is still in school, taking part in these kind of activities gives you that chance to compete with your peers from all over the country and test your skills and knowledge in STEM.

**Q.** Word of advice to participants and anyone who wishes to be part of the Hackathon?

**Answer:** It is always nice to take part in these activities and mostly all that is needed is a computer and internet connection. Keep your ICT skills up to date to compete with the ever-changing technology world. Next year it will be a different solution requiring a different set of skills so join with developer communities and keep your skills up to date.

**Q.** Who are this year's adjudicators and why those individuals?

**Answer:** We always have different judges for each hackathon, this year we had Mr Kesego Mokgosi, Mr Letsibogo Ramadi and Mr Reuben Moswela. These three individuals possess huge skills in the world of technology and have experience in winning and organizing hackathons. They did a sterling job in making this event a success.

**Q.** What do judges particularly look at, during participants' delivery?

**Answer:** Innovation, presentation skills, ability to formulate problems and teamwork. These are mostly the skills that the judges will look at when assessing your solutions. There may be other tiny areas but the above-mentioned items form the basis of what is needed.

**Q.** How does this competition assist in fueling socio-economic transformation through STEM Awareness and innovation?

**Answer:** The solutions that have been proposed to combine the highest level of innovation that the teams came up with and they are aimed at transforming the tourism industry. This is a big transformation step aimed at taking the country to another level. As for the young learners, we have stimulated STEM awareness and interest from learners of both genders.

**Q.** Word of thanks to any company, institution and organization that made this program possible.

**Answer:** Let me take this moment to thank all parties that made this possible. PCG Soware, Carerra Holdings, teachers your unwavering support is very much appreciated, and we are looking forward to more engagements with you. We also want to thank all the institutions who were on the forefront of organizing STEM Festival for according us a moment like this. I encourage different companies to come on board and partner with us as we try to stimulate STEM awareness amongst learners. Next year I am hoping for much better prizes for the winners.



# MAMVURA:

## A FASCINATING CHEMICAL, MATERIALS AND METALLURGICAL ENGINEERING EXPERT

By Teseletso

Hardly three-years after joining the Botswana International University of Science and Technology, Dr. Tirivaviri A Mamvura was recently recognized with a promotion to a portfolio of Senior Lecturer in the department of Chemical, Materials and Metallurgical Engineering. Our Communications Officer



Dr. Tirivaviri A. Mamvura

Ms Teseletso had a chat with chemical engineer on his recent recognition and career path. Let us hear where the good Dr is heading to.

**MsTeseletso:** Kindly introduce yourself to our readers

**Dr Mamvura:** I am an experienced senior lecturer with extensive knowledge of contact and non-contact teaching in Chemical Engineering studies. I am actively involved in mineral processing waste utilization research, renewable energy, and water treatment. I am always eager to learn new things, new methods, new procedures which I have done since I arrived here at BIUST. Previously I was in a non-contact university and that experience and knowledge are helping me in my work here especially now in a new normal set-up.

**MsT:** When did you join BIUST and at what position?

**Dr M:** I joined BIUST in September 2019 at the position of Lecturer in Chemical, Materials and Metallurgical Engineering.

**MsT:** You talked about a non-contact university set-up, please take us through your professional background.

**Dr M:** Before joining BIUST, I worked at the University of Johannesburg (UJ) from 2014 to 2015 before I joined the University of South Africa (UNISA). My stay at UNISA gave me the understanding and acknowledging distance learning as it is mostly used. I had the chance to also interact with some of our now former students in Chemical Engineering from BIUST as they used to come to our campuses in South Africa to study some of the equipment's BIUST didn't have at that time. I also have

some experience in the industry from a Board and Papermaking as well as Acid and Fertilizer manufacturing.

**MsT:** Tell us about your new role and what it entails

**Dr M:** My new role allows me to be more responsible and more focused on research. As a Lecturer, my focus was mostly on teaching and learning but now I must increase my research contributions on top of that for the department as well as take up leadership position(s), even temporarily. This comes also by looking for research funds for the department as part of the third income stream, and also to advertise and profile our department, and the university to Botswana and the global community.

**MsT:** What are your career goals?

**Dr M:** BIUST has given me more responsibility, so I see myself tackling more industry-related research and contributing positively to it. This will ultimately lead to products and/or services for the betterment of Botswana. Through these initiatives, it will be of good to be my personal and professional growth. Ultimately, I see myself as a renowned researcher focusing on mineral processing and waste utilization to help Botswana achieve some of the United Nations Sustainable Development Goals within the given timeframes.

**MsT:** What are your achievements?

**Dr M:** Currently, I am working on several projects but the biggest for me involves waste utilisation to recover valuable minerals. This should assist in adding value to waste as well as reclaim land for other uses and in the end re-utilise waste being generated for a sustainable economy. The project has funding, and it looks at recovering cobalt and nickel from BCL slag. I am also learning to use other software including one for making phone apps using (android studio) which is where we are heading as technology keeps advancing. This is the new dawn for us all and we need some computing skills as part of us to understand and navigate within our fields and on a personal level.

**MsT:** What is your motto/ what drives you?

**Dr M:** I am a self-starter, and it fits well with what I do as I have to initiate a lot of the activities I do every day. However, I am a strong believer in collaboration and working with people to get things done. I believe it is the fastest way to achieve things and it also, along the way, allows you and others to learn from each other.

**MsT:** Tell us about your mentoring role.

**Dr M:** I am an academic advisor and I start thereby assisting second years to navigate their studies in the department. Some come with academic problems, sometimes linked to personal issues, and I assist as best as I can working with other departments at BIUST. I also supervise postgraduate students. It allows me to mentor them through my experience and what I have learned over the years. I also mentor junior members within the department. They come for assistance on professional or personal levels. We all do go through a lot in our lives.

**Ms T:** Any last words?

**Dr M:** Rome was not built in a few years therefore it is important to be patient and believe in yourself.



Dr Bokani Mtengi

## "THE ENCHANTING EVER EVOLVING ENERGY ENGINEERING EXPERT; DR MTENGI"

By: Wandipa Gachala

Dr Bokani Mtengi has vast experience in Energy Engineering, she started her career as a Biomedical engineer for the Ministry of Health before her postgraduate studies. She later served as a Transmission Electron Microscopy Imaging Engineer at Howard University during a 3-year postdoctoral fellowship funded by Howard Hughes Medical Research Institute. Mtengi holds a PhD and MEng in Electrical Engineering from Howard University, Washington DC, the U.S.A and a BEng in Biomedical engineering attained from the University of Hartford, Connecticut, U.S.A.

She is the current chair of the Power Electronics and Energy Systems (PEES) Research group, whose focus is on processing and conversion of electrical energy and storage. She is a lead curriculum developer for the Biomedical Engineering program and Secretary of the Region 8 IEEE Botswana Subsection and Women in Power (WiP) country representative for the Southern region.

Mtengi joined the Botswana International University of Science & Technology (BIUST) in October 2018 as a lecturer in the Department of Electrical, Computer and Telecommunications Engineering. She was recently promoted to a senior lecture position within the Department. Her core responsibilities entail teaching; research; postgraduate students' supervision.

She is adamant about academia, her goal is to be a professor soon. She aspires to lead the Biomedical engineering academic sector and hopes to be part of the inaugural class of degree recipients at BIUST.

Mtengi devoted to leveraging the interdisciplinary nature of her field, biomedical-electrical, to generate local solutions for the health care industry by innovating cutting edge diagnostic tools. She noted that she plans to continue being an influential figure for aspiring female engineers and provide mentorship in different professional capacities.

Dr Mtengi highlighted her achievements as first attaining her PhD. She is one of the first three women in Botswana with a Biomedical Engineering degree, Frederick Douglass Fellow at Howard University, Howard Hughes Medical Institute Postdoctoral Fellow, BIUST Fellow, Women in Power (WiP) country representative for the Southern Africa region.

In 2019, she was selected to participate in the RECIRCULATE residency program through the University of Lancaster, for innovation capacity and entrepreneurship capability building. It is through the

same program that she joined the Women Innovators Network of Africa (WINA) a platform for knowledge exchange, networking, and mentorship for women.

Her passion is driven by the motto, "If you can't excel with talent, triumph with effort." She strongly believes in showing up and putting in the effort. Apart from being an academia enthusiast, Mtengi says she enjoys being creative in the kitchen, evening runs, tending to her garden, and reading books.

Mtengi is an academic advisor to postgraduate students. She is currently co-supervising three PhD students and one MEng Student. She co-sponsored a prize for the best students in the pure (single) sciences at Shoshong Senior Secondary school. She recently joined the BIUST-GEMS (Girls in Mathematics and Science), a mentorship and motivational program for Form 4 female students around Botswana. Through my IEEE Women in Power (WiP) role, I contribute to the discussions on matters related to gender representation in the field," she said.

In conclusion, Mtengi says she came across a quote back in 2019 when she was preparing for a presentation on Gender disparity in STEM at the University of Lancaster, "If half of the population isn't contributing to the best ideas, they are not, in fact, the best ideas" – from Today's Parent Magazine, article titled "Why Girls Need STEM and why STEM needs Girls," 2018

## MEMBER OF PARLIAMENT FOR PALAPYE; HONOURABLE ONEETSE RAMOGAPI PAYS A COURTESY VISIT TO BIUST.

By: Tshегоfatso Teseletso

The Member of Parliament (MP) for Palapye Honourable Oneetse Ramogapi recently visited the Botswana International University of Science and Technology (BIUST) to express gratitude to the institution for being a noble resident of the cosmopolitan village and also appreciate its endeavours of becoming a premier university of Science, Technology, Engineering and Mathematics. The Honourable MP met with the University Vice Chancellor, Professor Otlogetswe Totolo and the president of the Student Representative Council (SRC). Mr. MacDonald Molome. The ensemble also had the time to tour the facilities of the evolving institution.

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**BIUST Vice-Chancellor Professor Otlogetswe Totolo with Honourable Oneetse Ramogapi and his delegation**

*Continues from page 9*

Ramogapi said it was his obligation as MP to influence performance and to motivate the BIUST community both staff and students in everything that they were doing. "My duty as a Member of Parliament is to support you. I am here to persuade the role of advocacy. I am here to say, I appreciate the good work that you are doing," he said.

The outspoken MP appreciated BIUST for transforming the landscape of the village, among others; building a Kgotla shelter or 'Leobo' for Palapye residents, facilitating the Youth Development Fund (YDF) beneficiary training course, the building of the road network that links Palapye with BIUST, and the Drones for health pattered initiative.

"There are so many things you have done for us to which we truly appreciate, keep up the good work," he appreciated the university's benevolent gestures for his area.

In his words of welcome, the Vice Chancellor Professor Totolo had outlined that the mission of his institution was to transform Botswana from a resource-based to a knowledge-based economy. He explained that the institution was established to be research-intensive; which is a catalyst for economic and social development.

Prof Totolo further delineated that BIUST recognises the need to produce students and graduates who can produce products and services that would trajectory the nation to greater heights.

"This is our mission and vision," he emphasised. Adding, "At the core of what this university wants to do is academic excellence; a commercially attractive and socially relevant institution."

Prof. Totolo stated that as an international university, one of its aims included reaching out to the global community and making the university economically viable, yet relevant through academic excellence.

Upon presenting the BIUST masterplan to Honourable Ramogapi and his entourage, among them, his office Administrator Mr James Olesitse, the Vice Chancellor indicated that BIUST recognised that achieving commercial attractiveness and economical relevance called for smart work practices hence they had made it a priority to initiate and engage in projects that bring real-life solutions to both the economy and the lives of Batswana.

"We are in alignment that not only do we attract local industry but also international industries towards BIUST," he said, giving an example of AVY Company from Netherlands

which brought the drones technology and BIUST bringing the skills know-how to deliver medicines to local villages around Palapye.

At his conclusion, Professor Totolo extended BIUST's gratitude to the people of Palapye for not only welcoming the establishment but also allocating BIUST the land resource to operate from. "It is indeed a wonderful gift and we shall remain very grateful for, and we shall continue to put the land into a master plan that will not only benefit the Palapye community but also the rest of the world."

BIUST SRC President Mr Molome indicated that BIUST was an evolving institution, and their goal as the SRC was to play a pivotal part in the remarkable revolution. "No man is an island; we are continually engaging the community and diverse corporates here in Botswana to grow with us as an Institution," he said briefly.

The courtesy call concluded with a tour around the BIUST campus. The main focus was different laboratories around the institution. These included three laboratories from the Faculty of Sciences, Faculty of Engineering & Technology respectively, as well as student hostels. The visit was dubbed a 'resounding success'.



# TACKLING BREAST CANCER MYTHS; OCTOBER A MONTH FOR HOPE

By: Tshegofatso Teseletso



October stands as national **breast cancer** awareness month; a month to learn, grow and take significant decisions towards our health. In a bid to dissever common myths that surround Breast Cancer in Botswana, Tshegofatso Teseletso from CPA caught up with BIUST social scientist, Ms Ruth Kedidimetse in a question and answer session.

Ms Kedidimetse is an expert in the field and she serves as a student health and wellness officer.

**Question:** Firstly introduce yourself to our readers, your occupation and some of the main duties that relate mostly to our topic of discussion?

**Answer:** I am Ruth Kedidimetse. Professionally I am a social and behavioural scientist. I have been with BIUST for four months since June 2021. For the past 20 years, I have been working as a Sociology, Psychology, Health education and Group Dynamics lecturer at the Institute of Health Sciences in Molepolole and Gaborone respectively.

Currently, I work as a Student Health and Wellness Officer. I provide non-clinical youth-friendly health services to create awareness and alleviate health-related issues that negatively impact students' lives and academic work.

The focus is mainly on Health Education and Health promotion services, including sexual reproductive health, communicable and non-communicable diseases, dietary education, voluntary HIV and AIDS counselling and testing.

Ms Kedidimetse defines cancer as a disease in which cells in the breast grow out of control. Cancer arises from the transformation of normal cells into tumour cells in a multistage process that

generally progresses from a pre-cancerous lesion to a malignant tumour.

**Q:** Is cancer a hereditary disease?

**A:** Breast cancer can be hereditary especially if there is a lineage or family history of breast or ovarian cancer. However, it is mostly attributed to the risk factors mentioned above.

**Q:** Who is at high risk to getting breast cancer?

**A:** In women, it is mostly those in the reproductive years (15 to 45) and older. 85% of diagnoses occur in women, 1 in 8 women develop breast cancer and 1 out of 100 breast cancers can be found in men.

**Q:** Is there a particular age group that is more prone to getting breast cancer?

**Answer:** People in reproductive ages (15 to 45yrs) and older people (from 40 yrs).

**Q:** What are some of the myths associated with breast cancer?

**A:** Breast cancer is a curse, leads to depression, is a life sentence, breast removal makes one less of a woman and will never have children and that treatment worsens breast cancer.

**Q:** How will you advise against such myths as an expert?

**A:** Breast cancer is like any other condition or disease, and if detected early it can be cured, it can be prevented through screening and alleviating risk factors, and can be treated. People need to take responsibility for their health and learn self-breast examinations and do screening at health facilities.

**Q:** Some Batswana believe that cancer can be healed using traditional medicines; what is your take on that?

**A:** Traditional medicine is diverse from one society to another, and it depends on one's beliefs and the contents of that treatment. As a health worker, my advice would be for people to seek researched medical treatment that had borne results over the years, but I cannot expect people to abandon their cultural beliefs.

**Q:** Is there a particular age group that is more prone to getting breast cancer?

**A:** People in reproductive ages (15 to 45yrs) and older people (from 40 yrs).

**Q:** What are some of the misleading information out there about breast cancer?

**A:** That men do not get breast cancer and that one will not get breast cancer if one eats certain foods or take certain supplements.

**Q:** Is there a cure or treatment for cancer?

**A:** Yes, there are general treatment regimens prescribed for different types of cancers, surgery, chemotherapy and radiation depending on the merits of each case and on the expertise of the clinician, especially an Oncologist (a medical doctor who specializes in cancer treatment).

**Q:** Would you say Batswana (male/female) understand the importance of learning and testing for breast cancer?

**A:** No: only a few people pay attention or after a family member is diagnosed with cancer.

**Q:** Any word of advice?

**A:** Anybody at the age of 15 to 45 plus older is at the risk of getting breast cancer. Ensuring regular self-breast cancer and other cancer examinations to alleviate the risk and live a healthy lifestyle. Early detection, information sharing and creating awareness is key to fighting breast cancer and any other type of cancer. Let us make this crucial noise beyond October and win the fight against cancer.

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