

# iSimangaliso Wetland Park partnership to benefit students



Staff and students of the Department of Recreation and Tourism with Sizo Sibiya, Executive Director: Park Operations at iSimangaliso Wetland Park.

PROF ANTONIA NZAMA

THE Department of Recreation and Tourism (DRT) at the University of Zululand (UNIZULU) was honoured to host Sizo Sibiya, Executive Director: Park Operations at iSimangaliso Wetland Park, during his recent visit to the university.

The purpose of Sibiya's visit was twofold. Firstly, it was to address postgraduate students on Natural Resources Management with a focus on the implementation of the Co-Management Agreements and its implications for community participation and beneficiation. The second reason was to formally participate in the strengthening of relationships between the DRT and industry, as part of the Erasmus+ SUCSESS project. This is in line with the aim of the Erasmus+ SUCSESS project to strengthen the co-operation between higher education institutes and enterprises in South Africa to enhance

opportunities for the employability of graduates.

iSimangaliso Wetland Park was inscribed as the first Unesco World Heritage Site in South Africa in 1999 because of its natural attributes, ecosystems, biodiversity and superlative natural beauty. As such, the wetland park is well positioned to partner with the DRT for internship opportunities for UNIZULU students and general practical exposure of students to real world situations that link theory with practice.

The relationship between the DRT and iSimangaliso Wetland Park is not new. Postgraduate students have previously received bursaries and were also afforded opportunities to conduct research towards the completion of their postgraduate degrees.

The DRT is therefore honoured to have the wetland park as its confirmed industry partner.



Prof Thandi Nzama, Erasmus+ Project Manager; Sizo Sibiya, Executive Director: Park Operations at iSimangaliso Wetland Park; and Prof Ike Ezeuduji, Head of Department of Recreation and Tourism, and a UNIZULU Erasmus+ Team member.

# New electronics research lab to benefit students in Physics department

NALEDI HLEFANE

THE University of Zululand's (UNIZULU) Department of Physics has officially launched its newly established electronics research laboratory, which is set to expose its students to ground-breaking research involving particle physics.

The laboratory is funded by the South African branch of the European Centre for Nuclear Research (CERN). CERN investigates the fundamental structure of particles that make up all matter by using the world's largest, most complex scientific instruments. Through its scientific findings, the laboratory has, over the years, helped bridge the particle physics knowledge gap while also facilitating technological advancements in various industries.

As part of its knowledge-transfer mission, CERN ensures the training of the future generation of scientists and uniting of nations through its technologies and expertise. The main aim of the SA-CERN programme is to make the facilities at the laboratory in Geneva, Switzerland available to South African researchers, engineers, technicians and students. These facilities include the Large Hadron Collider (LHC), the world's largest and most powerful particle accelerator through which four experiments are currently being run.

Dr Betty Kibirige, a lecturer in the Department of Physics, explained that the department has, since early 2015, collaborated with the University of the Witwatersrand at the level of the Tile



Sanele Gumede and Lungisani Phakathi, Master's students in the Department of Physics, using coding language to operate an electronic object in the newly established SA-CERN funded electronics research laboratory.

Calorimeter of ATLAS, one of the four experiments at CERN's LHC.

"Currently, two full-time Master's students are working on tasks related to the maintenance and operations of the Tile Calorimeter. These students are working towards making a contribution to the Tile Calorimeter Detector Control Systems," she added.

The UNIZULU electronics laboratory was developed following an application made by the SA-ATLAS team to the SA-CERN Co-ordination Committee. The initiative was unanimously supported by the committee, as SA-CERN is strongly committed to empowering historically disadvantaged institutions (HDIs) to

integrate in world-class global research facilities.

"The main goal of establishing the laboratory is to afford students from different walks of life, especially the disadvantaged, access to a skillset that would have otherwise been inaccessible to them. The objective is to develop students at Honours, Master's and PhD levels using projects in the CERN domain. The skillset, though developed under physics, finds high demand in other sectors involving data analysis," Dr Kibirige said.

To reach the goal and meet the objective, the department will engage in a variety of activities that include software and firmware development as well as design

and prototyping of electronics. There will also be spin-offs into instrumentation involved in other physics disciplines, especially Materials Science, Nuclear Physics and Astrophysics—a discipline that is currently being introduced in the Physics Department.

The laboratory hosts state-of-the-art test equipment that provides resources with capacity above the undergraduate test equipment. This allows for proper packaging of prototypes, with a soldering station and 3-D printer also available.

Sanele Gumede, a Master's student in the Physics Department, said that taking part in the CERN initiative has been an eye-opener for him as he has learned how to use coding languages in conjunction with electronics in order to collect adequate data for his research.

For Lungisani Phakathi, also a Master's student in the Physics Department, the most fascinating yet challenging part of being a part of the CERN project is the interpretation of big data. "Coding is so essential. Even the banks use it. With the world moving into the fourth industrial revolution, I have to ensure I upskill myself so that I can easily adapt to the new era. Learning these languages is going to help me in this regard," he said.

The virtual event will be attended by representatives of UNIZULU Executive Management, Department of Physics, Department of Engineering, CERN Geneva, SA-CERN, NRF and DSI, as well as the Dean of the Faculty of Science, Agriculture and Engineering.

# Developing a culture of research and scholarship within the Arts

PRECIOUS SHAMASE

PROFESSOR Lulu Shokane is one of the leading women breaking the glass ceiling in the Faculty of Arts.

She is an immensely inspirational Professor of Social Work and former Head of the Department of Social Work at the University of Zululand (UNIZULU). She is currently serving as the Acting Deputy Dean: Research, Innovation and Internationalisation in the Faculty of Arts.

To date, Prof Shokane has contributed more than 30 publications in journal articles, six book chapters and edited two books published by AOSIS in the Knowledge Pathing: Multi-, Inter- and Trans-Disciplining in Social Sciences series. She has supervised Master's and Doctoral students. Furthermore, she has even gained status and wider recognition in respect of the quality of her scholarship, and has been invited to serve as a reviewer of manuscripts from various journals.

"I have experience and knowledge of research in social work, community development, indigenisation and participatory development. My research interests, among others, include the broad field of social work and social development; environmental social work; radical and critical social work; indigenous knowledge and practices within the context of community development and asset-oriented community-led development, referred to as ABCD. Thus, specific to social work education," she explained.

Prof Shokane is currently involved in a collaborative research project with colleagues from universities in the United States of America, Malawi and South Africa on "Asset-based Community Development to Promote Social Emotional Wellbeing for Youth", approved by the institutional review



Breaking the glass ceiling: Professor Shokane has contributed to multiple journals and books.

board of Binghamton University in New York. She is also involved in the Covid-19 Research Network to evaluate the social meanings, subjective realities, caricatures and perceptual outlook of the Covid-19 pandemic on human-social systems of traditional communities and to map out the disruptive nature of the virus on their way of life.

She is involved in the guide book Research at Grass Roots—For the Social Sciences and Human Services Professions by Van Schaik Publishers. She wrote the chapter on "An Afro-sensed perspective on decolonising research methodologies".

Sharing what she envisages for the faculty's research, the academic said she is anticipating developing a culture of research and producing high quality scholarship. Her aspiration is to uplift emerging academics and women in research.

She is particularly excited by the Faculty of Arts Women in Research (FAWiR) programme, which seeks to unite women researchers in the faculty for the purpose of supporting and peer reviewing each other in their research journeys. According to her, FAWiR has fast-tracked progress for women in the faculty, but while "much has changed, more needs to be done".

# US-UNIZULU partnerships on the horizon

NALEDI HLEFANE

TRANSDISCIPLINARY collaborations between the University of Zululand (UNIZULU) and the United States of America (US) are imminent, following a recent fruitful engagement between UNIZULU executive and senior management together with a team from the US Consulate General in Durban.

The meeting came as a result of the Consulate General's intention to forge relationships with various stakeholders around the country. Led by Consul General Anne Linnee, the delegation visited UNIZULU with the aim of first understanding its environment, population and culture before determining possible areas of partnerships.

The Vice-Chancellor of the University, Prof Xoliswa Mtsose was particularly excited by the visit. She said she aspires to forge relationships with US higher education institutions in order to gain knowledge on how to transform UNIZULU from being viewed as an inferior historically disadvantaged institution to one that is a game-changer.

Her sentiments were echoed by Prof Siphos Seepe, Deputy Vice-Chancellor: Institutional Support, during his presentation on the overview of the institution. He began by painting a picture of the colonial history of South Africa, stating that most of the institutions of higher learning were created under this rule. "As an outcome of the struggle, all institutions must be subjected to a process of transformation, from serving the apartheid objectives to serving the post-apartheid dispensation.

UNIZULU is located within the space of historically disadvantaged institutions. The common denominator is that they are disadvantaged not because the people going there are mentally disadvantaged, but they are disadvantaged in terms of resources that were thrown at those universities.

"We are trying to level the playing field in terms of the programmes that we offer. We are defined as a comprehensive university that can offer regular academic programmes and professional degrees. As part of that transformation, we have introduced engineering programmes as part of ensuring that in those programmes that people of African descent were not allowed to have, these institutions begin to play a role," Prof Seepe highlighted.

His final words were that UNIZULU, just like Harvard which proudly positions itself as an American university, will define itself as a distinctively and unapologetically African institution.

From recent meetings Linnee said she had sat in with stakeholders in the Zululand region, the impactful role UNIZULU plays in the area was evident. This heightened the US Consulate General's intent to have engagements with the institution, as the consulate believed there were great opportunities for collaborations. From climate change to teaching assistants, Linnee said there were multiple programmes with potential, adding that she would love to witness more American academics coming to work with UNIZULU.

Both the university and the Consulate General agreed to have further meetings in order to chart the way forward regarding collaborations.



Members of UNIZULU executive and senior management with delegates from the US Consulate General in Durban during a recent meeting to establish possible areas of collaboration between UNIZULU and the United States of America.

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# 'I have managed to have it all' chemist proudly admits

NALEDI HLEFANE

A VARIETY of words could be used to describe Dr Ginena Bildard Shombe – however, the most fitting description seems to be that she is a juggler of note.

The scholar, wife and mother-of-one recently received her PhD in Chemistry qualification from the University of Zululand (UNIZULU) during the Faculty of Science, Agriculture and Engineering's virtual graduation ceremony.

Reflecting on her erratic journey, Dr Shombe could not help but marvel at how she "somehow managed to have it all: a degree, a husband and a child".

She was still navigating her way around her new role as a wife when Professor Neerish Revapasadu, a senior professor in the Department of Chemistry at UNIZULU, offered her the opportunity to study towards a PhD in chemistry in his research group. The Tanzanian-born chemistry enthusiast had previously worked in Prof Revapasadu's group as a research visitor for nine months while she was pursuing her Master's degree.

"Carrying out a PhD in Chemistry degree in Tanzania can be very challenging, so I knew this was an opportunity I had to grasp. My husband has always been very supportive of my career, but at this point he was happy and confused at the same time; well, we both were. After careful evaluation of the options, we decided that I should go," Dr Shombe recalled.

What the newly-weds did not know was that a short while after making their decision, they would receive life-changing

news. The couple was expecting their now three-year-old son. After much deliberation, the pair reverted to the original plan of Dr Shombe following her dream of obtaining a PhD degree.

The first trimester was a very tough period. She would get sick almost daily, which was worrisome for her considering that she had to manage her studies as well during her pregnancy.

"I thank God that my supervisors, Prof Revapasadu and Dr Malik Khan were very understanding and supportive of my situation. I tried to work as hard as I could to push forward some part of the work before delivery. The most challenging moment came when I had to leave my baby in Tanzania after the maternity break and fly back to school. As I held my son in my arms, I wondered: 'How can I leave such a tiny and innocent human being without the close care and love of his mother?'"

"I believe any woman who has ever carried a human being in her womb would understand just how hard this was for me. I even thought of postponing my studies for a year or more, so that I could raise my child. But I pulled myself together and decided to stay strong because I knew what I was doing would benefit him in the future as well."

Being away from her son was extremely hard to get accustomed to, but she found solace in the fact that he was in good hands under the care of his maternal grandmother.

In order to see her family sooner, she shifted her entire focus to her study on the synthesis of functional metal sulfide

nanoparticles and polymer nanocomposites by melt pyrolysis for supercapacitance and water splitting applications. With the energy crisis being topical, Dr Shombe found, and still finds, the study very exciting. According to her, the research findings were interesting; the synthesised nanomaterials showed a promising electrocatalytic potential for both supercapacitance and water splitting applications.

For Prof Revapasadu, the past three years supervising Dr Shombe have been blissful. "Ginena has been an exemplary student. She has been an excellent role model in my group. Hard work, dedication and the ability to work in a team has allowed her to finish her degree in three years. She also published her work in some of the most reputable journals in her field. This has put UNIZULU on the map in the area of energy generation and storage. I am extremely proud of her," he said.

The researcher could not be happier about her decision to further her studies. She published her first paper in Nature, Scientific Reports. She currently has a total of six publications in peer reviewed journals and two book chapters. There are six more articles underway and two book chapters in press.

From her experience at UNIZULU, Dr Shombe has expanded her research connections and knowledge both academically and socially. It was her hard work, determination, the superb supervision of her supervisors, and the love and support of family, colleagues and friends that made her achievements possible.



Dr. Shombe and her family.

## No shortcuts to sustainable rewards for Dr Velile Dhlamini

SIYANDA MNTAMBO

DR Velile Henriette Dhlamini is an intellectual and tactician with the best interests of people at heart. The 63-year-old recently received a Doctor of Philosophy in Social Work qualification during the University of Zululand's (UNIZULU) Faculty of Arts virtual graduation ceremony.

Dr Dhlamini was born in Newcastle, KwaZulu-Natal and moved to Gauteng in pursuit of better opportunities. Coming from a previously disadvantaged background and a poverty-stricken family headed by a single parent, she was raised by siblings under the guardianship of their maternal grandmother. Values of integrity and education for independence were important during conversations with her grandmother, even though she had no schooling at all. "As I was the last born child out of five, my siblings became responsible for my primary to secondary schooling. I had to find a job to carry through my tertiary education and professional development. I worked in various divisions of the then Bantu Affairs government department as a clerk. This exposure gained me vast experience in the justice-related issues of our society," the scholar recollected.

She is currently employed by the City of Ekurhuleni and serves on the Research Ethics Committee. Her vision is to serve at the United Nations Development Program (UNDP), with a view to impact the national and regional agenda. She is also involved in social justice activities and church services in her community.

She holds a BA in Social Sciences from the University of South Africa, a Master's Degree in Social Development and Policy (MSD in Policy) from the University of Pretoria, and a PhD in Social Work from UNIZULU.

Dr Dhlamini is passionate about community development work that is aimed at contributing towards the country's

Sustainable Development Goals (SDGs). Her research topic looked at HIV and Aids service delivery barriers and challenges confronting faith-based organisations. Her findings and observations were that, as a country, we are still grappling with high HIV infection rates, despite introducing a policy document to "win the battle against HIV/Aids" every five-year period.

She feels that poor communication and engagements between the stakeholders were at the root of the problems that hinder implementation. "Poor communications and partnerships between and among the policy stakeholders, including a shift from disease prevention to basically managing the disease, were the main challenges. In addition to these were the poor administration, co-ordination, monitoring and evaluation, including provision of support through capacity building and financial resources by government, to service delivery," she highlighted.

Recalling the journey towards obtaining her doctoral degree, Dr Dhlamini said it had been an uphill battle at times. "The journey was never smooth. I got my post-matric qualifications not seated behind a desk, but through distance learning. I had to juggle a number of things such as being a wife, mother, worker, granny and a teacher. All these roles presented huge strains, fatigue and frustrations at times. However, each achievement came with much fulfilment and excitement. Indeed, this PhD goes beyond the physical thesis document, as it demonstrates to the world - and myself - that I am an independent researcher," she said.

Dr Dhlamini is a mother of three and grandmother to five. She is an introvert who enjoys spending time alone in prayer, thought and reading. Her mantra is: "There are no shortcuts to sustainable rewards. Hard work is the name of the game."



## Resilience and determination drive tourism graduate to obtain her PhD

NALEDI HLEFANE

WHEN Dr Nthabiseng Khoalenyane registered for her PhD at the University of Zululand (UNIZULU) in 2016, she could not have predicted the kind of challenges that lay ahead. However, considering her innate resolute demeanour, it was inevitable that she would eventually complete what she had started.

A few months after registering, the scholar had to grapple with the pain of losing her brother. Two years after this incident, life threw her another curveball. She was hospitalised for two weeks in an isolation ward due to the infectious pneumonia she had contracted on the first day of the BRICS, NIHSS Conference in Johannesburg. It took close to two months before she could resume working on her study, as she had slight memory loss while in hospital.

Despite this setback, the same words kept Dr Khoalenyane going: finish what you started. So when she finally received her Doctor of Philosophy in Recreation and Tourism during the Faculty of Arts virtual graduation ceremony, she could not contain her elation.

"My motto in life is 'finish whatever you started, no matter what'. The fact that I was going to be the first PhD holder in my family also motivated me. I was also doing it for all the ladies, to encourage them that this is possible if you put your mind and soul into it," Dr Khoalenyane said.

Born in Thota-Moli, Maseru in Lesotho, she is the youngest of five children born to the late Thabang and Mats'epang Khoalenyane. Having lost her parents at a very young age, her chances of furthering her studies seemed bleak. This was until she discovered a tourism bachelor's degree scholarship offered by the Lesotho government. After her application was accepted, she began her studies at UNIZULU in 2005. Although she had



taken the tourism route by chance, she instantly fell in love with the programme that "saved her life".

It was therefore a natural progression for her to pursue a doctoral degree.

Her study looks at the impact of tourism development in Thaba-Bosiu, Lesotho. "In tourism, most studies deal with environmental, economic or social impacts. My study referred to the rules and regulations, and the governing policies. I wanted to learn about the impacts of these on tourism development in Thaba-Bosiu, because this study area is gradually growing," she explained.

The findings revealed that there are both positives and negatives, especially with the social and economic impacts. With the political impacts, it was revealed that the tourism policies were poorly implemented and most community

members had no idea or knowledge of them. From the recommendations provided to all stakeholders involved, Dr Khoalenyane hopes changes will be implemented to improve the sector in the region.

While she owes her achievement to her hard work and resilience, Dr Khoalenyane was careful not to take full credit. "A lot of people played a pivotal role in me obtaining this qualification including my family, mentors, my Social Justice Cluster under NIHSS and colleagues. Should I need to single out everybody, it will be a very difficult job. Dr Tshabalala, my supervisor; Dr Metso; Dr Mutanga; and my son, Nkabi were outstanding."

Asked what the future holds, the determined graduate simply stated that she would "soar to even greater heights".

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