











#### Doing what is right, good and just

"We must use time wisely and forever realise that the time is always ripe to do right."

Oh, how the words of Nelson Mandela have resonated around the globe as families, friends, faith communities, neighbourhoods and organisations big and small have come together, individually and collectively, in response to the fight against the coronavirus pandemic.

It's been gratifying to witness and, in our case, to tangibly experience as Nelson Mandela University has put up – and reached out – its hand to support, enable and encourage others in this unprecedented time.

Read about the work of those supported by our Convergence Fund; the ingenuity of our engineers with their COVID-19 inventions; the expertise of our academics in guiding decision-making around the pandemic and the resolute focus and determination of the vaccination rollout workstream to set up the University's own vaccination

The vaccination centres on our Gqeberha (Port Elizabeth) campuses have not only been serving staff, but also the public in neighbouring areas, demonstrating the University's role as an institution in the service of society.

That resounding call to be in service to others, especially when it comes to matters of social justice, is finally being realised in the under-resourced township of Missionvale, home to the country's tenth Medical School on its Missionvale Campus. The first cohort of 50 bright young minds with their servant hearts began their studies this year, fulfilling our institution's longheld dream. Thanks to the Medical School's innovative interprofessional education and collaborative practice model, they're already working in the community, serving where healthcare is most needed.

We hope this edition of *Thetha* will be just the tonic you need as we acknowledge that even in the worst of times (with the present loadshedding, political challenges, water crisis for the Eastern Cape, and global pandemic), we can continue to do what is right, good and just.

Take care and stay safe.

#### **Debbie Derry**

Editor

Leveraging our name, stature and achievements... Strengthening connections... Medical School dream realised. Why Missionvale? .12 Modelling and managing COVID-19. 14 A passion for empowerment ... Hon docs The female fear factory Mandela Uni Convergence Fund efforts to make a difference..... 22 Vax on track. The balcony and the dance floor Here's how we're building the future... 30 POPIA unpacked. Putting the planet first... Campaign earth

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Cover image: Medical School students at the new medical training facility on

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LEADERSHIP AND GOVERNANCE LEADERSHIP AND GOVERNANCE





The time has come to leverage the name, stature and achievements of our University in order to mobilise resources in a way that we might not have been able to do five or ten years ago.

Getting our name, brand and reputation out there is essential, and while we have been hard at work steering a course through this relentless pandemic, we are working on a plan that will raise the profile of our institution in the international arena, guided by our resource mobilisation strategy.

What the pandemic has accelerated is a far greater 'one world' awareness, while rapid digitalisation of higher education has sped up the internationalisation of partnerships and knowledge. There has been a significant increase in the sharing of skills, talents and solutions to address the multiple challenges facing our world, as outlined in the

**UN Sustainable Development Goals** (SDGs) and Africa Agenda 2063.

As our alumni, you are very much part of this internationalisation drive, as you are situated in every part of our country, continent and world. You are in a strong position to help us grow our network and influence and elevate our University to the international stage. Our Senior Director for Strategic Resource Mobilisation and Advancement, Dr Denver Webb, and our Alumni Relations Director, Paul Geswindt, are working on an alumni campaign, which includes far greater communication with all of you. We have introduced an online system called Graduway and have updated our database so that we can communicate with as many of you as possible in the digital space.

All great universities partner strongly with their alumni and we are making sure that we live up to what our iconic namesake would



and in the service of society. We are proud of the Mandela University Convergence Fund that we launched in 2020 as one of our responses to the pandemic, which mobilised over R1-million last year alone. There was a wonderful spirit of solidarity throughout our University family in terms of contributions to the Convergence Fund, which we used to assist those experiencing hardship and deprivation in communities in which our institution is located.

Amongst other things, we assisted with masks and sanitiser, as well as food provision and production. This included engaging with communities to grow their own food gardens, helping families who lost their possessions in a fire, and distributing books in schools

Details of how the Convergence Fund made a difference, with your support as alumni, can be found at mandela.ac.za/convergencefund.

Academically, we have been on a concerted drive to increase our outputs of relevant, engaged, high impact research and to grow focal areas such as ocean sciences and the blue economy, health sciences (including our wonderful new Medical School), and to promote sustainability and sustainability science. As our Deputy Vice-Chancellor of Research, Innovation and Internationalisation (RII) Dr Thandi Mgwebi discusses in this issue, we did exceptionally well in the recent Times Higher Education (THE) rankings 2021, which assessed the contribution to the SDGs of



- 01 Vice-Chancellor, Prof Sibongile Muthwa
- 02 The Mandela Bench on the Ggeberha (Port Elizabeth) South Campus
- 03 Ocean Sciences Campus

1115 universities from 94 countries or regions worldwide. This was the first year that Mandela University participated and we were ranked 4th overall in South Africa. Our strongest ranking was Life Below Water (SDG 14), where we were ranked 40th globally and were the only university in South Africa to rank in this SDG.

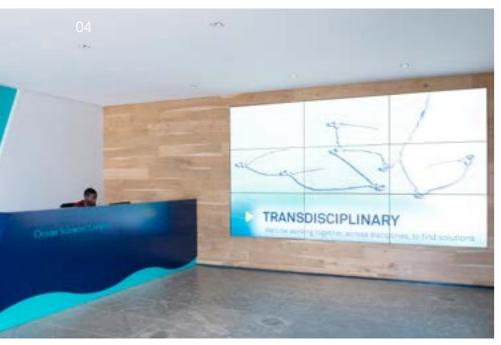
With regard to our internal sustainability goals, the financial sustainability of our University remains an ongoing core focus area. Resource mobilisation for higher education in general during the

pandemic and economic downturn took a knock, with a decline in government and third-stream funding. Fortunately, we achieved a slight recovery from December 2020 in terms of support for bursaries and scholarships from the public and private sector, and the indications are positive for 2021. In the first half of 2021, for example, we managed to mobilise R83,6-million for bursaries and scholarships - far more than the equivalent period in 2020. These monies are disbursed to academically deserving students who



Academically, we have been on a concerted drive to increase our outputs of relevant, engaged, high impact research and to grow focal areas such as ocean sciences and the blue economy ... health sciences"

LEADERSHIP AND GOVERNANCE



04 Ocean Sciences Campus reception

05 Medical School students receiving hands-on training

do not qualify for NSFAS and whose financial circumstances are such that they would not otherwise have been able to enrol.

One of the reasons for the improvement in resource mobilisation is that the Nelson Mandela University Trust and Strategic Resource Mobilisation and Advancement (SRMA) adopted a strategy of increasing the stewardship of our existing donors as well as attracting new funders by emphasising the advantages donations for bursaries and scholarships can attract in terms of B-BBEE scorecard points and in respect of tax deductions.

Raising funds for our new Medical School has also been one of our priorities and we are very pleased that the MBChB programme was able to start so smoothly in March this year, with its enrolment of 50 first-year students. We were able to mobilise bursaries for a number of students who did not qualify for NSFAS.

The unique model upon which the Medical School is based requires transport for our Health Sciences students to travel to primary healthcare facilities and hospitals, and we put together funding proposals which we sent out to the business community. We received an encouraging response with sponsorship of a 22-seater bus worth R800 000. Another sponsor came forward with funds for the White Coat Ceremony held at our Missionvale Campus for our first cohort of first-year medical students, who received their white coats at their oath-taking ceremony.

Also on our priority list is the Ocean Sciences Campus. The SRMA office has established several key partnerships, including a multiyear partnership with the Eastern Cape provincial government and Department of Environment,
Fisheries and Forestry to support the
development of the Eastern Cape
ocean economy as part of Operation
Phakisa.
In terms of multi-year

partnerships in all faculties we are doing well, and in June this year, Mandela University was awarded a five-year partnership by the National School of Government (NSG) in response to a bid submitted by the SRMA office and Faculty of Humanities. The partnership with the NSG - to build capacity in the public service and assist in the professionalisation of the three spheres of government - aligns with our priority of revitalising the humanities and our engagement philosophy of being a university in the service of society. The partnership gives a welcome fillip to the Raymond Mhlaba Centre for Governance and Leadership, which was recently upgraded from a Unit to a Centre and which will service the partnership.

And so, as we stride into the second half of the year and all that comes with it, we can say with confidence that your alma mater is adjusting and adapting to the unique situation in which we find ourselves with the constant vision in mind of being a great African university in the service of society.

**Professor Sibongile Muthwa** *Vice-Chancellor* 



## STRENGTHENING CONNECTIONS

#### In a short space of time, COVID-19 has transformed the way we live and work.

In the Alumni Relations Office, the pandemic has shifted our alumni meetings and events into a digital space, which has brought with it both advantages and new challenges.

On the positive side, we can reach far more people with less expense. In the past, we would travel to London or Johannesburg to connect with our alumni chapters. And for our annual Alumni Awards evening, our Achievers and Rising Stars would fly to Nelson Mandela Bay from all over the world, and only those attending this event would be able to interact with them.

Now, our Alumni Awards evening is live-streamed across the globe. And we are launching a new digital networking platform, where our alumni can interact with one another through a range of interest groups, rather than a limited number of physical chapters. Alumni can sit in London and be part of the London group, the Law group, a sports group, and a res group. And they can even set up their own interest groups, such as a global wine group, to connect with others.

The online space allows people to have far more connections than is possible in the physical space. But there is a downside.

Because everyone is venturing into this space, there are far more people competing for our alumni's attention. And interactions online don't allow for certain special personal connections.

So, looking ahead towards a post-COVID future, our Alumni Relations office will be adopting a hybrid model – where we will continue to have certain physical events while continuing to embrace the power of digital innovation. We are rethinking our policies and governance, our operational strategies and infrastructure to support this shift.

But regardless of how we connect, what remains key is building strong, lifelong relationships with our alumni. This is something that starts when they first become students at Nelson Mandela University. And we are encouraging every department and every faculty to build and deepen relationships with our

... regardless of how we connect, what remains key is building strong, lifelong relationships with our alumni."

students, so that by the time they graduate, they already have a strong connection to the University.

Our challenge is also finding connection points with different generations of alumni – with a younger generation, who graduated from the merged and rebranded Nelson Mandela University, and with an older generation, whose



Paul Geswindt

connections were built decades ago, in institutions and residences that had different names, mentored by much-loved professors who have long since retired.

Whatever the history of these alumni, we hope to inspire them about our University's future path.

Building these lifelong relationships with our alumni doesn't just benefit the University, but also our students and alumni.

For example, alumni participated in the development of the University's Vision 2030 Strategic Plan. They can also play a very important role in realising certain institutional goals, such as contributing to its financial sustainability and building greater global awareness of the University.

To be a thriving university that continues to make a difference in society, we need the expertise of our former students. We need their support: we need them to play a role in ensuring that our standards remain high as we grow, and in keeping our students and their fellow alumni employable and employed. Our hope is to be able to use our alumni network as a base of support across our institutional networks.

These days, when so many things are competing for our attention, we are determined to strengthen this culture of connection with our alumni.

#### Paul Geswindt

Director: Alumni Relations

LEADERSHIP AND GOVERNANCE



Nelson Mandela University's innovative new medical training facility is a dream come true not only for the institution and the metro but also for the Eastern Cape province. *Gillian McAinsh* reports.

The first students walked onto campus in Missionvale in March to start mask-to-mask classes in a game-changing healthcare development. Until this year, Walter Sisulu University in Mthatha had been the only medical school in the province, but now there are two, with Mandela University's new programme also breaking ground as the tenth medical school in South Africa.

More than 5000 applications flooded in for 50 places after the South African Qualifications Authority (SAQA) gave its approval and registration in December 2020 for the six-year Bachelor of Medicine and Bachelor of Surgery (MBChB) qualification.

The new school has been long in the making, as noted by the late Professor





The newly built medical school in Missionvale, Ggeberha



- the late Professor Lungile Pepeta

Lungile Pepeta, Executive Dean of the Faculty of Health Sciences and a key driver in creating it. Tragically, Prof Pepeta passed away in August last year after contracting COVID-19.

"People have been waiting for a medical school in Port Elizabeth since 1946. It's a giant boost for public health and the local economy. Ours will be the first in South Africa to use leading global technology for interactive anatomical education, radiology, surgery and research," Pepeta had proudly said.

"Our medical school programme is also unique in South Africa as it is a comprehensive approach to medicine that will focus equally on the four pillars of medicine – disease prevention, health promotion, treatment and rehabilitative medicine."

#### **Teamwork is dreamwork**

Prof Pepeta may not have lived to see this dream fulfilled, but a strong team has been continuing his work to ensure that the vision he spoke of is now becoming reality.

LEADERSHIP AND GOVERNANCE LEADERSHIP AND GOVERNANCE

Mandela University Vice-Chancellor Prof Sibongile Muthwa said the SAQA approval in December was a welcome step in the lengthy accreditation process.

"We are a University in the service of society, particularly as it relates to equality and social justice; inclusive of access for good health care," said Prof Muthwa, thanking "everybody in the University community, and beyond who has played a crucial role in making our dream for a medical school a reality."

Prof Muthwa said the final accreditation came when South Africa was grappling with the ongoing coronavirus pandemic. The arrival of COVID-19 last year has placed greater pressure on the health system, highlighting the country's desperate need for trained medical professionals.

Prof Muthwa in turn is building on the actions of former Vice-Chancellor Prof Derrick Swartz, her predecessor, whose vision dovetailed with that of the late Prof Pepeta.

#### **Extensive investment**

The new programme has called for extensive funding: R127million from the government's Infrastructure and Efficiency Fund has been invested in the establishment of the Medical School to date.

Further funding will be invested as part of the University's safety and security implementation plan, and to improve the water and electricity challenges, which will in turn also benefit the surrounding community.

To manage costs, the University will depend heavily on the Eastern Cape Department of Health for joint appointments of senior and specialist medical doctors.

Deputy Vice-Chancellor for Learning and Teaching, Professor Cheryl Foxcroft, noted that partnerships are key.

"The collaborative engagements with our colleagues at Walter Sisulu University (WSU) and the support we have had from all the other medical schools across the country enabled us to be ready to launch the

new, unique medical programme successfully," said Prof Foxcroft.

"We look forward to collaborating with all our partner institutions, provincially and nationally, in producing fit-for-purpose, service oriented and civic-minded medical professionals committed to making a difference in the lives of the disadvantaged."

The new medical programme is more than a dream come true; it is also a story of hope – thanks, in part, to the urban renewal opportunities triggered by its intentional positioning in Missionvale.

#### Health a "fundamental human right"

As Nelson Mandela said, "health cannot be a question of income; it is a fundamental human right."

There is the added opportunity for the Medical School to be a catalyst for change in the surrounding townships. Urban



renewal also will benefit the surrounding community through delivering health services to this underserviced area.

Within the University, the Medical School joins the Faculty of Health Sciences to become its 12th department. The Faculty has partnerships with, among others, the departments of Health and Higher Education and Training and these stretch across national, regional and local levels. The University's interprofessional education model also has implicit partnerships within and across disciplines relevant to holistic primary health care.

Faculty of Health Sciences Acting Dean Professor Dalena van Rooyen was one of many who were thrilled when the official SAQA confirmation came through in late December.

"This is an amazing initiative, especially in a country that needs good news, and hope," Van Rooyen said. "We have also had phenomenal institutional support, which is part of the success, and this works out of the Nelson Mandela philosophy that 'together we are stronger'."

## Community-oriented DOCTORS

Who are the 50 doctors-in-training chosen from more than 5000 applicants for the first year of MBChB in Nelson Mandela Bay?

They are largely Eastern Cape matriculants with strong pass rates in maths, physical science, life science and English.

The University was looking for high-performing students – in particular, learners from Quintile 1 to 3, or non-fee-paying schools, in the province.

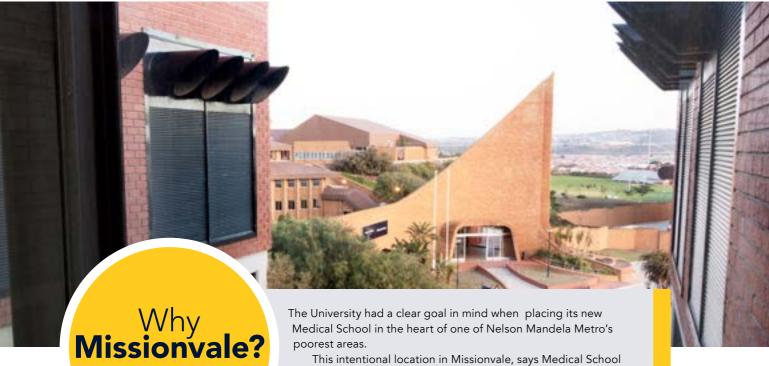
"One of our philosophies is to enable access; and transformation in education – specifically in medical education – has been very pertinent for a long time," said Medical School co-ordinator Dr Elizabeth du Toit.

Despite transformation imperatives, academic excellence remains a bedrock for selection, with the overall goal to train fit-for-purpose, primary health care-oriented graduates.

Dr Yoshna Kooverjee, who teaches Theory and Practice of Medicine to the first-year students, said: "We want communityoriented doctors who are skilled to practise medicine that meets the needs of our communities."

Competency in the dominant languages of the Eastern Cape – English, Afrikaans and isiXhosa – is also important, as is cultural awareness.

The initial cohort of 50 first-year students will increase to 80 in 2022, and 100 the year after, as part of the Faculty of Health Science's push towards the frontiers of knowledge.



This intentional location in Missionvale, says Medical School director Professor Fikile Nomvete, is in line with the school's vision to train general medical practitioners who also have a deep understanding of primary health care.

The campus is also near Dora Nginza Hospital, one of several state facilities where students will train.

#### Partnering with people

The city's northern areas lie slightly to the west of the campus, while New Brighton, KwaDwesi, KwaMagxaki and other major townships are close by to the east, and the campus also lies on a key arterial road halfway between Gqeberha (Port Elizabeth) and Kariega (Uitenhage). This proximity allows for academic development partnerships and engagement with the FET colleges, schools and civil society.

In their first three years, students spend most of their time in Missionvale, on campus and in surrounding communities, learning about South Africa's health care needs, as Missionvale faces the same triple blight of unemployment, poverty and injustice seen in other parts of the country.

#### Warm welcome to Missionvale

Missionvale Care Centre is ready to welcome students, said its founder and director Sister Ethel Normoyle: "We are right across the road from the new Medical School and the great thing about having them so close is that students will be able to come here for their fieldwork."

Metro Ward 31 councillor Luyolo Nombola was also excited about the benefits for his ward constituents in Missionvale and Algoa Park.

"This is the poorest area in a disadvantaged community; having a medical school here is historical," said Nombola.

Various lecture halls and laboratory facilities have been refurbished at the Missionvale Campus and, so far, no building has had to be erected from scratch.

The Missionvale campus was originally Vista University, designed predominantly for what was then described as the 'non-white' population. Traditionally, South African tertiary institutions were placed far from the people they trained their students to work with, and this needed to change.

Today's Nelson Mandela University is radically different, overturning the apartheid-era way of thinking and replacing it with an approach that has universal respect for individual dignity and human rights.



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LEADERSHIP AND GOVERNANCE LEADERSHIP AND GOVERNANCE

## Modelling and managing COVID-19

As COVID-19 hit our shores last year, two of Mandela University's top minds sprang into action, using the best of science and technology to formulate a plan and predict how to monitor the course of a potential health disaster. Heather Dugmore investigates.

Since March 2020, Centre for Community Technologies (CCT) Director Professor Darelle van Greunen and Faculty of Science Executive Dean Professor Azwinndini Muronga have done data analysis and modelling on COVID-19 data, piecing together critical information about patterns, infection waves and other factors necessary for understanding and managing the pandemic.

#### April/May 2021

While there has been a lot of emphasis on air travel as a means of spreading COVID-19, South Africa's harbours are also a gateway into our cities from where the virus and new variants can rapidly spread.

In April, a bulk carrier, the MV Theoskepasti, left India, where the virus was rapidly spreading, and arrived in Algoa Bay on 8 May, en route to the Ivory Coast. It was instructed to anchor off Gqeberha (Port Elizabeth) after six crew members, including the captain, tested positive for COVID-19. Crew members on other bulk carriers from other ports also tested positive.

"The virus constantly hits us with curved balls," said Prof van Greunen. "Just one person can infect large groups, whether it is in our ports, suburbs, townships,



Prof Darelle van Greunen



Prof Azwinndini Muronga

## Province forging ahead with vaccine response

Provincial health department spokesperson Sizwe Kupelo said that they were targeting 4.5-milllion citizens in the Eastern Cape for COVID-19 vaccinations in public and private facilities.

By 17 May, 18 112 patientfacing health workers and associated professions in Nelson Mandela Bay had taken the vaccine. This is about 67% of those who consented to take it.

By mid-June, 44 360 people had been vaccinated in the Metro, where the target is 3000 per day across all the public and private vaccination sites.

schools, shopping areas or places of worship. None of us knows if we are going to be mildly affected by the virus or killed by it. Additional, more infectious mutations like Delta are already in the mix and everyone is at risk."

Our incident risk per 100 000 rose sharply in the second week of May 2021. This was great cause for concern and should alarm people of all ages into being more vigilant, said Prof van Greunen. The Department of Health's epidemiology report dated 12 May revealed that the province had 271 active COVID-19 cases as of 12 May 2021, with 47% of these in Nelson Mandela Bay.

#### Tracking the spread

"Scientific evidence informs us about the COVID-19 waves and how we can anticipate them," said Prof Muronga. "From a year of data and modelling we can look back at the number of people in our two metros who were infected and the number of people who have died of COVID-19.

"The data is showing us that the numbers might be more than five times higher than those reported. A lot of people with COVID-19 are also not admitting that they have it and, at the same time, there is less testing being done when testing should be intensified. This is a [big] concern, as

it means that we have high numbers of people in our communities who are walking time bombs of infection."

#### The first and second waves

"From the modelling we used last year (based on the number of deaths) they predicted the first wave would peak around mid-to-end-July 2020 while national models predicted much later in the year – from September. We now know that it peaked around 19 July 19," said Prof Muronga.

The Eastern Cape data further shows the province led the second wave, but by the time additional restrictions were introduced in October 2020, it was too late to effect optimal systems, as we were already heading towards the December festive season, with a lot of movement and inter-provincial and cross-border travel. This led to the second wave rapidly spreading throughout the country. The rural areas were hard hit, as people headed there from the cities to visit their families.

#### The third wave

The professors strongly warned about a third COVID-19 wave that was due to hit the two big Eastern Cape metros of Nelson Mandela Bay and Buffalo City from the end of March/beginning of April. "Swift, proactive actions by the province and

South Africa is currently using two vaccines, the one-dose Johnson & Johnson (J&J) and the two-dose Pfizer. People who receive a J&J shot are fully vaccinated, but people need to receive two doses of Pfizer to be fully vaccinated. Both are equally effective, say experts; it depends on supply at the time which is offered at the vaccination sites.

The data is showing us that the numbers might be more than five times higher than those reported"

All citizens must remain highly vigilant about wearing masks, frequently washing hands with soap and water and using sanitisers. If sanitisers are not available, handwashing with soap and water is very effective. And, if you are experiencing symptoms, don't ignore them or dismiss the illness as flu; go to the nearest COVID-19 testing centre or clinic and get tested – or at least have an antigen test.



metro officials assisted in delaying the start of the third wave," said Prof Muronga.

"The Free State hit its third wave in mid-April 2021, and trends at the time in case incidence suggested that the third wave threshold nationally and in several other provinces would hit from May/June 2021," added Prof van Greunen. Based on the latest modelling reports, it was estimated that the Eastern Cape would peak during the second half of July 2021.

#### **July 2021**

All indications are that the Nelson Mandela Bay third wave, driven by the significantly more transmissible Delta variant, would have higher caseloads than the first and second waves, simply by virtue of the higher volume of cases. On 12 July the metro had 2423 reported active cases, and the cumulative number of deaths due to COVID-19 stood at 3164

In an attempt to reach community immunity as soon as possible, the Eastern Cape Department of Health ramped up the vaccination roll-out, with the Eastern Cape being the leading province in South Africa, in July, in terms of the proportion of adults in each province to have received a vaccine.

LEADERSHIP AND GOVERNANCE

#### **HON DOCS**

Nelson Mandela University's Honorary Doctorate recipients for 2020 and 2021 collectively reflect the values that drive our commitment to being in service to society. These trailblazers epitomise the standards set by our namesake, with social equity, fairness, empowerment, human rights, sustainability and ethical leadership underpinning their respective roles in the South African landscape.



## A passion for **EMPOWERMENT**

**Mmatshilo Motsei**Doctor of Philosophy (Honoris Causa),
Faculty of Health Sciences

Integrative healer, author and speaker Mmatshilo Motsei has dedicated her life to blending indigenous wisdom with modern innovations – and to the upliftment of women.

She is warmly lauded as a multiskilled advocate for the protection and empowerment of those who need it most.

Motsei holds a wide range of qualifications reflecting her service-oriented focus: an Integrated Diploma in General Nursing and Midwifery (Mapulaneng Hospital), a BCur (Limpopo University), BA Honours in Psychology (UNISA) and an MA in Creative Writing (Rhodes University). She is currently enrolled for her PhD in Sociology at the

University of Pretoria.

A pioneer of breakthrough projects, she founded ADAPT (Agisanang Domestic Abuse Prevention and Training) – an organisation using holistic methods to address domestic and sexual violence – and was involved in several other successful initiatives, including RADAR, a rural women and HIV project of Wits University's School of Public Health.

Motsei has climbed Mount Kilimanjaro for charity and is founding director of the Afrika Ikalafe Centre for Spirituality and Health. She works closely with women across the continent, including Somali rape victims, and various influential institutions worldwide. Her scholarly work includes several books, such as The Kanga and the Kangaroo Court: Reflections on the Rape Trial of Jacob Zuma (Jacana, 2007) and Reweaving the Soul of the Nation: Essays in African spirituality, politics and feminism (Afrika Ikalafe, 2020).

Motsei has received numerous national and international awards, including the United Nations Scroll of Honour Award for her work in involving men as part of the solution to violence against women. She is celebrated for her union of intuition, logic, spirit, science and a community-based leadership that encourages a compassionate engagement with people and the environment.

## Ben Okri Faculty of Humanities Doctor of Literature (Honoris Causa) Lesetja Kganyago Faculty of Business & Economic Sciences Doctor of Commerce (Honoris Causa) Phuthuma Nhleko Faculty of Engineering, the Built Environment and Technology Doctor of Philosophy (Honoris Causa) Sindiwe Magona Faculty of Education Doctor of Philosophy (Honoris Causa) Zanele Dlamini Mbeki Faculty of Health Sciences Doctor of Philosophy (Honoris Causa)



An internationally respected academic lawyer and expert, Ghanaborn Professor Martin Tsamenyi has focused his life's work on the critical relationship between humanity and the sea, advocating for carefully balancing environmental protection, economic prosperity, maritime security and healthy lives and food security sustained by fisheries resources.

He holds a Bachelor of Laws degree from the University of Ghana, and a Master of International Law and PhD from the Australian National University.

An Emeritus Professor of Law at Australia's University of Wollongong, Prof Tsamenyi is the world's leading

## Champion of THE OCEAN

Professor Martin Tsamenyi

Doctor Of Laws (Honoris Causa), Faculty of Law

legal expert on fisheries matters in the Asia-Pacific region.

His reputation extends beyond the Asia-Pacific, as Chair of the International Commission for the Conservation of Atlantic Tunas and expert consultant and member of UN-led organisations and projects.

He is also involved in maritime awareness in Africa, as adviser and counsel to the Republic of Ghana on maritime boundary matters and project leadership at Ghana's University of Cape Coast's Africa Centre of Excellence in Coastal Resilience.

Prof Tsamenyi is active in the global maritime industry and has an impressive publication record.

His relationship with Nelson Mandela University spans almost a decade, with major contributions to the SARChI Chair in the Law of the Sea and Development in Africa and co-editorship of the Journal of Ocean Governance in Africa (from 2015) and The Law of the Sea – The African Union and its Member States (with Professor Patrick Vrancken).

As a champion of both the sea and human rights – particularly environmental rights protection linked to human dignity and life through food security and fisheries resource sustainability – Prof Tsamenyi has made an incalculable contribution to humanity's relationship with its environment.



A powerhouse driving broad-based economic empowerment for women, Cape Town-born Gloria Tomatoe Serobe is a well-respected business leader across several industries, with a remarkable track record as an ongoing contributor to South Africa's economic foundation.

Born in Gugulethu in 1959, she holds a BCom from the former University of Transkei and an MBA degree from Rutgers University in New Jersey, USA.

Serobe has earned a solid reputation for working extensively and inclusively with women from all walks of life, creating platforms for their meaningful economic participation.

## Pioneer Serobe puts **WOMEN FIRST**

**Gloria Tomatoe Serobe**Doctor of Philosophy (Honoris Causa),
Faculty of Business & Economic Sciences

Acknowledging Serobe's astute resource stewardship, President Cyril Ramaphosa last year appointed her to head the Solidarity Fund to drive economic recovery, revival and revitalisation following the harrowing recessionary impact of the COVID-19 pandemic.

Best-known for co-founding Women Investment Portfolio Holdings (Wiphold) – the first women's group established post-1994 to list on the JSE – and as CEO of WIPCapital, a Wiphold subsidiary, Serobe and her team have impacted the lives of over 200 000 women.

Her socially inclusive approach and entrepreneurial business acumen

are widely recognised across major industries and she has received multiple awards and recognition for her work.

An outstanding contribution to transformative social engagement is a career highlight. Her design of mass-based participative economic models stems from recognising that the economic asset base of rural people is often communal and thus not recognised in traditional banking and insurance mechanisms.

Serobe is a resolute advocate of social equity, fairness, justice and equality – a frontrunner in targeting poverty, creating jobs, reducing unemployment and building a stronger economy.

SOCIAL JUSTICE AND EQUALITY SOCIAL JUSTICE AND EQUALITY

## Women's power and leadership in society

Finding and highlighting the voices of women across all spheres - personal, intellectual and political – is a key academic project of Mandela University's Centre for Women and Gender Studies (CWGS).

The absence and erasure of female voices is part of the broader sociology of violence in society that contributes towards gender-based violence (GBV), said interim director of the Centre and senior lecturer in the Department of Sociology and Anthropology, Dr Babalwa Magogwana.

Launched in 2019, the Centre is hard at work researching and foregrounding African women's biographies, political histories and intellectual output.

"We see it as our mandate to resuscitate these voices and histories ... we want all African women's voices - workers. rural women, women in business, politics, the arts ..." said Dr Magoqwana.

"We are partnering with other universities in the Eastern Cape, such as Rhodes University, in talking about women's liberation histories and popularism; how women in the liberation struggle were more than mothers and wives - they were essential to the revolution.'

The CWGS is currently working on a book on African women's intellectual histories co-edited with Rhodes University's Dr Siphokazi Magadla and Athambile Masola from the University of Pretoria. Due for publication in 2022, the book explores the voices of women in all spheres – from pop icon and activist Brenda Fassie to intellectual activist Charlotte Maxeke.

The CWGS is also exploring what it means to be 'Queer in Africa', based on the work of Professor Zethu Matebeni, the Centre's first visiting professor, and DSI-NRF Research Chair in Genders and Sexualities at the University of Fort Hare. Her research focuses on gender and sexuality, and specifically, black lesbian lives, LGBTQ rights and queer issues.



01 Dr Babalwa Magoqwana

02 The CWGS hosted the Gender Equality Dialogue to mark 25 years of the Beijing Declaration and Platform for Action

03 In May 2021, the Centre hosted a series of webinars celebrating the life of Charlotte Maxeke





Activism iu actiou

Mandela University students and postgraduates are playing a central role in the creation and growth of the CWGS to advocate for the advancement of gender equality and anti-gender-based violence in higher education and society. We profile three of these powerful, emerging voices.

#### **Nangamso Nxumalo**

Final year BCom Law and Operations Intern, DHL Express Sub Saharan Africa

> "I am interested in the economics of gender, in particular women and class. I draw on economic and legal tools of analysis to research how women in the informal sector organise themselves; and how the developmental objectives of urban and rural women in the Eastern Cape, and across the

> > African continent, differ in terms

of the communities in which they live. Ultimately, I want to use my degree(s) to contribute to policy that is appropriate to the informal sector, as this is where the majority of people in our country are situated.

"What deeply concerns me is how different classes of people get treated differently. For instance, I see how 'classed' or 'privileged' women get treated differently to other women (because of their 'Model C' accent or because they are perceived to be more educated or from a richer, middle-class background or conventionally attractive according to the marketing, advertising and Western idea of beauty that we get fed).

"We need to value women from all walks of life and encourage people to be themselves, so that we can ultimately work together as equals fighting against common structural issues."

#### **Nomtha Menye**

Sociology master's student

"My master's thesis is grounded in exploring the spiritual significance of water amongst the amaXhosa.

"I was born and bred in the Eastern Cape province, and at least once a year we used sea water and sacred rivers such as the *Isinuka* springs in Port St Johns as sites of Intlambuluko (spiritual cleansing). South African historian, academic and educator Dr Nomathansanga Tisani explains in her work how this process is performed with the intention of healing the body and making whole the inner person.

"I believe the traumatic experiences of women in this country need interventions like this that go beyond theories. We need practical interventions that are grounded in the ethnographical study of the Eastern Cape girl child. Research must start at home, with the people at home.

"This research is of importance to me personally, as I come from a family of successful, independent women, yet this does not exempt them from patriarchy and [the attention of] misogynistic men. Organisations such as the CWGS and the Centre for the Advancement of Non-Racialism and Democracy (CANRAD) at Mandela University play a fundamental role in excavating archives of women who have achieved the unimaginable in their time, and this gives us strength."

#### **Nobubele Phuza**

Sociology PhD student, Nelson Mandela University

"My doctoral study focuses on the mechanism and architecture of protests related to gender and sexual justice in South African universities. It traces the divergence of #RUReferenceList, #RapeAtAzania and #IAmOneInThree, as the most notable components of the #EndRapeCulture campaign, from the historical Silent Protest, motherist movements and androcentric #FeesMustFall movement. I want women's resistance to be taken seriously, [both] on the ground and in the academic field.

"Like every other woman, I feel suffocated

by the requirements of conformity to socially acceptable femininity. I am glad to have spaces like the sports field,

which allow me to walk that line of athleticism which is neither masculine nor feminine. It would be great to have that feeling spill over into everyday life.

> "As women we have to think about our own safety all the time because the reality is that we are not safe. We need to be constantly manoeuvring through and around the complexities of agency and GBV. I'm looking forward to a time when things aren't like this anymore."

SOCIAL JUSTICE AND EQUALITY

SOCIAL JUSTICE AND EQUALITY

## THE FEMALE fear factory

The SARChI Chair in African
Feminist Imaginations is held by
Professor Pumla Dineo Gqola from
the Centre for Women and Gender
Studies (CWGS). Heather Dugmore
reports on why this is so significant
for female empowerment.

"The Chair is all about shifting how we think about gender power and women's contributions in the world," said Prof Gqola, who joined the CWGS in May 2020.

"This includes generating research on the archive of African women's intellectual and political work as key thinkers, theorists and figures in the liberation struggle, decoloniality and transformation."

The Chair, officially launched in June this year, has collaborations with colleagues throughout South Africa, the continent and globe. One example is Prof Gqola's lecture on gender-based violence in January this year to the GendV Project based at Cambridge University in the UK, which includes feminist researchers in South Africa, the UK and India. www.thegendvproject.sociology.cam.ac.uk

The Chair is called 'Imaginations' because, as a professor of literature, Gqola is interested in how the creative genres and popular culture are sites of knowledge production, and how they nurture ideas that disrupt patriarchal culture.

#### Knowledge is power

The first book to come out of the Chair is Prof Gqola's work titled, Miriam Tlali, Writing Freedom.
Miriam Tlali (1933-2017) was a novelist, playwright, short story writer, essayist, and activist against apartheid and patriarchy. In 1975, Tlali became the first black woman in South Africa to publish a novel in English, titled Muriel at Metropolitan.

"It is part of the Voices of
Liberation series published by the
HSRC Press and I am very excited
to be part of it, as my book follows
on the work of two very important
African feminist scholars: Shireen
Hassim's biography of Fatima Meer
and Grace A Musila's volume on
Wangari Maathai – the Kenyan
eco-feminist and Nobel Peace
Prize laureate. Prior to these
three contributions, the series
had almost exclusively been
dedicated to male liberationists,
with the exception of Ruth First."

Prof Gqola's next book, published in June this year, has received significant attention,



including in the media. Titled Female Fear Factory, it sets out to understand rape and rape culture.

"I came up with the concept of the female fear factory as a way of describing how patriarchy uses fear to keep women controlled. Fear is a very important mechanism through which women and sexual minorities are socialised. We are conditioned to fear rape and to think about rape as a possibility or inevitability. We modify our behaviour to try to avoid being raped or assaulted, but we know we cannot completely avoid it."

She uses the term 'factory' because fear is an ongoing production in relation to rape, homophobic violence, femicide and policing. South Africa has one of the highest murder rates in the world, and a femicide rate that is more than five times the world average.

#### The fear factor

Fear is pervasive, says Prof Gqola, and intrudes into the everyday lives of women worldwide. An example, as described in *Female Fear Factory*, is the abuse of Saudi Arabian women, who were arrested, tortured and sexually violated for fighting for the rights of Saudi women to drive. But, they kept driving and kept getting arrested.

Through their courage and defiance, they put the issue into the public sphere and shifted the public discourse until, in 2018, they were legally granted the right to drive. It is one further step towards freedom in a country where Saudi women are subject to strict 'guardianship laws' that prohibit them from making even basic decisions without the permission of a male relative.

"My argument as a feminist is that we have to undo fear, because we can never undo rape culture without addressing the fear," said Prof Gqola. "So, we need to draw on our courage and hope, and continuously work to undo situations that instil fear, big and small. We need to keep opening the cracks until it collapses."

She offered the example of young women being harassed by men. "We see this happening in

#### **About Prof Pumla Gqola**

She holds a DPhil (magna cum laude) in Postcolonial Studies from Ludwig-Maximilians-Universität München in Germany, and MA degrees from the Universities of Warwick and Cape Town. A full professor in literature, with specific focus on African feminism, African literature, postcolonial literature, and slave memory, Prof Gqola has authored several books, book chapters, journal articles and magazines on African feminist studies. Her book, Rape: a South African Nightmare, was awarded the 2016 Sunday Times' Alan Paton Award and is one of the most read books on rape today.

public all the time and we need to stop minding our own business. We need to scream at the men to stop doing this. We need our assailants and oppressors to know that women will not put up with this behaviour.

"We need to keep up the #TotalShutDown and #AmINext campaigns against rape and murder of women in this country, so that gender-based violence is not treated as an event, but as the pandemic that it is."

The murder of University of Cape Town student Uyinene Mrwetyana in August, 2019, for example, showed that gender-based violence is far from an isolated event.

#### A light in the darkness

Prof Gqola said that, despite the ongoing pandemic of violence, there was some hope. "We are starting to see a shift in consciousness and we are seeing women's capacity to work together across party political, race,

culture and age lines. We are seeing this happening in South Africa and worldwide.

"Some of the successes are clear: we are seeing predators getting fired and sent to jail; we are seeing some clear institutional change. In El Salvador, for example, for the first time they now have gender specialist judge-only courts dealing specifically with sexual violence and femicide."

Sometimes the successes are less tangible – where just being able to talk about issues that we couldn't talk about before, brings them into the public sphere and helps us to start addressing them.

"We have to keep on disrupting and sabotaging fear and patriarchy in big and small ways. There is hope and there is capacity for freedom and joy; and while we think and theorise about violence and act against it, we must also keep joy and hope alive in our imaginations, as they are just as important – and I want both of these strands to always be there."

"My argument as a feminist is that we have to *undo fear,* because we can never undo rape culture without addressing the fear"

SOCIAL JUSTICE AND EQUALITY CREATING AN ENABLING ENVIRONMENT

#### Mandela Uni Convergence Fund efforts

to make a difference



The eight books selected to be used in the Book Bag Project.

As the impact of the COVID-19 pandemic continues to ravage some of the most vulnerable in society, the elderly, gender-based violence sufferers, communities, schools and organisations in the Eastern Cape were able to get some relief, through the ongoing efforts of the Nelson Mandela University Convergence Fund.

The Fund, established in May 2020 and premised on the University's engagement philosophy of convergence, has to date raised almost R1.5-million in monetary donations and more in kind.

Since its inception, the Fund has contributed to numerous vulnerable and disaster-struck communities, and collaborated with various schools and community-based organisations in a continued bid to make a difference.

The Convergence Fund Deployment Committee (CFDC) which manages the Fund is guided by the need to be responsive to challenges faced by communities as a result of COVID-19, while simultaneously exploring the broader strategic objective of making Nelson Mandela University a transformed, engaged and responsive university.

"The work being done allows the opportunity to explore how best to converge the space of existence and life of the university and society. It has opened the space for us to further understand transdisciplinary collaboration in service of society through engagement with all sectors that play a role in the community and its development," says Dr Bruce Damons, who heads the CFDC.

The Fund has been contributing to communities over three cycles of disbursement to date, with the third cycle currently under way. Beneficiaries of prior cycles, which were administered in partnership with a number of organisations in the province, Nelson Mandela Bay Metro and George, focused on safe food relief to communities. The team use the term safe food relief, as the food parcels also include COVID-19 safety elements such as sanitisers and masks.

With food relief having been the Fund's initial focus, a lot of learning emerged from each cycle of disbursement, which then informed how best to respond in subsequent cycles.

While continuing with its relief efforts, in collaboration with civil society partners, the CFDC is currently busy with the third cycle, which also focuses on sustainable food relief. This is the Community Kitchens Project, which extends beyond the immediate food relief element, and rather links to medium and longer-term objectives around food sovereignty. About 12 such initiatives, in Gqeberha (Port Elizabeth) and George, are receiving support from the Fund.

The Fund has also partnered with the US-based Utopia Foundation on a Book Bag Project, which encourages reading among young children, particularly during the pandemic, when their psychosocial well-being is affected.

Launched in May 2021, the Book Bag Project saw pupils from some of Gqeberha's under resourced schools receiving a pack of eight carefully selected books, aimed at also building resilience among children.

As the Fund continues its work, it remains guided by the principle of converging with communities in a concerted bid to change the world.

For more on the Convergence Fund and its work, visit mandela.ac.za/convergencefund.



The prognosis in March this year was not good. About half the University staff and only a third of students polled were prepared to take the COVID-19 vaccine. But today, with the national vaccination plan underway, Nelson Mandela University is quietly optimistic that the initial 'vaccination reluctance' has been reversed. Debbie Derry reports.

## Vax on track

Mandela University was one of the first to put up its hand to be part of the biggest national vaccination roll-out programme in South Africa. How could it not join efforts to be of service?

As an institution that takes its lead from the social justice drive of its namesake, Nelson Rolihlahla Mandela, it was morally the right thing to do. It was Madiba who said, "health cannot be a question of income; it is a fundamental human right." And so, another new journey for the institution began in February this year – that of establishing its own accredited vaccination centres.

Again, like the pandemic the

world over, there was no guidebook providing an A to Z of the process. Nor were there assured outcomes. Additionally, work in establishing a centre and vaccinating folk towards the herd or population immunity target of 67% of the population began as the country jockeyed to secure vaccines, then vacillated with what it had received and initially struggled to get going. This did nothing for so-called 'consumer confidence' and entrenched what researchers refer to as 'vaccination reluctance' across South Africa, and indeed the continent of Africa.

A 15-country study of Africa by the African Centres for Disease



If the University learnt one thing in its bid to drive behaviour change towards stopping the spread of COVID-19, it was persistence and perseverance. No one campaign, poster, webinar or COVID-19related death was enough on its own. It has only been an integrated, ongoing effort by countless individuals that has tipped the scales towards collective COVID-19 compliance with masks, social distancing and good health hygiene now the natural norm.

#### Roll-out forges ahead

Mandela University offers its vaccination service to staff members, students and the public at large.

By 19 July, 4091 people had received their first or second jab, 806 of whom were staff, since the centre opened its doors in mid-

Control late last year found that a significant proportion of people experienced concerns around vaccine safety. This was driven by a mix of being influenced by mis- and disinformation, a lack of accurate information and distrust in government of international bodies.

#### Vaccination dipstick survey

It was no different at Mandela University. Only half of staff polled in March were ready to take the COVID-19 vaccination, and only a third of students, according to the findings of a recent dipstick survey.

Of the 642 staff members who responded to the online poll, which ran for three weeks, 48.9% indicated they would take the vaccination, 29.5% said no and 21.6% were undecided. Of the 5159 students who completed the poll, 42.1% responded negatively, 33.7% positively and 24.2% were undecided.

With fake news, conspiracy theories and anxiety levels high, the results were hardly surprising.

A vaccine and vaccination education and training programme was a must. It would need to be creative, ongoing and consistent.



The 'ink' monitoring the vaccination progress of staff is rising on the vaccine indicator. The goal is oncampus herd immunity."



fact sheets, education and training sessions virtually and mask-tomask, posters, radio interviews, flyers, a video and two VAX FAX Conversations webinars have been hosted to date to enable staff and students to make an informed decision ahead of taking the vaccination.

As the information rolled out, so the infrastructure rolled in.

#### **Vaccine Roll-out Workstream**

The health professionals who led the University's COVID-19 compliance efforts, also led and are leading the University's vaccination rollout plans. The uncertainties and challenges associated with the former prepared them well for the vaccination accreditation process.

"We need to be prepared for any eventuality. If the Department of vaccine, we need to be ready," says Sister Valencia Benjamin, head of Occupational Health Services at Mandela University.

To this end, the Vaccine Roll-out Workstream, as part of the broader institutional Coronavirus Task Team, continues to meet regularly.

Today, two sites on North Campus in Gqeberha (Port Elizabeth) are open, with accreditation of the George Campus site imminent. On the Summerstrand site there are two vaccination centres with 10 vaccination stations apiece - one for staff and the public and the other for students.

The sites each have waiting areas, an emergency room and a postvaccination site, along with all the necessary support equipment - the special fridges, waste management boxes, security cameras and vaccination tools.

There is signage, post-vaccination flyers and an ever-attentive team of professional nursing staff who have been specially trained to give the vaccine.

Monitoring Health wants to introduce a different June. A second centre, dedicated

VACCINE RESPONSE

www.mandela. ac.za/Newsand-Events/ Coronavirus-Information/ Vaccine-rollout

## THE BALCONY AND THE DANCE FLOOR

The scale and speed at which the university sector has been required over 14 months to digitally transform to online and hybrid (a combination of online and face-to-face) models has triggered a seismic shift in higher education. By Lubabalo Lokwe, Director: ICT Operations and Customer Services and Chris Wentworth, Director: Information Systems Development

This time last year, Professor Cheryl Foxcroft, Deputy Vice-Chancellor (DVC): Learning & Teaching, coauthored a column with Dr Sam Bosire, our University's Chief Information Officer, about how the need for rapid digital transformation in higher education has been given a shot in the arm by the global COVID-19 pandemic.

Directly after President Cyril Ramaphosa declared a national state of disaster due to the pandemic, our institution established the Corona Task Team (CTT), chaired by the DVC: People and Operations.

The CTT, comprising members from the academy led by the DVC Learning & Teaching, Student Life and Development, professional and support services staff, and union representatives, played a central coordinating role, bringing together groups from the entire spectrum of the University. Our ongoing and continuously upscaled shift to digital, online and automated platforms remain the core focus area for the CTT. This has transformed the role of the ICT division - from an enabler of academic and institutional planning in years gone by, to the heartbeat of our institution.

#### Full speed ahead

The CTT, which meets weekly, has become a critical forum for ICT to

collaborate with university-wide colleagues in identifying the needs and challenges, tapping into the spirit of innovation, and coming up with transformational technology solutions. In the words of new world of work strategist Marianne Roux in her book, Adaptive HR – Impactful HR for the new and virtual world of work, this transformation requires "an exceptional ability to be on the balcony and dance floor at the same time."

At Mandela University, the transformation has pursued the trajectory of digital transformation that we had already embarked on, but it was turbo-boosted in ways we could never have predicted. Our ICT team has been working round the clock in shifts, observing all COVID-19 protocols. It's a defining moment and a very exciting time for technology as innovations are now being contributed by every function of the University. The traditional ICT delivery model is changing to one centred on co-creation of solutions. Collaboration with colleagues sharing with us what they have been able to do with the ICT tools and platforms is helping us to refine the

Staff had to quickly adapt to supporting delivery on virtual platforms and to make significant changes in traditional examinations

and assessments. From the era of overhead projectors to real-time video and enriched, multimedia learning experience, the majority of our staff have admirably risen to the cause. The University developed a number of solutions as part of ensuring that remote work

continued seamlessly. Development of online booking systems, the roll-out of new applications and introduction of the Customer Relationship Management (CRM) system are some of the examples of digital platforms introduced during this period.

#### Student support

Addressing digital access disparities continues to receive priority attention. In terms of the digital divide – given the difficult socioeconomic backgrounds of so many of our students – over the past year we have been working hard at closing

the gap. We still face challenges of data and connectivity, which is a national imperative, but the fact that we achieved an 80% completion rate of the 2020 academic programme is a triumph. Our students were supported with devices, data and resources for online learning and research. Consequently, enhancing digital literacy, which is now foundational and a desired graduate attribute, requires attention.

In 2020 the University facilitated the procurement and distribution of laptops to over 10 000 students, and every student receives 30GB of data per month – setting this up was one of the processes ICT needed to rapidly enable. A number of sites with learning information resources are zero rated. All campuses are WiFi zones and our students have access to computer labs. During 2020, students living in circumstances that are not conducive to learning were given the opportunity to return to campus.

Supporting staff and students working remotely requires an entirely new approach, to ensure that they are coping and productive and to teach our students all the methods of learning online – the pedagogy



#### **About Chris Wentworth**

Director: Information Systems Development with effect from 1 November 2020

Mr Wentworth's experience is in the architecture, design and development of solutions in both private and public sectors. The focus of the solutions he developed over the last few years include business process improvement – particularly document management – automation, efficiency and accountability of the users. These cover a variety of industries over the years, including engineering, production, retail and public sectors.

He started his career as a PC technician, progressing to development, system administration and operational management. Before joining Mandela University, he was in strategic management for several business units. In addition to his experience in Software Development and IT Operations, he has a strong ability to understand clients' requirements and to build a solution to fit these.

Mr Wentworth's qualifications include a BCom Hons (CS & IS) and BCom Rationum from the University of Port Elizabeth, now Mandela University.

of online learning has become a key research field.

In many respects, the past year has served as a primer in the university's digital transformation strategy. The lessons learnt have equipped us to plan longer term with a focus on improving the quality and predictability of our virtual offerings. The goal is to make the virtual experience as close as possible to the real contact experience.

Modernising spaces as part of creating a smart campus initiative is gaining momentum. A new paradigm in infrastructure planning integrates technology and the traditional bricks and mortar. The Department of Higher Education and Training (DHET) has reviewed its infrastructure funding priorities and foregrounded digital transformation. The possibilities in redirecting new infrastructure funding are inspiring, including enriching and augmenting classroom experiences through the use of technology.

#### Silver linings

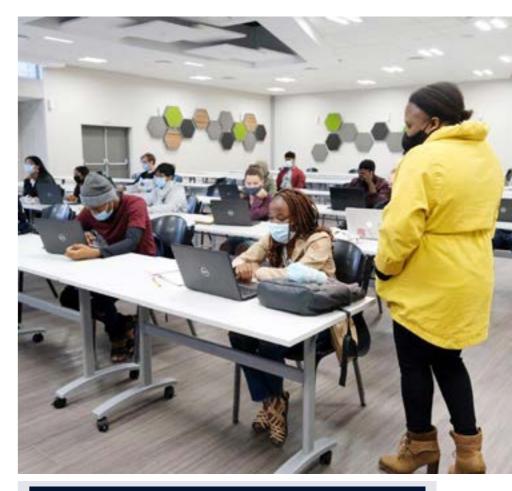
There are many positive spin-offs in the digital transformation journey. For example, our online student and staff recruiting strategies can now tap into talent everywhere, and we can grow and enhance our institution and extend the Mandela University name on a global scale at a rapid pace. Our research and engagement has also greatly benefited from the growth in national and international partnerships.

As with many a good thing, digital transformation is a double-edged sword, as there are also serious challenges to be faced as we go along. For one, mitigating cyber security threats has assumed high priority to ensure that the information resources of the University and the user community are secure and protected.

In so many ways, this new digitalised world is evolving at an incredibly rapid rate and it is up to us to seize the opportunities, and make sure we keep riding and shaping the curve.

Regrettably, we are far from seeing the back of the pandemic and at the same time we are facing dire water shortages in the Nelson Mandela Metro, which is adding to the challenge. Fortunately, the agility and resilience with which the University has weathered many a storm will continue to stand us in good stead as we strategise and upscale future offerings and benchmark an enriched, fit for purpose digitalised experience.





#### **About Lubabalo Lokwe**

Director: ICT Operations and Customer Services with effect from 1 September 2020

The former head of ICT and Analytics for the National Skills Fund (NSF), brings a wealth of experience to this ICT Services portfolio, recently reconfigured as part of the organisational redesign process to align its operations with the long-term strategy of the University.

Mr Lokwe is a a senior IT professional with extensive public experience and a proven track record of applying appropriate technology solutions to meet business needs while minimising risks. His exceptional ability as a leader to solve problems and resolve technology issues, provide system enhancements and analyse business processes and implement successful automated solutions significantly enhance Mandela University's ICT Services.

Before joining the NSF in Pretoria, where he oversaw the strategic deployment of ICT, Mr Lokwe worked for the State Information Technology Agency (SITA), rising through the ranks to Senior Manager: Applications Support.

He has an MSc: Information Systems from the University of Roehampton in London and an MBA from the TUT Business School. He also holds a BTech in Public Management and a National Diploma in Public Administration and Management from the PE Technikon, now part of Mandela University.



At the same time, there is an awareness of the need to protect the earth from the threat of climate change with innovative and environmentally friendly construction methods.

Nelson Mandela University is

Nelson Mandela University is attuned to these global trends, ever mindful of how to grow into the future in a sustainable manner while preparing our students for an increasingly 'virtual' world.

Of the more than two dozen construction projects the University is working on, student housing tops the list for infrastructure services and space optimisation. The new Medical School on its Missionvale Campus is another, where many buildings have been repurposed rather than built from scratch.

Deputy director of infrastructure services and space optimisation Graham Gouws outlines the



timelines and scale of construction of residences: part of his R62-million budget saw the George residence project of 198 beds completed in November 2020, while three new residences of 300, 500 and 1000 beds are planned for Gqeberha (Port Elizabeth).

"Construction is underway and progress has been steady since work resumed post-COVID," said Gouws of the three sites in Summerstrand.

Gouws estimates a completion date in August for the first part of phase one, and February 2022 for the second part, for the 300 and 500 bed buildings. The second phase of the Summerstrand residences – for 1000 beds – is planned for completion in September 2022.

This drive to increase access to campus life dovetails with the national Student Housing Infrastructure Programme, which





aims to provide 300 000 student beds across South Africa.

Nearly a third of the 1500 George Campus students now live on the campus, known for its focus on the green economy, but accommodation has until now been at a premium.

Set in the forest on the outskirts of the Garden Route town, the new residence is a three-storey building overlooking the pine plantations and supplements the existing 430 beds.

In Gqeberha, a novel building method and a forward-thinking funding model are being used to speed up construction.

#### Innovative building model

The residences are being built using the innovative PERI UNO method, in which walls and slabs are cast in concrete, in one continuous pour, into the pre-erected formwork system.

This is the first time this system has been used in South Africa and it is a much faster form of building than traditional bricks and mortar.

The new residences will see students live in separate 'pods', each of which contains four bedrooms, an open area with a kitchenette, two toilets and two showers. Each pod will have its own entrance and will be connected to the next three-storey pod by a walkway.

Borehole water, already available on site, will be used for the toilets, while provision has been made for the possible introduction of solar energy later.

In line with its values of social justice and equality, the University is committed to enabling and empowering others. Hence SMMEs are an integral part of the project, working in teams and learning new skills associated with the new PERI UNO building method.

The three new residences, behind the Sanlam Student Village and on vacant land next to the North Campus car park, are turnkey projects from design concept through to furniture and finishes.

In total, they will bump up the University's on-campus accommodation from 3870 to 5868 beds over the next 13 months and go a long way towards alleviating the shortage.

The forward-thinking approach and an innovative new funding model have allowed for the expanded number of beds and is being considered as a blueprint for sharing with other institutions.

#### Flexible medical facilities

The government's Infrastructure and Efficiency Fund has made a significant financial investment in the new Medical School on Missionvale Campus.

Further funding will be invested as part of the University's safety and security implementation plan, and to improve the water and electricity challenges, which will in turn also benefit the surrounding community.

High-tech facilities have been essential and these now include a clinical skills unit, human biology laboratory, human anatomy and medical physiology laboratory, multipurpose teaching venues, computer laboratories and lecture halls.

Attention has been paid to ensure that spaces are flexible. For example, two multipurpose teaching venues which each seat at least 100 students can be configured for formal lectures and group work.

The five existing lecture halls in Block 508 have been refurbished to ensure adequate audiovisual facilities, access, lighting, seating and temperature control.

The anatomy laboratory is another flexible teaching space, ideal for teaching using cadavers and prosected specimens as well as models and electronic resources such as Anatomage virtual dissection tables. It's been equipped with adequate lighting, ventilation, air conditioning, Wi-Fi connectivity, locker space and security measures.

An adjacent venue that can serve as a teaching area is being developed into an integrated anatomy and pathology museum.

The clinical skills laboratory has five areas, again with versatile end uses, including examination areas with cubicles and central teaching space, simulation rooms, debriefing



rooms that can be opened up into one area, and a teaching venue.

#### Keeping our students safe

Infrastructure and technology have boosted security on Missionvale Campus, with projects that include a new guardhouse, enhanced perimeter fencing, lighting and other upgrades.

This will not only enhance staff and student safety but also help to protect state-of-the art medical equipment worth millions of rands.

Safety and security are also a priority on the southern campuses,

with plans drawn up for two new gates to enable greater access

The new Law Building, although a smaller project, is another exciting development as the Faculty of Law has been straining at the seams with increasing enrolments.

#### Building the wave at Ocean Sciences

Along with the Medical School, Ocean Sciences is one of the University's three strategic trajectories, and construction on a R25-million student commons area

up for two new and conference centre is close to reater access completion.

This extension to E Block will include dedicated spaces for a transdisciplinary cluster and research chairs, an ocean sciences building, an administration hub and maintenance.

There are other major changes ahead for the North Campus on the corner of Gomery Avenue and University Way, where a futuristic new Science Centre will link North Campus to the Ocean Sciences Campus.

Watch this space as we build our future!







- 01 Artist's impression of the new Law Building
- 02 The Law Building taking shape on South
- 03 Three new residences are being built using the innovative PERI UNO method.
- 04 The new guardhouse on Missionvale Campus

## POPIA unpacked

The Protection of Personal Information Act 4 of 2013 (POPIA) comes into effect on 1 July this year, and all public and private entities must comply with its strict regulations or face stiff penalties. By Beth Cooper Howell

The Act was created with a simple focus in mind: to protect our personal information from being illegally shared, abused or used unethically.

Private data, however, is a complex issue – and a potential minefield for companies, organisations and individuals with whom it is shared.

Mandela University's proactive approach to POPIA compliance began in 2014 and the process has picked up pace this year, with the implementation of the MANCO-approved POPIA Compliance Strategy.

The POPIA task team – headed by the Legal Office and ICT Services – is providing around-the-clock assistance to all divisions, and promoting general awareness and understanding of how POPIA compliance works at ground level.

The strategy hinges on a two-pronged approach:

- Education and training programmes: helping staff to implement POPIA compliance measures in time
- Targeted departments: critical training for Academic Administration, Human Resources, Alumni Relations, Communication and Marketing and ICT Services, as these are most privy to private information.

#### Getting in on the Act

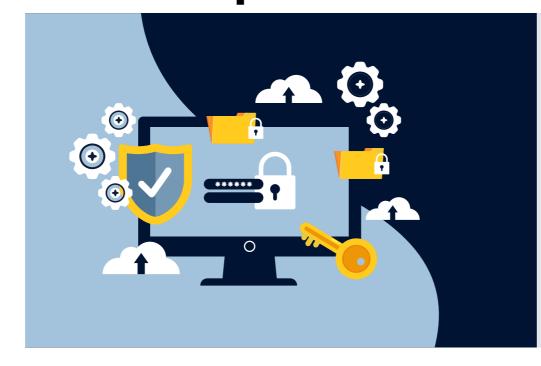
POPIA stipulates that personal information be obtained, processed, stored and destroyed in a confidential and responsible manner and prevents unauthorised access to that information.

In short, the Act gives us more control over who does what with our personal information.

Our institution has just a few months to become POPIA-compliant – or face severe penalties.

By 1 July this year, Mandela University and all other public and private bodies had to have strict measures in place to protect the private information of individuals on its databases.

The University must explain to individuals why we need personal identifiable information (PII) and what it will be used for, according to Systems Engineer for Security, Ryno Boshoff. Staff have been schooled in why POPIA compliance



## identifiable information (PII), exactly?

What is personal

- contact details (telephone numbers, email and physical addresses, social media, etc.)
- private correspondence
- biometric information
- demographic data (race, gender, marital status, sexual orientation, age, physical and/or mental wellbeing, religion, beliefs, culture, language, etc.)
- opinions of and about a person or group
- history: employment, medical, criminal, financial and education.

is crucial, since failure to comply may result in criminal charges being brought against the responsible party – the organisation holding personal data.

If convicted, stiff penalties apply:

- A fine (R1-million to R10-million) or jail (one to 10 years)
- Paying compensation to individuals for damages suffered.

#### **Blanket protection**

Correct and secure storing of information protects people from scammers, for example, in line with everybody's right to privacy and not having information divulged without approval, explained Boshoff, a key member of the POPIA Task Team.

POPIA outlines eight principles that all South African data processors – including Mandela University – must follow. Each principle encourages responsibility, security and consent.

Higher education institutions have the added challenge of students leaving each year, but needing to keep these students' details for future student records, and so on.

University departments have undergone rigorous training in understanding the different rules and how to apply them.

The POPIA Task Team has ticked several boxes in its march towards compliance:

• staff workshops

- an easy-to-navigate process for reporting security breaches
- a POPICheck survey, which analyses compliance progress in each department and identifies corrective measures, where appropriate
- security checks via the Cybersecurity Roadmap and Information Security Operational Plan
- an institutional privacy policy, which documents how the University gathers, uses, discloses and manages a client's data in any form
- ongoing communication plans, with regular updates and technical support.

#### Layers of security

It's easier than you'd think to break POPIA law – and most employees are unaware that they may be doing so.

For this reason, the POPIA Task Team has driven home the message that being 'collectively compliant' is key to success.

Staff have been coached in identifying high-risk behaviour and reporting security breaches. Common scenarios include leaving confidential personal data in a printer; sharing personal information with unauthorised people or using data copies, rather than working from the original source.

The team has set up a simple online form at <u>www.</u> mandela.ac.za/Report-a-Security-Breach for reporting suspicious behaviour or potential breaches.

### How POPIA protects our alumni

"Staff, students and alumni want to be assured that their information is used for the purpose agreed to," says Alumni Relations director Paul Geswindt.

"POPIA ensures that the individual is protected. The digital space and related value of personal information to businesses, public organisations and other actors can lead to information overload, marketing 'onslaughts' and personal information being shared without permission.

"The number of unsolicited calls from call centres, for example, is already an infringement on privacy, when calls interfere with work or family time after hours and at weekends – simply because some company bought a database containing your information."

The Alumni Relations Office communicates with former students, keeping their personal contact details and qualifications in a customer relations management system.

In line with POPIA, the Office must give alumni the option to opt out and unsubscribe for any reason, such as disagreeing with the frequency or type of information that they receive.

Interestingly, the Act describes acceptable types of communication in terms of the University's core function, such as important institutional information, but not direct marketing, which may include how donations are solicited.

The processes must therefore align properly with POPIA, as failure to do so could impact fundraising efforts, continues Geswindt.

"We have to look very carefully at the type of communication shared, as the Office must obtain permission [from alumni] to send them certain communications."

The Office has identified several important Alumni-related aspects of the Act:

- Contact details may not be shared with other businesses or individuals. The Office cannot provide contact details to an alumnus organising a reunion, for example – but may contact reunion guests on the organiser's behalf.
- Social media is a valuable connection tool, since alumni voluntarily join and connect on these platforms. The Office has therefore invested in a soon-to-be-launched alumni digital networking platform.
- Personal connections made during student years
  make it easier to maintain a relationship and foster
  continued communication with graduates in the
  future. Our alumni must want to have a lifetime
  connection because of their university experience.

SUSTAINABILITY

## Putting the PLANET FIRST

Nelson Mandela
University is on a
drive to position
itself as a higher
education leader in
studies for sustainable
futures by pursuing
innovative local and
global research
and sustainability
solutions.

and Internationalisation (RII), Dr Thandi Mgwebi, who is leading the initiative from the RII side.

Ideally, the platform will include transdisciplinary research on the George Campus, Ocean Sciences Campus and Missionvale Campus, with an associated increase in impact research outputs throughout the University.

"The University also has a sustainability reference group, led by the Deputy Vice-Chancellor of People & Operations, Mr Lebogang Hashatse, and implemented through the Infrastructure Services & Sustainability Department headed by sustainability engineer, Dr Andre Hefer."

In the Times Higher Education rankings 2021, Mandela University has been recognised for its strengths in addressing specific SDGs, notably: Good Health and Well-being [SDG 3], Life Below Water [SDG 14], Life on Sustainability embedded in Faculty of Science

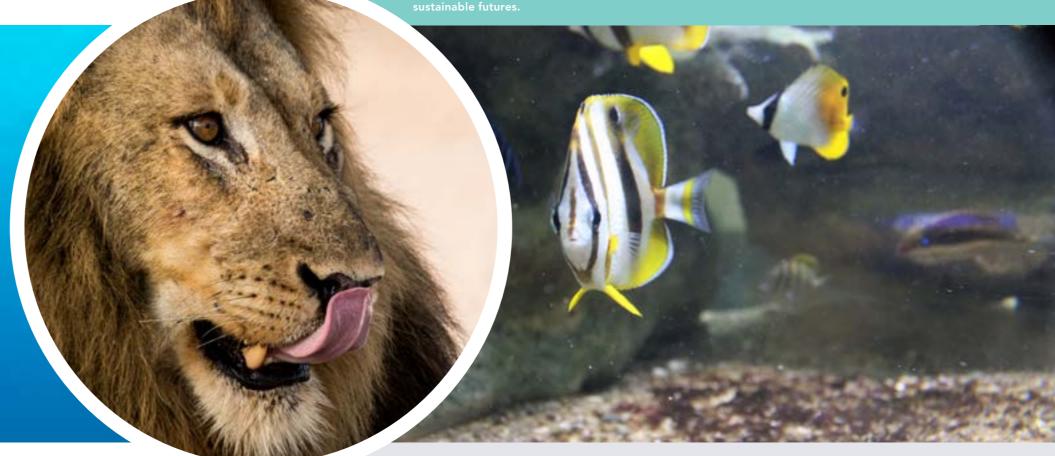
#### VISION

A world-class engaged and transdisciplinary African Faculty of Science that responds to socio-economic and environmental challenges in society.

#### **MISSION**

To offer a diverse range of life-changing pure and applied science-based learning, teaching, research, training, innovation, engagement and transformational experiences, which develop excellent graduate and staff attributes for **VALUES** 

Diversity
Excellence
Ubuntu
Social justice and equality
Integrity
Environmental Stewardship
Responsibility
Safety and Wellness



"The Sustainability Sciences Platform speaks to the Core Ideology and Strategy of the Faculty of Science and it will enhance collaboration between all the faculties," says Executive Dean of Science, Professor Azwinndini Muronga.

"The basis for this orientation is that the current injudicious use of natural resources for financial gain is unsustainable. We are compelled to take a different look at our planet and how to sustainably manage all life here, including ourselves.

"In our new Faculty of Science structure, to be introduced later this year, we have reorganised the faculty into Clusters instead of Schools. This

change will enable the faculty to realign its focus towards Sustainability Sciences, the Fourth Industrial Revolution and Community Engagement.

"One of the new programmes to be introduced into the faculty is Resources Security. This programme will be housed in the Life, Earth, Environmental and Agricultural Sciences (LEEAS) Cluster.

"We are adding an Energy Solutions programme in the Physical Sciences Cluster and a new X-Stream Cluster, which will include an Institute for Advanced Studies that will incorporate Advanced Sustainability Sciences Studies."

and the world is looking for ways to develop human capacities to meet the targets set out in the United Nations' Sustainable Development Goals (SDGs).

Time is not on the planet's side

"We are busy unifying our sustainability expertise across all faculties and working towards a campus-wide, globally recognised Sustainability Sciences Research Platform," says Deputy Vice-Chancellor of Research, Innovation

**SUSTAINABILITY** SUSTAINABILITY

Land [SDG 15] and Partnerships for the Goals [SDG 17].

These rankings are global performance tables that assess universities' contribution to the SDGs. The 2021 Impact Rankings assessed 1117 universities from 94 countries or regions.

"This was the first year that Mandela University participated and we are extremely pleased that our university ranked fourth overall in South Africa, with the University of Johannesburg, the University of Pretoria and the University of Cape Town as the top three," Dr Mawebi explained.

Mandela University's strongest ranking was Life Below Water [SDG 14] – 40th globally – and it was the only university in South Africa to rank in this SDG. For partnerships [SDG 17], it ranked highest in South Africa, together with the University of Cape Town and the University of Pretoria.

"What we need to accept is that the SDGs are not going away, irrespective of the time frame currently set at 2030," says Dr Mgwebi. "The African Union Agenda 2063 addresses the same issues raised in the SDGs and we are going to need to work on these in perpetuity if we hope to achieve anything approximating a sustainable world. There is no choice, given that we share one planet."

#### The right thing to do

"Creating a Sustainability Sciences Platform is the right thing to do. It will scale up the support and opportunities for our existing transdisciplinary sustainability footprint nationally, on the continent and internationally, and ensure that we develop increasing numbers of formidable sustainability scientists and graduates," says George Campus principal, Dr Kaluke Mawila.

Dr Mawila explains that many of the programmes offered on the George Campus had already shifted to a sustainability focus, as had their multiple partnerships.

For example, Mandela University is one of five institutions teaching forestry in South Africa that have joined three European universities in the €1-million Forest21 project. It is funded by the Erasmus+ programme of the European Union, titled '21st Century Climate-Smart Forestry Education for Livelihood and Sustainability in South Africa'. Forestry can play a key role in increasing local employment and mitigating global climate change, and the local forestry industry is strongly committed to the project.

"Our University's forest management, wood technology, engineering and built environment programmes are collectively looking

at sustainable building models to develop new ways of building in South Africa," says Dr Mawila.

The George Campus is the site of a showpiece Cross Laminated Timber (CLT) building that was scheduled to be completed by April this year, but was delayed by COVID-19. CLT and mass timber construction is already making significant inroads in Europe, North America, and Australia as the low carbon, sustainable, economically competitive construction material of choice.

The building is a partnership between the Faculty of Engineering, the Built **Environment and Technology** (EBET), an Italian construction company, Innovhousing, and several other university and industry partners in Europe and North America.

To advance the adoption of CLT in South Africa, Mandela University has established the CLT Engagement Unit as a transdisciplinary entity. The University will use the building to advance knowledge and skills about CLT and mass timber in construction, and incorporate this in curriculum and transdisciplinary research, including in engineering, architecture, construction management sciences and business and economic sciences.



George Campus a sustainable ideal

> "There is growing awareness of the economic value of the natural environment's contribution to the health and sustainable livelihoods of people in Africa and globally," says the Director of the School of Natural Resource Management (SNRM) in the Faculty of Science, Dr Anton Schmidt. The School is situated on the George Campus.

"Our stated Vision is to train natural resource managers and scientists for a sustainable biosphere, with particular emphasis on the African continent. Conserving our ecosystems on land, in our rivers and in our oceans yields massive returns in terms of ecosystem services and aligned and carbon sequestration.

"Humans are an integral part of ecosystems and therefore we should refer to these systems as social-ecological systems, and not just as ecosystems. This emphasises the 'humans-in-nature' perspective."

The George Campus is perfectly suited to be a Sustainability Sciences Hub, since the structure and content of the academic programmes in the

School of Natural Resource Management, and the research focus in the School and Sustainability Research Unit (SRU) on campus, address the sustainable management of natural resources in the conservation, forestry and agricultural sector.



The School of and PhD students in 2014 to 115 in in the School with

Postgraduate research areas in the School of Natural Resource Management include, but are not restricted to:

- conservation agriculture (not ploughing up your land, etc.)
- improved cultivation practices
- improving soil carbon and quality
- water efficiency in crops
- integrated pest management
- organic agriculture systems
- game ranch/reserve management
- endangered species management.

The School is also actively involved in several sustainability engagement projects, including:

- Sustainable land reform farm management in the Eden and Klein Karoo districts in the Western Cape
- Peri-urban Agricultural Business Incubation project in Thembalethu, George
- Kos-en-Fynbos Project (food gardens in the George area).

**New Honours in Natural Resource Management Approved** 

Prof Josua Louw in the School of Natural Resource Management was instrumental in the development of the new honours programme approved by the Council on Higher Education (CHE) in April this year. The final step is to get a SAQA (South African Qualifications Authority) registration number. The intention is to enrol the first group of honours students in 2022.

The honours students will complete the following modules:

- Principles of Sustainability (the aim is to also offer this as a service module to honours students beyond the Faculty of Science)
- Research Methodology
- Research Project
- Electives:
- Forest Management
- Agricultural Management
- Conservation Management
- Social-Ecological Systems.





Marketing gurus should focus their behavioural change expertise on educating humanity about the rapid loss of species and habitats on the planet, says Nelson Mandela University's Richard Cowling, a top South African scientist and Emeritus Professor of the African Centre for Coastal Palaeoscience. Heather Dugmore reports.

Prof Cowling strongly advocated this approach in a recent Royal Society-published article titled 'Behaviours for conserving biodiversity', saying that advertisers could use their skills to convince people to start looking after the planet.

The National Research Foundation A1-rated scientist explained that, despite decades of scientific evidence about biodiversity loss, behaviours have not changed.

"We continue to take far more from the natural environment than we give back, with no thought for tomorrow and we therefore need another approach," says Prof Cowling.

different to the vast human population and level of growth and consumption in the world today.

"The outcomes are calamitous for both nature and humans. Rising per capita consumption in the developed world and increasing populations in the developing world are stripping the Earth of its resilience at precisely the time when it needs to absorb the huge and impending ecological shocks that climate change will bring."

#### What's the answer?

Cowling explains that unless we mainstream biodiversity and focus on this natural capital to assess national prosperity, these services will continue to be neglected, undervalued, overexploited and continue to decline. Conservation assessments at both the regional and global scale recommend that at least 50% of the Earth's habitat needs to be under some form of conservation management to ensure the long-term persistence of biodiversity processes.

"It requires an operational model or 'theory of change' to mainstream biodiversity into all sectors of society. As part of this, conservation science research needs to be transdisciplinary and include all streams of knowledge, including ethics, values and social and environmental wellbeing." Top





#### South Africa a world leader in key biodiversity areas

South Africa is the first country in the world to complete a comprehensive national Key Biodiversity Areas (KBAs) assessment for al ecosystems and across multiple groups of species.

Preliminary results from this assessment have identified more than 540 KBAs in South Africa. These KBAs collectively cover approximately

370 000 km<sup>2</sup> of South Africa's terrestrial and freshwater environments, equivalent to 30% of South Africa's mainland extent. Further, an approximate 173 200 km<sup>2</sup> of KBAs are located beyond the mainland due to the presence of significant seabird colonies.

In 2016, the global conservation community developed an internationally recognised Key Biodiversity Area (KBA) standard to identify the most important biodiverse sites world wide. The standard sets out criteria for the recognition of sites that contribute significantly to the global persistence of diversity in terrestrial, freshwater and marine ecosystems.

In 2019/20, South Africa became the first mega-diverse country to test the KBA standard across a full range of species groups and ecosystems. Preliminary results from this assessment have identified more than 540 KBAs in South Africa. These cover approximately 370 00 km2 of South Africa's terrestrial and freshwater environments collectively, equivalent to about 30% of the country's mainland areas. A further 173 200 km2 are located beyond the mainland, due to the presence of significant seabird colonies. South Africa is the first country in the world to complete a comprehensive nationl KBA assessment for all ecosystems and accorss multiple groups of species.

### CAMPAIGN EARTH

#### **Everything is connected**

Simply put, biodiversity is the diversity of all living organisms, species and habitats, both land and sea, on our planet. Biodiversity involves every process and aspect of Earth: oxygen, food, water, pollination, shelter, climate, disease control and soil fertility; but the majority of humans have forgotten that we rely on it – and treat it as an infinite resource.

"A behavioural consequence of our ancient huntergatherer inheritance is a tendency to discount the future: get what you can today and let tomorrow take care of itself," says Prof Cowling.

Around 160 000 years ago, our ancient ancestors along South Africa's Cape south coast – the world's first evidence of cognitive humans – efficiently harvested the spectacular biodiversity of the area, such as edible plants, intertidal molluscs and plains game.

Biodiversity was at the centre of our ancient lifestyles and there was more than enough to sustain us, as there were only a limited number of people, which is very advertising agencies should be part of the model, with "social marketing of the desired behaviours [needing] to be undertaken at scale to engender pro-nature behaviour through compelling marketing campaigns."

#### Needs vs wants

Over many years, says Prof Cowling, advertisers have convinced us to buy all sorts of things that we don't need, many of which are not good for us. Instead, they could use these techniques to accelerate positive social change by



SUSTAINABILITY



- 01 uKhahlamba Drakensberg Park. Photo: A Froneman
- 02 Harvester Nokuzola Tshontshi with Protea compacta. Photo: Flower Valley Conservation Trust
- 03 Clearing black wattle infestation to free up water in the Keurbooms River catchment Plettenberg Bay region

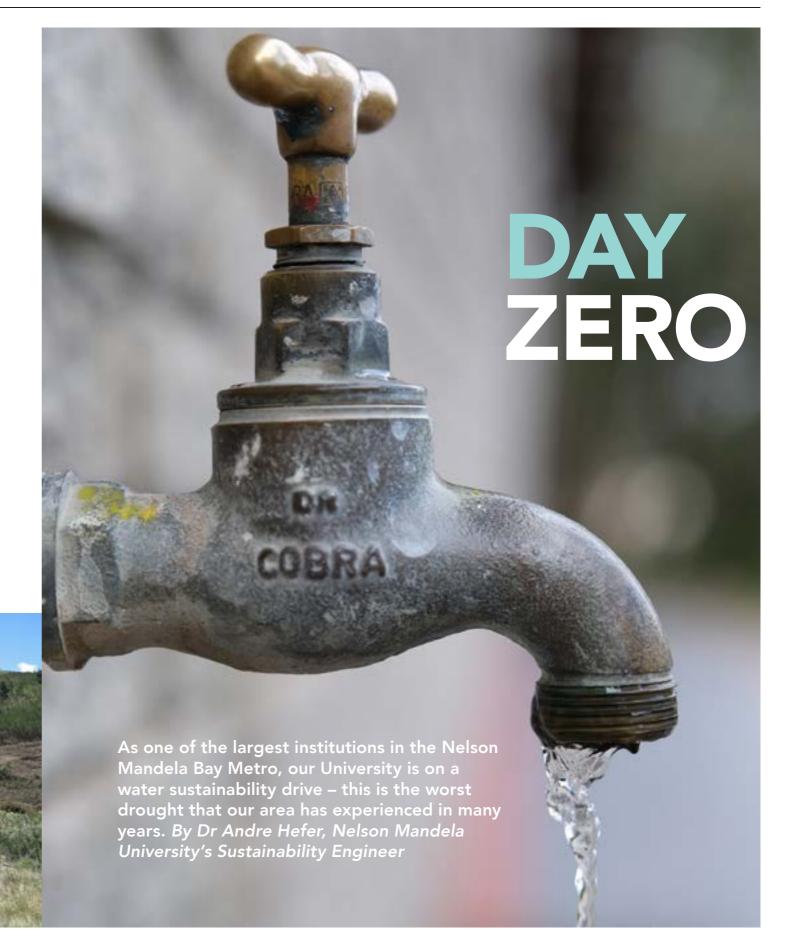
mainstreaming biodiversity for the common good.

"We need to engender a passion for the natural world in our young people in place of them frying their brains with social media. We need ... more YouTube channels about biodiversity that appeal to young people, such as the one titled *Crime Pays but Botany Doesn't*, where the narrator goes into the field and shares the fascination of plants.

"We [also] need people to understand that protected environments are not there to exclude people; they are there to ensure our collective sustainability through healthy natural environments," said Prof Cowling.

Action-based programmes, such as Working for Water, which removes alien tree infestations in catchments and frees up priceless water resources, need to be prioritised as essential services and mainstreamed into municipal services.

"Humans have the potential to change fast as we have in the past, and that gives me hope," says Cowling. "It will be disruptive change and there will be people who resist it – such as people who think global warming is a hoax – but overriding this is that we have cooperative behaviours embedded in our evolutionary roots as part of our survival, and if we can tweak this meme and let it explode with the right imagery and wording, we could see a lot of change."



SUSTAINABILITY



our water management and risk mitigation plan, led by the DVC of People & Operations, Mr Lebogang Hashatse. We are well into the implementation phase that was upscaled in June 2020, with an emphasis on our Summerstrand campus, which is in the red zone for municipal water supply, and makes up 60–70% of our overall use.

We are further escalating our water emergency plans, as we currently face Day Zero from July this year, with feeder dams to the Metro emptying.

In mid-May, the four feeder dams to the Nelson Mandela Metro – the Kouga, Mpofu, Churchill and Groendal – were down to an average12%, with the Kouga down to 4%. The Kouga dam supplies water to the eastern part of the Metro, including KwaNobuhle, Sea View, Beach View and the North End Lake industrial area, where Aspen is producing the COVID-19 vaccine.

#### Mandela University goals for water usage

• Increasing the usage of

- secondary sources of water (RE/new water, borehole water, rainwater, greywater, etc.), over the next 5 years, to 30% of our current water usage. This objective will result in naturally diversifying water sources with a lower reliance on a potable municipal supply and ultimately cost savings.
- To decrease our overall water usage (from any water available water source) by 2% per annum, over the next 5 years.

There are no cross linkages between the Kouga Dam supply and the Nooitgedacht Scheme that receives water from the Gariep Dam scheme, which supplies most of the Metro's water, notably to the western suburbs. Excluding industry usage, the Metro uses 300 mega litres (MI) (300 million litres) per day for its population of just over one million people. Of this, 170MI per day comes from the Nooitgedacht Scheme, which equates to a shortage of 130MI per day.

#### Summerstrand campus a water 'hotspot'

The University's total water use across all campuses is 1.5 mega litres or 1.5 million litres per day during peak periods. Up to 70% of this water usage is on South Campus. At full capacity for this period, we have 18 000 students and approximately 2500 staff members on our two Summerstrand campuses. This includes 3500 students living in campus residences. Our residences

are approximately 90% full again, as so many of our students who live in circumstances that are not conducive to online learning during the COVID-19 pandemic, applied to return.

We are doing everything we can to ensure that our University, students and staff, have a water supply. People & Operations is working with our Communication and Marketing division, and, informed by the Municipality Disaster Management and Business Chamber Task Teams, we are implementing emergency measures, together with a powerful water awareness campaign.

In terms of saving water, user adaptation is one of the highest-impact and cheapest approaches, and we have significantly stepped up our water awareness campaign on campus in collaboration with Communication & Marketing.

Every single member of the University community needs to play their part. If we run out of water, students and staff on our campuses will have to return home.

At all costs, we have to avoid reaching the situation where we completely run out of water and are faced with the question: 'Now what?' It's a reality – and it has never been more acute.



#### **Three-pronged strategy**

On campus, the use of technology, source diversification and user adaptation solutions are addressing the water crisis, not only for the current drought, but as part of an ongoing sustainability drive.

#### **Emergency measures**

We are working hard to increase the number of critical buildings and

residences that have emergency water tank storage reserves to keep operating for up to two days if the municipal water supply is interrupted. Most buildings already have storage tanks and we have purchased an additional 95 x 5000L water tanks to be installed at critical areas across our campuses. These will be in place by end-July.





- 01 New return effluent irrigation system installed on a rugby field
- 02 Water meter installation with new composite drop-in valve or meter chamber



**SUSTAINABILITY** REVITALISATION OF THE HUMANITIES



#### Addressing water wastage

Residences are the greatest users of water. In 2019, we installed 36 meters and electronic readers at North and South Summerstrand Campus residences and 2nd Ave Campus. Three bulk meters and electronic remote readers were installed on South Campus and currently an additional 58 meters for all buildings there; these should be completed by mid-July.

#### Halve the cistern water

We aim to install flow restrictors on taps and are currently replacing flushing mechanisms of toilets with a cistern-less system using flushmaster valves. This is expensive to install, but is very hard-wearing and longlasting. It flushes directly from the water supply, using half the water of a cistern system, which tends to leak into the bowl. On a university or large organisation scale, this is very wasteful. By mid-July we will have installed 150 flushmaster valves on the Summerstrand Campus and will continue to replace these.

#### Sports fields

These spaces on the Summerstrand campus alone account for about 20% of total water use. Instead of

using potable water, we are now buying water from the Cape Recife Waste Water Treatment Works, which generates quality return effluent (RE) or 'new' water to a treatment standard that is safe for irrigation.

If not used, this water would go into the ocean. We can extract 1.7Ml of RE water per day and store it in our new 1.3Ml holding dam. We pay approximately R2.20 per kilolitre, as opposed to R17 per kl for municipal water. It makes good water use and economic sense, and we are ironing out issues with the municipality to ensure that they remove silt and foliage from the treated water, which causes blockages and can damage our system.

#### **Bathroom solutions**

Our new residences are geared to use alternative water sources for flushing toilets and urinals - two existing residences are already using RE and we plan to have two more operational by year end. It's a massive solution for universities, big businesses and operations in the Metro and beyond, as toilet flushing accounts for approximately onethird of all water usage per day. It's criminal to use potable water for this

identifications and repairs. with as much as 37% of Metro water being lost through leakages over 31 000 leaks repaired since July last year

- Nooitgedacht supply maximised and additional boreholes drilled, adding 15MI to supply
- water restrictions of 50L per person daily – or 500L per household daily - apply
- water restrictors, flow limiters and water meter installations stepped up
- water tanks and water supply truck numbers increased.

#### **Boreholes delivering**

We have drilled two boreholes - one on North Campus and the other on South Campus - linked to the residences. They are achieving a good yield of 80 - 100 000L per day. We are also exploring adding boreholes on Missionvale and 2nd Avenue campuses. Over the past two years, approximately 150 boreholes have been drilled by the municipality across the Metro to increase the water supply. We still have to be mindful about the impact of boreholes on groundwater reserves.

### WHAT DID YOU **WANT TO STUDY** when you left school?

By Gillian McAinsh

Perhaps, if you were good at numbers, you thought that you might become an engineer, or accountant, after matric. If you had a flair for drawing, you may have considered graphic design. Alternatively, you might have had no idea what you wanted to become and, anyway, who says that you only need one string to your career bow these days?

These three Nelson Mandela University alumni each show that a degree or qualification may be a stepping stone to success in quite an unexpected new direction:

- James Scholtz, joint CEO with Richard Ahlfeldt of Rooftop Productions, studied accounting and marketing and now produces high-impact media campaigns to tell stories that help change the world.
- Laduma Ngxokolo, founder of MaXhosa by Laduma, studied fashion design and is now an internationally renowned entrepreneur whose work features in Hollywood movies.
- Stuart Forrest, CEO of Triggerfish, studied fine art and now heads Africa's largest animation studio, which narrowly missed an Oscar nod this year for one of its films.

In a world with ever-shifting boundaries between and within careers, the University's ethos of innovative and entrepreneurial education has served them all well.

And despite their disparate academic and life backgrounds, their businesses - MaXhosa by Laduma, Triggerfish and Rooftop Productions - are making their mark internationally on both the big and small screen.

Ngxokolo's work featured in the 2021 movie Coming 2 America, Forrest's animated film The Snail and the Whale was shortlisted for an Academy Award nomination, while Scholtz's brainchild Reset Earth is both a short film series and

Revitalising the humanities is far more than signing up for a course in the Faculty of Humanities. Cultivating humanity is a core ethos at Nelson Mandela University and calls for the frontiers between science and the humanities to be

This means working across and within traditional disciplines to embody African-rooted knowledge generation.

Or, to put it in simpler terms, as these three trailblazing graduates have clearly shown, a splash of arts, a dash of technology and a keen entrepreneurial streak can propel African talent to shine brightly on the international stage.

### African luxe is

## 'COMING 2 AMERICA' AMERICA' MAXhosa

Working with an Academy Award-winning costume designer on a hotly anticipated new Hollywood comedy is not a typical day-in-the-life experience for a South African fashion designer, no matter how famous.

When legendary costume designer Ruth E Carter, who won an Oscar for her work on *Black Panther*, rings you up it's a special moment.

Internationally celebrated designer Laduma Ngxokolo jumped at the chance to collaborate with Carter on Coming 2 America, a 2021 sequel to the 1988 cult classic Coming to America, which starred Eddie Murphy as a prince from the fictional African kingdom of Zamunda.

Carter knew the opulent sophistication of royalty would resonate with Ngxokolo's creative thumbprint of African luxe and, fittingly, she has dressed the palace staff in the film in his designs.

"I got a call from the queen of costume design in 2019 to co-work with her on a few MaXhosa Africa pieces for the *Coming 2 America* film. The rest was history and history was made," Ngxokolo says.

"Coming 2 America is not just any normal movie; it carries a heavy weight.

So, I still can't believe that we achieved that calibre in a short space of time.

"My team and I enjoyed every minute of working on this project [and] we were especially delighted to see our pieces on our very own Nomzamo Mbatha and several acts we grew up dreaming of meeting."

Carter has said of the movie's style: "If Black Panther's Wakanda is Africa's warring leader in technology, Zamunda is the fashion capital, lighter and more artistic."

For Ngxokolo, "it means that our brand has been stamped – we are global and trending, and this will last beyond us."

Along with Murphy and Mbatha, who wear his garments in the film, Coming 2 America also stars Wesley Snipes, Arsenio Hall, Shari Headley and Morgan Freeman.

He has three pieces of advice for would-be designers: "Specialise in something, have great business acumen and you definitely have to be creative,





The MaXhosa brand stretches back to when Ngxokolo studied at Nelson Mandela University. Thanks to that experience, he sees the humanities as overlapping with business sciences, and recommends entrepreneurship be taught across all faculties.

One of the first awards he won was the University Rising Star and it was the institution's Innovation Office which helped Ngxokolo develop his label through a wing of its business incubator, Propella.

The University also filed design registrations for him to protect his intellectual property – a smart move which would later bear fruit when an international fashion retailer accused of ripping off his sock designs was forced to remove the socks from stores.

"That entrepreneurial background helped me a lot, especially in terms of formalising my business."



because fashion is a creative industry."

A fourth strand of ubuntu – giving back – is also woven into the fabric of MaXhosa. In 2020, Ngxokolo created a one-of-a-kind Ubuntu Rug to be auctioned in aid of student fees, and bidding topped at R430 000.

"The MaXhosa brand was born from my graduation thesis project, so education is something very personal to me," he said, when the rug was auctioned in November.

"The story of my success is rooted in how someone demonstrated the

spirit of ubuntu by investing in my education, and I feel privileged to be able to contribute to changing someone's life the way mine was changed."

He is also one of his own best brand ambassadors and it's rare to see a photograph of Ngxokolo in which he is not wearing one of his own distinctive garments.

And, shhhhh, don't let the secret out – Ngxokolo may design for Carter again: "There is something that we're working on, but unfortunately I signed an NDA."



## Carving animated art

South African animation studio Triggerfish has grown from a snail to a whale with fine art alumnus Stuart Forrest at its helm.

The Triggerfish CEO, who graduated in 1996 from the then PE Technikon, explored careers such as photography and IT before signing up as a junior animator at Triggerfish. Today he heads the Cape Town-based animation studio that is now a global company with staff in Europe, America and the Far East.

Multiple awards such as Annies, an Emmy, a BAFTA and a couple of brushes with Oscar reflect its creative success as well. The most recent accolade was in February this year when Triggerfish's *The Snail and The Whale*, produced in partnership with UK-based Magic Light Pictures, was shortlisted in the top 10 in the best animated film category at the Academy Awards.

"It is such a big honour to be in the top 10 – a [confirmation] that our work is among the best in the world," Forrest said.

As a first-year art student sculpting chunks of metal with an angle-grinder, Forrest certainly never expected to bring his art to life on a digital screen with millions of colourful pixels.

His career journey shows the agile mind of a creative man who is continually adapting to new media, and Nelson Mandela University recognised this when it gave him an *Alumni Achiever Award* in 2017.

"Computers are a tool, and like any tool, can be used in the hands of a craftsperson to create," Forrest said of the rise of digital art and entertainment.







"Animation is a very broad form of artistic expression that combines multiple disciplines from the sciences, the arts, business, marketing – and has applications in just about any field as a powerful communication tool."

He sees a love for your craft as key to success: "The passion for animation, and all its other disciplines, is the biggest attribute you need."

It's a delicious feeling, he says, "when you see something come to life which didn't exist before you started crafting it. After that, it's the ability to focus for long periods on creating art."

Forrest's fine art qualification was the foundation: "It helped me explore a broad range of disciplines: sculpture, painting, photography and allowed me to master the combination of the arts to begin to create animation. Mostly, it gave me a confidence in my sense of aesthetic."

Today he believes a dynamic African world view has much to offer the world of entertainment and art and, yes, there is scope for animation as a career.

Triggerfish Academy, for example, is a free digital learning platform for anyone wanting to understand more about career opportunities in this field.

"It's quite a challenge on the continent as art is not embraced but there are a

billion people here, most of them young, so there is a big opportunity," he said. "There's so much that Africa – and South Africa – has to give because there is an exhaustion with a Western cultural perspective.

"The world has democratised and that's really exciting for independent filmmakers because if you live in Hollywood, it's impossible to get a movie made but, if you live in Cape Town and you have a good idea, it will get made."

The rise of streaming services has also changed the business model, cutting out middlemen such as lawyers, agents and managers.

"Now we've got relationships with Netflix and Disney, we talk to them every week and if there's a new project we are excited about we send it to them. They engage directly."

Staff numbers swell and ebb according to projects, but it takes more than 100 computer animators, computer modellers, lighters, riggers, programmers and administrators to put together a feature film.

Now that The Snail and The Whale is wrapped (it is streaming on Showmax), the next major Triggerfish project is Seal Team. Other past hits include Adventures in Zambezia (2012), Khumba (2013) and 2020's Zog.

"Just make films – you can do it with a piece of plasticine and a cell phone, but just do it."

Western cultural
emocratised and
for independent

01 A still from the Triggerfish animated film The Snail and the Whale

**02** The animated film *Zog* won an Emmy in 2020

03 Zog, the orange dragon

04 Stuart Forrest

### Shout it from the **ROOFTOPS**

When a tech giant like Apple gives your work a shout-out as "App of the Day", you know your product has made its mark.

BCom alumnus James Scholtz, co-founder of Ggeberha's (Port Elizabeth) Rooftop Productions, is used to the media strategy agency winning awards for its videos, but the App Store boost was a bonus.

Scholtz and his team created Reset Earth, a new youth awareness media campaign for the United Nations Environmental Programme, which aims to inspire Gen Z and highlight the need to protect the world's ozone layer.

Rooftop's short animated film

launched on World Education Day in January followed by a mobile game for Android and IOS in

Then, on Earth Day in April, came an unexpected accolade: "It was selected as game of the day on the App store in 50 countries - the whole of Europe and Africa – which was very surprising, and very cool!" said Scholtz.

Since starting Rooftop with business partner Richard Ahlfeldt in 2003, Scholtz has known what

difference. ideas." 01 James Scholtz 02 Rooftop Productions developed the app, Reset Earth, for the United Nations Environmental 03 Reset Earth poster App Store Google Play

motivates their team: making a

"We are powered by purpose, passionate about finding and telling the stories that help change the world – we have always tried to create an impact with our work and

Today Rooftop has won numerous awards for its videos and other work and still sees itself as a purpose-driven organisation.

"So, for example, in the year before last, we created an app for the World Health Organization that was watched by the whole General Assembly of the United Nations," says Scholtz.

He hopes this year's Reset Earth campaign will have a similar impact. Climate change is one of the biggest threats to the planet, and Reset Earth raises the alarm on the danger posed to climate stability by a thinning ozone layer. But, for an accounting

and marketing graduate, what is it like to work with a posse of wildly creative visual thinkers?

The way Scholtz sees it is to consider three aspects, "we have a real drive to create impact and make a change, along with creativity and a business mindset". Together, these elements add up to a winning formula.

"We're a strong, multifaceted team where we see things from a different perspective. That has really allowed us to be both creative and to create solutions with an understanding of tech and how people are reached.

"Having a business background helps us to understand and pitch creative solutions that are grounded in real world needs, understanding how business works.

"It's been an incredible asset as opposed to someone who studied something where the focus isn't on finance. Although it's not the sole focus, it's been a strength."

Scholtz graduated in 2008 and since then has seen Rooftop grow to a staff of 55 with an office in France and a team of freelancers and partners around the world.

Although based in Gqeberha, the company works almost exclusively for foreign organisations.

"Most of our clients are agencies linked to the United Nations and involved in education or the environment, where there are issues around children's rights, women's rights, water, sanitation, hygiene, health care and so on."

Rooftop is focused on supporting the UN's sustainable development goals.

"We partner with high profile brands and NGOs globally who are making a difference, helping them extend their influence through strategic digital storytelling that is not only creative, but effective.

"Our vision for the future is to create a global, borderless business, so we are looking at how we expand into other parts of the world to diversify and get the greatest spread of skills in specialist areas."

#### 'MOMENTS IN MOTHER TONGUE'

#### shares poetic voices

#### A POETIC WAVE

#### from ocean sciences professor

#### By Gillian McAinsh

Moments in Mother Tongue is a collaboration between the University's Department of Communication and Marketing and the Faculty of Humanities.

It is a new anthology that lifts poems from the printed page and places them in the virtual realm, drawing from five published anthologies in English, isiXhosa and Afrikaans. Moments in Mother Tongue also features previously unpublished work from five student poets in the faculty.

A multilingual nation like South Africa calls for multilingual education, and Mandela University is reshaping this with its layered approach to language

It recognises that language has been, and continues to be, a barrier to access and success in higher education, particularly for students who are not English first-language speakers.

It was the first university in the country, 11 years ago, to have a PhD written in isiXhosa. Since then, staff and students have been working on updating the existing language policy, both on the ground and through the Language Policy reference group.

"Storytellers are language lovers; it doesn't matter what part of the world you are from," said poet and storyteller Dr Gcina Mhlophe, an honorary doctor of Mandela University.

"I tell a story from the very depths of my heart and, because I love a story, I want it to be infectious. I want other people to see, to take them there with their minds and their eyes."

Mhlophe spoke at a University webinar to launch a multilingual series of animated children's books, Virus Fighters, earlier this year and praised Moments in Mother Tongue at the same time.

"Never, never undermine the importance of speaking your mother tongue," she cautioned. "Over the years, as I grew as a storyteller, I fell in love with languages, and that led me to loving

Languages have taken Mhlophe on a path around the world and she has been working with words since 1982 - close to 40 years.

Mandela University is also offering free mini-language lessons. Four lecturers in isiXhosa, French, isiZulu and Afrikaans recorded introductory lessons in these languages and these are available online.

Read or download the volume,  $\underline{\textit{Moments in Mother Tongue}}$  in isiXhosa, English and Afrikaans free of charge on the University website.

#### Scars into **BEAUTY SPOTS**

Media, Communication and Culture alumna Siphokazi 'Divinity' Roji has published her first poetry collection, My

Scars Are Now My Beauty Spots.

> Johannesburgbased spoken word artist, MC and motivational speaker said that she had worked on the volume for eight years, since

graduating in 2012. "I started writing and composing poetry in

poet read for a media, communications and culture degree at Nelson Mandela University

> "Then I got my first job in corporate, and [poetry] got put on the back burner because I focused on work, work, work, but it kept on haunting me. Then, in 2015, I met my husband and told him that this was something I was passionate about," she says, adding that he had encouraged her all the way.

My Scars Are Now My Beauty Spots was published online on Amazon the day before her 31st birthday on October 17, and in November she proudly held the first printed copies.

Roji says that 2020 gave her the gift of time because, despite the tsunami of tragedy brought by the coronavirus pandemic, "for me, it felt like a good year, because I accomplished something". She had found time "to sit down and actually focus on something that I wanted to do for so long. We sometimes forget to stop by the roadside and smell the roses. Then you can move on, having rested."

In the 138 pages of My Scars Are Now My Beauty Spots, Roji explores identity, acceptance, spirituality, love, womanhood, purpose and other topics.

"Each piece is accompanied by a short story, lessons I've learnt, or just a time in my life to which I am taken back. I take the reader through the journey of my own personal scars becoming my beauty

This is why she has sub-titled the volume: "A collection of poetry and prose to inspire you in embracing your journey of becoming". Roji feels that she has come through the process of accepting her scars, and the experiences that go with them. "The scar will always be there, and there will always be triggers that remind you of what's happened, but if you don't embrace them, you're never going to grow. I firmly believe that we are always becoming, growing, evolving."

By Gillian McAinsh Nelson Mandela University's NRF-rated researcher Professor Rose

Boswell had an eventful year in 2020.

The National Research Foundation (NRF) awarded the anthropologist a new SARChI Research Chair in Ocean Cultures and Heritage in October.

In addition to academic recognition, however, Boswell published her second anthology of poetry, which has ongoing resonance as the coronavirus pandemic stretches its tentacles into the present and future.

> For Boswell, the former Dean of Arts. the chair is an opportunity to revitalise the humanities - one of the University's strategic priorities – in a field traditionally focused on the natural

> > In making the award, the NRF noted the University already had several research chairs within oceans and coastal sciences, but not within the humanities. The new transdisciplinary chair will be on the Ocean Sciences Campus and support work that crosses the science and

As for where poetry finds its place, Boswell hopes that it will help to lift spirits worn down by living in the still-unbounded COVID-19 world.

Boswell believes in the power of words to reconnect humanity, especially in a time of social distancing and deadly fear of contagion.

"We need art and poetry to evoke, articulate and hopefully heal the turbulent emotions brought by the pandemic," she says.

Pandemix features more than 45 poems she composed between March and July 2020, and through them she delves into the psyche of life under lockdown.

"In one blink, the virus unleashed with it an outpouring of fear, paranoia and vulnerability. Poetry and art are unrecognised antidotes to what currently plagues humanity."

Equally, emotions matter and can provide "deep insight into [the] individual and national psyche,"she says.

"This anthology hopes to add nuance to public thoughts and expressions on COVID-19."

Boswell says works of art had sparked off ideas

for Pandemix, which includes lockdown illustrations and paintings of artists from across the world.





Siphokazi 'Divinity' Roji Photo: Fredlin Adriaan

high school and I have been procrastinating ever since I finished varsity!" The New Brighton-born after matriculating in East London.

**54** | Thetha Edition 5 | 2021



Prof Rose Boswell.

2021 | mandela.ac.za | **55** 



#### **Styli Charalambous**

**Daily Maverick co-founder, publisher and CEO**BCom Honours, 1999

Charalambous didn't expect to be running a media company – he had studied finance, enjoying the number-crunching and problemsolving, and was fully invested in the finance industry.

But, after stints at start-ups and the banking industry in London, his career shift to media materialised through a chance opportunity, via a friend and former fellow student.

"He arranged a meeting with the founder of *Daily Maverick*. They needed someone with business experience. That was almost 12 years ago. Sometimes, the Universe conspires to make things happen." He has grown the organisation over a decade, creating almost 100 new jobs in a sector under siege. "Every new young person we employ is a small win in the fight against youth unemployment."

In September 2020, *Daily Maverick* entered print. "Research confirmed that quality of offerings was a big contributor to the decline of paid-for titles. We used that information to launch a weekly title. Feedback from readers has been amazing.

"We were double circulation from launch six months ago and are one of the few newspapers growing readership anywhere in the world."

Charalambous spoke fondly of his experiences at Mandela Uni, where he learned from "bright, dedicated people and fellow students who went on to have incredible careers."

His advice to students and graduates starting out? "Be curious. It isn't enough to simply know the answer, but to understand the principles of why things work the way they do."



"Be curious. It isn't enough to simply know the answer, but to understand the principles of why things work the way they do."

#### Rochelle de Kock

#### **The Herald and Weekend Post editor**BA Media Communications and Culture, 2008

In September last year, De Kock became editor of two of the Eastern

Cape's most historic titles.

She had been promoted from politics editor and, while an adjustment from politics to general news, De Kock's determined attitude has stood her in good stead.

One of 12 graduates picked for a placement programme after their studies, small town-girl De Kock thrived as a Johannesburg intern before joining *The Herald* five months later, becoming a senior politics reporter before her appointment as politics editor in 2016.

Local government became her specialty. "Bread and butter issues matter to people on the ground, even if we expose corruption."

As acting editor, she witnessed a growth in both titles' online audience, with one million browsers every month. The goal is to convert them into paying digital subscribers.

De Kock is excited about where The Herald and Weekend Post are headed. There is still a place for print, with the biggest driver of sales and revenue for the titles being print. Multimedia is being introduced to the mix, with video and podcasts.

Choosing content is a delicate balancing act for these family newspapers. "We have to balance what's happening in society with the need to uplift. We have stories of triumph. Many people do a lot of good."



"We have to balance what's happening in society with the need to uplift."

"Trust, but verify, always. Journalism is about reporting the truth. Always double check facts."

#### Thulani Gqirana

#### **Drum** editor

BA Honours Journalism, 2012; National Diploma Journalism, 2006

Producing the iconic magazine's special 70th anniversary edition was a defining moment for Gqirana, who feels honoured to be leading the title through its digital shift adventure.

As a journalism student, she learned a valuable truth about the industry: "Trust, but verify, always. Journalism is about reporting the truth. Always double check facts."

Her foray into media began with a tour of *The Herald*, where she worked before joining the *Mail & Guardian*.

As for *Drum*, she never imagined working there. Once Gqirana started working for Media24, she thought, why not? And so, she did.

Based in Cape Town, Gqirana still

calls Gqeberha (Port Elizabeth) home.

The media landscape is constantly changing, said Gqirana. A decade ago, the most trusted news source was print; but now, news is consumed in various ways, making it difficult for readers to discern real from fake.

Media outlets therefore have to work harder to be read – and must always be "up to standard and where audiences are."

Hungry for knowledge, Gqirana enjoys understanding every aspect of a new job and, while working remotely, meets her team every morning.

Her maxim? "You have to love this job to give [of] your best."



"Life begins at the edge of your comfort zone."

#### **Kevin Stapp**

Condé Nast senior vice president, global head of talent management

BA Organisational Psychology and Sociology, 1996; BA Honours, 1998

Based in New York, Stapp backs his work ethic with a simple philosophy: "Life begins at the edge of your comfort zone."

He built a colourful and successful career path after graduating, starting with a decade at De Beers, in the mining and metallurgy departments of Cullinan Diamond Mine, with ongoing promotions leading to a role as group HR manager.

Stapp benefited from new and diverse environments, building resilience and accelerating growth, he said. For over 20 years, his career has involved helping organisations capitalise on new capabilities, whether in high growth start-up phase, or during transformation efforts.

The dynamic professional held senior roles at Bare Escentuals and

Shiseido Americas Corporation, as human resources vice president and talent vice president respectively.

Stapp joined Condé Nast in May 2020 and describes it as a legacy organisation, with titles such as Vogue, GQ, Vanity Fair, Architectural Digest (AD) and Condé Nast Traveller, among many others. Stapp has worked with incredibly talented people, including Dame Anna Wintour.

There is an increasing focus on employee well-being, including mental health, at the company, he says.

Condé Nast is well positioned to leverage shifts in consumer preferences, and increased demand for quality journalism, trusted brands, video and film – and Stapp is proud to be part of the journey.

#### **lan Plaatjes**

**SABC** chief operations officer

BA, Postgraduate Diploma in Management, MTech Business Administration, 1999

Plaatjes took up his new role in 2020 and is proud that the SABC established additional business continuity measures in recordbreaking time to mitigate COVID-19 risk

This, he explained, enabled the SABC to expedite digital transformation, with remote working for radio and news presenters, the launch of three more channels, a sport channel in April this year and partnering with Telkom to livestream channels.

Plaatjes' education is a firm foundation for progress at the broadcaster. When he enrolled for his degree, he aspired to operate at senior to executive level.

The quality of education at Mandela University was exceptional,

he says, enabling students to apply knowledge in diverse environments.

A SAKE Burger Award recipient, Plaatjes acknowledges Professor Charles du Toit for his role in guiding the ambitious postgraduate to a distinction for his master's dissertation.

Working for the greater good of both organisation and country is what drives him, said Plaatjes. "Leaders must have a long-term view to ensure sustainability of the organisation."

His business transformation experience in other public and private sector organisations, especially those being disrupted through digitalisation, had provided him with the expertise to be successful in a volatile environment.



"Leaders must have a long-term view to ensure sustainability of the organisation."

#### **Dave Tiltmann**

#### African Media Entertainment (AME) group CEO

BCom Business Economics and Industrial Psychology, 1986

Tiltmann always wanted to be in radio and own a radio station. This early passion for broadcasting led to a spell at campus radio station Radio Uppie, as a marketing executive, and his business philosophy: "Fun is a serious business."

Radio back then was vastly different to today's technology. Campus radio in the 1980s was connected to the cafeteria and dining halls via a telephone landline, with staff handling the on-off switch and volume.

Tiltmann grew in confidence, loved the industry and was awarded colours for service to the student community. He joined SABC's Radio Algoa in 1989. A succession of promotions led from music compiler to managing director of the station, which was privatised in 1996.

His 30-year tenure posted countless highlights, including Commercial Radio Station of the Year (2018) and Tiltmann's induction into the Radio Hall of Fame. Exponential growth in audience and profitability from 1996 to 2019 was also a noteworthy achievement.

Tiltmann joined the AME group in 2018 and looks after several subsidiaries, including Algoa FM, Central Media Group (OFM, Mahareng Publishing & Digital Platforms), United Stations, Mediaheads 360, Moneyweb and AME Properties.

Now based in Johannesburg, he views his appointment as "a huge honour" and enjoys running a listed company.



"Fun is a serious business."



" You can do and be whatever you want to be."

#### Semeyi Zake

Head of programming at Business Day TV BCom 2000: MBA. 2009

Media wasn't on Zake's radar initially, although management was. His entry into media happened after a mentor, whom he'd met in MBA classes, suggested he write opinion pieces. To his surprise, he was published.

A few years later, having moved from Gqeberha (Port Elizabeth), and seeking a career reset, Zake remembered another mentor's suggestion to do a journalism training programme. He signed up, was accepted and soon snapped up by Summit TV.

Attaining a degree demonstrates the necessary critical thinking skills to initiate and complete assignments, he said. "You can do and be whatever you want to be."

He should know. While working behind the camera in his first media

role at Summit TV, Zake was asked to stand in for the anchor. With five minutes to spare, he borrowed a jacket and a tie.

Zake had done pre-recorded shows, but never a live one. He froze for a split second, and then uttered: "Top stories this hour."

Zake rose through the ranks, giving the Business Day channel a unique perspective on operations.

Among major projects was rebranding and re-imaging for a more modern look and feel and Zake has also been involved with the creation and introduction of new shows.

A key element in the business platforms he manages, whether TV or print, is being accessible to all – and entertaining. Treating the team with empathy delivers amazing results.

#### Songezo Zibi

#### Head of communication and corporate relations: Absa Group Limited

National Diploma Public Relations Management, 1998

Zibi's connection to Mandela University runs in the family – three of his cousins also attended the institution.

The enthusiastic graduate put his diploma to good use, joining Volkswagen South Africa as an intern and working his way up to a PR manager position for the company's Southern Africa brand.

In 2006, Zibi joined Xstrata, now Glencore, as communications manager and later, executive manager. The company had no communications department in South Africa, so he had started one from scratch.

What he learned about management finance and managerial economics "became very real, and intersected with communication and strategy."

Zibi's news journalism career launched in 2013, with a *Financial Mail* senior associate editor appointment. Less than a year later, he was made editor of *Business Day*.

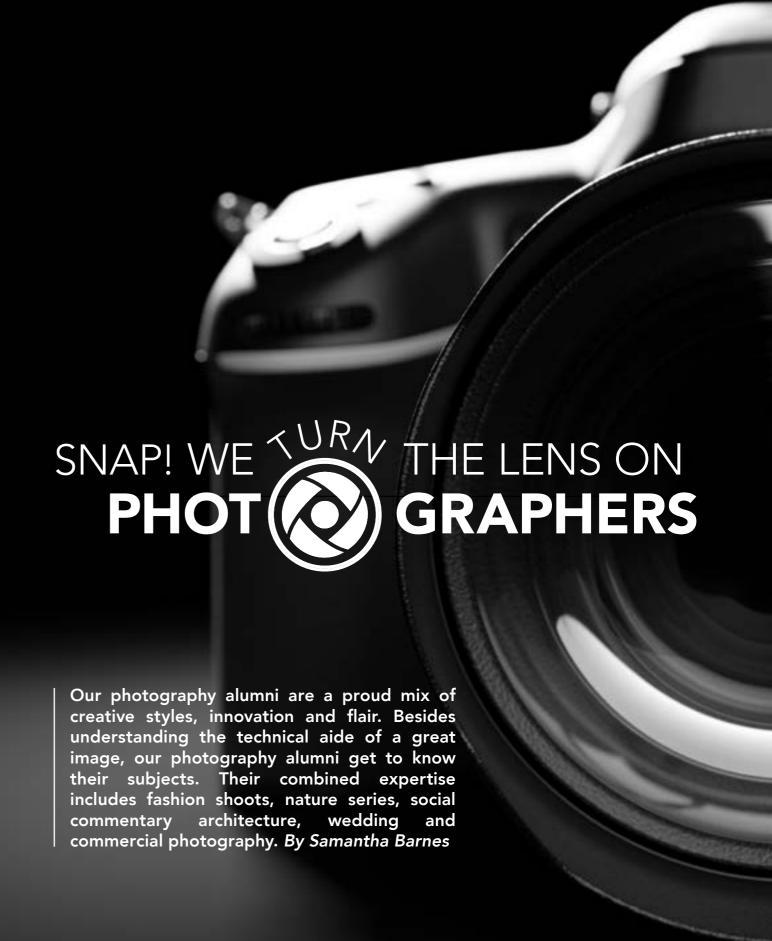
Despite his busy diary, Zibi wrote *Raising the Bar* (2015), which appeared on the Alan Paton Award Long List. He is working on his second book, *Manifesto* and writing the 100-year history of the South African Reserve Bank.

He recommends that aspirant authors write an outline and read. Zibi has written opinion articles for national publications on politics, the political economy and ethics.

Zibi joined Absa Group Limited in April 2016 and heads up marketing, communication and citizenship (CSI). He oversees long-term and immediate issues across all three.



"Management finance and managerial economics ... became very real, and intersected with communication and strategy."



Visual Arts degree: visualarts.mandela.ac.za





#### **Wianélle Briers**

BTech Photography, 2012

Briers' love of architecture is portrayed in all her images and she is lauded in the industry for always going the extra mile.

This may explain top notch assignments, including being on the 2021 Loop Design Awards jury panel.

Briers was invited to the 2016 Venice Architecture Biennial to photograph the exhibition of Swiss-based architecture firm U-TT (Urban Think Tank), and the exhibition of Cape Town based DSA (Design Space Africa). She was appointed the photographer for Zeitz MOCAA in Cape Town and has met and photographed the work of artists such as William Kentridge, Banele Khoza, Mary Sibande and Penny Siopsis.

Exciting assignments include photographing the beautiful Houghton Mosque at dusk, and being locked inside during a power outage. Someone rescued her eventually. On assignment at Windhoek Airport, Briers rallied her sterling communication skills with airport customs, as a client hadn't completed all the necessary paperwork.

Briers strives to always have her camera with her, even when not working, to capture that special moment.

www.wianellephotography.co.za www.loopdesignawards.com/jury

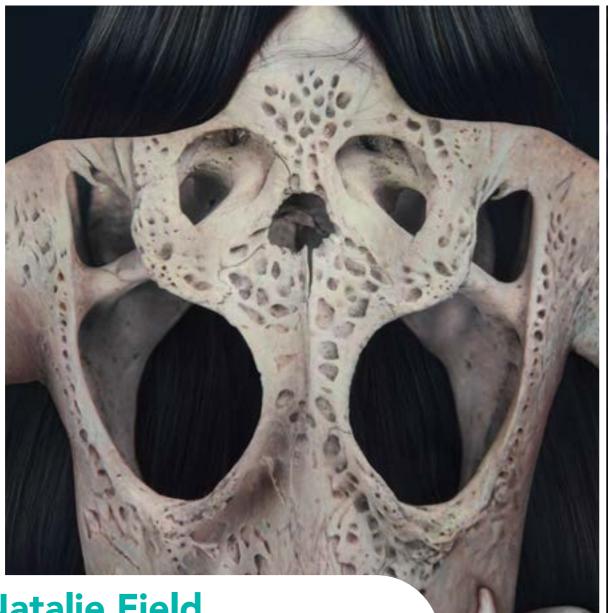
















BTech Photography, 2008



Field became a photographer after a gap year in south east Asia – a place she describes as "a feast for the eyes."

In 2016, Field was invited to her first artist residency in Finland at the Arteles Creative Center. Her work there culminated in a first solo show, Human Nature, at the Berman Contemporary Gallery, Sandton, in 2018.

Field is a multiple award winner, with some awards especially significant. In 2019, she had the opportunity to show her series, Breathe in...Breathe out...Let the human in... at the START Art Fair, hosted at Saatchi Gallery, London.

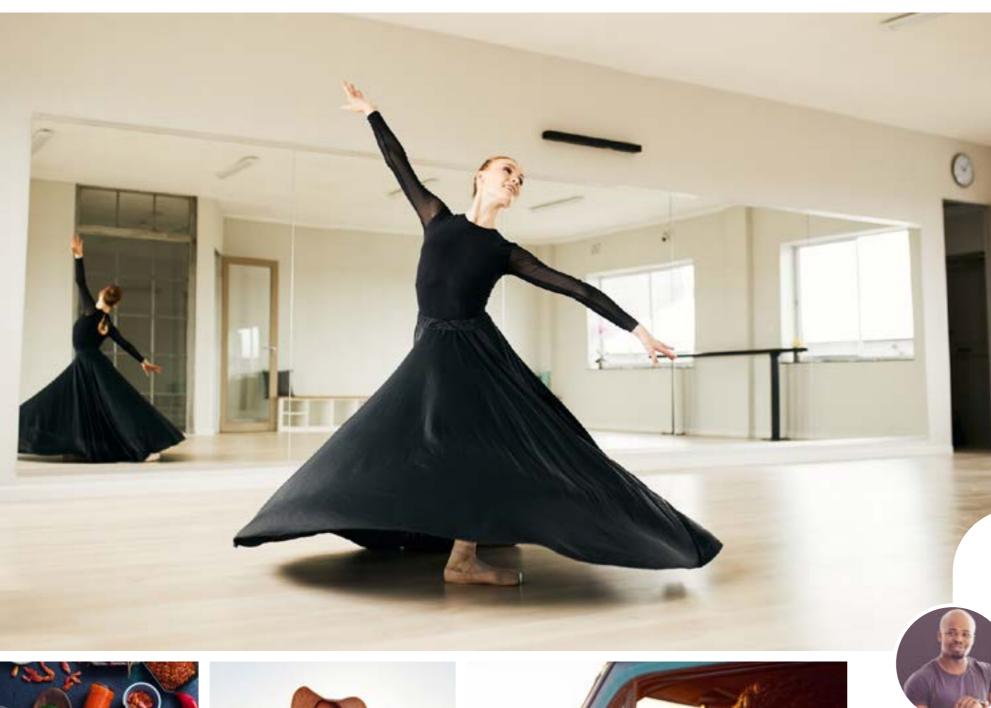
In 2020, Field was a Top 25 Finalist in the Digital Art Category, with her artwork Pebble worm from the Nile, in the Beautiful Bizarre Art Prize. A year later, she won Gold in the Photo Manipulation category in the Fine Art Photography Award for the Hole in your Soul series.

Field pushes creative boundaries. She is rekindling her first love, focusing on environmental matter in her artwork.

nataliefield.photography













#### **Tando Guzana**

National Diploma Photography, 2012 and BTech Photography, 2013

Guzana picked up a camera for the first time in 2009, and has always been grateful to his university lecturers for seeing his potential and for encouraging him.

He rejoined Media24 in 2020 as video editor and photographer for Brand Studio 24. The team has won national, continental and global awards in Native Advertising. Guzana was awarded Best Native Contribution in 2021.

Exciting shoots include the 2019 winter range for alumni friend, Thabo Makheta, in Lesotho, and a campaign for KZN Tourism in the Midlands and the Drakensberg, which reignited his passion for travel, once COVID-19 regulations had eased.

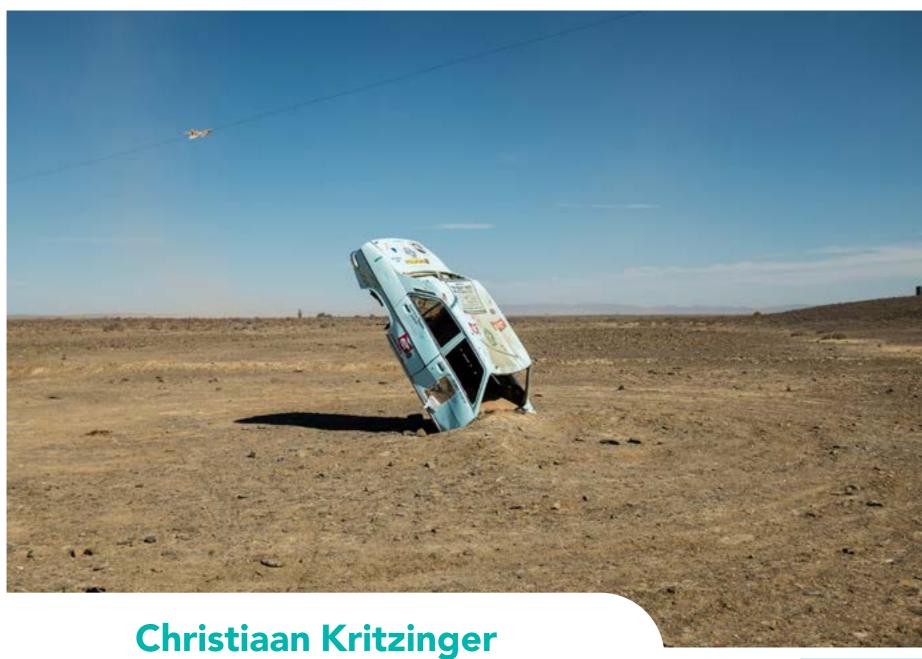
Coming from East London, and being a black man, meant that the creative arts industry wasn't really considered a career option for him, he says – but he has proved that theory wrong.

He respects the people that he photographs as being individuals. Guzana always tries to meet them first, so that he can capture genuine emotions. The consummate professional says that identifying your own style is key.

"It's your style that separates you from the rest, and this includes your professionalism."  $\label{eq:control}$ 

www.tandoguzana.com













Kritzinger works exclusively in the broadcast industry – and he loves it!

Many of the skill sets developed at university are part of his creative lexicon. Lecturers told him to read broadly. This helped with inspiration and creative development, he says.

His deadpan landscape work is being exhibited in a group show in New York and Detroit, he has worked on a crime documentary series and also interviewed Terry Crews in Seville for MTV.

Kritzinger was nominated for a SAFTA (best reality TV show) in 2017 for a travel series he directed, shot, and edited, titled *Weg! Agterpaaie Namibië*. He was also in the Top 10 in the 2018 ABSA L' Atelier competition.

Assignments can be exciting and challenging. Kritzinger has travelled to places most people only dream of visiting, such as the Richtersveld, where he slept under the Milky Way. He has worked "four weeks without a break, 18-hour days, crazy kilometres under the belt, in hostile terrains with rustic accommodation, and a tiredness you wouldn't wish upon your worst enemy."

Aware of the benefits of exercise, he cycles to work.





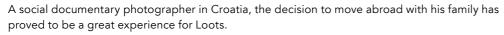






#### **Joubert Loots**

Diploma in Photography, 2013



As an avid traveller, he has covered stories in over 28 countries. At 34 years old, the opportunity to connect with people from different cultural, social and economic backgrounds, sparks his enthusiasm.

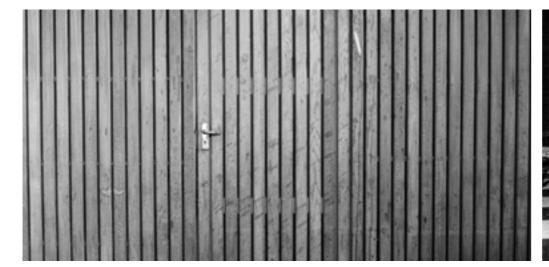
"A powerful image can redefine the way the world thinks. But you need more than a single image to tell an honest story."

In 2019, Loots participated in a global campaign, *Faces of the Fight*, about TB, AIDS and Malaria. The Rooftop Productions team visited South Africa, Belarus, Uganda, Senegal and Indonesia

Assignments included a seven-year project documenting bush dwellers, a street documentary in Israel and Palestine and a self-funded solo EU trip. Loots also did a Rooftop project in India, shooting portraits of entrepreneurs and start-ups.

He regards a successful photographer as "producing work that is beautiful and meaningful."  $\underline{joubertlootsphotography.com}$ 











**Marc Shoul** 

BTech Photography, 1999

Shoul works mostly in portraiture and documentary photography, and observes complex social issues in South Africa.

"I don't have a favourite child. Photography is about moments." He appreciates the privilege of people trusting him with their photo, and allowing him into their space.

Solo exhibitions, locally and abroad, include the African Jewish Museum, Cape Town; Fusee Pierre Noel, Saint Dié de Vosges, France; Blue Sky Gallery, Portland, USA; Extraspaszio Gallery, Rome, Italy; Quai 1, Vevey, Switzerland; Pretoria Art Museum and Atelier de Visu, Marseille, France.

Shoul's images have been featured at the Addis Photo Fest, Addis Ababa, Ethiopia; Visa Pour L'Image, Perpignan, France; the Ankor Photographic Festival, Siem Reap, Cambodia, and in various magazines.

His numerous awards include an honourable mention for *Flatlands*, which sought to document the new era of the area, post-apartheid.

Shoul's work is among the collections of the South African National Gallery, Nelson Mandela Metropolitan Museum, and South African Jewish Museum in South Africa. Overseas, his work can be viewed at The Memmo Foundation, Rome, Italy and at Museum Georges de La Tour, Vic-sur-Seille, France.

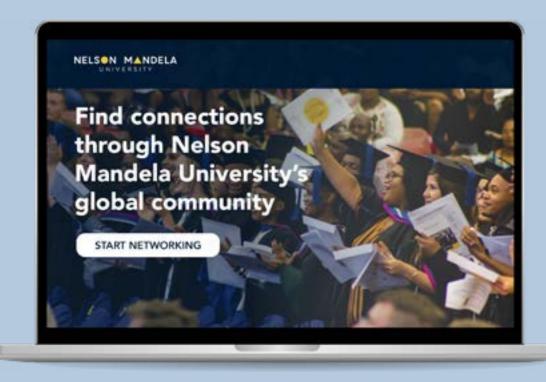
marcshoul.com

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#### The Mandela Alumni Connect platform provides:

- A connection to Mandela Alumni global community through the platform directory
- Professional engagement includes private messaging and real time chats with alumni
- Updated feed of alumni and university news, interesting content, photos of activities, and interactive conversations
- Mentorship opportunities, giving you the opportunity to offer mentorship to fellow alumni and/or students or to be mentored by other alumni
- Job opportunities will be shared on this platform
- Events posted by your alma mater and alumni, inviting you to upcoming events, online meetings and webinars hosted by subject experts within our networks
- Pop-up engagement, as well as other organic engagement opportunities created for and by you
- Membership of affinity and special interest university groups. You can be part of establishing strong networks



### Ken Ramjee ND (Elec Eng)'85, BTech (Bus Admin)'19 and BTech (Elec Eng)'19

Kentilal (Ken) Ramjee celebrated his 80th birthday on 25 June 2021. He served on the former PE Technikon **Alumni Executive Committee** for several years since 1985 and remains a proud ambassador of the University. He was an SABC employee for 27 years and completed his studies part-time while working and caring for his wife Nirmala and children Keeran, Sunita and Vanita. Both Keeran and Sunita are also alumni. Mr Ramjee currently still serves on various organisations and structures nationally and internationally including the Institute of Professional Engineering Technologists, Engineering Council of SA, Engineering Technology Association in the USA and The Institute of Engineering Technology in the UK where he is currently a registered professional incorporated engineer fellow. His passion for engineering, young people and women in engineering has provided him the opportunity to be a part of the University advisory committee, mentor and mentoring guide, moderator and stand-in lecturer when the need arose, of which he notes mentoring students as his greatest success.

## Alumni ambassadors celebrate Poth birthdays



#### **Professor Hugh Jeffery**

Prof Jeffery celebrated his 80th birthday on 10 June 2021 together with his wife Wilma, their three children, spouses and grandchildren. He continues to be an active supporter of the Alumni Association. Prof Jeffery graduated with a Master's Diploma in Technology: Industrial Engineering Machine Systems in 1987 and was Dean of the Engineering Faculty at the former PE Technikon. He served as a member of Council of the University from 2005 to 2018 as well as a member of the Alumni Association Executive Committee for the same period. As a proud ambassador of the University, Prof Jeffery's professional affiliations include being an Honorary Fellow of SAIMechE and Past President of SAIMechE (2005–2007). In 2018 he was presented with an Alumni Association Special Award and the Engineering Council of South Africa award for the Best Accreditation Visit Leader.

EXCELLENCE

# CHANGING the Company of the Changing the Cha

The University's annual Alumni Awards is a chance to celebrate outstanding alumni, who are using their talents and skills to make a difference across the world. With COVID-19 shifting our November 2020 awards event online, more people than ever could join in to be inspired by our Alumni Achievers, our Special Award winner, and our under-45 Rising Stars. By Nicky Willemse.

#### **SPECIAL** AWARD

#### Nomhle Zako

From cleaner to campus res manager

Forty years ago, Nomhle Zako had no matric and got a job as a cleaner in Nelson Mandela University's campus residences – never dreaming that one day she'd be managing one of them. Zako's lifelong journey at the University started changing direction in the late 1990s, when she took steps to complete her high school studies – and she's never stopped learning. In 2007, she graduated with a Bachelor of Public Administration, which led to new opportunities in the Residences Department, ranging from computer lab assistant to secretary to residence manager for Veritas Residence, a position she has held since 2015. Determined to continue building

her knowledge and skills, she has completed a range of short courses, including office administration, self-leadership, basic firefighting and first aid – along with the Basic and Advanced Programmes from the Student Housing Training Institute. She is an inspiration to all the students in her care.

#### **ALUMNI ACHIEVERS**



**St Claire Adriaan**Sowing hope in the lives of marginalised pupils

As an inner-city school principal in New York City, St Claire Adriaan strives to make a difference in the lives of children who face discrimination for belonging to minority groups. It's a journey that was sparked decades earlier during South Africa's apartheid years, when Adriaan was a child growing up in Ggeberha's (Port Elizabeth) Northern Areas. With no choice but to attend an underresourced school and receive an inferior education, he decided to become a teacher educated to the highest level possible, with the aim of giving marginalised pupils the best instruction possible. He now has eight degrees, including his BA, BA Honours and BEd degrees from Mandela University, where he was also the first black SRC president. He left South Africa in the early 2000s to teach maths in the United States, and has carved out a career teaching at diverse schools, where discrimination continues to keep children behind. He does his best to ensure that each pupil feels cared for, trusted and, above all, that they matter. Little wonder that Adriaan has earned a string of teaching awards in the United States.

#### **Dr Theresia Ott**

Finding sustainable solutions for the global mining sector

Her expertise in helping the mining sector to reduce its impact on the environment and uplift surrounding communities has led to global recognition for Dr Theresia Ott. Based in Canada, she is Chief Advisor for Environment for international mining giant Rio Tinto, where she has been instrumental in launching new environmental priorities, developing international platforms

to connect environmental experts, and driving targets for water use, land redevelopment and biodiversity. Ott, who obtained her BSc and BSc Honours degrees at Mandela University in the early 2000s, started her career as an ecologist at Rio Tinto's Richards Bay Minerals in 2012, where she involved local communities in successfully developing and meeting rehabilitation and ecological targets. She swiftly climbed the ranks to Superintendent for Ecology and Rehabilitation, then Principal Advisor for Environment, based in Johannesburg, before being promoted to her current role in Canada in 2018. A sought-after voice on biodiversity and the mining sector, she serves on the International Council of Mining and Metals Environment Policy Committee and was invited to participate at the United Nations Convention on Biological Diversity in June 2020.

#### RISING STAR



## Conrad van Loggerenberg US legal eagle who supports Bay children

Although he works at one of the world's largest law firms, Conrad van Loggerenberg has never forgotten his roots in Nelson Mandela Bay, where he is helping to transform the lives of thousands of vulnerable children. He serves as a committee member and organiser

for Gqeberha (Port Elizabeth) NGO Ubuntu Pathways, which supports the health and education of over 2000 vulnerable children, from birth until they start their careers. After completing his BCom and LLB studies at Mandela University in 2008, Van Loggerenberg went on to complete his LLM degree in the United States – and has been working for New York-based legal giant Paul Weiss since 2011, where he was recently elected as a Corporate Department partner. He focuses mainly on the formation and operation of private investment funds, and advises leading global investment firms in their mergers and acquisitions. Apart from Paul Weiss, he runs an active *pro bono* practice, representing not-for-profit interests and individuals, and recently helped a child seeking refuge from persecution in El Salvador to obtain asylum in the United States. His father, Christo, also a past Alumni Award winner, was Dean of Law and Deputy Vice-Chancellor: Academics at the former University of Port Elizabeth.

EXCELLENCE

#### RISING STARS

#### **Dumisani Chauke**

Using sport to empower disadvantaged girls

From humble beginnings in rural Limpopo to becoming a national netball coach, sport has taken Dumisani Chauke to places of which she never dreamed - and she wants to give others the same opportunities. Through her nonprofit organisation, the Dumisani Chauke Netball Foundation, she uses sport to empower thousands of girls in disadvantaged communities, through netball skills training, life skills sessions and other community-based projects, including providing sanitary towels and pre-loved takkies to the girls. Since her school days, Chauke has excelled in netball, going on to become player and coach at university, provincial and national levels to her current role as assistant coach of the Spar Proteas, South Africa's national netball team. She has also been involved in basketball and was the first woman to chair the Nelson Mandela Bay Basketball Association. Chauke obtained her National Diploma in Sports Management from Mandela University in 2008 and has been the Sport Organiser at Tshwane University of Technology since 2016. She started the Dumisani Chauke Netball Foundation in 2017 and a year later, received a presidential award at the South African Youth Awards, for making a difference in the lives of South Africa's youth through sport.

#### Siyabulela Mandela

Fighting for a better world

Building on the legacy of his great-grandfather Nelson Mandela, Siyabulela Mandela is continuing the fight for social justice and equality through his work and studies, both in South Africa and abroad. At the start of the COVID-19 pandemic, global media development organisation Journalists for Human Rights

approached Mandela to head up its South Sudan operations, working with local media organisations to ensure health information on COVID-19

was accurately reported. He has since been promoted to Regional Project Coordinator for East and Southern Africa and is heading up a project titled 'Mobilising media to fight COVID-19'.

Throughout his years at Nelson Mandela University, where he completed his master's degree in conflict transformation and management in 2016 and is now pursuing his doctoral studies in international relations and conflict resolution,

he has stood out as an exemplary student leader, becoming a voice

for disadvantaged students and low-income workers, particularly during the #FeesMustFall movement. Over the past few years, he

has spent time in several different countries, including Sri Lanka, Ecuador, Canada and the United States, participating in research and discussions on social justice and reconciliation, while engaging with academics, and indigenous and government leaders.



**Khaya Matiso**, BTech (Bus Admin) '01 and an MBA '02, was confirmed duly elected to serve as the Alumni Association's representative to the Institutional Forum (IF) at a Special Election Meeting of the Association on 10 June 2021.

Matiso joined former UPE as Executive Director: Student Services in 1997 and also served as Missionvale Campus Principal (2006–2011) and Dean of Students (2011–2014). He later became PE College Principal and retired from the position in April 2020. After his retirement, he continued his community work as a board member of the Nelson Mandela University Govan Mbeki Maths and Science project, as well as active involvement in rural development and organising annual career events for grade 10–12 learners. He has also continued his involvement with Nelson Mandela University through the Alumni Association. He is passionate about transformation, governance and high-level management matters.



#### Council representative

Alumni Association President, **Khwezi Blose**, was elected to serve on the Nelson Mandela University's Council at an Alumni Association Special Election Meeting held on 15 April 2021.

Blose holds a BSc (Construction Economics) '06 and BSc Hons (Construction Economics) '06. He is currently the MD and sole owner of Tina Consulting: Quantity Surveying Services, MD and sole owner of Siyaya Hygiene Services, Director at N2End Consulting: Digital and Social Marketing Services and the former CEO of Masakeni Civil Construction.



#### **Dr Sweta Patnaik**

Advancing the teaching and learning of textile sciences

Since obtaining her master's and doctoral degrees in Textile Sciences from Mandela University, Dr Sweta Patnaik has been making significant and rapid strides to advance teaching and learning in higher education globally. Employed as a lecturer in Clothing and Textile Technology at the Cape Peninsula University of Technology since 2016, Patnaik has spearheaded the curriculation and re-curriculation of several programmes, and championed the use of technology and innovative teaching methods – even before the COVID-19 pandemic forced a shift to distance learning. In August 2020, she was appointed Country Director (an honorary

and Learning Association, a global community of education professionals dedicated to advancing the scholarship of teaching and learning in higher education. Patnaik is also an active researcher, co-authoring a number of national and international papers and book chapters in fields as diverse as sustainability, waste management, e-learning, and the impact of COVID-19. She has also edited a book on advances in textile manufacturing technologies, which was published in the United States.

position) of the International Higher Education Teaching

Alumni representatives

ELECTED

INNOVATION AND ENTREPRENEURSHIP



Luvuyo Sume holding the silicone socket liner he devised for amputees. Photo: Gillian McAinsh

## A step to **SUCCESS**

In a first for the continent, a pioneering Nelson Mandela Bay amputee with passion and compassion is developing cheaper, more comfortable socket liners for other people with prostheses.

By Gillian McAinsh

Industrial engineering graduate Luvuyo Sume has designed and is starting to manufacture a flexible and inexpensive "pouch" for amputees to help cushion their prosthetic limbs.

And he hopes this medical device will be the first of many products developed by his firm Prosthetic Engineering Technologies (PET), at Propella Business Incubator in Gqeberha (Port Elizabeth). "This low-cost liner will be the first on the African continent, and create a lot of jobs in the process, as we will export to other African countries," Sume said, ahead of completing phase one of the project in April.

"In South Africa we spend R20billion on medical devices every year, including prosthetics, and all that money goes outside of the country."

#### A life-changing device

He outlines how vital an effective socket liner is to lower limb amputees and why so many South Africans are excluded from ever enjoying its comfort and health benefits. "The liner acts as the interface between the prosthesis and the amputee's stump, absorbing all the shock when you walk; but it is not available to government patients, mainly because of the price. They do

get a woollen stump sock but that causes complications, as there is a lot of bruising, and abrasions.

"A private medical patient can go to a private prosthetist and use an imported liner, but that's also a problem, as they cost anywhere between R3500 and R7500, and they only last for nine months."

Propella helps commercialise the research and development projects of master's and doctoral students at Nelson Mandela University, as well as technology entrepreneurs like Sume.

The University's innovation hub eNtsa provided Sume with assistance to create the prototype mould and in the next phase, eNtsa will machine an aluminium mould to enable the liner to be produced at scale.

#### Theory in action

With Propella's help, Sume hopes PET will be able to reduce the retail price to around R1000 per unit, although the costing is not yet conclusive. He will also work with the new Medical Device and Diagnostic Innovation Cluster (MeDDIC), which the SA Medical Research Council, the Technology Innovation Agency and the Department of Science and Innovation launched in March.

"I've already contacted them and they said that I do qualify and they can help develop that product."

It's an exciting step for Sume, who studied lean manufacturing at the University of Michigan in the US in 2003 after graduating with a national diploma in industrial engineering from the then PE Technikon, now part of Nelson Mandela University.

Sume's former PE Technikon industrial engineering lecturer, Grant



Minnie, today oversees the industrial development division at Propella.

"Luvuyo's got a very strong entrepreneurial spirit and it's great to see that he is applying to the current project some of the design principles that he was taught – it's theory in action," Minnie says.

Minnie says Propella aims to develop bespoke business solutions.

"We give technical input and support wherever possible and, once he gets some traction in the market, we'll look at finding ways of scaling the business."

#### **Product for the people**

A prosthetic liner socket may not seem like an obvious product for an industrial engineer to dream up, but it is close to Sume's heart, as he is himself an amputee.

"During my studies we learnt the basics of manufacturing, so I had all the technical and theoretical information; I just needed to translate it into a practical environment.

"It is related to my job which, as an engineer, is to develop and optimise products," says the former production manager. "I worked in the industry for 20 years before I founded this company with Nelson Mandela Bay prosthetist and orthotist Riaan Knight."

When Sume lost his right lower leg, he was unemployed and relied on state medical care, giving him first-hand experience of the limitations of existing products.

However, he is successfully using the new silicon liner and today takes part in sports, including karate.

Making the liner commercially viable on a large scale will make the world of difference to amputees, particularly those reliant on public healthcare.

"Some amputees are not able to take part in sport at all because of the pain, so this will give people a chance to get into an active lifestyle," Sume says. "Some people can't even find a job because of the pain, but now they will be able to participate in sport, or go and look for a job, so it will improve their quality of life."

His dream does not stop with the new silicone liner: "We'll be developing other related medical devices and prosthetic components because all of them are actually imported."



Making the liner commercially viable on a large scale will make the world of difference to amputees ... "

INNOVATION AND ENTREPRENEURSHIP INNOVATION AND ENTREPRENEURSHIP

## Innovatively engineered to BEAT COVID-19

Past and present students and staff in the Faculty of Engineering, the Built Environment and Technology (EBET) have been playing an incredible role in tackling the COVID-19 challenges, writes Gillian McAinsh.

As the faculty's Executive Dean Prof Barend van Wyk can say with pride: "despite the coronavirus pandemic disrupting their work in 2020, the EBET entities contributed more than 550 industry and community projects over 2019 and 2020."

EBET innovations homed in on health-related projects as part of the University's holistic response to the pandemic and the faculty's new publication, *Ideate*, highlights several of these. A few are sketched below.

#### **Technology for the community**

EBET's Centre for Community
Technologies worked on numerous
ICT solutions over COVID-19, and
several related to other medical
challenges. Within the University,
the CCT developed online solutions
to help students and staff during
lockdown, as well as online COVID-19
self-screening bots. Turning
outwards, it developed an online
COVID-19 case management tool,
a contact trace-and-track tool, and
an online screening tool for teachers
and learners.

Other health-related CCT interventions included:

 The Yabelana application (app), designed by North-West University's Optentia, which helps older people to access services



Prof Darelle van Greunen illustrates the award-winning free mobile app Ncediso™

#### **Helping hospitals**

The faculty's Advanced Engineering Design Group (AEDG) wasted no time when it built scarce medical equipment that included a ventilator, intubation unit and accessories in the first weeks of the Covid-19 pandemic.

"These are not random engineering projects which may not go anywhere; they are geared for the real world," explained AEDG project manager Clive Hands of the projects his students volunteered to work on. "These projects were born out of the local government hospitals battling to get equipment, as the pandemic has been dire in the Eastern Cape."

As the province fought its rapidly rising infection rates, students and staff almost immediately started supply desperately needed personal protective equipment, as well as in-theatre and in-ICU devices, to Livingstone Hospital in Gqeberha (Port Elizabeth).

AEDG students, together with CustomWorks and Shibah Engineering, whose director, Cecil Frost, is a Mandela Uni Mech Eng alumni, designed an intubation box or "hood" for patients to use during the intubation procedure.

By stopping the aerosolised droplets from patients potentially infected with the virus from becoming airborne, the box shields the medical staff in theatre during the procedure.

Additional smaller jobs also emerged, such as 3D prints of an adapter for the vacuum extractor, suction waste collector connectors and an extraction cover for a surgical saw device.

- and information in South Africa's largest townships
- ICT Readiness of Schools app, which helps schools assess their ICT readiness
- DigiTB, a video-based tuberculosis platform which enables healthcare workers to monitor treatment compliance and schedule appointments from anywhere via a video link
- Find My Mojo, an innovative app aimed at addressing mental health issues such as depression and emotional stress
- The free mobile app Ncediso™
   which won the United Nation's
   Innovation Award in 2020. This
   app helps community healthcare
   workers and the public in rural
   areas and townships to detect,
   manage and obtain information
   about chronic, infectious and non infectious disease
- KaziHealth, which is an app designed to support educators and encourage psychosocial wellness and nutrition as part of the bigger KaziBantu project.

#### Safer, cleaner air

The Built Environment Research Centre (BERC) was another entity turning its attention to the virus in 2020

"Indoor air quality and ventilation may profoundly impact the spread of diseases in our built environment," said BERC interim director Chris Allen, head of the Department of Construction Management. "Nelson Mandela University has a core focus on building safety, with indoor air quality hugely important for the air we breathe within our built environment."

BERC research areas include the role of poor air quality and viral spread, as well as the maintenance of social distancing, both relevant to venue capacity design and facilities management.

#### Science boost for schools

Science, technology, engineering and maths (STEM) are essential subjects for high school learners and the faculty's STEM in ACTION team, together with its Physical Science

#### **Salutaris Ventilator**



The Hedge student team which worked on the Salutaris ventilator included, from left, Kelvin Langwani, Neo Mabunda and brothers Zain and Zaahid Imran

The Salutaris Ventilator Project was another rapid response when a student-run start-up, Hedge-SA, created a low-cost, easy-to-manufacture, automated resuscitator to help address the ventilator shortage.

The current Salutaris design is a non-invasive ventilator but, as the year progressed, the National Ventilator Project called for an invasive ventilator to help patients with more severe breathing difficulties. AEDG stepped up to this also, and Hands says he sees significant scope for research and development to advance the device.

Thanks to funding from the Manufacturing, Engineering and Related Services SETA, preparations for this second major phase are underway.

More than one EBET entity has been working on ventilators: its innovation hub eNtsa has been working with a consortium of companies and Walter Sisulu University to reverse-engineer and manufacture the Nuffield 200 ventilator system.

Educators Community of Practice forum, conceptualised and delivered a Boost Prep Pack to matrics during the pandemic.

This was aimed at helping to fill the gaps in the disrupted school year – the science curriculum in particular – in Nelson Mandela Bay schools. The Boost Prep Pack includes a booklet with examination guidelines for physical science, past exam papers and memoranda, as well as a flash drive with 25 video episodes.

Read or download your copy of *Ideate*:

ebet.mandela.ac.za/ebeit/media/ Store/documents/IDEATE/ EBET\_iDEATE\_Vol\_1\_March\_2021-(DIGITAL-2).pdf



The STEM in ACTION team were ready for delivery to schools over the pandemic in 2020

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