

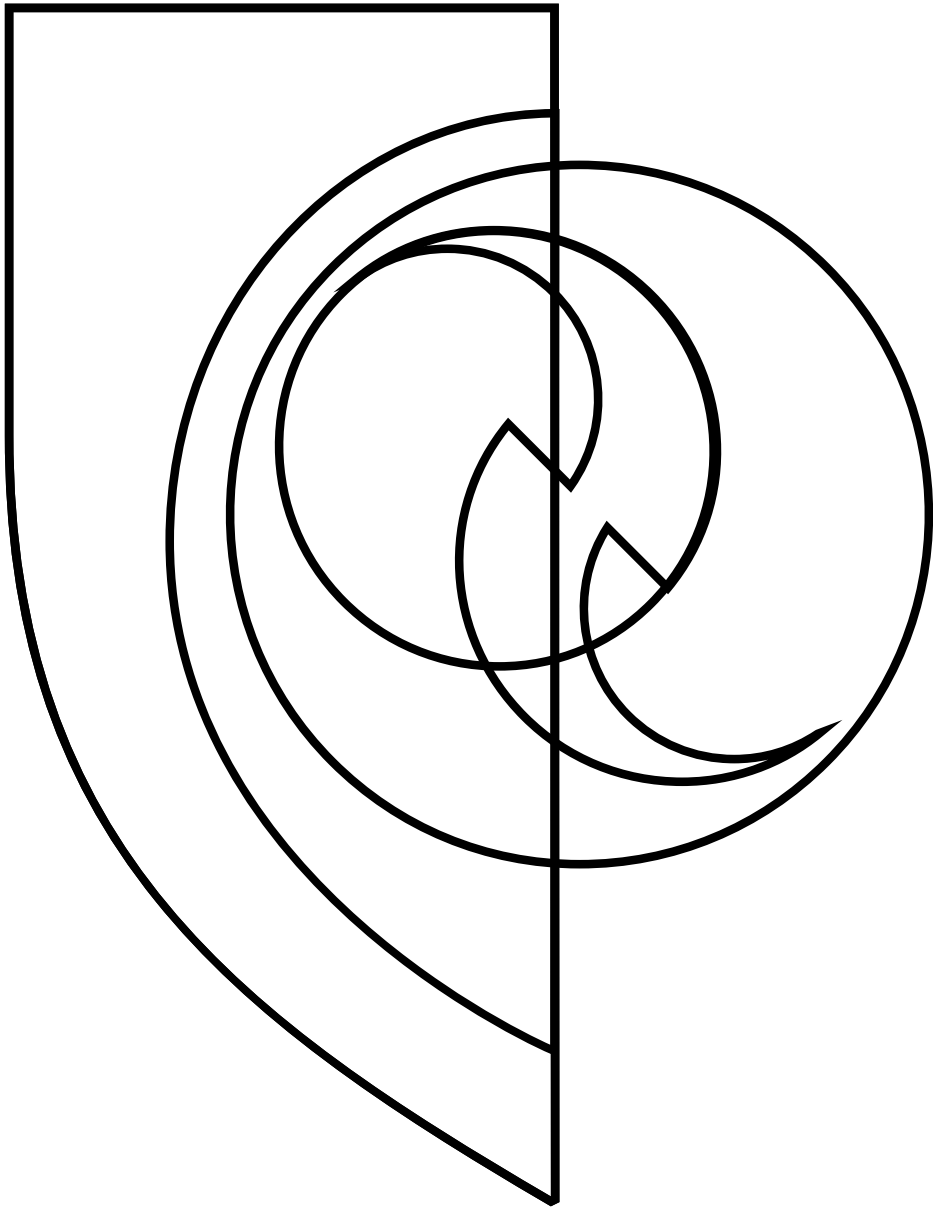


# GRATIA

First Edition 2018



**LEGEND**  
HONOUR



# About this Issue

Communications & Marketing

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## Message from the Vice-Chancellor

“

REIMAGINING CUT: EMBRACING  
SERVANT LEADERSHIP

”

The current phase in higher education in South Africa is one of the most challenging periods in history. The sector is not stable, and this year, and most probably next year, will pose further challenges, which requires a committed focus by Management to enhance our culture of constructive engagements with statutory and key stakeholders, towards ensuring a stable university.

It is only through sound leadership by all stakeholders that we will be able to take the Central University of Technology, Free State (CUT) to the next level.

From 2012 to 2015, we focused on the Academic Project, in order to improve the relevance and impact, and enhance the quality of our learning, teaching, research and innovation practices. We embraced the 2016 theme of "The Year of Innovation and Entrepreneurship" with many accolades and achievements – to such an extent that the Department of Higher Education and Training (DHET) recently indicated that CUT is "the leader in the country pertaining to interventions in innovation and entrepreneurship".

The theme for 2017 was "The Year of the Human Project", focusing on staff, students and other stakeholders, and enhancing the human reconciliation drive. A number of outcomes were achieved in 2017, as shared in my message of December 2017.

The following special project for the next five years was approved at the Management Lekgotla: "Reimagining CUT as a transformational, transformative and entrepreneurial university and 'model' university of technology (UoT) in Africa, impacting on the socio-economic development of the Central region of South Africa and beyond". This project, founded on our transformation drive and new institutionalism (change), consists of the following ten focus areas:

- Focus area 1: Reimagining CUT as a transformational and transformative university.
- Focus area 2: Academic excellence promoting entrepreneurial education.
- Focus area 3: Pockets of world-class research programmes.
- Focus area 4: "Model", vibrant innovation ecosystem in Africa.
- Focus area 5: Engagement and partnerships nationally and internationally.
- Focus area 6: A sustainable and well-equipped university (smart green campuses and digital transformation).
- Focus area 7: Institutional culture of caring and safety towards holistic development.
- Focus area 8: Effective and efficient administration and governance.
- Focus area 9: Financial sustainability (running the university as a business).
- Focus area 10: Image of CUT as a university: branding, marketing and communication.

The theme for 2018 is "Reimagining CUT: Embracing Servant Leadership". It was agreed that the 2018 theme should link with the 2017 theme of "The Year of the Human Project", and that we should retain the prefix "reimagining CUT" to the annual theme for the next five years. Therefore, the notion of a servant leader is introduced. It is argued that all our staff members and students are leaders in some way or another. In the words of Robert Greenleaf,

"it begins with the natural feeling that one wants to serve, to serve first". Servant leadership is a philosophy and set of practices that enrich the lives of individuals, build better organisations, and ultimately create a more just and caring world. It is a blend and balance between leader and servant. You do not lose leadership qualities when you become a servant leader; instead, you are leading with others in mind.

A number of activities to enhance teaching and learning, research and innovation, and community engagement practices at the university were recorded during the past semester. Measures to strengthen partnerships and funding opportunities for CUT were also implemented. The relevant faculties and sections, in collaboration with CUT Innovation Services (CUTIS) and Executive and Senior Management, concluded a number of partnerships and agreements. Related to our transformation drive, the work covered during the first semester of 2018 commenced with a series of consultations with all stakeholders, and finalising proposals for the Next Generation Women's Leadership Programme and the University Transformation Advisory Committee.

We reached a point where it was crucial to hold a Transformation Summit on 10 May 2018, to review the areas of focus, and to confirm the shared vision of transformation. Regarding administrative structures and resources, progress is reported on activities related to communications and marketing, branding, human resources, and the institution's facilities and infrastructure plans. The installation of the integrated security system is progressing well, whilst occupational health and safety (OHS) is another critical element that has been attended to.

A total of 4 124 first-time entering undergraduate students are currently registered at CUT for the 2018 academic year. The overall headcount is 18 786 students. The science, technology, engineering and mathematics (STEM) headcount enrolment figure is 8 729 students, or 47%.

On behalf of the CUT Council and Management, I would like to acknowledge all our external partners – including businesses, industry, government and society at large – for your support. In addition, the university cannot be successful without the continuous support of, amongst others, the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), Universities South Africa (USAf), professional bodies, science councils, and the National Research Foundation (NRF). Please be assured that we value and nurture these partnerships!

Furthermore, I am grateful for the support and guidance of the Chairperson of Council and the entire CUT Council. CUT is blessed with committed and knowledgeable Councillors who only want the best for the institution. Finally, thank you also to our Chancellor and the Management Team for your hard work and dedication, and to all staff and students, including Senate, the unions, student leaders, alumni and parents, for your commitment and support.

Following feedback from the community, it is clear that they have noticed the renewed attempt to reimagining CUT. We have all the elements to achieve this vision. Let us, as the CUT family, embrace this theme of 2018 in order to instill a culture of servant leadership!

# Feature Story



Referred to as one of the founding fathers of the Welkom Campus of the erstwhile Vista University and after whom Block O building was named, Mr Lemmy Mule (centre) was ecstatic to be honoured with an Honorary Master's degree in Business Administration, *Honoris Causa*, for the sterling and outstanding contributions he has made in the establishment of academic, health and business entities in Lejweleputswa district. He is flanked by Welkom campus leadership, Dr Dicks Nkonoane, Deputy Campus Director (L) and Dr Oupa Makola, Campus Director.

## CUT Welkom Campus honours Goldfields legend

For the first time in the 30-year history of the Central University of Technology, Free State (CUT) Welkom Campus, the Faculty of Management Sciences awarded a Goldfields business mogul, Mr Lihaelo Lemmy Mule, with an Honorary master's degree in Business Administration, *Honoris Causa*, for the sterling and outstanding contributions he has made in the development and establishment of academic, health and business entities, which has made an invaluable contribution to the educational and socio-economic well-being of the Lejweleputswa district.

Mr Mule has been an active entrepreneur for the past 30 years, promoting the establishment of SMMEs in the district and established partnerships between the public and private sector that have greatly benefited the province and region. He played a critical role in the establishment of both the former Vista University and Bongani Hospital in Welkom, thus promoting the economic viability of the area.

According to Mr Mule, the establishment of this academic institution and medical centre in Welkom made an invaluable contribution to the lives of residents.

He also mentioned that in the early 1980s, the idea of teaching and nursing colleges was mooted by joint school boards of the Welkom Circuit to deal with issues of school unrest. A proposal was then submitted to the provincial and national departments requesting academic institutions.

He said that even though it seemed like a wild dream that would never take off, consequently, both proposals were approved as academic institutions, then known as Vista University and Bongani Academic Hospital. "I am happy that today both institutions are producing so many professionals and academics. When I look back to where this idea started, I can safely say that dreams do come true and ideas can materialise if properly managed and implemented."

He expressed his gratitude for the award bestowed upon him and further said that the master's degree in Business Administration is a very scarce and exclusive qualification that does not come without effort, sacrifice, compromise and hard work.



# 2018

This recognition came about as a result of exceptional record in executive management of various academic and business entities that made national impact in promoting entrepreneurship in this district and I shall never forget this auspicious day of my long life. I wish to thank CUT for conferring this exclusively important award upon me. Rest assured that I shall forever wear it with pride to serve as full evidence to the value of one's contribution to this community and nation that I will continue to serve with commitment and compassion.

When congratulating Mr Mule, Prof. Albert Strydom, Dean of Management Sciences said,

This degree at CUT is awarded to those individuals who have contributed profoundly to the progress of human society and academic research. It is bestowed on Mr Mule for his meaningful contribution to the community of Lejweleputswa district with a record of well-established distinction and achievements in innovation and entrepreneurship in the region.

His achievement has been an inspiration to various institutions, private and public sectors and individuals that have worked with him over the years. His reputation for efficiency in a demanding and challenging business sector is what CUT aspires to achieve. He is an inspiration to all of us and represents a living symbol of CUT's vision 2020, which develops young people with knowledge and sets of competencies to compete with their peers globally.



**Mr Mule's family (from left to right):  
Mr Lemmy Mule, Mrs Qenehelo Mule, Ms Dintle Mule, Ms Karabo Mule, Ms Manako Mule and Mr Kgabele Mule.**



**From left: Dr Dicks Nkonoane, Deputy Campus Director; Prof. Henk de Jager, Vice-Chancellor and Principal; Dr Pinky Mrwetyana, Registrar; Mr Lihaelo Lemmy Mule, Entrepreneur and Honorary Master's degree in Business Administration, Honoris Causa recipient; Madam Justice Mahube Molemela, CUT Chancellor, and Dr Oupa Makola, Campus Director.**

# Research Excellence



The Precision Diesel system is a portable device attached to a diesel transport trailer meant to automate a logbook used by farmers to simplify tax-related finances. The role players in the project are Mr Marinus Potgieter, Station Manager: PPTS, Peet van Staden, Junior Project Engineer in charge of the Electronic department at PPTS, Mr Barend Greyling and Mr Willie van Straaten, Entrepreneurs from Soutpan Boeredienste.

## PPTS invents Precision Diesel system for farmers

Two years after launching the Innovation and Entrepreneurship Strategy, the Central University of Technology, Free State (CUT) continues to be a contributor and a role player in the socio-economic development of the central region.

Product Development Technology Station (PPTS) participated in the Nampo Harvest Day 2018, an annual agricultural exhibition held to support the farmers in the region, with a full perspective into the latest farming products and equipment.

Nampo Harvest Day is an annual four-day-long agricultural exhibition held at Bothaville to support the farmers in the region with a complete perspective into the latest farming products and equipment. Incepted in 1967, Nampo has since been serving the requirements of both the users, suppliers and manufacturers of such equipment. At the trade fair, exhibitors and farmers who custom-make or invent equipment are also awarded for their efforts to help farmers work smart.

PPTS is involved in product design, prototyping and short-run production. The station assists in developing new ideas into products or improving existing products with detailed engineering. It also supports businesses and individuals through the new product development process. The station makes use of first-class engineering expertise from CUT, as well as specialised prototyping equipment from the Centre for Rapid Prototyping and Manufacturing (CRPM).

On 16 May 2018, the department showcased and launched their first invention produced by the Electronic Department of PPTS. Their first commercialised electronic product was developed to automate a logbook used by farmers to simplify tax-related finances.

The invention, Precision Diesel system, is a portable device attached to a diesel transport trailer. It is activated by the Radio Frequency Identification (RFID) tag of the implement (mostly tractors). After the device has been activated, it allows for a few extra information inserts.

The current function of the implement is inserted via a keypad; then the hours of the implement and the field name can be inserted. The system then activates a fuel pump that fills the implement and the data is then logged to memory. The system is developed with USB On-The-Go (OTG) functionality, enabling a USB drive to be inserted to retrieve logged data from the system. PPTS also developed the software that interfaces this data on the computer. This allows for a printable PDF with all the desired data, which in the end replaces a manual logbook currently used by farmers.

The role players in the project are Mr Marinus Potgieter, Station Manager: PPTS, Peet van Staden, Junior Project Engineer in charge of the Electronic department at PPTS, Mr Barend Greyling and Mr Willie van Straaten, Entrepreneurs from Soutpan Boeredienste.

Peet also spoke about the future of the product and said that commercialisation is one of them. He said,

We want to continue identifying more innovative ideas and aid the free thinkers out there to realise their dreams. Electronic products will always need research and development for updates and optimisation. My hope is to go as far as developing products, creating businesses around each product and do a product handover to a new research and development team, facilitate in house training, provide extra assistances where possible and finally, assist in taking the product to the market.

Although he said that they had gone through trials, errors and a few prototypes in the process, he was ecstatic that, six months down the line, they have a device that is functional and market ready. "Continuous research and development will always remain part of this project to optimise it for a better user experience," he concluded.

Asked about the response received from farmers at the expo, Mr Peet van Staden said,

The product was well received. Many farmers showed interest and asked many questions. Barend called me today and was very nervous about keeping up with reproduction of this product and the demand thereof so I guess that is a good sign. The expected outcome from this handy device is that it can financially sustain its future development and upgrades.

# Academic Programmes



Dr Pretorius Rudolph explaining to the students about the benefits of sugarcorn plant to livestock.

## CUT Agri Training Centre up and running

Agriculture constitutes the biggest segment of economic activities in the Free State Province and plays an important role in terms of job creation, especially in rural areas, but it is also a foremost earner of foreign exchange.

CUT officially opened its farm to the first-year students who attended their practical sessions on a farm for the first time. This facility is more than just a farm; it is a training centre intended to provide academic support and research to the university; unlock the full potential of students; and equip them with skills in agriculture through practical learning and demonstrations.

The official opening of the farm was sponsored by Greenforce to the value of R40 000 and Telwiedre Voer, a long-term partner, sponsored the training ground for students.

During the practical session, the students rolled up their sleeves and got their hands dirty as they learnt about different types of additional pastures used for dairy cattle feed and sheep during dry seasons. They also experimented on how to operate a tractor, safety measures when handling farm equipment, handling livestock, vaccination, administering chemicals, identification of grasses, soil sampling and tomato production.

Different cultivations will be done on the farm, which will form part of a real-world experience for the agricultural students. They were afforded an opportunity to touch and feel all they had learnt in class.

Mathapelo Mautswa, a first-year student from Botshabelo, said,

I am extremely happy to come to our farm and see all these interesting things. I enjoy Agricultural Science so much that I follow documentaries about women in agriculture and I want to encourage my peers to see it with that eye, as they still believe it is a man's world. This day will remain memorable for as long as I'm in this field. It has made me fall in love with my career all over again and I am proud of my choice. My life is all about outdoor and I would like to pursue my career further in crop farming, as I just love soil and the magic it does to produce food for the world. I am craving for more knowledge.

Karabo Seepamore said that her first-time experience was scary, but exciting and enlightening.

This experience was exciting and a bit scary. What we did in class became clear during the practical session. I have learnt a lot, especially in the tomato production. I come from an agricultural background in Thaba Nchu and believe that through agriculture, I will be able to contribute positively to the development of my community. I have always wanted to be a soil specialist and teach my community about the value of soil. Soil is just as important as plants and animals. Plants grow, and millions of people and animals are fed. I believe choosing agriculture was not a mistake but a calling.



Prof. Pieter Fourie, Head of the Department of Agriculture at CUT, demonstrated how to vaccinate and de-worm animals. He also taught them how to administer other chemicals used on the farm. Students got the chance to touch, feel and experience what they have learned in class.

She said that she had always wanted to be a soil specialist and learn about the value of soil.

The farm will acquire additional livestock such as sheep and broiler chicks, and an array of organically grown produce such as watermelon, cabbage, pumpkins, dryland maize, sunflowers and other melons.

In August 2017, the Department of Agriculture acquired a brand new wet clutch 4X4 John Deere 5075E cab tractor as one of the essential components of a well-run training establishment in Bainsvlei. The farm is located 29 km from Bloemfontein with 32 ha of cultivable lands and 1.5 ha of natural pastures. It is surrounded by active commercial farms, which will be beneficial to the department.

CUT is committed to student development to prepare them with the much-needed experience in their chosen fields, ultimately assisting them with the transition to the workplace. Along with research conducted on the farm, practical classes and work-integrated learning will have a high educational and intrinsic value for the students.



The lecturer offering training to students on how to safely operate a clutch 4x4 John Deere 5075E cab tractor. Students took turns experimenting with the tractor.



From left: Prof. Henk de Jager, Vice-Chancellor and Principal, Free State Premier, Honourable Sisi Ntombela, MEC for Education, Mr Tate Makgoe and Palesa Loapo, a grade 11 learner from Commtech Comprehensive School unveiling the plaque.

## STEM Academy launch at CUT

The Central University of Technology, Free State (CUT) is the foremost higher education institution in the heartland of South Africa, dedicated to quality education and training in Science, Technology, Engineering and Mathematics (STEM). CUT continues to contribute to the improvement of quality education in schools, consequently having a positive impact in the socio-economic development of the region.

Since 2013, a series of engagements took place between CUT, TVET colleges and the department with a particular focus on the development of sustainable collaborative initiatives that are directed towards the overall growth and development of the province in the fields of STEM.

On 30 May 2018, the university launched the STEM Academy in collaboration with the Free State Department of Education (FSDoE), the University of the Free State (UFS) and TVET colleges in the province.

Among the dignitaries who graced the event were Free State Premier, the Honourable Sisi Ntombela, MECs Mr Sam Mashinini, Mr Oupa Khoabane, Mr Tate Makgoe, Ms Dora Coetzee and heads of different provincial departments.

The academy is envisaged to be a training and developmental hub for professional teachers and lecturers to improve content knowledge of Science, Technology, Engineering and Mathematics in schools, colleges and universities.

The main objective is to expose learners and students to modern STEM laboratories and to support existing initiatives such as the Math-for-ALL Campaign. Free State Premier, the Honourable Sisi Ntombela, said that the launch marked an important day in the historical development of the Free State Province.

As a key national strategic player in the national and international discourse of the human development, we are witnessing a real regional collaboration that will promote sustainable growth and development of the Free State Province. This province will be taking a lead in the education and training sector through the establishment of Science, Technology, Engineering and Mathematics Academy. The academy is going to put the Free State at the centre of the 4th industrial revolution and help us promote and increase access to mathematics and science education. It will promote throughput pass rates in the STEM subjects in line with goals of the national development plan.

Prof Henk de Jager, Vice-Chancellor and Principal said,

Today, we are launching a hub for development in training educators and lecturers in the field of science, engineering and mathematics and expose learners to the various fields in the STEM area. Through this partnership, we will make an impact on our learners and education in the province. As a University of Technology, we are emerging as leaders in creating niche products and solutions that are almost impossible using conventional techniques.

Palesa Loapo, a Grade 11 learner from Commtech Comprehensive School, said she hoped to learn a lot from the academy. She also indicated that she was impressed with what CUT has to offer and was excited to be part of history in the making.

I have realised that with science, technology and maths, anything is possible. These subjects make us see what we thought was impossible. When I finish my Grade 12, I want to study Chemical Engineering and hopefully contribute in building and enhancing the economy of South Africa.

# University Life



From left, Dr Izabeth Conradie, Enactus Business Advisory Board Member; Prudence Mocwiri, Sebatatso Skhosana, Polo Sengoara, Lehlohonolo Bahumi, Chaun van der Boom, Beyers Janse van Rensburg, Thembisile Tyopo, Mr Thabo Olivier, Enactus Business Advisory Board Member; Maraka Lefera and Prof. Crispin Chipunza, Enactus CUT Faculty Advisor.

## Students design grey water system for dry Free State

Water shortage has become a major issue in South Africa in places like Cape Town and the Free State Region - which has been experiencing the worst of drought in the past few years. In the Free State region, municipalities are resorting to having prepared water in order to make people conserve the little water available.

Research conducted by the team shows that on average, people wastes up to 136 litres of water everyday due to dripping taps, showers, dishwashers, and watering their gardens, causing an increase in household water bills, thereby decreasing in their disposable income. Various communities in the Free State and other provinces are affected due to this high water expenses.

All these are occurring when there is inadequate rainfall and therefore continued dwindling water available for human consumption. The challenges led to government and communities throughout South Africa to look into preventative methods of water shortage and utilise every drop sparingly - leading to the birth of project Grey-to-Green.

Two students from the Central University of Technology, Free State (CUT) approached the Enactus CUT (entrepreneurial action student group) with an idea of recycling and reusing water through a Grey water system. The Grey-to-Green project is about a water system that is connected through PVC pipes running through the shower and bathtubs. The water that goes down the drain when a person showers, baths or do their laundry enters the system, this water is then pumped out of the system, through the water pump connected to a hosepipe to the garden.

Through partnership with Qala Tala, Enactus CUT initiated an experiment to determine whether vegetation irrigated with grey water is safe for human consumption. If positive results transpires, Enactus CUT and the beneficiaries plan to expand the business into the agricultural sector, where crops will be irrigated with grey water as opposed to fresh water.



Pictured left is the green water system invented by the two Engineering student, Beyers Janse van Rensburg and Chaun van der Boom, who said the initiative was inspired by dry gardens and plants around town. Eight systems have since been installed and the market research conducted indicated massive interest.



Attendees who engaged deeply in transformation issues within the institution.

## CUT unpacks transformation plan

Transformation in higher education has been a pressing global issue and CUT is working hard towards becoming a transformed university. At the summit held on 10 May 2018, the delegates debated, unpacked and reflected on the burning issues. They relooked the current framework and tackled challenges that were impeding progress.

All institutional structures were represented including the Institutional Forum, Senate, unions and student representatives from the Welkom and Bloemfontein Campuses.

Prof. Henk de Jager, Vice-Chancellor and Principal, said that CUT is in the process of changing towards the better, as some transformation work is visible in certain areas.

As a university, we cannot only be inward looking; we have to make an impact on our society. So far, we have achieved some success on the transformation path and have made a difference in the lives of the people by addressing these issues within our university.

Prof. De Jager also mentioned the innovation eco-system as one part of the projects developed to address challenges in the society.

Whatever we are doing here must have a positive impact through either teaching programmes, research or innovation. There are still areas that needs attention, some of which are language policy matters, curriculum transformation, programme in qualification mix, articulation, teaching and learning, student learning support, NSFAS challenges, accommodation, safety, research and innovation, community engagement, equity between the two campuses, alumni programme, staff and students with disability in terms of accessibility, university processes and activity, capacity, challenge the status quo.

He said that universities were looking at reinventing transformation programmes to the ones that are goal-driven and mobilise active participation of staff and students.

Transformation is all about change and my dream is to see CUT become a transformed university committed to both individuals and the well-being of a wider society. We will be embarking on this process for the rest of this year and the results will be revised and aligned with the South African Human Rights Commission report on transformation within universities. I want the CUT community to strengthen the foundation and the building blocks of a University of Technology through courageous efforts in unity.

Prof. André Keet, Chairperson of the Ministerial Transformation oversight Committee, said that universities are key public institutions that generates different sets of social orders.

I am convinced about the importance of our public university sector in unfolding proper and deep democracy. Our investments and energies in the transformation project is a key national and regional priority looking at the African Union's strategic plan for 2016.

He further mentioned that universities lacked the scholarship of transformation that has an empirical base to start working towards a certain direction. In conclusion he said,

We would like to have an in-depth discussion on what the project of transformation means for academic institutions based on academic and scholarly perspective so that we shift the core functions of the university around its research, innovation, engagement and teaching and learning. The key challenging issues in this sector are engaging in institutional culture, curriculum research, teaching and learning, equity and redress, diversity on social inclusion and community engagement. Other challenges are around the centrality of students, pragmatic strategy,

transformation unit, knowledge, research, pedagogy, hard versus soft science, scholarship of transformation, general and equality complaints.

Cllr Nkosana Dolopi, Deputy Chairperson of the Human Resource Committee of Council (HRC), presented a paper on poverty, gender inequality, racism, patriarchy and sexism. In his view, the transformation issue is not about gender or race but the system.

We need to distract the system. If what we inherited with these ugly demons is still intact, then the numbers of women and blacks represented will become an exercise for statistics and will not change our lives at all.

He said that for the sake of peace, democracy, stability and progress, the state and institutions needed to transform in pursuit of becoming concerted representations of societies and amplify all people.

If you don't transform societies, there are risks of instability. Transformation is a must, not a choice. What we need to do is to change the structure, deconstruct to reconstruct so that we can attend to the challenges of poverty, patriarchy, inequality, racism and sexism.

Mr Tshwaro Halter, SRC President Bloemfontein Campus said the summit was not to criticise or blame management; but to ensure that the efforts made went a long way towards serving the needs of students and contribute immensely to the communities. Halter further raised burning issues affecting students and coming up with solutions thereof.

Mr Gladstone Moletsane, Education and Transformation Officer in the SRC at Welkom Campus emphasised the slow process on which transformation is progressing at the Welkom Campus, which he said was one of the major factors in student uprisings. He spoke about the lack of resources, some of the academic programmes and facilities that needs urgent attention.



From left: Prof. Henk de Jager, Vice-Chancellor and Principal, Cllr Nkosana Dolopi, Chairperson of the Human Resource Committee of Council, Dr Choice Makhetha, Transformation Advisor, Prof. Andre Keet Chairperson of the Ministerial Transformation Oversight Committee and Prof. Luvuyo Lumkile Lalendle, Vice-Rector for Teaching, Learning and Quality Assurance: North-West University (NWU).



# University-Community engagement a way to go



Universities are known to be knowledge hubs where academics must acquire and demonstrate the knowledge gained in order to be awarded degrees, but the 21st-century scholars believe in combining formal university education with community knowledge to prosper.

The university's Vision 2020 statement places emphasis on social and technological innovations and socio-economic development with the aim of creating jobs (innovative and entrepreneurial spirit) and being engaged with its communities. The university is challenged to mainstream the curriculum in support of this mission statement.

As the only University of Technology in the Central Region, CUT is dedicated and passionate about integrating with social communities and has built strong and sustainable relationships over the years. The relations have since given birth to local business innovative empowerment, numerous collaborative research with knowledge holders, changing the lives of ordinary people using advanced medical technology (3D printing) and collaborating with the local government in enhancing the knowledge and skills of local teachers.

On 16 May 2018, the Research, Innovation and Engagement: Community Engagement Unit hosted a public lecture delivered by Dr John Volmink titled *Pedagogy of University/ Community Engagement: Reciprocity for Mutual Benefit*.

The purpose of the lecture was to reflect on the value of universities working in partnership with communities in advancing academic projects of the university by combining the university knowledge and community experience to address social disadvantages and exclusion.

When unpacking his arguments, Dr Volmink applauded CUT for its mission statement.

This speaks to me precisely and eloquently of a university that is dynamically engaged with its community. One would expect any graduate from this university to live out this mission in the world.

He mentioned the UNESCO report of 1998 entitled *The treasure within*, which pointed out that education through life was based on four pillars, namely:

**Learning to know:** he explained that it is not the accumulation of credits and certificates that should be the artefacts of our academic pursuits – that we call success, “success is what you do for yourself while significance is what you do for others”.

**Learning to do:** He stated that as a community of practice that learns through doing, people should learn to acquire the competence to deal with complex situations of the real world rather than occupational skills.

**Learning to live with others:** He emphasised that the university is a community where diversity is celebrated and through transformation. “We are learning to live together in a way that expresses our common unity and humanity, acceptance and embrace our differences, affirm, support and respect each other in a way that shows that we have learnt to live together in a vibrant and transformed community. The world is not only a physical world but social world too.”

**Learning to be:** “Each one must learn to be everything that we were meant to be and resist any attempt to make us believe that the limitation is within us when in fact we fail to see the constraints and barriers on the outside. No university can define excellence without reference to its pursuit of knowledge. There is institutional knowledge and knowledge in the community and both kinds should be valued and celebrated.”

In his view of success, he mentioned that institutional knowledge is necessary, but not sufficient to engage the world. He spoke about Asset-Based Community Development (ABCD), where he mentioned that people who made a difference in the world are those who have a deep appreciation for the power of knowledge in their communities.

We need to recognise that marginalised and abandoned people in communities feel hurt and disrespected. Therefore, as we engage with communities, an appropriate posture is to start with respect rather than with presumptive arrogance as to what knowledge becomes official. Are we creating opportunities for the voices to be heard before we decide what is best for them?

Dr Volmink concluded the lecture on service learning and how universities and communities can learn from it.

I agree with the CHE report that successful sustained service learning requires strong institutional support, partnership and commitment from academics. Service learning is one of the most important ways for universities to connect with communities as it combines learning goals and community service in ways that can enhance both student growth and the common good.

His advice to universities is to advance academic projects so that communities can benefit from their interaction with universities such as CUT. He concluded,

Universities have a role to play in acting locally, while thinking globally. I believe that younger Universities of Technology (UoTs) have a stronger chance to break away from traditional models and make a difference in this country and in the world.

The Public Lecture by Dr Volmink was followed by a two-day training workshop on 17-18 May 2018. Staff and students attended the workshop to have a better understanding of community engagement and get proper training on mainstreaming community engagement into the curriculum as well as transdisciplinary projects and research. Facilitators from the Universities of Limpopo, Fort Hare and the Cape Peninsula University also attended the workshop to share their views and experiences while also expanding their knowledge on community engagement topics.



Academics from the Central University of Technology, Free State (CUT), the University of Free State and University West attending the South Africa-Sweden University Forum (SASUF).

## SASUF conference on WIL held

Internationalisation has become a top priority in many universities around the world. Despite the good impact it has on the economy, it is also beneficial for students as it enables them to see the world from a different perspective beyond their own background and learn to apply the newly gained approaches in their teaching and learning.

On 14-15 May 2018, the Central University of Technology, Free State (CUT), in collaboration with University West, Sweden and the University of the Free State, co-hosted a workshop as part of the South Africa-Sweden University Forum (SASUF) conference week focusing on Work-Integrated Learning (WIL).

Theme 1 of the workshop was based on Transforming Higher Education Curricula on Work Integrated Learning - bridging and transforming the division between countries, academia and society. Theme 2 focused on Urbanisation and Cities in the 21st century.

SASUF is a strategic internationalisation project running from 2017-2020 with the overall aim of strengthening ties between Sweden and South Africa in research, education and innovation. It is a collaboration between 30 universities in Sweden and South Africa together with embassies, civil society organisations, funding agencies and ministries of both countries.

The project is aimed at creating innovative ways to approach internationalisation and utilise the power of online tools for purposes of connecting universities with funding agencies, industry, ministries and surrounding society towards realising the Sustainable Development Goals (SDGs). It is envisaged that the project will have an impact on more than 300 researchers and doctoral students from Sweden and South Africa.

Prof. Per Assmo, International Programme for Politics & Economics (IPPE) coordinator from University West, presented a paper on the concept of WIL research at University West. He also shared examples of how WIL could be done in connecting research with higher education, in content as well as practical student involvement.

The workshop was a great success, with participants from South Africa as well as Swedish Universities. It was also an opportunity for us to take a further step in developing a more long-term formal collaboration between CUT and University West, a collaboration that will develop the concept of WIL in research and education for both universities in the future. As one first practical outcome of this coming collaboration, one can mention that Dr Henry Jacobs and I will put together a joint abstract to present a research paper on WIL that will be presented at the next SANORD conference in Finland in August 2018.



From left: Prof. Henk de Jager, Vice-Chancellor and Principal, Mr Kopung Ralikontsane, Director General: FSPG and Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research, Innovation and Engagement.

## CUT and FSPG renew their partnership

The Central University of Technology, Free State (CUT) renewed its partnership with the Free State Provincial Government on 22 May 2018. The MoU signed between the two entities represents a model of collaboration that is not only mutually beneficial, but also central to their mandate of providing quality education and services to the people of the Free State.

The collaboration aims to bring CUT and the province together to focus on exploiting their organisational strengths, skills and knowledge that will enhance social and technological innovations, which will in turn bring solutions to the current challenges facing the province.

At the signing ceremony, Prof. Henk de Jager, Vice-Chancellor and Principal, said that CUT embraces innovation and strives to ensure that it adds value to the society.

We need to ensure that our graduates are well equipped with the necessary skills and live an entrepreneurial culture to be able to promote and have an impact on the socio-economic development of the region and beyond.

He further said that the partnership would aid in the venture towards addressing unemployment and poverty, which will eventually uplift the social imbalances. "This will also ensure a better future for all people in our province."

He said that provincial economic growth could be accelerated through innovations around manufacturing. In conclusion he said,

Through this partnership, we would like to establish hi-tech businesses, which will link to the manufacturing environment, provide hi-tech solutions to communities by educating our students to a level where they will be able to produce such. Other secondary matters important to us as a university relates to student accommodation, safety of our staff and students and the concepts of smart cities.

Director-General Mr Kopung Ralikontsane said that they had identified specific areas of collaboration they wanted to strengthen. He further alluded to the idea of smart cities that had now been introduced to the province.

We are working hard in ensuring sustainable service delivery in the province, which provides focus for the conceptualisation of smart cities. The other key area of collaboration is Maccaulei. We intend to establish skills academy without duplicating the work that our universities do. We are also relying on CUT's expertise and support to help us strengthen this newly established school.

Mr Ralikontsane said the province was ready to join forces with the university in the areas of the green economy focusing on e-waste. "We would like to strengthen the efforts of SMMEs, mould and grow them so that they can be sustainable."



From left: The two Vice-Chancellors: Prof. Henk de Jager, Vice-Chancellor and Principal with Prof. David Norris, Vice-Chancellor of the University of Botswana (UB) authorising their relationship at the signing ceremony held at CUT.

## CUT and the University of Botswana forge regional collaboration

The advent of the Fourth Industrial Revolution presents opportunities for CUT to commit itself to new alliances of strategic importance in the SADC region where there are mutual socio-economic development interests as well as committed resources.

CUT hosted a high-powered delegation from the University of Botswana on 16 April 2018 with the purpose of showcasing the cutting-edge work in 3D printing that is carried out and designed at CUT. The visit also highlighted the university's capacity within the Additive Manufacturing arena that could be explored for possible partnership.

Both parties signed a Memorandum of Understanding (MoU) for the development of collaborative research projects specifically in medical science and 3D printing, joint academic and scientific activities, including courses, conferences, seminars, symposia and lectures, the exchange of research and teaching personnel and students, to name a few. The delegation was later taken on a tour of CUT facilities, especially the Centre for Rapid Prototyping and Manufacturing.

Prof. David Norris, Vice-Chancellor at the University of Botswana (UB), said that the purpose of their visit was mainly to forge research collaborations in medical science and 3D printing and manufacturing.

There are a number of areas identified and one of them is 3D printing and manufacturing. We also want to go beyond our limits and tap into the medical sciences where we can collaborate, especially in manufacturing some medical tools. I want to believe that there are other areas that we can explore and complement each other and collaborate on research, said Prof. Norris

He also said that collaborating with CUT could teach them a lot as a university, especially in the areas of technology transfer, commercialising of products and service emanating from research. "It is very critical for universities to be able to commercialise and generate income instead of depending solely on government," he concluded.

In his comments, Prof. Henk de Jager, Vice-Chancellor and Principal, said that CUT recognises the importance of forging and advancing strategic partnerships with other universities to achieve its vision.

Our commitment is to strengthen relations with universities from neighbouring countries. It is a privilege for us as a University of Technology with very specific characteristics to cement this collaboration with a comprehensive university like UB. We have seen that there are many areas of collaboration that we can gain from each other through this partnership and I am confident that it will be a very productive partnership for us. I am particularly impressed with Botswana and I think that as Africans, we can learn a lot from this country.



From left: Ms Sharon Mohale, General Manager: Corporate Services, Prof. Henk de Jager, Vice-Chancellor and Principal, Mr Kenny Dichabe, CEO: FSCLTA and Dr Gary Paul, Deputy Vice-Chancellor: Resources and Operations.

## CUT strengthens its partnership with FSCLTA

"We are proudly making great strides in fostering partnerships with our provincial government, and I believe that this MoU with the authority presents major potential to change the role of tourism, and drive that change towards the advancement of our province. I am also confident that our partnership will allow us to examine ways in which we, together, can tackle the growing demands for universal access to this sector and ensure meaningful contributions from all role players in the sector," these were the welcoming comments of Prof. Henk de Jager, Vice-Chancellor and Principal at the MoU signing that took place on 18 June 2018 between the University and the Free State Gambling, Liquor and Tourism Authority (FSCLTA).

Over the past 25 years, the tourism industry in South Africa has produced great results, confirming growth despite the economic challenges faced, and the partnership is envisaged to improve and expand domestic tourism within the Free State province. The parties are keen to form strategic alliance and co-operative framework for the implementation of research collaborations.

Prof. De Jager said that tourism is one of the major contributors to the Gross Domestic Product and Free State is not excluded from this growth.

We have sufficient tourism opportunities and expertise within the tourism department in this university. This initiative will focus on developing the province as a growing tourism industry that will promote wider cooperation within the sector, and I am confident that this growth will increase through this partnership.

He further mentioned that cities and regions across the globe consider universities, communities, business and industry as important partners in innovation, entrepreneurship, skills development and city planning as they offer fresh perspectives on global trends, which are practised by successful regions in the world.

As we begin to plan together and collaboratively invest resources, we can learn how our province can achieve this concept of regional success.

He highlighted some of the specific initiatives to be pursued through this agreement which includes, but are not limited to, developing the province as a growing tourism industry; promoting a wider co-operation in the sector through research collaboration; exploiting respective organisational strengths towards socio-economic development to advance the province and sectors; enhance marketing drive of the province as a destination of choice, improve customer experience and access to the province.

A classic example of how collaboration can help bring about development in our region is the Regional Innovation Forum, Free State (RIFFS), which was established in co-operation with the Department of Science and Technology (DST). Our training and skills development efforts for the youth with great potential to transform this university as a robust agent of innovation and socio-economic development in the region is another inspiring illustration of this.

Mr Kenny Dichabe, CEO: Free State Gambling, Liquor and Tourism Authority (FSCLTA) said that they are honoured to enter into an agreement with CUT.

We are humbled to enter into an agreement with an institution of this calibre. We look at this day as the birth of greater things to come. The focus of this MoU is directed at how FSCLTA contributes to domestic tourism growth in the country. In addressing the challenges posed by the National Domestic Tourism Growth Strategy (NDTGS), we hope to tap into CUT's pool of expertise to conduct studies that will explore and augment these strategies designed to attract tourists and increase average spend. We also aim to utilise our relationship to conduct researches that will assist private sector and guide the future tourism development path.

Mr Dichabe also mentioned that the research to be conducted will also include the impact analysis on events and conferences hosted by the province and accurate statistics that will aid in positioning the province to lobby for bigger events and conferences.

We are indeed excited about this validation, and we believe that it will derive significant benefits, he said.

# Inaugural Address re-examines entrepreneurship



On 15 February 2018, the Central University of Technology, Free State (CUT) hosted a professorial inaugural lecture in honour of one of its distinguished scholars, Professor Dennis Dzansi, Head of Business Support Studies and Research Unit for Enterprise Studies, in the Faculty of Management Sciences.

Prof. Henk de Jager, Vice-Chancellor and Principal said:

This inaugural professorial lecture constitutes an important date in the calendar of the university. It is a full sitting of the Senate and is regarded as a pinnacle of academic hierarchy and scholarship. CUT awards these to academics who are highly accomplished and widely recognised among their peers.

His presentation titled: "Becoming a truly Entrepreneurial University: Implications for CUT", focused on an entrepreneurial university as an institution that has embedded the entrepreneurial spirit in its DNA. "For me, the entrepreneurial spirit refers to passion, positivity, leadership, ambition and adaptability in turning every challenge into a viable business opportunity. It is also dominated by individuals with an entrepreneurial mindset."

His lecture offered an opportunity for universities to re-examine their roles in relation to the desire for change. "The purpose of universities has evolved, from a single purpose where the idea was just to educate people to become professionals like nurses and teachers, to the latest generation; focusing on education, research and entrepreneurship. By becoming entrepreneurial, universities can have an impact in their immediate societies. Universities around the world are embarking on entrepreneurship as a recognised tool that should be embedded in their DNA which is the measure of a truly entrepreneurial university," he said.

The lecture drew interest from CUT partners in business and industry, government and academics from other universities. It was dedicated to Mr Daniel and Mrs Josephine Dzansi, the late parents of Prof. Dennis Dzansi.

## Biography

Dennis Yao Dzansi is a Professor in Entrepreneurship and the Head of Department: Business Support Studies in the Faculty of Management Sciences. In addition, Prof. Dzansi is the Head of the Research Unit for Enterprise Studies, and a Visiting Professor at the Ho Technical University in Ghana. He is a practising entrepreneur who believes in the "profit motive", if it is ethical and fair.

He obtained a PhD in Entrepreneurship at the University of Pretoria

(UP); an MBA at the then Potchefstroom University for Christian Higher Education (now the North-West University, Potchefstroom Campus); and a Master's degree in Higher Education Studies from the University of the Free State (UFS). At undergraduate level, he studied Statistics at the University of Ghana in Legon, Accra.

He completed his secondary school education at the Kpedze and Oda secondary schools, respectively. Prior to that, he attended Tanyigbe LA Middle School, Insu LA Middle School, Tanyigbe-Atidzie RC Primary School, and Avee-Tokor RC Primary School.

Prof. Dzansi has published articles in a number of Department of Higher Education and Training (DHET)-accredited International Scientific Indexing (ISI) and International Bibliography of the Social Sciences (IBSS)-indexed peer-reviewed journals; has presented papers at national and international conferences; is a member of the editorial committee of a number of journals; and regularly reviews articles for a number of journals. Furthermore, he is the co-author of three academic books, and has authored a chapter in a book on Small Business Management, which is used by undergraduate students in South Africa.

Although his academic interests are diverse, he has a special interest in the broad field of Entrepreneurship; Business Social Responsibility; Business Ethics; and Organisational Behaviour, with a specific focus on organisational justice.

Thus far, Prof. Dzansi has successfully supervised 11 Doctoral- and 12 Master's-degree students. He also serves as an external examiner for a number of South African universities.

Despite spending his entire career of approximately 39 years in the Education sector, his tenure in the Higher Education sector only commenced in January 2005, when he joined the erstwhile School of Entrepreneurship in the Faculty of Management Sciences at the Central University of Technology, Free State (CUT) as a Lecturer. He was then promoted to Senior Lecturer in 2006; Associate Professor in 2011, and Full Professor in 2016.

Prior to his appointment at CUT, He was the Headmaster of Bogosing High School in Taung in the North-West Province for ten years and had earlier taught Mathematics at Mokgareng High School in Taung, and Lephathimile High School in Molelema, which are both situated in the North-West Province.

Before moving to South Africa in 1990, he taught Mathematics and Physical Sciences at St James High School and Khubetsoana Secondary School in Lesotho; Mathematics and Economics at St Kizito's Secondary School, Iwopin, in the Ogun State of Nigeria; and Mathematics at the Anum Secondary School in Ghana, where he started his career.

Prof. Dzansi has won three important accolades since joining CUT, including the following:

- Vice-Chancellor and Principal's citation and monetary award for "living the CUT Leadership Charter through helping build the CUT brand by having his promise to Centlec seen, heard and experienced as being of high-quality content" (2009);
- Vice-Chancellor's Staff Excellence Award in the category "Novice Researcher: Mid-Career" (2010); and
- Vice-Chancellor's Staff Excellence Award in the category "Established Career Researcher" (2014).



## CUT celebrates 2018 Autumn graduations

On 22 March 2018, the Central University of Technology, Free State (CUT) graduation ceremony commenced at the Welkom Campus while Bloemfontein followed on 26 March 2018. This year, 3 668 students walked down the stage as compared to 3 341 last year. This figure includes 30 master's and 13 Doctoral degrees as compared to 29 master's and 8 Doctoral recipients in 2016. Parents, guardians, friends and families gathered at the Boet Troskie hall to witness proud moments of their loved ones.

In his address, Prof. Henk de Jager Vice-Chancellor and Principal said,

As a university, we are determined to play a crucial role in the socio-economic transformation of this region. CUT is indeed committed to improving the lives of the people making an impact in the Matjhabeng Municipality and Lejweleputswa district. We have a role to fulfil and tackle the challenges of the region and the country through education, research, innovation, skills development, the commercialisation of business ideas and community engagement. CUT is fully committed to enhance the Welkom Campus specifically the academic project. In 2012, just over 2 000 students registered but this year, almost 4000 students enrolled with us.

To the graduates, I know that your road to success was never easy, despite your challenges, you have achieved success. As you start this journey today, you have every reason to be thrilled; after all, you have achieved the goal you have set your mind into many years ago.

No matter how many times the world tries to hold you back, always continue with the belief that what you want to achieve is possible. Believing you can become successful is the most important step in actually achieving it. You have proven today that you have that belief to be successful.

Today we send you off as CUT graduates and most importantly as our ambassadors and proud alumni, confident that you are at the beginning of a new journey with exciting and endless possibilities.

We are not saying goodbye to you because you are going out to the real world, remember you are always welcomed back at CUT. Go out there, make your mark and make us proud. Congratulations once more.

He also extended a word of thanks to the proud parents, relatives and friends for their support.

You have made many sacrifices to see your children, friends and spouses succeed in their studies. Although you are certainly proud of the graduates' achievements, remember, these achievements are yours too. The CUT community is pleased and proud to celebrate this day with you.





## Madam Justice Mahube addresses newly graduated doctors

In celebration and honour of the 13 doctoral candidates, CUT hosted the intimate annual Chancellor Doctorandi dinner for the hard work and achievement.

In her address, the hostess, Chancellor Madam Justice Mahube Molemela, said that the soiree was an opportunity to celebrate the university's achievements with partners from government, business and industry. It also allowed the university to acknowledge academic excellence and recognise the academic prowess of doctoral candidates, postgraduate students' academic contributions to the university's agenda in areas of research, innovation, scholarship and community engagement and an honorary master's degree awarded to Mr Mule for the contribution he made in the community.

I take this opportunity to convey my appreciation to you for your hard-earned achievements. The purpose of this day is to acknowledge you for your efforts and contributions made to the advancement of CUT as a true centre of learning. Indeed, you are playing an important role in making CUT an innovative centre of excellence. As much as this occasion is about celebrating your achievement, it

also serves as an opportunity to celebrate the university's achievements with partners from government, business and industry. It also allows the university to acknowledge academic excellence and recognise our postgraduate students' academic contributions to the university's agenda in areas of research, innovation, scholarship and community engagement.

In conclusion, she said,

I wish to express my appreciation to the CUT community for your commitment in strengthening the research and innovation capacity within our postgraduate academic and research portfolios, so that they can see an increase in the production of world class postgraduate programmes and high-quality output for research.

As a Doctorandi, you have a huge responsibility ahead of you. The recipient of our university's honorary master's degree, Mr Mule has challenged graduates not to complain about unemployment but rather, innovate and create jobs. You as doctorandi are indeed best placed to do so. Our social responsibility is to provide a platform for the development of social and technological innovations for the benefit of this region as a centre of focus and we can only achieve this through our research work.



## CUT's youngest Doctorate makes his mark in academia



**Prof. Sitheni Mashele, Dean of Health and Environmental Sciences and Co-Promoter of Dr Hans-Denis Bamal, the youngest (25-year-old) doctoral graduate at the 2018 autumn graduations and Prof. Khajamohiddin Syed, Promoter. His research topic is 'Phylogenetic, structural and functional analysis of cytochrome P450 monooxygenase CYP5619A1 from Saprolegnia declina.'**

CUT made history when it conferred a Doctoral degree upon one of the youngest scientists, Dr Hans-Denis Bamal, at the 2018 Autumn Graduations. The 25-year-old graduate received a qualification as Doctor of Health Sciences in Biomedical Technology for his research work that led to the discovery of a novel drug intended to help fight aquatic animal infections caused by aquatic parasites.

For decades, researchers across the world tried to understand these microorganisms to control the disease and develop novel drugs against these pathogens, and Dr Hans-Denis Bamal's research work is leading the way in finding solutions that will end this socio-economic challenge facing aquatic farming. In his research work: Phylogenetic, structural and functional analysis of cytochrome P450 monooxygenase CYP5619A1 from *Saprolegnia declina*, he performed a phylogenetic analysis and characterisation of the novel P450 protein CYP5619A1 from the deadliest fish pathogen, *Saprolegnia declina*, and discovered that the CYP5619 family was only present in oomycete pathogens and involved in the metabolism of fatty acids.

He identified CYP5619A1 inhibitors by using virtual screening techniques at the University of Alberta, Canada. It is important to mention that the study on the characterisation of this novel P450 family was the first of its kind, and the results paved the way for assessing CYP5619A1's role in *S. declina* physiology.

Thus far, Dr Bamal has published four articles in high-impact factor journals, supervised four BTech projects and co-supervised three Master's-degree projects. His work was also presented at national and international conferences.

He matriculated at Libermann High School, after which he obtained a BSc (Biomedicine) at the Pearson Institute of Higher Education, and an MSc (Plant Pathology) at the University of Douala.

## Doctor of Engineering in Civil Engineering

Dr Phillip Robert Stott received another Doctoral degree at the age of 74. Dr Stott is the first DEng Civil Engineering student to receive this qualification. He also co-supervised two MEng Civil students who graduated with him at the same ceremony (Mr Dirk Maartens Bester and Mr Wessel Schalk Badenhorst).

In his doctoral research, he addressed the problem of damage caused by expansive clays. The results revealed that current standard testing methods are inadequate for identifying and assessing expansive soils. The study ultimately resulted in the development of more suitable procedures. To date, seven papers on the research were published in international conference proceedings and technical journals, whilst two more articles have been accepted for publication.

He was awarded the following degrees: BSc (Honours) (1965) and MSc (1967) in the School of Engineering of the Faculty of Science; Manchester University; a PhD (Dissertation: Scriptural Inerrancy in the light of Scientific Discovery), Reformation International Theological Seminary; Florida; USA.

He is affiliated with the following Professional Associations: Registered Professional Engineer: SA Council for Professional Engineers No. 840517 (since 1984), Engineering Council of South Africa. No. 20090045 (since 2009), a member of the SA



**Dr Phillip Robert Stott is congratulated by his promoter, Prof. Elizabeth Lize Theron, Associate Professor: Civil Engineering (left).**

Institute of Civil Engineers (since 1985), a well as a member of the SA Institution of Civil Engineering (Structural and Geotechnical divisions) No. 20091030 (since 2009). He received The Henry Adams Award from the Institute of Structural Engineers (1968-69 session).

## CUT graduates Doctoral candidate in Additive Manufacturing



**Dr Dzogbewu, Thywill Cephas Komla, MSc (KNUST)**

**Promoter:** Prof. I Yadroitsev, DEng (UJM) (right)

**Co-Promoter:** Prof. P Krakhmalev, PhD (SPbSTU)

**Co-promotor:** Dr I Yadroitsava, PhD (VSAVM) (left)

CUT is responding positively to its commitment of the SARCHi holding and has reached an important milestone of producing the first Doctoral candidate since the award of the SARCHi Chair in 2015. To date, 10 Master's candidates have graduated and two others are still in the 2018 programme.

The chair was awarded by the National Research Foundation (NRF)

under the Department of Science and Technology (DST) through the South African Research Chairs Initiative (SARCHi). This Research Chair, under the leadership of Prof. Igor Yadroitsev, was awarded in recognition of the phenomenal work that CUT does in this dynamic and exciting field. Engineering was awarded this chair to drive and lead this agenda within Higher Education SARCHi Chair holding of Engineering to showcase CUT's response to its plan in terms of development of medical devices through Additive Manufacturing (AM). Graduating a Doctoral candidate in AM is a remarkable achievement for CUT.

Dr Thywill Cephas Dzogbewu, researched on Direct Metal Laser Sintering of Titanium Alloys for Biomedical Applications, where he demonstrated how cellular structures could be used to produce implants with appreciable biomechanical properties similar to that of bones. Dr Dzogbewu said that his research was prompted by implant failure, which is a life-threatening situation that causes great physical pain and monetary expenses to both the patient and the family.

The search for a lasting solution to the situation stimulated my research into the development of low-ductility implants with antibacterial properties. Such antibacterial biomimetic objects would enhance osseo-integration, which would improve the quality of life of patients with implants.

To date, eight publications at international scientific conferences and in peer-reviewed journals emanated from the research.

## FACULTY OF MANAGEMENT SCIENCES

### Doctor of Business Administration



**Dr Justin Gumbochuma, MBA (UZ)**

**Supervisor:** Prof. P Rambe, PhD (UCT) (right)

**Co-supervisor:** Prof. DY Dzansi, PhD (UP) (left)

**Topic:** "The status and impact of technology transfer and innovation on the productivity and competitiveness of small-scale agro processing businesses in Mashonaland Central (Zimbabwe) and Free State (South Africa)."

Dr Gumbochuma's thesis examined the impact of technology transfer and innovation on the productivity and competitiveness of small-scale agro-processing businesses in Zimbabwe and South Africa.

The study arose from variations in agricultural production and declining food security in the two countries, notwithstanding the prevalence of agro-processing firms.

It was found that the influence of innovation and technology transfer on financial productivity was non-significant for the Zimbabwean sample, whilst only technology transfer had a significant predictive influence on financial productivity for the South Africa sample. Furthermore, only technology transfer had a significant predictive effect on non-financial productivity in the Zimbabwean sample, whereas both innovation and technology transfer had a strong predictive effect on non-financial productivity for the South African sample.

The study resulted in the development of a conceptual model for predicting agricultural productivity, which is envisaged to curb the growing food insecurity in Southern Africa.

## Doctor of Public Management



**Dr Bothoko, Thelo Stephen, MPolStud (UFS)**

**Promoter:** Dr LH Laubscher, PhD (UFS) (right)

**Topic:** "Promoting effective financial accountability in local government in the North West Province: Developing operational guidelines for Municipal Public Accounts Committees."

Dr Thapelo Stephen Bothoko holds a Bachelor of Business Administration Degree; a Postgraduate Diploma in Management Studies; a Master of Business Administration Degree; a Master of Development and Management Degree; and a Master in Governance and Political Transformation Degree. He registered for a Doctoral Degree in Government Management with the Central University of Technology, Free State (CUT) in 2013.

In his doctoral research, Dr Bothoko investigated the problems faced by municipalities in promoting effective financial accountability in local government in the North West Province.

Based on the findings of the study, he developed operational guidelines on ensuring effective financial accountability for Municipal Public Accounts Committees in the North West Province. External assessors indicated that the study makes a significant contribution to Local Government Management theory, as well as to the knowledge base of academic staff who teach in this field.

## FACULTY OF HEALTH AND ENVIRONMENTAL SCIENCES

### Doctor Technologiae: Agriculture



**Dr Lucky Igene, MSc (UI)**

**Promoter:** Dr MM Sedibe, PhD (UFS) (right)

**Co-promoter:** Prof. C van der Westhuizen, PhD (UFS) (left)

**Co-promoter:** Dr O Solomon, PhD (FUNAAB)

**Topic:** "Innovative methods for identifying training needs of Shea butter processors in North Central Agro- ecological zone of Nigeria."

Dr Lucky Igene holds an MSc in Agricultural Extension and Rural Development from the University of Ibadan. He is currently a Senior Research Officer at the Nigerian Institute for Oil Palm Research in Benin City, Nigeria.

In his doctoral study, entitled Innovative methods for identifying the training needs of shea butter processors in the North-Central agro-ecological zone of Nigeria, Dr Igene identified the training needs of shea butter processors in terms of modern shea butter processing technologies.

The research made a scientific contribution in the field of Agricultural Extension, and has enabled the elicitation of vital information in identifying areas of training needs. The results from the study will have a significant impact on extension activity in shea butter production in Nigeria.

The findings of the research were published in the South Africa Journal of Agricultural Extension.

## Doctor Technologiae: Agriculture



Dr Oluwatoba Akinsuyi Fadeyi

**Promoter:** Prof. C van der Westhuizen, PhD (UFS)

**Co-promoter:** Dr MM Sedibe, PhD (UFS)

**Topic:** "Sectoral impacts of global financial crisis and high food prices: A Computable General Equilibrium (CGE) analysis for South African agriculture."

Dr Oluwatoba Akinsuyi Fadeyi holds a BSc; BSc Hons (cum laude); and an MSc in Agricultural Economics. He also completed a skills programme in Development Studies at the Erasmus University in Rotterdam.

In his doctoral research, Dr Fadeyi investigated the effects of the global financial crisis and high food prices on agricultural production, employment, trade and household consumption in South Africa in 2011. In the end, the ORANI-G Model, a static, single-country computable general equilibrium framework, was employed. The findings revealed a decline in Gross Domestic Product (GDP) and return on capital, and an increase in unemployment at macro level, whilst household demand for basic items declined sharply. High and rising food prices undermine food security and threaten the livelihood of the poor. The study has enabled researchers to better understand the important connection between global financial systems and agricultural growth.

## Doctor of Philosophy in Environmental Health



At the Doctorandi dinner Dr Sidney Nwigwe was presented with a token of appreciation by Prof. Henk de Jager, Vice-Chancellor and Principal and the soiree hostess, Chancellor Madam Justice Mahube Molemela.

**Promoter:** Prof. A Fossey, DSc (UP)

**Co-promoter:** Dr O de Smidt, PhD (UFS)

**Topic:** "Root-enhancing properties of rizospheric bacteria on Eucalyptus hybrid cuttings."

Dr Sidney Nwigwe obtained a BSc degree at the University of Nigeria, and Honours and Master's (MSc) degrees at the University of the Free State. Currently, he is the Director of Community Education and Training College, Free State.

Superior Eucalyptus hybrids are deployed through vegetative propagation and rooting of cuttings. Cuttings often demonstrate low rooting percentages, causing extensive financial losses. Rhizospheric bacteria were isolated from soil and applied to cuttings of two hybrids to assess rooting enhancement potential.

After characterising the bacteria using fatty acid methyl ester analyses and sequencing of the 16S rRNA gene, the bacteria were identified through BLAST searches. Seven bacterial strains demonstrated the ability to promote rooting through production of indole-3-acetic acid and phosphate solubilisation. The Pseudomonas-Bacillus bacterial treatment improved the fibrosity of the rooting architecture of cuttings of one of the hybrids, which could be of value when rooted cuttings are planted out in plantations.

## FACULTY OF HUMANITIES

### Doctor of Education



Dr Modise Motalenyane is flanked by his promoter, Prof GJV Schlebusch, and co-promoter, Dr CL Schlebusch who supported him throughout his journey.

**Promoter:** Prof GJV Schlebusch, PhD (Vista)

**Co-promoter:** Dr CL Schlebusch, PhD (CUT)

**Topic:** "English as the language of learning for limited English Proficiency Grade 10 Accounting learners in the Free State Province."

Dr Modise Motalenyane Alfred obtained the Diploma in Education Commerce in 1995, after which he completed the BTech and Master's degrees in Commerce, and the Advanced Certificate in Education (ACE) in School Leadership.

He started his teaching career at Emang Mmogo Secondary School in Kimberley, and was later appointed as Head of Department for Commerce at Senakangwedi Secondary School in Botshabelo, and as Deputy Principal at Sediti Secondary School in Thaba 'Nchu. He is currently a Lecturer in Accounting and Business Management at the Welkom campus.

In his doctoral study, Modise researched English as the language of learning for Grade 10 Accounting learners with limited proficiency in English, in the Free State province.

He has proven himself as a scholar by presenting papers at national and international conferences, and publishing articles based on his research.

### Doctor of Education



Dr Olga Ndlovu with her promoter, Prof. JW Badenhorst (left).

**Promoter:** Prof JW Badenhorst, DEd (Unisa)

**Topic:** "The role of critical reflective teaching in teaching practice for the 21st century: A case study."

Dr Sizakele Olga Ndlovu obtained the Baccalaureus Artium Degree (cum laude) in 2005; the Postgraduate Certificate in Education (cum laude) in 2006; the Bachelor of Education (Honours) in Educational Management (cum laude) in 2010, and the Master's Degree in Education Law and Management in 2014. She is currently a Lecturer in Educational and Professional Studies at the Welkom campus. In her doctoral research, Sizakele conducted a case study of the role of critical reflective teaching in teaching practice for the 21st century.

### Doctor of Education



At Welkom Campus, Dr Mokhampanyane is with her promoter, Prof GJV Schlebusch (left).

**Promoter:** Prof GJV Schlebusch, PhD (Vista)

**Topic:** "A strategy guide to address poor academic performance of 1st year Accounting students at Universities of Technology."

Matsolo Mamookho Claurina Mokhampanyane obtained a Secondary Education Diploma (SED); a Bachelor of Commerce (BCom) degree; and a BCom (Hons) degree at the former Vista University. In 2004, she obtained her Master's Degree in Commerce at the North-West University.

Her study deals with a strategy guide to improve poor academic performance of first-year accounting students of a University of Technology (UoT). Universities are expected to turn students into knowledge workers; to ensure intelligence growth; and to avail educational opportunities to all. The study was tethered in the constructivism theory, where a qualitative research methodology was adopted in order to address the primary and secondary research questions. Based on the findings and recommendations of the study, a strategy guide towards improving the academic performance of first-year accounting students of a UoT, was proposed.

## Doctor of Education



*Dr Mpolokeng with his promoter, Prof CJV Schlebusch*

**Promoter:** Prof. CJV Schlebusch, PhD (Vista)

**Topic:** "Financial management and fundraising strategies for Quintile 1 and 2 Secondary Schools in the Free State Province."

Dr Tlale Essau Mpolokeng holds a Secondary Teacher's Diploma; a Bachelor of Arts Degree; a BEd Honours Degree in Educational Management and Leadership; a Certificate in Finance for Non-Finance Managers; and a Master's Degree in Education.

His doctoral study focused on financial management and fundraising strategies for quintile 1 and 2 secondary schools in the Free State province. Fundraising can be an empowering tool to improve a school's physical and human resources, or a negative process that leads to disappointment and unhappiness.

The findings of the study revealed that schools face numerous obstacles in terms of fundraising, such as a lack of parental support due to unemployment; a lack of proper planning of fundraising projects; a lack of skills; and an unwillingness to endeavour into new fundraising projects. The study concludes by proposing a strategy that could assist schools with their fundraising attempts.

## Doctor of Education



*Dr Khauoe with his promoter Dr C Teleki (left).*

**Promoter:** Dr C Teleki, (PhD)(UP)

**Topic:** "Management of organisational systems at township Secondary Schools in the Free State Province."

Dr Khanyapa Frans Khauoe holds an MEd Psychology of Education Degree from the University of the Free State.

In his doctoral research, the promovendus investigated the effectiveness and efficiency of secondary school systems in townships.

Basing his argument on the tenets of evidentialism, reliabilism and infallibilism, he managed to create epistemological and ontological knowledge, and discovered that legal persons attached to secondary schools as organisations contravened the four sources of education law, namely the Constitution, legislation, case law, and common law. In solving the research problem, he recommended the Khauoetic Model of Secondary Schools' structure. The study makes a valuable contribution to the improvement of the management of schools, particularly secondary schools in townships in the Free State province.

## Distance learning proves fruitful at CUT



**With Mr Thomas Frederick Dreyer is Prof. Deseré Koko (left) Associate Professor: Human Resources Management lecturer and Prof. Tshedi Naong, Head of the Department: Business Management (right).**

Technology has proven yet again that students, lecturers and supervisors can interact fruitfully and productively outside the classroom environment.

One of the thirteen master's degree graduates, Mr Thomas Frederick Dreyer currently based in Abu Dhabi, graduated Cum Laude with his Master's in Human Resource Management through distant learning. The student flew to CUT for his graduations and met with his supervisor, Prof. Deseré Koko for the first time.

According to Prof. Deseré Koko, Associate Professor: Human Resources Management in the department of Business Management, it was her first time experience to supervise a distant learner at that level. "I am happy to have accomplished this mission. Distance learning at this level using

technology can be the biggest challenge for a supervisor in terms of getting the right message across – that is why I followed the principle of clear and direct feedback, so the student knows exactly what they need to do and why," she said.

Asked about other challenges she faced as a supervisor, Prof. Koko said that for any student to consider distant learning, maturity, commitment and dedication plays a pivotal role. She also mentioned that she prefers to provide detailed feedback on the text, give clear instructions, have regular telephone conversations as it is often necessary to explain aspects verbally. "A driven and self-motivated student is a cherry on top", she added.

Mr Thomas Frederick Dreyer's research topic was "An expatriate mentoring plan for Abu Dhabi Oil and Gas Industries (GASCO)", which he completed over a period of two and half years. Originally from South Africa, Dreyer has lived and worked in SA all his life and only left SA in 2014 to advance his career in Abu Dhabi. "I really enjoyed the distant learning experience mainly because it was very flexible in terms of allowing me to fit my learning around my work and personal life. I managed to set my own pace of study. With distance learning, one has to be extremely disciplined because there are no strict deadlines and this makes it easy for one to lose focus or even become demotivated," he said.

Mr Dreyer also mentioned that he is grateful to have had a supervisor like Prof. Koko as she has helped him overcome obstacles experienced with distance learning. "She is a very positive and unique study leader, a motivational speaker, professional, a subject matter expert in her field, supportive, patient with her students and passionate about her work. I look forward to continuing this journey with her again in 2019 when I will be starting with my PhD."

## Mogane graduates against all odds



**Mr Cyprian Mogane ecstatic to receive his B.Tech: Public Management qualification.**

Cyprian represents many students with disabilities on campuses across the country that universities are obligated to serve their needs and ensure their full integration into university life without hassle. Originally from Bushbuckridge in Mpumalanga, Cyprian made his way to Bloemfontein to explore his career at CUT. Although he mentioned that his journey was not a walk in the park, he is adamant that his perseverance saw him through.

Asked about his challenges as a person with disabilities at the institution, Cyprian had this to say,

My first year at CUT was a misery, as there were no resources to cater for me such as braille, JAWS software in computers, recording lectures, library material, orientation and mobility and a well-structured disability unit like other universities. In my second year, things started to improve that is why I am still here. I would like to pursue my MTech in Public Management, but I am not sure if all the resources I need will be available.

He further said that he was grateful to be able to progress, despite all the difficulties faced.

I want my experience to be an inspiration to other people like me and would like to see CUT opening its doors to other disabled students and see Work Integrated Learning programme benefiting and placing disabled people with relevant companies and institutions.

Mogane further extended his appreciation to his mentors, lecturers and HoD, Prof. Tryna Van Niekerk, Mr Logan Munsamy and Dr Laetitia Laubscher for their undying support throughout his journey.

CUT is committed to the promotion of diversity on campus among students to create equal educational opportunities for students with disabilities. Such students are advised to visit the Office of Deputy Registrar: Academic Administration for more information and advice as to how they can be supported throughout their studies.

## Strategic partners in education shows laudable progress



Some of the 57 Maccavlei graduates enjoying every moment on their big day with their lecturers, Prof. Crispin Chipunza, Desire Kokt Prof. Tshedi Naong (HoD), Mr Jan Hollenbach (Maccavlei Academy), Prof. David Ngidi (DVC Teaching and Learning), Prof. Albert Strydom (Dean) and Dr Lineo Dzansi.

Strategic partners in education shows laudable progress and the achievement of graduates thereof is a direct outflow of the successful partnership between Maccavlei Learning Academy project (MLA) and CUT, which dates back to 2012.

CUT and MLA renewed this momentous partnership on 08 September 2017 for the next three years to continue making a meaningful difference in the employees' professional lives, specifically HR

practitioners across the economic sectors.

The project started with the first intake of 89 Maccavlei students. Since then, this partnership saw over 450 employees successfully completing this prestigious BTech: Human Resources Management programme offered in a blended, flexible mode of delivery, with 57 Maccavlei graduates for the 2018 Autumn graduations.

## CUT contributes to the development of the community



About 58 Community Development Workers across the Free State Province obtained Higher Certificates in Community Development Work Programme at the Autumn Graduations Ceremony 2018. The programme was sponsored by LGSETA and managed by the Office of the Premier. The graduates are flanked by representatives from the Office of the Premier, LGSETA, lecturers, Dean of Management Sciences, Prof. Albert Strydom, Dean of Management Sciences, Ms Geraldina Winkler, Acting CEO of CUTis at the time and Deputy Vice-Chancellor: Teaching and Learning, Prof. David Ngidi.

In many ways, the Central University of Technology, Free State (CUT) contributes towards building capacity within provincial and local government to ensure participatory democracy is realised. CUT is determined and dedicated to the contribution and development of the region. On 26 March 2018, the Faculty of Management Sciences through partnership with the Free State Provincial Government graduated 58 Higher Certificate students in Community Development Work Programme. The students are already doing community development work as part of the

university's partnership with the Office of the Premier. The programme was funded by LGSETA and managed by the Skills Development Facilitator in the Office of the Premier, Ms Victoria Thaela. This initiative was brought into being by the Faculty of Management Sciences when academic staff were approached to offer courses in community development work. This partnership and its success thereof were seen through by the competence and leadership of the following lecturers: Mrs Pulane Molomo, Mr Bongani Magagula, and Mr Logan Munsamy, who initiated the programme.





At the Enactus National competition, Maraka Lefera is seen here receiving her latest award for Enactus South Africa Faculty Advisor of the year. She is congratulated by Ms Khulisile Mthunzi-Hairwadzi, General Manager (MTN SA Foundation). The price includes all expense paid trip with the 2018 National Champion team to Silicon Valley, California.

## Maraka wins Enactus South Africa Faculty Advisor of the year

Ms Maraka Lefera is a part-time lecturer and Enactus-CUT Co-Faculty Advisor, pursuing her MTech in Human Resources Management.

On 12 July 2018, she was awarded Enactus SA Faculty Advisor of the year. The price includes all expense paid trip with the 2018 National Champion team to Silicon Valley, California.

She also made history when she was invited to attend the Global Entrepreneurship Summer School (GESS) which will be hosted for the first time in Cape Town, South Africa this year. Of the 747 applicants from universities around the globe, Maraka made it to the top 30 students accepted into the programme. GESS is the Social Entrepreneurship Akademie, organised in collaboration with six leading university-based entrepreneurship centres in Munich (LMU, TUM, MUAS), Social Entrepreneurship in cooperation with Mexico City (Tecnológico de Monterrey) Shanghai (Tongji University) and Cape-Town (LifeCo UnLtd South Africa).

Ms Lefera has exemplified the Enactus values of integrity, passion and innovation. She has shown support and continued dedication to CUT's community engagement programmes that contributes to the socio-economic development in the region through her

entrepreneurial action. She has also been rendering her support to various initiatives on campus through the position that she is holding.

In October 2016, she was considered for the inaugural Global Alumni Award and later scooped the Enactus South Africa 2016 Junior Alumnus of the year (under 30) award.

Asked about her achievements and how her global exposure has benefited her studies Maraka said,

I am ecstatic and overjoyed. I consider myself a global citizen who has made human progress my business. All my travels and encounters with different people from around the globe have shown me how far one could go in life. I am determined to take every encounter as an opportunity and have grown from where I was, and my approach to life has evolved immensely. Being in CUT has opened closed doors for me and I have explored the side of my talents that I never knew existed. My plan is to collect all the experience, exposure and information gained and plough it back here at home. I would also like to implement it in my day- to- day activities here at CUT, especially my involvement with Enactus CUT. For me, the sky is the limit!



Prof. Laetus Lategan, Director: Research, Postgraduate Studies said Universities of Technology addresses societal problems through application of the knowledge generated and business play an important role in that regard.

## CUT Faculty brings business, community and researchers together

The Central University of Technology, Free State (CUT) is committed to live its vision as an engaged university by producing social and technological innovations for socio-economic development of the central region. CUT has made laudable progress in steering its focus towards working with government and industry to make tangible impact in the region.

The triple helix in regional development is steadily coming into a reality in the central region as government, business and institutions plan and collaborate at different levels to create a self-reinforcing dynamic of knowledge-based economic development.

The Faculty of Management Sciences in collaboration with the Black Management Forum in the Free State, hosted a seminar on 18 May 2018 where SMMEs, industry, government departments and corporate leaders from all the different sectors in the Free State Region attended. The seminar provided a brilliant platform for participants to highlight critical business challenges and solutions that will propel the region to greater heights.

Prof. Laetus Lategan, Director: Research, Postgraduate Studies, said that knowledge was the electricity of the century and universities together with the corporate world are the developers and creators of that knowledge.

Universities of Technology addresses societal problems through application of the knowledge they generate and you as business play an important role in that regard. There is a value chain where we try to link the world of business and universities. We cannot be successful, relevant and speak the real-world problems if we do not have the industry as partners to assist us identify problems and come up with solutions.

He said that the institution has identified seven strengths in which they could collaborate. He mentioned the 3D printing, smart cities, food security and sustainability of food resources, quality of health and living, understanding diversity in the educational context, understanding the type of research conducted and how they influenced the system and enterprise development.

Mr MB Tshabalala, Black Management Forum Young Professionals Chairperson, said that SMMEs are the key drivers of employment and job creation but still face many challenges in the province which he said includes ineffective support, red tape, profitability and sustainability, lack of skills and access to funding. Mr Tshabalala also emphasised that the possible solutions to these problems might include the centralisation of all funding government institutions and departments dealing with business. "We need township economy revitalisation where we revisit and replan the township economy, have mentors for each business, and prepare them to be experts."

Ms Lize Labuschagne, CEO of Corporate Payroll Institution (CPI), shared her story on how she became an entrepreneur. She said that the current biggest challenge is having inexperienced graduates who are not market ready.

CUT has embraced the future and is one of the first universities to partner with CPI on virtual real-world training for students where we equip them with necessary skills and experience. Each student logs on to our online system where we have real work simulations. With this exposure, we are creating graduates who are employable and ready to face the world.

Mr Itumeleng Moses, Director: Economic Analysis in the Free State Treasury Department commended CUT for showing determination and consistency in striving to take the Free State Province forward. He also said that lack of evidence in policymaking, sufficient research culture and practice, and dissemination of research findings in government posed a challenge. He said,

This gives us a sense that we need to collaborate more and leverage from existing resources, form new alliances and revive the existing ones. We also need an intervention in skills development, enhance the capacity of local people and look at how we can best interpret radical economic transformation as a province to come up with laudable solutions to enhance the economy.



## CUT supports international initiatives

International collaborations and partnerships have become a priority at many universities around the world and the Central University of Technology, Free State (CUT) supports such initiatives as part of its vision 2020 strategy, knowledge sharing and enhancement in teaching and learning.

From 18-24 February 2018, the Faculty of Humanities delegation from Mathematics, Science and Technology Education and Media Studies departments formed part of the International network when they participated in the Connected Learning Initiative (CLx) Teacher Professional Development Review held at the Tata Institute of Social Sciences in Bengaluru, India. The CLx programme focuses on Mathematics, Science, Technology and English education to empower teachers in integrating Information and Communication Technologies (ICT) in their everyday teaching and learning.

The purpose of participating was to assess the possible adaptation of the programme for South Africa, expose the department of Communication Sciences to the Media and Journalism programmes offered at this institute and explore possible collaborations with the Tata Institute of Fundamental Research on international research programmes in Mathematics, Science and Technology Education.

Asked about the benefits of the visit, Prof. Nellie Feza, Dean of Humanities said her general view of the programme was worth exploring in South Africa. She said,

However, our approach will be to upscale it for a level of Postgraduate Diploma for our teachers. The digital literacies were also more foundational compared to our programmes due to different levels of socio-economic status. Poverty levels between the two countries are not aligned hence the programme needs adaptation.

The CUT delegation indicated an interest in the following programmes:

- Collaborative Undergraduate Biology Education (CUBE)
- Improvement of Science, Mathematics and Technology at School level
- PhD programmes
- Out-of-school knowledge of students
- Teacher development programmes
- Designing technology education
- Misconceptions in physics education

Prof. Mike Mhlolo, Assistant Dean: Research, Innovation and Engagement, and one of the delegates said that the visit was a revelation, as a number of things stood out for him coming from a Mathematics Education background. His highlight was the Teacher Professional Development programme run by the Homi Bhabha Centre for Science Education (HBCSE), whose main aim is to support mathematics teachers to become subject experts.

At the HBCSE, I was particularly interested in the project that the centre runs for gifted students. As a leader in the Research Unit for Gifted Education in Mathematics and a Thuthuka Grant holder on the same research project, I see a potential for collaboration with HBCSE.

The HBCSE is the nodal centre of the country for a major national Olympiad programme in basic sciences and mathematics, which connects to the international Olympiads.

The programme aims at promoting excellence in science and mathematics among pre-university students and my research project on gifted education aims at promoting excellence in mathematics.

Prof. Mhlolo further said that Tata Institute of Fundamental Research conducts annual summer programmes in which talented students are introduced to research activities in the areas of Astronomy, Biology, Chemistry, Computer Science, Mathematics, and Physics.

The selected students are expected to work on a research project under the supervision of a TIFR researcher. It would be interesting for me to understand how they identify the gifted students as well as the nature of their support programmes for such students, he concluded.

As a way forward, the Faculty Administrator, Mr Titus Williams said that a letter of intent has been sent to the international office from the Tata Institute of Social Science, and negotiations has started between CUT and the Homi Bhabha Centre of Science Education.

It is worth noting that while the CUT team was at the India Tata Institute of Social Sciences, their reviewed CLx programme was selected for the 2017 edition of the UNESCO King Hamad Bin Isa Al-Khalifa Prize for the Use of ICTS in Education <https://en.unesco.org/news/projects-morocco-and-india-receive-ict-education-prize>.



From left: Mr Kutwane Kareli, Business Development Officer: PDTS, Dr Marius Kudumo, Director: International Relations NUST, Dr Izabeth Conradie, Manager: CUT Idea Generator, Prof. Pio Barone Lumaga, Director: Innovation Design Lab, Dr Anna Matros-Goreses, Director: Project Services Unit at NUST, Ms Chichi Maimane, Deputy Director: Curriculum and Academic Staff Development, Ms Refilwe Moleyane, Academic Exchange Study Abroad Coordinator and Mr Tseliso Mpekoa, Business Development Manager.

## CUT and NUST explore possible areas of collaboration

The Central University of Technology, Free State (CUT) is robustly implementing the internationalisation strategy, which is supported by an ongoing analysis of key role players at Higher Education Institutions (HEIs) in the SADC region. Under its vision, CUT is ready to partner with institutions where there are mutual socio-economic development interests as well as committed resources.

As part of sharing knowledge and expertise between CUT and Namibia University of Science and Technology (NUST), Prof. Pio Lumaga, Director: Innovation Design Lab and Dr Anna Matros-Goreses, Director: Project Services Unit from NUST led a series of workshops on international research funding systems, product development and sustainable design at CUT from 14 to 15 March 2018. The duo also shared their success stories from their university and how these could translate into tangible outcomes for CUT.

Dr Anna Matros-Goreses said,

We are looking for areas of joint projects and how we can equally increase our research projects. We have already identified areas of collaboration, and we still need to work on a plan to realise and implement them. I am very much impressed with the exceptional work that CUT is doing when it comes to research. I was blown away with the PDTS and 3D printing because it has an impact on everyday lives.

The two universities have identified CUT's Product Development Testing Station (PDTS) and NUST's Innovation Design Lab respectively as important vehicles for their collaborations, as well as Sustainable Water Research for Climate Adaptation in Arid Environments Project under UNESCO Chair.

These workshops are a culmination of an earlier visit by CUT delegation under the leadership of Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research, Innovation and Engagement to NUST earlier this year to benchmark and explore possible areas of collaboration.



Back row: Prof. Michele Truscott, Mr Boysie Phehlukwayo, Chairperson of Council, Mr Gerrie Booysen, Prof. Henk de Jager, Vice-Chancellor and Principal, and Mr Lesiba Sebola. Front Row: Prof. Willie du Preez, Research Professor in Engineering; Ms Somayne van Heerden (guest); Dr Kobus van der Walt, Senior Researcher in Mechanical and Mechatronic Engineering; and Ms Jenny van Rensburg (guest).

## CUT finalist in two categories of the SA Academic Oscars

Mr Gerrie Booysen, Director of the Centre for Rapid Prototyping and Manufacturing (CRPM) at CUT is among the best and brightest in South Africa for his outstanding contribution to research work in engineering.

Mr Booysen represented CUT as a finalist in the 2017/2018 NSTF-South32 Awards in two categories: Engineering Research Capacity Development and Corporate Organisation Innovation, an exceptional achievement.

This was the second year in a row that CUT had a finalist in the prestigious awards, acknowledged as the Academic Oscars of South Africa. Last year, Prof. Fidelis Emuze, acting Dean: Engineering and Information Technology, was a finalist in the TW Kambule-NSTF Emerging Researcher Award category.

Mr Booysen led the development of cost-effective manufacturing of patient-specific implants and pre-operative surgical models.

State health departments do not have funding for expensive reconstructive surgery of patients. As a result, we had to look for innovative ways to change their lives and assist them to live what we consider to be a normal life, he said.

CRPM, manufactured the first certified 3D printed patient-specific medical implants for reconstructive surgery in 2013. This was the first in South Africa, and CRPM has since moved beyond lab-scale research outputs.

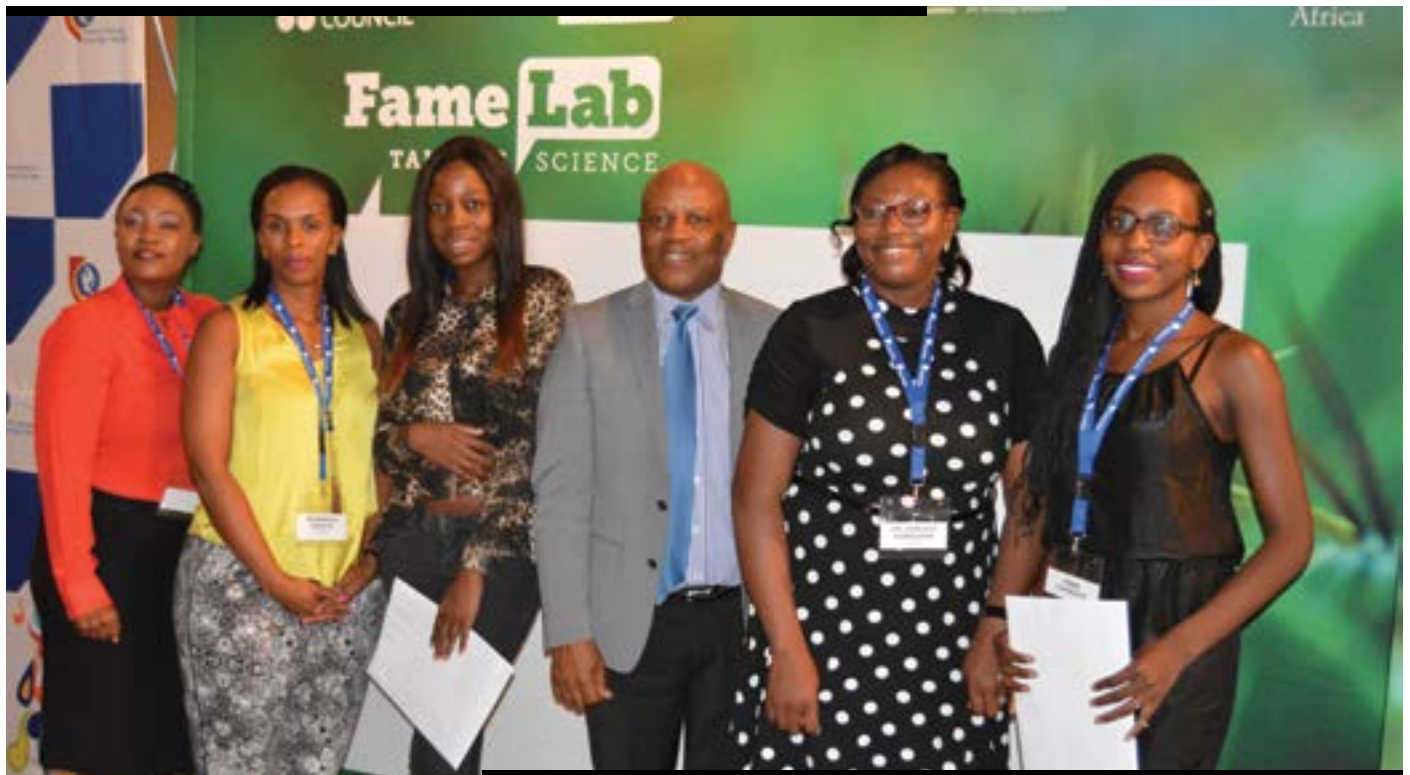
The National Science and Technology Forum (NSTF) Awards were established in 1998 as a collaborative effort to recognise teams, organisations and individuals who have made outstanding contributions to Science, Engineering, Technology (SET), and innovation.

In cases where conventional reconstruction was not possible due to the amount of bone that had to be removed due to cancerous tumours, implants were manufactured through 3D printing. During his leadership, the university has been awarded international certification (ISO13485) in 2016 as the only manufacturers of titanium implants on the African continent, and the South Africa Research Chair Initiative (SARChI) for medical product development through Additive Manufacturing.

Vice-Chancellor and Principal, Prof. Henk de Jager attended the event to support the CUT finalist and said,

CUT is one of three Universities of Technology represented at these awards along with TUT, and CPUT and the only University from the Central Region. This is indeed another confirmation of the quality and impact of the research we conduct at CUT. Our vision of being an engaged university that delivers on social and technological innovations are being realised and also acknowledged.

Although Mr Booysen was not the overall winner in the categories he was nominated for, reaching the final round of The Who's Who in SET and innovation, and being recognised as one of the highest achievers in SA, is a milestone worth celebrating.



From left: Ms Refilwe Moleyane, Academic Exchange Coordinator: International Office (judge); Ms Mamosa Makaya, Deputy Director: Communications at UFS (judge); Ms Sylvia Mokuoane from CUT (winner), Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research Innovation and Engagement; Dr Vanessa Agbedahin from UFS: Centre for Research on Higher Education and Development panellist (UFS), and Ms Emmie Chiyindiko from UFS (winner).

## The FameLab Science competition boosts young scientists' confidence

FameLab is one of the biggest science communication competitions in the world where young scientists get the opportunity to present scientific concepts to the general audience in three minutes. In South Africa, the competition is led by the British Council, the South African Agency for Science and Technology Advancement (SAASTA) and Jive Media Africa.

On 20-21 February 2018, the Central University of Technology, Free State (CUT), in collaboration with the University of Free State held the FameLab competition to encourage students to engage in talks about their research, tell stories about their scientific experiments and how these affect their societies.

By participating in the competition, young scientists and researchers not only get the opportunity to develop their communications and presentations skills, but also gain confidence in their work and become role models and inspiration to the next generation of scientists and engineers. The exposure is also a gateway to meet and network with compatible peers and experts in the field.

Ms Joanne Riley: Science editor in the Science Communication Unit at SAASTA, said that the competition had several impacts on both universities, staff and students.

The impact of this competition on universities is that it enhances research, teaching and learning, assist universities to demonstrate accountability, strengthens brand visibility and identity. It also sensitises students to social and ethical issues, motivates and develops staff to engage with the wider public, and augments students' experiences and experiments.

Students from both CUT and UFS competed and were judged on content, simplicity and charisma. Of the 18 contestants, Sylvia Mokuoane from CUT and Emmie Chiyindiko from UFS came out tops and competed at the semi-finals in April 2018. The win also afforded them an opportunity to attend a science communication masterclass, which was presented by an international FameLab-accredited trainer.

As semi-finalists, they were awarded book vouchers to the value of R500 and stood a chance to win R5 000 or R2 500 if they become runners-up at the national level. The overall winner received an all-expenses trip paid to participate in the international FameLab competition in June 2018.

Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research Innovation and Engagement congratulated the winners and said that the issue was not about winning the competition, but to instil the culture of innovating and commercialising their products and selling them to the markets. "Unemployment is our major challenge and it is your responsibility to start creating jobs through your ideas," he concluded.

Although Ms Sylvia Mokuane from CUT did not make it in the finals, her participation at the national level is remarkable.



CUT Staff and students who participated in the Tabalaza pitching programme.

## Aspiring entrepreneurs pitch their ideas to investors

Education in innovation and entrepreneurship has become a common practice in Universities of Technology (UoTs) with the aim of turning more graduates from job seekers to job creators contributing to the mainstream economy.

In the effort of igniting the economy of the region and driving the culture of entrepreneurship amongst staff, students and the society, the Central University of Technology, Free State (CUT), in partnership with the provincial Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEa) and Tabalaza, invited aspiring entrepreneurs and investors with innovative business ideas to take part in the pitching programme held at CUT from 01-02 March 2018.

Innovative Ideas are in the pipeline to CUT units such as PDTs, CRPM, RGEMS and the Technology Transfer Office, who are also leaders in prototyping, research and business development. The department is targeting such emerging businesses that are planning to expand or diversify their businesses with innovative business ideas and proof that it can be bankable. The initiative of pitching ideas was created to serve as a platform of independence for entrepreneurs, potential investors, financial institutions and training institutions, with the objective of strengthening their growth prospects.

Dr Mauritz Venter, co-founder and CEO of AZARGEN, held a workshop for CUT staff and students where he gave a learning session on how to pitch to potential funders and build successful networks.

17 entrepreneurs from around the Free State took part in the programme and three aspiring entrepreneurs from CUT pitched their businesses ideas to investors. The top three winners are KN Studios (1st prize), Batho Pele Innovations from CUT incubator (2nd prize) and Nkidi Manufacturing (3rd prize). All prize money received by the top three was invested in their respective businesses. The first-prize winner received R70 000, the second prize R50 000 and the third winner walked away with R30 000.

Ms Gadija Brown, HoD DESTEa, said that their aim is to be a developmental institution that drives economic transformation, environmental sustainability, system change and adaptation to the ever-changing dynamics for the benefit of the people of the Free State.

Our plan is to deliver and assist SMMEs on the ground as they are the key drivers of economic growth and job creation.



From left: Mr Leolyn Jackson, Director: International Office; Ms Refilwe Moleyane, Academic Exchange Coordinator: International Office; Mr Tiyani Chauke, Assistant Director: Strategic Partnerships at DST; Ms Kogilam Govender, Deputy Director: Global Change and Sustainability SA NCP SC5: Climate action, resource efficiency, environment, and raw materials at DST; and Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research, Innovation and Engagement.

## International partnerships and funding opportunities for CUT

Universities across the world are seeking international research opportunities by forming global partnerships and fostering relationships with other institutions.

On 24 January 2018, the Central University of Technology, Free State (CUT) hosted delegates from the Department of Science and Technology (DST) to discuss the importance of international project partnerships, European Union funding opportunities available and how to apply for such funding and the role of DST as a strategic support to institutions such as CUT.

The delegates, Mr Tiyani Chauke, Assistant Director: Strategic Partnerships at DST, and Ms Kogilam Govender, Deputy Director: Global Change and Sustainability SA, mentioned that the objective of the DST is to develop the innovation capacity of the National System of Innovation (NSI) that would contribute to the socio-economic development, develop priority science areas in which South Africa enjoyed a competitive advantage, promote internationally

competitive research, training activities and output, identify, grow and sustain a portfolio of high-potential science, technology and innovation capabilities for sustainable development and the greening of society and the economy.

For CUT, international project collaborations are important as they help tackle global societal challenges, strengthen excellence within science, technology and engineering, stem mutual benefits and attract talent and skills transfer between South Africa and other international communities with the intent to support and adopt global external policies.

Horizon 2020, which was launched in 2014, is a strategic platform for the European Union Research and Innovation programme with nearly €79 billion worth of funding available over seven years from 2014 to 2020. It provides guidance and direction from funding perspective on what universities must do to mobilise their resources for possible funding.





Control systems 3 students from CUT designed a simple ON/OFF temperature controller using Simulink and Arduino. With them are Mr Rangith Kuriakose, Project Coordinator and Lecturer in the Department of Electrical, Electronics and Computer Engineering at CUT (back seat-right) and Prof. Herman Vermaak, Assistant Dean of Research (back seat- left).

## 3rd Annual interactive lecture with ULM University

A group of students from the University of Applied Science, Ulm and CUT shows that knowledge is power and sharing knowledge empowers people. These students constitute the generation of youth that is native to the Fourth Industrial Revolution. They have expectations that technology is an important contributor to their educational experiences while studying.

Staff and students from the Department of Electrical, Electronics and Computer Engineering held the 3rd annual interactive lecture via modern technology (Skype) with their counterparts from the University of Applied Science, Ulm on 18 May 2018, to provide effective platform for students and lecturers to participate and contribute to the effective use of this technology as an important teaching and learning tool.

This follows an overwhelming success of the two previous ventures, which attracted keen interest among students and the academic staff from both universities. The idea of the lecture is to allow students from these universities in different continents an opportunity to exchange ideas and share knowledge on a portion of their engineering course; namely, Control Systems 3.

Control systems 3 is an exit-level subject in the National Diploma programme at both universities and combines the knowledge from various other subjects they have learned previously, namely Mathematics, Electronics and Electrical Engineering. This means that very few students from both universities get the chance to sit for this class as it is regarded to be a difficult subject and only the best students from both universities opt to take this course.

"There has been instances where our students from this interactive lecture did part of their Work Integrated Learning (WIL) at Ulm University, which is encouraging for them," said Mr Rangith Kuriakose, Lecturer in the Department of Electrical, Electronics and Computer Engineering.

In order to make the presentations challenging and competitive, the students registered for the Control Systems 3 module at CUT are split into five groups of four members and each group is given a project to complete. The project progress was coordinated by the lecturer for Control systems 3, Mr Kuriakose. The project was funded by MerSETA under the leadership of Prof. Dilip Das and Prof. Mohammed Mostafa, and technically supported by Opti-num solutions.

Opti-Num solutions provided technical support in the form of a Total Academic Headcount (TAH) licence for MATLAB, the main software used in academia and industry for teaching and simulating control systems. It is important to mention that CUT is one of the few recipients of the TAH licence in Africa and Opti-Num solutions has the distributing authority for sub-Saharan Africa.

The presenting group from CUT designed a simple ON/OFF temperature controller using Simulink and Arduino, while their counterparts at Ulm, headed by Prof. Walter Commerell, modelled an efficient classroom temperature controller using Simulink. The presentation was done by Mr Deniz Kilic. The interactive lecture was attended by the Assistant Dean of Research, Prof. Herman Vermaak, who was pivotal in establishing this initiative.

All parties involved in this event agreed that the bar has been raised on both the academic as well as the communication front. This was courtesy to the involvement of Mr Paul Victor and Stefan Ferreira (Audio-visual support officer at CUT) who ensured that there were no technical glitches during the video conference.



Control systems 3 students from the University of Applied Science, Ulm, headed by Prof. Walter Commerell (left), modelled an efficient classroom temperature controller using Simulink, a block diagram environment for Model-Based Design. The students presented via video Conference.



Academics from various institutions attended the seminar to share their different views and approaches on how to improve teaching and learning in higher learning institutions.

## CILT hosts 5th annual conference on teaching and learning

The Centre for Innovation in Learning and Teaching (CILT) held a seminar on 14-15 June 2018 focusing on impacting learning communities through innovation and quality teaching. The theme is aligned with CUT's 2018 mandate of 'Reimagining the university as a transformative institution and 'model' University of Technology in Africa, impacting on the socio-economic development of the Central region of South Africa and beyond.' Academics and upcoming researchers shared their different approaches towards improving teaching and learning within their institutions.

The keynote speaker, Dr Cecilia Jacobs from the Centre for Health Professions Education at the University of Stellenbosch, presented on 'Placing knowledge at the centre of how to understand good enough teaching'. She said that the extent to which someone is considered a good teacher is intricately linked to creating conditions for excellent learning. She based her presentation on the individualised and social understanding as two sets of teaching and learning.

In her overall view, teaching should take both the social and individual views into account and not one at the expense of the other.

My arguments are based on teaching and learning that has a social and individual dimension. The two are relational and interactive. We need to focus on our students and have a clear understanding of who they are, where they come from and what their needs are in order to be excellent teachers. We also need a clear understanding of how the disciplinary knowledge in classrooms is constructed and what norms and values underpins such. Also, we need to acknowledge the socially constructed nature of universities and interrogate the practices within them. Understand how CUT works to include or exclude students to access knowledge. We can't just focus on students because it fails to examine the role of all the other aspects in the context that plays out in the realm of teaching and learning. We need to teach in a way that builds on the knowledge that students bring with them to classes.

Prof. Jo Badenhorst was one of the presenters at the conference. She is an Associate Professor in Education Studies at CUT Welkom Campus. She spoke about ethics in teaching and learning and said that there is a need to revisit committed teaching and learning. Her decision to focus on the topic was based on an interview conducted with a group of students about their experiences of lecturers and their teaching styles.

She said that ethics in academia could broadly be understood as a mode of principles related to the university tripod as a duty of teaching, research and community service.

However, what comprises everyday ethical academic conduct is not a clear-cut for everyone, and we as academics may not concur on which values we should prioritise.

Prof. Badenhorst also tapped into the core concerns in teaching and learning in higher education and where they fit in the bigger picture of the university. The core concerns includes corporate models of governance, governance management and leadership that have engulfed the traditional system of decision making and devotion to the core academic values. She also touched on academic integrity and personal ethics and how they translate into teaching practices.

Ethical conduct on both institutional and individual level is compounded by the current context. Making decisions based on moral principles is becoming increasingly challenging, and the temptation to compromise or disregard ethical principles in the classrooms is becoming increasingly endemic. We need to ask ourselves what role universities play, what our purpose is as academics, and what our priorities are?

She further mentioned that research and teaching are not two competing endeavours but, interdependent on one another.

Teaching and learning as the original mission of academic institutions should constantly be revisited. We need to know what is happening in our lecture rooms, focus on teaching and re-invent the wheel all over again. We should go back to the basics as a large part of the problem lies with the lack of academic integrity, and there are many principles of integrity that we can follow when we are teaching.

In conclusion, she emphasised on the importance of reinforcing integrity and higher academic standards where students can thrive.

We must affirm the importance of academic integrity for our students and lecturers. We need to develop relevant and fair forms of assessment as we have a primary responsibility of designing and cultivating the educational environment.



At the official opening of HtCtW programme from left: Ms Naomi Britton, Mr Benjamin Tam, from University College London (UCL), Prof. Henk de Jager, Vice-Chancellor and Principal, Dr Carla- Leanne Washbourne, from UCL, Prof. David Ngidi, DVC: Teaching and Learning, Prof. Muthoni Masinde, Head of Department: Information Technology, Prof. Dillip Das, Associate Professor: Civil Engineering.

Back row from left: Prof. Yali Woyessa, Head of Department for Civil Engineering, Dr Adam Charles Gladstone Cooper, Prof. Fidelis Emuze, Acting Dean: Faculty of Engineering and Information Technology, Ms Mpho Mbeo, Engineering Faculty Officer, Prof. Kanzumba Kusakana, acting Head of Department: Department of Electrical, Electronic and Computer Engineering.

## CUT is moving beyond the traditional pedagogical methods

The world is constantly changing and becoming unpredictable by day and so is education. Gone are the days of teaching traditional subject areas, such as numeracy and literacy. The education system is rapidly moving towards developing the breadth of skills to prepare students on a broad range of skills such as problem-solving, critical thinking, and collaboration in order to meet the demands of the 21st century.

On 17-20 July 2018, the CUT in collaboration with Tshwane University of Technology (TUT), and the Department of Science, Technology, Engineering participated in the 'How to Change the World (HtCtW)' programme sponsored by the Department of Higher Education and Training (DHET).

The programme was facilitated by a team of experts from University College London (UCL) in the Department of Science, Technology, Engineering and Public Policy (UCL STEaPP) in collaboration with CUT engineering staff. The UCL team included instructors- Dr Adam Cooper, Mr Benjamin Tam and Dr Carla-Leanne Washbourne and coordinator Ms Naomi Britton. The programme aims to equip engineering students with the necessary skills and tools required to develop creative and robust solutions that will assist in tackling global challenges faced in the 21st Century. It is also aimed at building a community of engineering educators in South Africa.

About 100 students from different sectors of Engineering and Information Technology participated in the programme and were divided into problem solving groups where they presented with a broad, open-ended societal challenge, which was structured around the Sustainable Development Goals (SDG), ranging from issues such as supplying energy services to rural African locations, to finding solutions to overcrowded and congested transport systems in growing urban centres.

All projects given to students were real-world issues set in partnership with external experts from policy, industry and the third sector.

Since the launch of the programme in 2014, UCL STEaPP has trained over 3, 000 participants with high profile global partners including UN Habitat, the World Bank, the Red Cross Climate Centre, the UK Department of Energy and Climate Change, Practical Action, the UK Department for Transport, Buffalo Grid, Pump Aid and the overseas development institute.

Through this programme, CUT students were exposed to a better pedagogical paradigm and acquired the precise skills set that will help them become agents of change in their respective environments.



Students in the 21st Century applying critical and creative thinking, and problem-solving to address complex real-world challenges.



CUT Hotel School first-year students prepared to serve the guests. From left, Liandri Kotze, Chad Mac Donald and Nomazulu Masinga.

## CUT first Beer and Food Affair

Craft beer is becoming a buzz in the market and continues to grow as more beer lovers explore the different brew palate.

Following a successful annual Fiesta del Vino Food and Wine Tasting Festival held in August 2017, the Hotel School hosted the first Beer and Food Affair in collaboration with the Centre for Applied Food Security and Biotechnology (CAFSaB) and CUTis on 31 May 2018. The event was aimed at promoting the Hotel School facilities and event aspects to external partners and expose students' skills to the industry, as well as introduce craft beer tasting.

Approximately 140 guests graced the occasion and tantalised their taste buds with different characteristics of varied beer ingredients with hundreds of malted barley varieties, yeast strains and hops. Non-drinkers also had the opportunity to taste some of the non-alcoholic drinks prepared by CAFSaB.

The day was not only about fun and games, but also an educational platform where guests learnt the proper way of tasting beer, tasted other unusual yet flavoursome drinks, learnt about responsible alcohol use, as well as pairing the different dishes with different beer flavours.

Later in the evening, the Hotel School offered a delectable journey menu to the guests where each course was explained by Chef Janice Solomons, while Dr Jasiu Lewtak, craft beer brewer and certified beer judge added to the chef's presentation on how certain beers are made, their specific characteristics, tasting notes and why they are paired. He also informed the guests more about craft beer and how beer tasting is done.

The event was proudly sponsored by Serano Chilli Products, Function & Wedding House, OFM, CUT FM and Courant.



Stellar Brewery Craft beer was served to the Beer and Food Affair guests on the day. The ale is similar to the one brewed at the CUT fermentation laboratory.



## CUT community unite to celebrate Africa Day

Once again, on 25 May 2018, the CUT community came together to celebrate Africa Day. Staff and students were jubilant, as different flags of the African continent were raised high to embrace diversity and showcase unity within the institution.

Staff and students participated in various activities as a way of demonstrating their solidarity and appreciation for the people of Africa. The event was also aimed at acknowledging the progress that Africa has made while reflecting upon the many challenges that still exists. This day brought both local and global students and staff together and highlighted the importance of internationalisation at CUT.

The celebration included educational presentations and talks for students and employees, radio interviews, exhibitions of various African artefacts, Pan African fashion show, parades, cultural performances, arts and craft, traditional African attires, food and music.

Prof. Henk de Jager, Vice-Chancellor and Principal said that CUT is committed to build a better Africa and world. He said,

If we stand together as one, we can instill a sense of pride and make Africa better together. By celebrating this day, we mean that CUT is committed to promoting diversity amongst staff and students because through diversity, we become better people and proud Africans. Our aim is to inspire you to join hands and ensure that a better, united and socially unified country and continent is built. It is our responsibility to treat each other with respect and dignity, regardless of race, country of origin or beliefs. Our interest is defined by the development and upliftment of all people in Africa.

When addressing the CUT community, guest speaker of the day Princess Gaboilewe Moroka-Motshabi, guest speaker of the day said,

I dream of an Africa that does not feel the need for validation by any other but itself. Being an African in the 21st century means committing to be courageous and focused soldier of positive change and progress, who leads at the fore to make Africa a better place. In this 21st century, Africanism should mean becoming relevant and true to ourselves. The time has come for us to take charge and appreciate our being. We must take pride in our diversity, uniqueness, intelligence and many other qualities that we are blessed with. As Africans, we must rise, respect one another, become one and give life to Africa.





Dr Johanes Amate Belle, Senior Lecturer, Researcher and Programme Director at the Disaster Management and Training Centre: University of the Free State receiving a gift from Prof. Alfred Ngowi, DVC: Research, Innovation and Engagement as a token of appreciation.

## CUT hosts Public Lecture in commemoration of Africa Day

Each year on 25 May, Africa Day is celebrated in honour of the founding of the Organisation of African Unity. The celebrations highlight African solidarity, unity in diversity, creativity, challenges, successes, and the cultural and economic potential of the continent.

In this regard, CUT International Office hosted Dr Johanes Amate Belle, Senior Lecturer and Researcher at the University of the Free State, to deliver a public lecture titled, 'What it means to be an African in the 21st century.'

In his presentation, Dr Belle shared his experiences of Africa and gave a brief background highlighting the fact that, two decades into the 21st century, Africa still faces many challenges, both internally and externally. Among the top internal challenges, he mentioned bad leadership and governance, poverty and inequality, unemployment, armed conflicts and civil unrests, rapid population growth, health challenges, food insecurity, low intra-Africa mobility, while externally induced challenges included, amongst others, globalisation and the Africa positioning in the global arena, climate change and its negative impacts on Africa, technological innovations and transfer, etc.

He shared some of the basic facts that defines the continent and highlighted that Africa was the second-largest and over populated continent that is rich in minerals but yet, the poorest of all continents. "How can we be the richest continent and at the same time be poor?" He asked.

He further touched on some of the facts that distinguish Africans from the rest.

As Africans, our appearance, names, cuisines, languages, traditional gears, resources and culture define us and make us who we are. We are not defined by the colour of our skin or the shape of our nose.

The speaker also discussed some historical facts that still had serious repercussions for the continent, such as slave trade, colonisation, the struggle for independence, neo-colonisation, north-south partnership and the global market.

He took the audience through the milestones in the decolonisation of Africa, starting with movements such as the Pan Africa Movement (Pan-Africanism with forerunners like Du Bois, Leopold Sengor, Jomo Kenyatha, Kwame Nkrumah. "There was the Africa Renaissance championed by people like Chiek Anta Diop and recently by Thabo Mbeki." He further said that,

The peak of decolonisation and the fight against apartheid in Africa saw the formation of the OAU in 1963, which is today celebrated as Africa Day. The OAU was later renamed the AU in 2002.

In conclusion he said,

Africans should take pride in being Africans in the 21st century by actively participating in sustainable economic development of Africa, promoting peace and social integration, promoting genuine democracy and good governance, holding their leaders accountable, promoting and upholding the African core values such as ubuntu and Africanism. Africans should also respect human life, values (stop killing, violence and abuses especially of women and children), build a strong human capital through education and training, ensure that Africa take its rightful position in the global agenda, adapt to global changes and above all, love one another.



The class of 2018 from several schools in the Motheo district were part of the motivational processions by the MEC of Education, Mr Tate Makgoe. Learners also had an opportunity to meet with the recruitment team for clarity on careers they wanted to follow.

## CUT joins FSDoE to motivate the Class of 2018

The Central University of Technology, Free State (CUT) is an important partner in education and proud to be associated with the provincial government. Each year CUT offers full scholarships to top 10 students of the Province, who are interested mainly in engineering, maths and science programmes. The institution continues to provide the necessary support in all provincial governments' programmes to pursue a core mandate of delivering quality education for the youth in the province.

On 05 May 2018, the Free State Department of Education held a motivational prayer session for the Motheo District Grade 12 learners at CUT. The purpose of the session was to motivate and encourage learners to work hard and achieve the best matric results.

Prof. Henk de Jager, Vice-Chancellor and Principal, said that CUT and various organisations would always hold hands with the Free State Department of Education to advance the best education of young people in the province.

We as CUT and the Provincial government have mutual beneficial collaborations, which are central to our core values of rendering a better life for the youth in this province. As a university, we will continue to work closely with the department in assessing the challenges facing our education. We want to assure you here today that we are rallying behind you in ensuring that you achieve your full potential.

He also said that CUT is a university of the people, region, province and country.

As a university in this country, we are continuously committed to providing quality education, research and innovation outputs to make a difference in our society. Through technical education and vocational training in education, we are committed to address the social economic challenges in our province. Grade 12 is one of the most important years in your life and can either break or make you. When you work hard, you will be rest assured that your good grades will open the doors to your brighter future as each one of you has the potential to achieve good marks. Never stop dreaming big, the sky is the limit.

MEC of the Free State Department of Education, Mr Tate Makgoe, said,

Class of 2018, we are here because we believe in you and know that you can achieve the best results. It is in your brainpower to decide today and believe that you CAN! Always remember that it is not how you start the race, but how you finish it. Your Grade 11 results do not matter anymore; what matters is the preparation and eagerness to finish the race. I believe in you and know that you are simply the best. Prepare yourselves to become one of the top 100 learners who will be celebrated and showered with bursaries and goodies on 04 February 2019 in this same hall.

He further said that the department was planning to invest in CUT to promote IT and artificial intelligence.

There are students here at CUT who are building robots and we want you to also study here and be part of these amazing inventions. We are currently in the process of developing the best IT hub that South Africa has ever seen right here at home, MEC Makgoe said.



Ms Ikageng Hoko, student recruitment officer advising learners on CUT programmes during a learner imbizo at Moroka High School. Grade 12 learners from Moroka High School, Goronyane High School, Phetogang Secondary School and Strydom Secondary School in Thaba-Nchu and Lenyora la Thuto Comprehensive Secondary School in Botshabelo attended the session.

## CUT Leadership takes the university to communities

The Central University of Technology, Free State (CUT) management, Deans of faculties and recruitment team embarked on a student recruitment drive in Thaba Nchu and Botshabelo areas to revive and cement relations with schools, engage with learners and teachers, inform them about CUT programmes and incentives offered by the institution, including but not limited to, the Feeder Bursary and Work-Integrated Learning opportunities.

The exhibition attracted Grade 12 learners from five different schools including Moroka High School, Goronyane High School, Phetogang Secondary School and Strydom Secondary School in Thaba-Nchu and Lenyora la Thuto Comprehensive Secondary School in Botshabelo.

Prof. Henk de Jager, Vice-Chancellor and Principal, said, CUT is a university of the people and the community and we are here to serve you. At CUT, we believe that students are human beings and not a number. As a human being, you have the potential to become what you want, and our mission is to empower and assist you to unlock your potential. We don't want you to become graduates but entrepreneurs who will contribute to the mainstream economy of the country.

Ms Baitseeng Ralepoma, a Grade 12 teacher at Lenyora la Thuto Comprehensive Secondary School, said that she was happy that CUT came to their school to engage with learners on study opportunities and academics programmes available for them.

I am glad that CUT leadership made time to come to us and engage our learners on learning opportunities and academic programmes. CUT is the best and only University of Technology in the Free State. I am a proud CUT alumna and what I like about it is the work-integrated learning programme that bridges the gap between learning and corporate environment. The visit is going to help our learners to make informed career choices and assist our Life Orientation teachers to share better information as we are currently on the topic of careers and admission point scores to get to universities.

Bokang Soothoane, a Grade 12 learner from Moroka High School, said that he is impressed with the presentations and has always had an interest in CUT.

I am happy that the university came to our school, I have always wanted to know more about the programmes offered. My sister and uncle are products of this institution and thrive in their careers. They always encouraged me to study at this very institution because they believe in the quality of the education offered.





Winners of the competition 'It Wasn't Me' group won the 1st place. They presented on Life Esidimeni scandal. All group members received R1 000 cash prize. The winners are flanked by Mr Gerhard Geldenhuys, Director for PwC Central Region, who is also the sole prize sponsor (left corner), Ms Nandi Lubbe (Lecturer), Ms Leandi Steenkamp (HoD), Ms Anette Loots (PwC) and Mr Frank Makhabane (UFS - right corner).

## 6th Annual Business Ethics Awards

The Faculty of Management Sciences: Department of Accounting and Auditing in partnership with the International Audit firm, PricewaterhouseCoopers (PwC) held the sixth Annual Business Ethics awards on 22 May 2018. The Business Ethics Awards Project was established in 2012.

The main objective of this event is to expose students to real-life issues and create awareness on the role of business to cultivate and maintain high ethical standards and practices among students in the faculty.

PwC plays a critical role in guiding these students to understand the importance of business ethics and accepted standards of practice within their scope of profession, where integrity is an essential element of moral principles that guide businesses through complex dilemmas.

Through this project, students are expected to assimilate their theoretical knowledge with the real-life issues. This is to ensure that they learn to work in groups, think outside the box, and track all South African media platforms, including social media and newspapers. The project also teaches them effective time management, dynamic and professional debates among themselves in a safe learning environment.

The final assessment and selection were adjudicated by an interdisciplinary panel of judges who are experts in governance and business ethics. The evaluation criterion was based on creativity, application of theoretical knowledge, thorough research on the topic, synergy and good presentation skills.

The best presenter award went to Bacela Zimbini of the winning group and Chapatso Dimpo of 'The Daily Talk' group. Both presenters received an additional R1000 cash prize.



The Hawks took the 2nd place with their presentation on Medical Aid Fraud. Each member received R700.



3rd place went to Guardians of Ethics who presented on Environmental Ethics in the 21st Century. The group members received R500 cash prize each.

# Highlights



## Prof. Mamokgethi Phakeng inspires Women in research

On 20 June 2018, the Faculty of Humanities hosted a symposium as a means of encouraging women to actively engage in research and contribute to providing sustainable solutions to challenges faced in South Africa.

In her welcoming address, CUT Chancellor Madam Justice Mahube Molemela said,

CUT is always striving for academic excellence and research and innovation are very central to that. If we don't try different things at CUT we will never improve and enhance our research outputs.

In her presentation, the recently appointed Vice-Chancellor at the University of Cape Town (UCT), Prof. Mamokgethi Phakeng, encouraged black women to rise, take a lead and be visible in the world of academia. She shared her own experiences and challenges as a black woman in leadership, UCT's experiences on converis as a research management system and shed light on how best to develop a research agenda that is inclusive.

She titled her presentation "The masculinity of power and the invisibility of black women in leadership." Where she said that power in the world is masculine and this masculinity of power marginalises women.

The shortage of women professors is one of the burning issues in this country. When it comes to universities, there is only five women Vice-Chancellors out of the 26 universities in South Africa. Why is it that after 24 years of democracy there is only a few women in the highest levels of leadership in academia and in the corporate sector?

What is it that is not being done to ensure that more women, especially black women get to these levels? She asked.

Looking at government's latest report on women in South Africa, it is clear that despite educational gains, women are generally employed in low skilled occupations. There are few women CEO's and academic management is slow to appoint women.

The representation of women in government has made us think that we are doing much better, that we really are in leadership stakes. We see roles of more young and vibrant women in parliament take prominent positions. These achievements are important but in research and the corporate sector the picture seems different. My concern is, does all the demographic transformation taking place in government translate to leadership. Even the relatively positive achievements of women in government masks the real relations of power within social and political movements.

Prof. Phakeng further said,

Feminism amongst women has also not fared well because of its epistemological whiteness in South Africa. This means that feminism often sets up a rivalry between black and white women. We as women of different races in South Africa have to agree that the fact that transformation and equity benefited all of us equally after 1994, means that black women continued to be disadvantaged because their starting point was not the same as that of white women. Therefore we should argue for programmes that specifically focuses on advancing black women. Until we can do that in one voice, we will make no progress.

When sharing her own experience as a black woman in leadership position, she said that despite the academic challenges of climbing the ladder from being a Professor, Dean and Deputy Vice-Chancellor, it is always important to work hard against all odds.

When I talk about the invisibility of black women in the professoriate and in leadership, I am not arguing that women should be given the positions without working for them or deserving them. Hard work is important but I have also learned that as important as it is, it is often not sufficient especially when you are a black woman. My experience has taught me that women have to be much better than men to get top jobs. They have to work twice as hard but, this gradually becomes an albatross. If I have lamented the invisibility of black women in leadership I am also challenging the masculinity of power as well as the coloniality of power in higher education and other sectors of the economy. Changing the numbers doesn't change influence and leadership is not always the outcome.

In conclusion she advised young upcoming women leaders to learn the game and rise to leadership.

As young women you must work hard, get in the game, play to understand it and sweat it out on your research. It is important to get your PhD as it is a licence to paving your research career. Many young people use it as a passport to another professional destination and this immigration of research capacity weakens potential leadership in the academy and reduces our influence in knowledge creation and production. It is important for us women to have a stake in the field of knowledge production.



**Prof. David Ngidi, DVC - Teaching and Learning, Prof. Mamokgethi Phakeng, Vice-Chancellor at the University of Cape Town and Dr Rosaline Sebolao, Manager Special Projects: Innovation in Teaching and Learning.**

# Supreme Court bench for CUT Chancellor



Madam Justice Mahube Molemela was recently appointed at the Supreme Court of Appeal by President Cyril Ramaphosa, based on the recommendation of the commission. Her responsibilities as Judge of the Supreme Court of Appeal will be to adjudicate on matters outlined in Chapter 8, Section 168(3)(b) of the Constitution of South Africa.

Madam Justice Molemela made history when she was appointed as the first female Judge President in the Free State High Court. The university is indeed proud to be associated with Madam Molemela and is privileged to have her as Chancellor.

Born and raised in Bloemfontein, Madam Molemela has always been a proud Free Stater. She has a good record of personal support to worthy causes in our communities and continues to render such support through the position she holds in society. As such, she is the right person to facilitate the advancement of our university.

Furthermore, her previous experience as a CUT Council member has stood her in good stead, as she is privy to the challenges that the university is facing, and is aware of the aspirations, and commitment to the university's vision.

The Central University of Technology, Free State (CUT) reached a historic moment when the first woman Chancellor, Madam Justice Mahube Molemela was inaugurated on 10 June 2016. The inauguration is another milestone that positions CUT as among a few universities that are driving the advancement of capable women into leadership positions in South Africa. Chancellor Molemela is the first female Chancellor to occupy this position after Dr Boet Troskie and Mr Mosiuoa Lekota.



The Executive Mayor of Lejweleputswa, Mr Sebenzile Ngangelizwe also attended the launch in support of Dr Makola. He was invited to speak about the book and also launch it at the 10th Biennial International Meaning Conference hosted by the International Network on Personal Meaning in Vancouver, Canada. The Conference was attended by international delegates from 30 countries. The book was well received and complimentary copies were handed to some of the delegates in attendance.

## Dr Makola launches Pimp the Pain

One year after the launch of *Find Meaning, Stop Wondering*, Dr Solomon Makola, Campus Director at the Welkom Campus, launched his second book entitled *Pimp the Pain (Purpose Inspired Dialogues)* on 30 May 2018.

The launch was graced by the Executive Mayor of Lejweleputswa, Mr Sebenzile Ngangelizwe, CUT Council Member, Mrs Nomsa Mosuwe, the Director of Unisa Press, local media houses, Goldfields TVET College management, CUT business partners, school principals, Welkom community, union leaders and the Welkom Campus community.

When compared with the first publication, which aimed at assisting youth and adults in finding meaning and achieving success in their studies, the new edition focuses on the life journey of the author (Dr Makola), and how Viktor Frankl's philosophy of 'sense of meaning and purpose' had influenced his life.

The book also introduces the reader to the idiographic method of meaning research, i.e. the intensive psychological study of an individual. In this case, the author is both the researcher and research participant. This was done by exploring three primary ways of finding meaning, 1) What we give to the world; 2) What we take from the world; 3) The attitudes we attach towards unchangeable circumstance; and five areas where meaning can be discovered.

Based on these focus areas, the author describes who he is, what he is like when around others, how people perceive him, what he adores about himself and what he would like to change.

It is worthy to note that the work presented in the book earned Dr Makola the PsySSA Award for Best Practice, which was presented to him by the Psychological Society of South Africa (PsySSA) in 2014/15. He was also invited to speak about his new book and launch it at the 10th Biennial International Meaning Conference, hosted by the International Network on Personal Meaning in Canada in August 2018. The later conference attracts international delegates from more than 30 countries.

As a psycho-autobiography (professional memoir and action research), this book serves a dual purpose. What makes it innovative and original is the real dialogue narratives from the social media (Facebook) where I allowed the public to read the posts on Facebook and interrogate them in a form of a dialogue.

The book was published by Unisa Press, the largest university press in Africa that publishes academic books and journals. Copies thereof are available at Van Schaik and other academic bookstores nationwide.

The launch was coupled with a guest lecture on Meaning in the Context of Violence, Poverty and Suffering. The guest speaker, Dr MA Kanda is a Principal Medical Officer in a Community Mental Health Unit in West Rand District, a Diplomat in Logotherapy and Logotherapy facilitator at the Centre of Applied Psychology, UNISA.



At the *Pimp the Pain* launch Dr Makola is joined by Mrs Nomsa Mosuwe, CUT Council Member.



## CUT appoints Deputy Vice-Chancellor: Resources and Operations

The University Council appointed Dr Gary William Paul as Deputy Vice-Chancellor: Resources and Operations (DVC: ResOps), with effect from 16 April 2018.

Dr Paul holds a number of qualifications, including a Higher Diploma in Education; a BA Degree; an MTech (Human Resources) (cum laude); an LL.M (Labour Law); and a DTech (Human Resources).

His employment history includes service as Human Resources (HR) Specialist and HR Manager at Ford Motor Company SA; Regional HR Manager at the South African Revenue Services (SARS); Group HR Manager at Powertech Battery Group; Executive Director (ED): HR, and Acting ED: Operations at the Nelson Mandela University (NMU). Most recently, he was employed as Partner/Director: People and Organisation at PricewaterhouseCoopers (PwC).

Other achievements and special awards include the Six Sigma Black Belt, which he obtained in 2001 in Cologne, Germany; the American Council on Education Fellowship (ACE) (2009/2010); membership of the Honorary Golden Key Society; serving as panel member of the

Professional and Administrative and Support Staff Review of the HR Directorate at the University of Cape Town; panel member of the Sociology Department Review at Rhodes University; Chairperson of the Mining Qualification Authority (MQA) Remuneration Committee; board member of eNtsa Technology Innovation Agency at NMU; Chairperson of HRREMCO for Cricket Eastern Cape; board member and Chairperson of HRREMCO of the Warriors Cricket Franchise; President of the NMU Cricket Club from 2009 to 2015; board member of the Automotive Industrial Development Centre (AIDC); Chairperson of AIDC HRREMCO and its Ethics Committee; and a board member and member of HRREMCO of the Nelson Mandela Bay Chamber of Commerce. Dr Paul has also published two articles in scientific journals.

He has extensive experience in both the industry and Higher Education sector, which will certainly add tremendous value to CUT.

## New CEO for CUTis

Mr Gcobane Quvile has been appointed as the new CEO of CUTis with effect from 9 April 2018. Mr Quvile possesses a wealth of experience in all the key areas of the re-focused CUTis. He started his career at Necsa (the erstwhile Atomic Energy Corporation) and Columbus Stainless Steel, where he was appointed as Trainee Engineer, and later served as Senior Metallurgical Engineer and Chief Engineer, respectively, at Pretoria Metal Pressings, a Division of Denel.

He recently served as the Managing Director (South Africa) and Business Development Director (Africa) for Campbell Scientific, a global supplier of measurement, control and monitoring instrumentation, for which he remains a Non-Executive Director. He is also a Non-Executive Director for Inyanda Energy Group (IEG), a renewable energy development outfit based in Washington DC, and Ukukhanya Resources, a consultancy and advisory services company, both of which he co-founded.

In addition, he has consulted widely on strategic (technology and innovation), manufacturing, renewable energy, industry analysis, and business case development. He served as the Advisor to the CEO of Necsa SOC Ltd for five years and as a consultant for the Support Programme on Industrial Innovation (SPII); the Technology and Human Resource for Industry Programme (THRIP); and the Climate Innovation Centre (CIC) (Innovation Hub). He also consulted for the United Nations Industrial Development Organisation (UNIDO), the New Partnership for Africa's Development (NEPAD), the National Research Foundation (NRF), the Department of Science and Technology (DST), Trade and



Industry (DTI), Armscor, and the Gauteng Infrastructure Financing Agency.

Furthermore, Mr Quvile was the Programme Director for the South African Nuclear Human Asset and Research Programme (SANHARP), a DST programme at the NRF, through which he established the Nuclear Science and Engineering Programme; Chair at the North-West University (NWU); and the Carbon and Materials Chair at the University of Pretoria (UP).

He obtained a Bachelor's Degree in Materials Science and Engineering from the Massachusetts Institute of Technology (MIT) and a BEng (Hons) Degree in Technology Management from the University of Pretoria (UP), after which he received the prestigious Unilever's Nelson Mandela Scholarship, enabling him to complete his MBA Degree at Durham University in the United Kingdom. He has also completed his postgraduate coursework in Sustainable and Renewable Energy at the University of Stellenbosch (US).

## 2018 CUT Open Day attracts more learners



CUT Bloemfontein Campus came to a standstill during the 2018 Open Day held on 12 May. About 7 000 learners from all walks of life, teachers and parents attended and participated in the Open Day event. The day unfolded with campus tours and a faculty walkabout led by dedicated mentors from all four faculties.

For the first time in the history of the event, Christiana School for the Blind from the North-West Province formed part of the Open Day buzz. Ms Boitumelo Moalahi, an educator from the Christiana School for the Blind, said that she was impressed with CUT and the programmes offered.

I brought my learners here today because I wanted to expose them to the university life, environment and different learning opportunities. Our duty as teachers at special schools does not end in delivering content in the classroom; it goes beyond that. As teachers we must motivate and encourage them beyond their imagination and always assure them that they can achieve anything that they set their minds to. What warmed my heart most is that the school subjects are aligned with the Faculty of Management Sciences' programmes. My learners are extremely excited as they were warmly welcomed by the mentors and facilitators who assisted us a lot and navigated us around campus. We have all the necessary documents and had a smooth tour indeed as compared to other institutions we went to.

Mahlatsi Neriah from Phephetso Secondary School in Kroonstad said she had always wanted to be a teacher and attending the Open Day drew her dream closer to reality.

I am so happy to be here and what I have learned today made me realise that I have made the right choice. I like the atmosphere of this institution, everyone is welcoming and helpful and I don't regret my choice of coming here. I am more determined than ever to go back to school, work hard and come back here next year.

The day ended with fun and games as the CUT FM (Campus Radio Station) disc jockeys entertained and held exciting competitions for learners.

## 13th annual Career Fair



Companies that attend the career fair for 5 or 10 years received a certificate of appreciation. The South African Blood Services received 5th year anniversary certificate.

The Careers Office at CUT equips students with the necessary competencies to compete successfully in the highly competitive labour market and connects graduates with employers in different sectors of the economy.

On 15 May 2018, the WIL Office held its 13th annual Career Fair at the Bloemfontein Campus and the 9th Fair at the Welkom Campus on 8 May 2018. The event not only focuses on graduate recruitment and marketing CUT students and graduates to the world of work, but it also affords them an opportunity to meet face-to-face with potential employers, build strategic partnerships, and address the developmental needs and unemployment rate of the youth in Free State. From 2006 to 2018, 401 companies took part in the career fairs.

The exhibitors represented all four faculties at CUT and students visited different companies' stalls to explore and find those that match their competency skills and career paths. Potential employers and exhibitors were willing to assist the graduates and provided them with information on the demands of the industry, potential networking opportunities and a broader view of thoughts beyond the boundaries of a specific qualification.

# CUT Commemorates Mandela Centenary



**Handing over of kangaroo wraps and bennies at DR J. S Moroka Hospital. From Left: Princess Gaboilelwe Moroka-Motshabi, Founder of Princess Gabo Foundation, Prof. Henk de Jager, Vice-Chancellor and Principal, Kelebogile Mokala, with her newly born baby, Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning and Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research, Innovation and Engagement.**

2018 marks the centenary of the birth of Nelson Mandela. This provided a unique opportunity for people around the world to reflect on his life and times and to promote his legacy.

On 03 August 2018, the Central University of Technology, Free State (CUT) in partnership with the Princess Gabo Foundation, Kroonstad Correctional Services and the University of the Free State joined hands to commemorate the centenary of Nelson Mandela and Albertina Sisulu as well as celebrate the world's breastfeeding week and National Women's month. The main focus of commemoration was part of forging a new alliance with the Royal House of Barolong and the theme of the day was 'Let's Kangaroo Africa'.

CUT as an engaged university is dedicated and passionate about integrating with social communities and has over the years built strong and sustainable relationships. As part of the celebration, the CUT community joined in the advocacy walk that took place from Barolong Boo Seleka Royal Kraal in Thaba-Nchu to Dr J.S. Moroka Hospital where they handed over 100 Kangaroo wraps and bennies to newborn babies. The wraps and bennies were hand-made by the female inmates at the Kroonstad Correctional Services.

The Princess Gabo Foundation believes that every child born deserves to be loved, cared for, nurtured and breastfed.

According to Princess Gabo Moroka-Motshabi, the Foundation values and understands the importance and benefits of kangaroo mother care as a preferred method of care especially in disadvantaged and impoverished communities.

We advocate for this cause because children are our future and we need to invest and nurture them from birth to equip them with a jump start that

would ensure they grow healthy and become a productive future generation. Let us redress, nurture and invest in our children from birth so that they grow up knowing how to love and care for others. We are very thankful to CUT for their generous donation, and I believe that together with institutions of higher learning, we can make a huge difference in our communities. Let us continue to Kangaroo Africa, change the future generation and address the social ills that we are faced with, she said.

In his address Prof. Henk de Jager, Vice-chancellor and Principal expressed his appreciation to the Royal House for the wonderful initiative led by Princess Gabo who has been working with the university from the inception of the Kangaroo African initiative.

This year, we commemorate the 100 years of Madiba. His legacy challenges us all to think about our actions, thoughts, practices and contributions we make to the greater good of our communities. In this hour of need, we are proud and honoured to be associated with the Barolong family in this way, as we believe we have something we can also share with the less fortunate.

He also said that working together with the traditional leaders is a constitutional obligation. "We intend to continue working with traditional leaders to ensure that we contribute to the advancement of the people of Thaba Nchu and our province at large. After all, our constitutional democracy recognises the important functions of houses of traditional leaders in promoting traditional leadership within the context of the new dispensation to enhance unity and understanding among our communities."

In conclusion, Prof. De Jager thanked the Kroonstad Department of Correctional Services female inmates and staff for making it possible for CUT to donate 100 kangaroo wraps and beanies.

We are most grateful to you for being instrumental in realising the wish of CUT to contribute in this way as well as supporting maternal care. Your efforts in making this possible at short notice are remarkable, and this happened through your intervention and support together with your colleagues at the Department of Correctional Services. We appreciate this very much.



**The event was graced by representatives from both National and Provincial Houses of Traditional Leaders, Mmarona Kgosisigadi Moroka and representatives from Kgosi Setlogelo, Mr Luvuyo Madasa, Madiba's great-grandchild from Re-ImagineSA, Mr Fikile Kuhlase from FUTURISTIC and Yankela Makhupula from PricewaterhouseCoopers.**

# CUT alumna reaches new heights



Annemarie enrolled for her N.Dip. Somatology in 2006 and graduated B.Tech. Somatology degree in 2009. Through the same department, she obtained a prestigious CIDESCO International Diploma and was also awarded the Best Overall Somatology Student in 2008. During her studies, she was also a Student Representative of her class and upon graduating she lectured part-time for several years in Facial Theory and Practice, Social Psychology and Business Practice.

Apart from lecturing, Annemarie worked at some of the Bloemfontein's top beauty salons from 2009. Notably having worked at Exclusive Image from 2011, she further gained invaluable experience, knowledge and opportunities from well-known and respected owner Lizelle Barratt. She attended international training at the premier beauty product brand Babor's headquarters in Aachen, Germany in 2011 and was awarded the South African Babor Therapist of the Year in 2013. From 2012, Annemarie was the manager and head therapist at Exclusive Image.

At the end of 2015, she moved to George in the Western Cape and 3 months later started working at the leading medical and aesthetic clinic in the Garden Route - Skinlogic Smart Skin Centre. Initially employed as a receptionist and back-up therapist, Annemarie quickly adjusted and worked herself up into an administrative and marketing role. Besides managing the practice, Annemarie was awarded an opportunity by Skinlogic to further her studies via distance learning and is currently advancing her career in Advanced Diploma in Dermal Aesthetics through Isa Carstens Academy in Stellenbosch.

Annemarie genuinely feels that the Somatology program at CUT did a great job in preparing her to fulfil roles in the Somatology industry in terms of practicing therapy, marketing, retailing, administrating, managing and even lecturing.

"I am grateful for the training and skills aquired at CUT. It has opened a lot of opportunities for me and my career path is vast and I am proud of my progress thus far."

Annemarie Oosthuizen matriculated at Schweizer-Reneke High School in 2001. Having a keen interest in human behaviour and mental health, she enrolled for B.Soc.Sc. Human and Social Dynamics at the University of the Free State in 2002. During this time, she was invited to join the Golden Key Honours Society for Academic Excellence in 2003 and was awarded the Renier Viljoen Shield in 2004 for Best Sociology Research. She obtained a B.Soc.Sc. Psychology Honours degree in 2005.

In her high school years, she enjoyed working part-time at a local beauty salon in Schweizer-Reneke where she fell in love with the beauty industry. Despite her interest in the human sciences, she longed to follow her passion in Somatology. When looking for a tertiary institution to study Somatology, it was important for her to choose a reputable institution where she could get another degree and not just an additional qualification.

The Central University of Technology became my obvious choice and one that I would recommend to anyone in a blink of an eye.

## New CUT Alumni Committee elected



The newly elected CUT Alumni Executive Committee members from left: Mr Kabelo Moremi, additional member; Mr Kagisho Mmetseng, additional member; Mr Chabana Chabana, Deputy President; Mr Major Cindi, President; Mr David Makhoali, Treasurer; Mr Mbuyiselo Frans, additional member; Mr Lebohlang Farmer Khutlang, additional member and Mr Luyolo Siggqibo Busakwe, additional member. The committee will serve a three-year term from 26 May 2018 - 26 May 2021.



## Thutong Building



## University Development Trajectory

Almost eight years ago, CUT invested about R250 million in various key facilities for students through funding from the DHET and Council. The first phase of the university's infrastructure project brought about six beautiful state-of-the-art buildings, two of which are at the Welkom Campus.

The second phase of the project which was funded by DHET consists of five new buildings with total costs of approximately R 350 million. About R 154.6 million was earmarked for the Bloemfontein campus, of which R110.9 million went towards residential and academic facilities for Engineering, Health and Environmental Sciences and Teacher Education.

The three buildings include:

**Thutong Building at Welkom Campus. (main picture)** The building consists of computer and science labs with lecturing rooms, study labs and micro lesson classrooms. It is an academic student centre aimed at enhancing student services and stimulate collaborative learning amongst students. The venue is equipped with state-of-the-art equipment like interactive white boards, iPads, cameras, televisions, and other technologies that inspires and facilitates learning experiences. Through fast Internet connectivity and applications that are preloaded on the iPads, students can explore specific topics, create content, collaborate, plan, visualise and research various topics.

## Ya Rona Building



**Ya Rona Building** at Bloemfontein Campus houses the STEM Academy and the Faculty of Engineering and Information Technology. The STEM Academy was launched on 30 May as a training and developmental hub for professional teachers and lecturers to improve content knowledge of Science, Technology, Engineering and Mathematics in schools, colleges and universities. The academy is also envisaged to expose learners and students to modern STEM laboratories and support existing initiatives such as Math-for-ALL Campaign.

# Ellen Kuzwayo Building



**Ellen Kuzwayo Building** at Bloemfontein Campus is a three-story high building which houses lecturing halls, labs and offices of the Faculty of Health and Environmental Sciences. From the Unit for Drug Discovery in this faculty, young CUT researchers are leading the way in finding solutions that will bring an end to the socio-economic challenge facing aquatic farming. In 2016, they discovered a new drug that has huge potential to help fight aquatic animal infections caused by aquatic parasites which for years, researchers across the world have been trying to understand these microorganisms in order to control the disease and develop novel drugs against these pathogens.

**Tataisong and Kopanong Buildings** also at Bloemfontein Campus are homes for The Faculty of Humanities.

These buildings brought about the expansion of teacher education programmes to increase teacher training programmes in Science, Engineering, Technology and Mathematics. The university enrolment is standing at 46 percent with the goal of reaching 50 percent by 2020.

Through the support of DHET, the university has managed to significantly reduce the infrastructure backlog in the historically neglected campus of Welkom.

Today, the Welkom Campus has a 225 bed on campus student accommodation, divided into 6 wings namely; **Unity House, Ikaya Lethu House, Maya Angelou House, Protea East House, Protea West House and Maipato Mokatsane House** which caters for all students, including disabled and postgraduates.

The residence was built to the tune of R73.4 million, whilst at the Bloemfontein campus, R43.7 million worth of student residences were built. This achievement provides about 25% of accommodation space to the student population at Welkom Campus.

As for Bloemfontein Campus, an additional 250 beds were constructed, a 36% increase after many years of no additional student accommodation. This has provided an increase of bed availability rate at this campus from about 6% to just below 10%.

**Mangaliso Robert Sobukwe Building**, formerly known as P-Block houses the Communications and Information Technology. It has computer labs, lecture rooms and offices with a recording room.

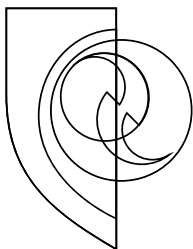
**The buildings will be officially unveiled on 5 September 2018 at Welkom Campus and 20 September at Bloemfontein Campus.**

## Maipato Mokatsane House



## Graduandi House





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