



GRATIA

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Message from the Vice Chancellor

For 2017, CUT selected "The Year of the Human Project" as the thematic framework for all University operations. The Human Project hinges on the premise that every human being has inherent worth, and, therefore, it is their birth right to be treated with dignity. Dignity is the one trait that binds all human beings and makes us equal; hence, it is imperative that we preserve it. Although dignity is an elementary human right, some sectors of the population struggle to meet their basic daily needs, thus leaving them vulnerable. It is common knowledge that South Africa is amongst the countries that rank the highest when it comes to unequal income distribution. It is also unfortunate that our country is experiencing a high degree of intolerance for people who are different in whichever way, whether it is due to race, sexual orientation or gender. We at CUT are committed to enhance an institutional culture where people are valued, and where all forms of unfair discrimination are uprooted, whilst promoting a culture that embraces diversity, non-racialism, non-sexism and human dignity for all.

Over the past few years, the academic project took centre stage. In 2016, "The Year of Innovation and Entrepreneurship" was the University's theme, resulting in many exciting developments relating to entrepreneurship and innovation. With our theme for this year being "The Year of the Human Project", the welfare of all people – students, staff, alumni and other stakeholders – was to be the focus. The Year of the Human Project is founded on the principle that organisational performance is dependent on the performance of employees and the academic success of our students. At the heart of people excellence is the building of a high-performance culture. For CUT to deliver on its mandate to provide quality education, employees should thus be performing at their best. In turn, to assist staff and students to perform at their peak, they need to be in a nurturing environment – one that embraces their innate talent. Furthermore, in support of the Human Project, the Unit for Transformation and Constructive Engagement (UNITE) was

“YEAR of the
HUMAN PROJECT”

established and launched in March 2017 at both the Bloemfontein and Welkom campuses. UNITE is intended to be a model project in conflict mediation in the country, especially in relation to peace and reconciliation in the Higher Education sector, and was established for purposes of preventing, mitigating and resolving conflict through dialogue, and promoting the national transformation agenda. Initiatives for this year included the facilitation of several interventions related to, amongst others, diversity, institutional culture, racism, sexism, forgiveness, responsible citizenship and gender transformation.

The pursuit of the roll-out of the CUT Transformation Plan 2016 – 2020, which is our strategic guiding document on transformation matters, has commenced at full steam this year. The plan sets out clearly defined objectives and targets for a few matters, including access, equity, diversity, organisational culture, transformation of the curriculum and its philosophy and pedagogy, organisational effectiveness, managerial practices, and the organisational environment and infrastructure.

In addition, several special projects relating to the Human Project were launched this year. Although the academic project is central to our existence, excellence amongst support services staff also deserves to be celebrated. In the past, the Vice-Chancellor's Awards were only presented to academic staff. However, a new policy for the annual Vice-Chancellor's Staff Excellence Awards for professional support services staff, administrative staff and support services staff, was approved this year. Support services and administrative staff were also included in the sabbatical leave policy, granting them time to pursue their master's and doctoral degrees.

At CUT, we have a different take on talent management. Here, talent management is not reserved for a select few, as every individual has unique capabilities. Hence, the implementation of the talent management policy was initiated this year, which means that every staff member's distinctive talents will be exploited.

We understand the importance of maintaining a healthy work-life balance. As such, another positive development for staff members with children is the approval of a proposal to partner with an existing private crèche adjacent to the Bloemfontein campus. The possibility of establishing a crèche at the Welkom campus is currently being explored.

Related to student matters, we did not turn a blind eye to the financial challenges that some students experience daily. An additional multimillion-Rand grant has been allocated to the feeding scheme for underprivileged students at both campuses. Furthermore, as the upholding of good ethical practices is in the interest of students and staff members, the

Whistle-blowing and Ethics Hotline for staff and students was implemented with effect from

1 September 2017, enabling them to report unethical behaviour confidentially.

In addition, Management, in collaboration with the University Council, remains committed to enhance the safety of staff and students at both campuses. Phase 1 of the implementation of an integrated

security system, funded by a R5 million grant approved by Council and a further

R2 million from the Department of Higher Education and Training (DHET) Maintenance Grant, has commenced, and will be completed by the end of this year. Other "firsts" for the institution during this year include the establishment of a University Languages Committee; the appointment of the first Black female as Dean of the Faculty of Humanities; the accreditation of off-campus student accommodation service providers; the appointment of Senior Managers as Section 16.2 Appointees under the Occupational Health and Safety (OHS) Act; the first Management Committee (Mancom) meeting held at the Welkom campus on 26 June 2017; and the first Executive Committee (Exco) of Council meeting held at the Welkom campus on 31 August 2017. Although "The Year of the Human Project" is the theme for 2017, activities that relate to the Human Project will not come to a halt at the end of the year. Rather, in 2018 and moving forward, we will seek to intensify efforts to create an enabling environment in which staff and students alike flourish.

Related to our core business, the University has continued to enhance the academic project, including great strides related to academic programme offerings, research programmes, innovation practices, partnerships and community engagement. Many new programmes were accredited by the Council on Higher Education (CHE), and our research centres recorded many successes during the year. The launch of the CUT Idea Generator (i-Gen) will certainly enhance our vision to become a truly entrepreneurial University, by equipping our students with such skills. Students have also achieved many successes related to co-curricular activities, including on the sports and culture front.

On behalf of the University Council and Management, I would like to acknowledge all our external partners – including businesses, industry, government and society at large – for your support during this year. In addition, the University could not have achieved these successes without the continuous support of, amongst others, the DHET, 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 during this year. 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.

The University remains committed to delivering on its mandate to provide superior education. I am confident that, with our achievements this year, and the plans that we have for the future, we will be able to take CUT to the next level. CUT is indeed a sound institution, and we are firmly on track towards realising our vision of becoming the leading University of Technology in the country!

Warm regards
Prof. HJ de Jager
Vice-Chancellor and Principal

Research Excellence

Prof. Henk de Jager, Vice-Chancellor and Principal (left), Mr Gerrie Booysen, Director at Centre for Rapid Prototyping and Manufacturing (CRPM-right) and Prof. Cules van den Heever CUT extraordinary Professor in the Faculty of Engineering and Information Technology and Head of Maxillofacial Periodontics Unit based in Bloemfontein (right-back) with four patients who benefitted from the 3D printing technology. L-R: Amogelang Rasedimo (baby girl), Thabo Masa, Chevane Lawan and Valerie Taaibos.



Engineering and Clinical benefits prove fruitful

The Central University of Technology, Free State (CUT) has proudly taken the lead in innovation and technology, changing the face of medical science in Africa through Additive Manufacturing (AM), also known as 3D printing. The university has proven to be a true University of Technology by breaking new barriers and sparking innovation in the medical field through this technology.

On 23 August 2017, CUT-CRPM invited media houses, partners and investors to create a more interactive session and showcase the ground-breaking work that the University has done to date on medical product development through 3D printing.

Established in 1997 as a centre for commercial work and research, the centre has become one of the leading centres in AM and has since delivered more on its remit. The Centre for Rapid Prototyping and Manufacturing is leading South Africa in Additive Manufacturing techniques, innovations and solutions and has shown impressive growth, which has played a pivotal role in medical product development and social innovations since 2013. To date, more than 65 patients around the country have been assisted through the support of state and private hospitals, the expertise of CRPM, and funding from partners such as the Fuchs Foundation. Some of these medical devices were the first of their kind in the country, placing CUT proudly at the forefront of innovation in this field.

The current work done by CRPM is part of CUT's social responsibility and community engagement programme to provide a platform for the development of social and technological innovations, all for the

benefit of the society at large. Therefore, its focus is to work closely with business and industry, as well as government and community organisations to transfer its social and technological innovations in order to help solve societal problems, not only for the benefit of the region, but also for the country, Africa and beyond.

Prof. Henk de Jager, Vice-Chancellor and Principal, said that CUT has made a commitment in its vision to produce social and technological innovations to improve the lives of people and enhance the socio-economic development of the region. "CUT as a university of the people is playing a fundamental role in addressing social responsibilities and making a difference in people's lives. Today as we are celebrating with our community members and partners within the region, we are proud to say that our university does not pay you lip service but makes a difference in the immediate environment."

One of the beneficiaries and a living testimony to the fundamental role the institution plays in changing the lives of ordinary citizens is Mr Thabo Masa from Botshabelo, who lost his ear in a traumatic situation. Mr Thabo said that, after healing from the physical trauma, he suffered an emotional one, as he could not accept his loss and could not face the community with only one ear. "I am happy that the CRPM team managed to design a prosthesis ear that fits perfectly. I am no longer hiding in my beanie. I feel confident and normal again and I am very grateful and ready to face the world."



CUT's extraordinary Professor in the Faculty of Engineering and Information System and Head of Maxillofacial Periodontics Unit based in Bloemfontein, Prof. Cules van den Heever displaying Mr Chevane Lawan's head model that was developed at CUT to show surgeons where to place implants for future ears and a positioning device. CRPM played a vital role in addressing national priorities in research areas collaboratively.



Another beneficiary, Mr Chevane Lawan from Kimberly-Northern Cape was born without ears and his day was made when he received his new prosthesis ear on the morning of the event.

In 2015, CUT received an award under the South African Research Chairs Initiative (SARCHI) through the Department of Science and Technology (DST), as testimony to the commitment that CRPM has towards innovation in the AM field. The SARCHI Chairs are highly competitive initiatives, tenable at universities and agencies that are deemed leaders in their respective fields of expertise. This achievement has allowed CUT to play a fundamental role in the new industrial revolution, especially within the medical space, where it has proven to have huge potential in transforming ordinary people's lives. This Research Chair focuses on medical product development through Additive Manufacturing and was awarded in recognition of the phenomenal work that CUT has been doing in this dynamic and exciting field.

The vital role that Additive Manufacturing plays in medical product development first became clear in 2013, when CUT first developed mandible implants to assist surgeons in planning complicated surgeries down to the finest detail. This shortened the operating time considerably, which reduced the chances of complications such as infections or excessive blood loss due to prolonged operations. Prof. Cules van Heever and the team from CRPM played a vital role in reconstructive surgery using Additive Manufacturing (AM) technology. Not only did this procedure change the way in which the medical community views 3D printing, but it also costs much less than traditional jaw implant surgeries.

The centre has an impressive array of state-of-the-art machinery and equipment such as M250 Titanium Biocompatible and Objet Connex 350 3D printing machines that allow users to print with more than one material at a time. Through this technology, the CRPM's capabilities in the design and manufacturing of patient-specific implants have undergone significant strides and its goal is to expand the wealth of knowledge and research while forming deeper alliances with partners within business and industry, government, medical professionals, as well as private and public hospitals.

The long-term and short-term benefits for both the medical profession and the AM environment are undeniable. The CRPM can take information from consortia and use it to focus on the technical development of products. The centre has since received significant support and funding from the National Research Foundation, which allowed the centre to install and use the latest in technology and tools. Because of this, the staff and students are able to keep and maintain their lead at the forefront of research into 3D printing technology. Add to this the long list of strategic partnerships, superb innovations, as well as the Fuchs Foundation and the SARCHI Research Chair, the CRPM is set to revolutionise Additive Manufacturing in South Africa.

In 2016, the centre received an ISO 13485 Certificate for 3D printing and medical devices. This is good news for additive manufacturing in South Africa and Africa. It means that the University is the first in Africa in both its sector and industry to have this certificate. The university does not rely on Europe or America to acquire certification of its medical devices, which was the case in the past.

Currently, CUT, through the CRPM, is leading the strategic programmes under the South African Additive Manufacturing Strategy – a qualification of AM of Titanium 664 for medical implants and aerospace parts.

Academic Programmes



At the gala dinner: Prof. Fidelis Emuze congratulated for the nomination by Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning who also attended the awards in support of Prof. Emuze

CUT academic nominated for SA's premier SET awards by NSTF

Professor Fidelis Emuze counts among the best and brightest scientists in South Africa for his outstanding contribution to research work in lean construction. He participated in the annual National Science and Technology Forum (NSTF) Awards held in Johannesburg on 29 June 2017 for the TW Kambule-NSTF Emerging Researcher Award.

The NSTF is the most representative and long-standing non-profit body of Science, Engineering and Technology (SET) in the sector, making CUT academics rank amongst the best institutions at the awards, with only 14 of the country's 26 universities represented. Prof. Emuze is an Associate Professor, and Head of the Department of Built Environment in the Faculty of Engineering and Information Technology. He also heads the Unit for Lean Construction and Sustainability, which addresses construction research topics regarding lean construction, health and safety (people and well-being issues), supply chain management, and sustainability in the built environment. He has also made inroads into research conducted on the standpoint of construction management.

Passionate about construction, he says that his goal is to find solutions to address poor cost, environment (inclusive of sustainability), health and safety, productivity, quality, and time project performance. "These problems are renowned in the industry, but in developed countries, a new production philosophy called 'Lean Construction' (LC) is used to avoid these construction problems. In other countries they deliver construction projects on time at a cost saving of up to 25%."

As an active member of the Association of Researchers in Construction Management (ARCOM) his academic interest is

viewed from the construction management perspective. His focus is on how to adopt those models and contextualise the results for the South African construction industry. Prof. Emuze contends that his achievement is not an individual one, but that he stands on the shoulders of giants –he is a product of his community. He has not only proven himself a leader within the research field in South Africa, but has been contacted by a prominent German motoring company, which invited him to participate in a large-scale project as an expert in lean construction with the aim of applying his research.

At the Gala dinner, the Honourable Minister of Science and Technology, Ms Naledi Pandor, delivered the keynote address for the 19 years of existence of these awards. "I consider the NSTF Awards as the premier awards for Science, Engineering and Technology research in the country. South Africa has repeatedly proven that some of the best scientists are conducting their research within our country's borders," said the Minister.

Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning, who also attended the awards in support of Prof. Emuze, said that he was proud of Prof. Emuze's achievement and was impressed by the calibre of finalists in the running as well as CUT's participation. "Prof. Fidelis Emuze has proudly put CUT on the map with his research and I am happy to be here and witness that. His participation in these awards is a clear indication that CUT is a place of scholarship and belongs to the upper echelons of research and intellectual community," he concluded.

In 2016, Prof. Emuze was appointed for five years by the CIB (International Council for Research and Innovation in Building and Construction) Programme Committee as the new Coordinator of CIB TG59- People in Construction, an important task group that focuses on the most valuable resource in construction.



L-R: Dr Kerry Faul, Head and Chief Director: National Intellectual Property Management Office (NIPMO); Prof Henk De Jager, Vice-Chancellor and Principal of the Central University of Technology, Free State (CUT); Dr Hanita Swanepoel NIPMO Science Analyst at the Central University of Technology Free State Innovation Services (CUTis); Mr Thabang Jase Acting Director: Advisory and Support NIPMO; Ms Geralda Winkler, Acting CEO of CUTis and Mr Zulfaqr Dudhia, Intellectual Property Expert (Clarivate Analytics)

CUTis brings experts to help grow SMMEs and local economy

South Africa is one of many countries faced with a high unemployment rate that continues to affect the future of youth and the economic growth, and leaders in various sectors are trying to find ways to address this ongoing challenge. CUT on the other hand, has introduced a culture of innovation and entrepreneurship among staff, students and society.

On 24 and 25 October 2017, the Central University of Technology's innovation services (CUTis) held an IP workshop to educate upcoming entrepreneurs and researchers on Intellectual Property Rights Act (IPR) and its implications for higher education institutions. The aim of the workshop was to inform potential entrepreneurs how to protect their ideas and inventions, grow SMMEs and make a difference in addressing the local economy. Prof. Henk de Jager, Vice-Chancellor and Principal, said that the event was about engaging and collaborating to ensure that the impact in the region and country is enhanced. "My dream is to see a difference in the surrounding areas and townships that have a high unemployment rate. As a university of technology, we should

be relevant to the people of our region and make a visible impact. We need to strengthen our partnerships and work as a collective with the local and provincial government, academic partners and National Intellectual Property Management Office (NIPMO) to ensure that we make a huge impact. It is our commitment and passion as an institution to deliver and address poverty in this region and improve the lives of all people. Together we can do more."

He also spoke about the recent statistics released by Statistics SA that indicate that the working-age population (between 15 to 64 years) is about 36,9 million. "Of that number, 5,8 million people are currently unemployed and 18,1 million receive social grants every month, which is a concerning matter. The only way to address this issue is to empower our people by creating more jobs and opportunities so that they can rely on themselves. Considering simple psychology studies, the basic desire of any human being is to feel appreciated and valuable."

He said that CUT was passionate about innovation and entrepreneurship development, indicating the efforts made to ensure that the institution has an impact on sustainable development and economic growth. "Early this year, we launched an idea generator that is accessible to staff, students and community to unlock their potential, enhance their ideas and develop them into viable business plans that will ultimately go into the market. We are also proud of the innovation eco-system, which incorporates a compulsory entrepreneurial stream into the curricular for all students. With all these programmes, there is some exposure to entrepreneurial skills and hopefully those students will be triggered to come to the idea generator."

Dr Karry Faul, Head of NIPMO, commended CUT for the strides it has made in addressing local problems. "I am really impressed to see CUT showing commitment and striving to be relevant to society. This is the situation where we say that technology transfer is not a cash cow for the university, but a tool meant to assist universities in finding solutions to local problems."

In her presentation, she spoke about Intellectual Property (IP) and Intellectual Property Rights (IPR). She said that Intellectual Property referred to "creation of the mind" and comprised two categories, namely industrial property (including inventions, designs, plant varieties, and marks or logos) and copyright (literary work, music and films, as well as computer programs). "IPR are the rights given to persons regarding their creations, namely a patent for an invention, a plant breeder's rights for a new plant variety or a trademark for a mark."

She also said that the purpose of IPR Act was to provide more effective utilisation of IP emanating from publicly financed research and development; establish NIPMO and the IP fund and provide for the establishment of Offices of Technology Transfer (OTTs) at institutions.



Keynote speakers on the day: L-R: Prof. Chrissie Boughey, DVC: Academic and Student Affairs at Rhodes University, presented on topic: pushing boundaries of the scholarship of teaching and learning towards a critical scholarship involving a concern for social justice, and Prof. Helen Bond, Associate Professor and Director Center for Excellence in Teaching, Learning, and Assessment at Howard University, Washington, D.C. USA who delivered a presentation on New Directions in the Scholarship of Teaching and Learning (SoTL)

2017 Third Annual SoTL Conference

On 25 and 26 October 2017, the Unit of Scholarship of Teaching and Learning (SoTL) in the Department of Innovation in Learning and Teaching (ILT) held its 3rd annual SoTL conference themed: Pushing Boundaries: Towards a Critical Scholarship of Teaching & Learning. The purpose of the conference is to provide space for the international gathering of academics and researchers who seek to display investigations made. It also intends to provide an opportunity for scholars to engage in order to reflect on their teaching practices, seek evidence of their own effectiveness and find opportunities to make their findings public, enabling delegates and presenters to explore scholarly work in an open and collegial arena.

In his welcome address, Prof. Henk de Jager, Vice-Chancellor and Principal, highlighted the centrality of teaching and learning as one of the key, but yet often-neglected functions of the university. Prof. Henk argued that the future of universities depends on the quality of its teaching and academic staff who have a deeper understanding of scholarly teaching and scholarship of teaching and learning that enhances meaningful learning. "Scholarly teaching cannot be driven by university senior management or by other leaders and managers and support departments, as these structures can only create the necessary frameworks and policies. Notably, these structures can only put broad frameworks in place to encourage good teaching, to allow it to flourish and stress its importance. The quality of teaching depends on the thriving development of several 'teaching cultures' driven by groups and individuals who practise teaching within the different subject areas and disciplines of these large and diverse universities."

When delivering her keynote address, Prof. Chrissie Boughey, DVC: Academic and Student Affairs at Rhodes University, spoke about pushing the boundaries of the scholarship of teaching and learning towards a critical scholarship involving a concern for social justice. She focused on the context, poor performance of students, as well as what SoTL involves. "There is an enormous dropout rate at universities and it is alarming that black South Africans bear the brunt of poor performance. Poor performance is usually blamed on the school system; however, it characterises diversified systems globally."

She also said that the scholarship of teaching and learning involved using a theoretical lens to look at problems. "I would describe theory as a pair of spectacles; literally, we choose a pair of theoretical spectacles, put them on and look through the lens of

the theory." She further said that academic knowledge was theoretically informed and evidence driven. "What we are doing in the scholarship of teaching and learning is not different from what is done globally. The link between how we focus on theoretical spectacles and how we put it into practice is crucial." She mentioned two models of understanding learning and the students, namely the decontextualized learner and the student as a social being. The two models were analysed and discussed.

Prof. Helen Bond, Associate Professor and Director for the Center for Excellence in Teaching, Learning and Assessment at Howard University, Washington, D.C. USA, based her address on New Directions in the Scholarship of Teaching and Learning (SoTL). She gave a brief overview of the genesis of SoTL, beginning with some of the harbingers of SoTL, such as Boyer and Shulman.

She said that for an activity to be designated as scholarship it should manifest at least three key characteristics, i.e. include public, susceptible and accessible.

The presentation also identified and analysed four new directions on SoTL in line with the theme of the conference.

They are:

1. The problem approach to SoTL;
2. Teaching as transactional: Is it teaching or learning?
3. Brain fog: dispelling the fog of learning; and
4. Centring SoTL and faculty development centre.

In conclusion, she said, "Stimulating intellectual curiosity is a powerful mechanism of engaging academics in SoTL, students in inquiry-based learning, and educational developers in improving their own field."

Prof. Mabokang Monnapula-Mapesela, Director: Innovation in Learning and Teaching led a discussion on evaluating the impact of scholarship of teaching and learning (SoTL) at a University of Technology in South Africa. This reflected the findings of empirical research conducted with SoTL mentors and mentees to measure the projects' impact. The discussions were based on the findings of empirical research on the impact of SoTL at CUT.

The Gala dinner was hosted by the Deputy Vice-Chancellor: Teaching and Learning, Prof. David Ngidi, and the Acting Deputy Vice-Chancellor: Research Innovation and Engagement, as well as Prof. Alfred Ngowi, who also presented on Implications of the 4th Industrial Revolution on education in the context of SoTL.



Delegates from universities across the country and international came in numbers to attend the 3rd annual SoTL Conference held at CUT Bloemfontein campus.

Better resources for CUT Agricultural students



Sharing a happy moment and handing over the key to CUT students and Professor Fourie is Mr Dries van Schalkwyk, Marketer from Senwes (second from right) on his left is Prof. Pieter Fourie, Professor: Agriculture and two first-year students in agriculture programme, Tshegofatso Kgoasasa (left) and Palesa Maseko.

On 02 August 2017, Senwes and John Deere SA delivered and handed over a brand-new John Deere 5075E Cab tractor purchased by the Department of Agriculture. The new tractor was bought for the CUT farm situated at Bainsvlei, 29 km west of Bloemfontein, as part of student training and exposure to real farming.

The farm, which serves as a training ground for agricultural students, boasts 32 hectares (ha) of arable land and 1.5 ha of natural pastures. Different crops will be cultivated and harvested and that will form part of the practical sessions for the students. Along with research conducted on the farm, practical classes and work-integrated learning will have high educational and intrinsic value for the students. The farm is surrounded by active commercial farms, which will be beneficial to the department. It will have livestock such as sheep and broiler chicks, as well as including an array of organically grown produce such as watermelons, cabbage, pumpkins, dryland maize and sunflower.

The utility tractor will be used to train students, not only to drive it, but also to operate it with different implements. Formal tractor-operation training sessions will be conducted in collaboration with Senwes and John Deere SA. Students will be exposed to proper maintenance of the machinery and general upkeep.

Prof. Carlu van der Westhuizen, Professor: Environmental Health said the training centre and tractor would contribute to teaching and learning, and will add immense value to the development of students' practical skills. "The tractor was purchased by the university, but the operational training thereof will be done by Senwes and John Deere SA as part of their commitment to partner with CUT in enhancing educational programmes." Annually, Senwes pledges to make a large tractor with automated capabilities such as self-driving available for training at no cost to the University.

Third-year student Palesa Suping said she was excited that the department had bought a tractor and a farm. "I am very happy that we finally have our own farm and equipment; we used to do our practical at other farms and I was not free to make mistakes and learn from them, but now I feel relaxed in our safe learning environment."

Senwes is one of the leading agricultural companies in South Africa, which prides itself in the quality services it provides to its clients who are at the heart of the company. The company is deeply rooted in agriculture and has a rich and proud history that extends over a period of 108 years.

SABPP student Chapter Launch



Zuko Hlanjwa: Vice-Chairperson SABPP CUT, Neo Tlali, Kamohelo Molefe, Lindiwe Bosman, Fhatuwani Raliphaswa, Polo Sengoara, Sekoele Ramajoe: Chairperson SABPP CUT, and Mojalefa Alphonse.

The Department of Business Management in the Faculty of Management Sciences and the South African Board for People Practice (SABPP) have been doing tremendously well in ensuring the success of the Human Resources Management (HRM) programme within the institution.

On 31 August 2017, SABPP and the Department of Business Management reached yet another milestone and launched the 11th SABPP student chapter in the country to create awareness and the importance of HR standards amongst students.

As of January 2015, the SABPP actively instigated awarenesses and launched student chapters at several universities and colleges around South Africa. The SABPP student chapter is an exclusive SABPP Human Resource Student society, comprising HR students who are actively registered as student members with the SABPP. As part of developing the future talent pool, SABPP recognises the important role it can play to ensure that tertiary students are fully prepared for the industry. SABPP aims at preparing students practically to become familiar with the HR profession.

"I hope that this launch will be informative and beneficial to the department and leave us with feedback that can be taken forward to help the nation develop the type of HR practitioners that will make an impact on the economy, HR profession, ethics issues and corruption," said Prof. Tshedi Naong, Head of the Department Business Management.

Mr Marius Mayer, CEO of SABPP, said that South Africa was faced with a leadership crisis that needed immediate attention. "People no longer know whom to follow and trust anymore. As SABPP, we would like to see ethics within the work place and leaders who will become change agents in the country. We are proud to be associated with

CUT, because we see the potential this institution has in producing quality leaders that this country really needs."

He also shared the first leadership standard framework that was developed and launched to assist all organisations and guide leaders to be successful in South Africa.

He further mentioned that good leadership standards comprise nine elements, four of which are key, namely leadership philosophy, tone at the top, leadership culture and leadership outcomes. The other five are Vision, Values, Value, the Ability to lead people, and Reflecting back on achievements.

"These nine issues will make a big difference in your academic success, personally, in business and in the student chapter. Everything in life either rises or falls with leadership. The quality of leaders you have will determine the success of your student chapter. If you have a poor leader, your organisation will suffer; therefore, it is up to you to take the chapter seriously and make it work to achieve success within the institution." He also advised students to seek advice and consult if they were stuck. "If you do not know or get confused, please ask for help. We are here for you and we would like to see you succeed in this particular journey. Let us work together and take HR in South Africa to greater heights," he concluded.

Mr Xolani Mawande, SABPP COO, said he was proud that the second-best student in the country to win the SABPP National Excellence Awards was from CUT. "Congratulations to Mr Zuko Hlanjwa for representing CUT well. We at SABPP will continue to contribute and promote excellence at universities."

Abe Bailey scholarship for CUT student



Mr George Cohen, General Manager at Saxon Hotel, Villas and Spa in Durban (L) and Prof. Piet le Roux, Acting HOD: Hospitality at the time (R) and Chloe (Middle) who received the most professional student award in 2014

Another Abe Bailey scholarship has been granted to Chloe de Villiers, a Postgraduate Certificate in Education (PGCE) student and a Junior Lecturer in the Department of Hospitality Management. The main objective of the Abe Bailey Travel Scholarship is to broaden the views of young South Africans, expose them to the globalised world and equip them with exceptional leadership qualities. For one to qualify for the prestigious scholarship, one has to have an excellent traceable record in academics, possess leadership qualities and have been of service to others within a wider social context.

Although she does not believe that she is a born ace student but a hard worker, Chloe has trackable academic excellence dating back from when she started at university and she has been consistent and dedicated throughout her career.

Among her many acquired accolades for her academic and leadership roles, Chloe was awarded best first-year, overall professional student, Chairperson of the Hotel school, best BTech in the Faculty. Annually, these awards are given to academically deserving students who show qualities of leadership among their peers and the broader society. The 23-year-old plans to fulfil her dream and pursue her master's degree in Hospitality and Tourism after completing her current study. She is set to travel to the United Kingdom in November for the duration of four weeks.

In 2014, the same award went to Ms Zanele "Sally Sue" Matsane. The 26-year-old is currently studying towards her PhD in Construction Management. She is also a Junior Lecturer in the department.



Palesa Mosakitsana, 3rd Best BTech student, Ms Dalene Crowther, Lecturer-Hospitality Management and Chloe de Villiers, Best BTech student at the time.

Face to Face with Chloe

As the 2017 Abe Bailey winner, how do you feel about this milestone?

To be very honest, after my interview for this opportunity, I was very sure that I had not made it. I thought I blew my chances, because they were held in March and time went by without any response from them until in July when I was called by Prof. Albert Strydom to the Faculty Board meeting to receive it. It came as a shock, it didn't feel real. I am really humbled, as I know that it is a once-in-a-lifetime opportunity.

What makes you an outstanding achiever? What are you currently studying?

I really do not see myself as an outstanding achiever; I am just a hard worker who always strives for the best and won't settle for less. I have completed an NDip and BTech degree in Hospitality Management, both cum laude in 2015 and 2016, respectively and I am currently doing my Postgraduate Certificate in Education (PGCE).

It is a known factor that to become an Abe Bailey winner, one has to possess some leadership qualities and be an ace in academics.

Could you share with us your leadership activities (including a wider social context) and the academic achievements thus far?

I have been receiving the Vice-Chancellor's Excellence awards for the entire period of my studies (four years). I received The Best Hospitality Management Student award in my second, third and BTech year. I was nominated the Most Professional Student in my second and third year, as well as the best BTech student in the Faculty of Management Sciences.

I was the Vice-Chairperson of the Hotel School and in my third year of training, I got an opportunity to be a Duty Manager at the Saxon Hotel, which served as part of my WIL. I was humbled by the exposure I got at that tender age of 21, having the whole hotel rely on me to make sure the hotel operations run smoothly, from shifts to guests, staff complaints, and restaurants. Taking the lead and control of situations, making important decisions and having people rely on me was challenging, but worth it. I really learnt a lot. This leadership role was an amazing experience. I have also worked closely with the Rotary Anne's Club in my hometown, Queenstown, in the Eastern Cape.

Being a Junior Lecturer has really opened my eyes. I love acquiring knowledge and being able to share it is an achievement for me.

When are you set to travel? Where to? How long?

I am set to travel to Cape Town on 21 November, where we will be inducted and briefed about the tour. On the 24th, we will fly out to Addis Ababa in Ethiopia for a day to see the Headquarters of the African Union and on the same day, we will be off to the UK where we will spend the remaining three weeks.

What are your expectations of this scholarship?

I expect to learn a lot from the entire experience and take something away from all the places we will visit and the people we will meet. I think this will be a great opportunity for us to explore and expand our minds, to be able to network and create eternal contacts and friends, and then return home and put this whole experience to good use, hopefully in my Master's theory, but most of all, take all the lessons learnt and make a difference.



To whom do you dedicate your success?

Firstly, my parents, John and Charlene de Villiers, have always been supportive towards my choice of career and they always encourage me to do better and be a better person. My elder sister, who is always my number one fan, to whom I always look up. My boyfriend of nine years has been keeping up with me during my studies and encouraging me to stand tall, always offering a shoulder to cry on. Finally, my late grandmother, who passed away in my first year, was my best friend and my inspiration.

What is your secret to success?

Hard work, dedication and perseverance to work hard, believe in yourself, never give up and never, ever let someone else bring you down. Gail Devers said, "Every accomplishment starts with the decision to try."

How do you maintain work and school life?

With a very good support structure of family and friends, you can do anything. The people you keep close to you should only be the ones who support you when you are trying to be a better person.

Where do you plan to take your career upon completion of your studies?

I would absolutely love to become a full-time lecturer in the future and pursue my PhD. I would like to end up in Cape Town, as there is nothing more humbling than standing on the Table Mountain and see the sea on either side of you.

University Life



2017 Spring Graduations celebrated

The Central University of Technology, Free State (CUT) celebrated the joyous spring graduations on 08 September 2017. To date, 3 723 students graduated at both the autumn and spring ceremonies in 2017. This year, a total of 47 Master's and 16 Doctoral degrees were conferred in the fields of Engineering and Information Technology, Management Sciences, Health Sciences and Humanities.

When congratulating the graduates, Prof. Henk de Jager, Vice-Chancellor and Principal, said that a graduation was one of the most important events in a person's life and it is the pinnacle of students' academic outcome for the hard work despite the setbacks encountered. "As you celebrate your success, also prepare for the challenges that each of you may come across as you venture through life. Remember, no matter how many times the teeth bite the tongue; they still stay together in one mouth, even though the eyes do not see each other, they see things together, blink simultaneously and cry together. Alone I can enjoy, but together we can celebrate; alone I can smile, but together we can laugh; that is the beauty of human relations! We are nothing without each other."

He also thanked the graduates for choosing CUT as their intellectual home and advised them to carry out the good name of the institution wherever they go. "Today we are sending you off as CUT graduates but, most importantly, as our ambassadors and proud alumni. When you leave this ceremony, you have a duty to uphold the good name of CUT as your alma mater. Make prudent use of the tools and skills that you have acquired. We are not saying goodbye, as this is your intellectual home, but we say, go out there and make your mark. Make us proud and continue to further your studies, we would like to see many more doctoral and master's degrees in future."

Prof. Henk commended parents, guardians, friends, and relatives for making many sacrifices to see their children, friends and spouses succeed. "This is indeed a happy day for us all and always remember that their achievement is yours too," he concluded.

Master's Degree Cum Laude

Master of Engineering: Mechanical Engineering



Monaheng, Lehlohonolo Francis – Cum Laude

Supervisor: Prof. WB du Preez, PhD (US)

Co-supervisor: Mrs A Olwagen, M. Eng (NWU)

Topic: "Finite element analysis of a Ti6Al4V medical implant produced through additive manufacturing."

Master of Information Technology



Coetzer, Jeanne – Cum Laude

Supervisor: Mr LA Grobbelaar, MTech (CUT)

Co-supervisor: Dr EM Masinde, PhD (UCT)

Topic: "The effects of anthropomorphism and affective design principles on the adoption of mobile health applications."

Master of Health Sciences: Environmental Health



Moabi, Ntsokolo Allister – Cum Laude

Supervisor: Prof. A Fossey, DSc (UP)

Co-supervisor: Dr E Potgieter, PhD (WITS)

Topic: "Finite element analysis of a Ti6Al4V medical implant produced through additive manufacturing."

Master of Health Sciences: Biomedical Health



Mokgawa, Sekobane Daniel – Cum Laude

Supervisor: Prof. SS Mashele, PhD (Medunsa)

Co-supervisor: Mr LF Mogongoa, MTech (CUT)

Topic: "Toxicology of Asparagus larinicus extracts in rats."

Magister Technologiae: Design

Havenga, Sarel Pretorious – Cum Laude

Supervisor: Prof. DJ de Beer, DTech (CUT)

Co-supervisor: Dr RI Campbell, PhD

(University of Nottingham)

Co-supervisor: Prof. FE van Schalkwyk, PhD (UFS)

Topic: "Customized finishing techniques on entry level FDM 3D printed artefacts in visual arts: An explanatory sequential study."

Master of Health Sciences: Biomedical Health

Mariri, Ntagi Gerald – Cum Laude

Supervisor: Dr IT Manduna, DSc (Colpos)

Co-supervisor: Prof. SS Mashele, PhD (Medunsa)

Topic: "In vitro evaluation of the bioactivity of Gnidia polycephala and Senecio serratuloides."

Master of Information Technology

Liphoto, Tumisang Sechocha – Cum Laude

Supervisor: Dr EM Masinde, PhD (UCT)

Faculty of Health and Environmental Science

Topic: "Internet of things-based traffic management system for Maseru, Lesotho."





2017 spring Doctoral graduates



At the Doctorandi Dinner front row L-R: CUT Chancellor, Madam Justice Mahube Molemela, Prof Alfred Ngowi, Acting Vice-Chancellor: Research, Innovation and Engagement, Dr Adefemi Aka, Dr Gaofetoge Setlhare, Dr Nothemba Mrwetyana, Registrar, Prof David Ngidi, Deputy Vice-Chancellor: Teaching and Learning and Dr Johan Niemann.

Back row L-R: Dr Henry Gleimius, Prof Henk de Jager, Vice-Chancellor and Principal and Dr Kingsley Orlu

Faculty of Engineering and Information Technology Doctor of Engineering in Civil Engineering



Topic: "A mechanism for waste reduction in structural design process in South African construction."

Promoter: Prof. FA Emuze, PhD (NMMU)

Co-promoter: Prof. DK Das, PhD (IIT)

Dr Adefemi Aka is a Lecturer in the Department of Building at the Federal University of Technology, Minna (FUTMINNA) in Nigeria. He obtained a Bachelor of Technology in Building at FUTMINNA in 2004, and a Master of Science in Construction Technology Degree from the Ahmadu Bello University, Zaria in Nigeria in 2011.

In his doctoral research, Dr Aka addressed the removal of process waste in the structural design process. This lean construction-informed study, entitled "A mechanism for waste reduction in the structural design process in South African construction", is the first of its kind in Africa. The study's main contribution to knowledge is the removal of non-value-adding activities (waste) from the structural design process by the proposed mechanism.

The mechanism that was developed is currently undergoing practice considerations, and the research has been disseminated at international conferences and in journal publications.

Doctor of Engineering in Civil Engineering



Topic: "A mechanism for lean and sustainability: The case of infrastructure projects in South Africa."

Promoter: Prof. FA Emuze, PhD (NMMU)

Co-promoter: Prof. DK Das, PhD (IIT)

Dr Rasheed Babatunde Isa is a Lecturer in the Department of Building at the Federal University of Technology, Minna (FUTMINNA) in Nigeria. He obtained a BSc Degree in Building and an MSc Degree in Construction Technology from the University of Jos in Nigeria. In his doctoral research, he addressed the integration of lean and sustainability concepts in the Built Environment.

This lean construction-informed study, entitled "Lean and Sustainability Mechanism for Infrastructure Projects Delivery in South Africa", is the first of its kind in Africa. The study culminated in the development of a lean and sustainability mechanism for transforming infrastructure projects delivery in South Africa. The study's main contribution to knowledge is a proposed tool that would assist with limiting the negative impact of construction activities on the environment. The research has been disseminated at international conferences and in journal publications.

Doctor of Engineering in Electrical Engineering



Topic: "Development of a Hybrid Control and Monitoring System within a Reconfigurable Assembly System."

Promoter: Prof. HJ Vermaak, PhD (Twente)

Co-promoter: Dr NJ Luwes, DTech (CUT)

Dr Johan Adam Niemann graduated with a Bachelor's Degree in Electrical Engineering (cum laude) at the Central University of Technology, Free State (CUT) in 2009, after which he obtained the Master's Degree in Electrical Engineering (cum laude) in 2013. He worked in industry as a Radio and Electronics Technician from 2006 to 2010, and was then employed as an Assistant Lecturer in Electrical Engineering at CUT until 2016. He is currently a Statistical Programmer at Quintiles IMS.

His doctoral research focused on the development of a hybrid control and monitoring system for utilisation within a reconfigurable assembly system. The methodology behind his research entailed creating a control and monitoring system that is as flexible and adaptable as the assembly systems for which it was developed. Johan's research was presented at international conferences, and a paper from the research was published in a journal.

Doctor of Engineering in Mechanical Engineering



Topic: "The development and characterization of a cost-effective, renewable energy greenhouse for production of crops in atypical climate conditions."

Promoter: Dr JA Strauss, PhD (US)

Co-promoter: Dr HJ van Antwerpen, PhD (NWU)

Dr Aggenbacht's doctoral research focused on the development and characterization of a cost-effective, renewable energy greenhouse for production of crops in atypical climate conditions. The aim of his investigation was to determine the financial viability of using alternative energy technologies for the heating and cooling of greenhouses which are used to grow temperature-sensitive crops all year round in the Central region of South Africa.

A greenhouse was constructed and equipped with natural ventilation as well as a solar heating system. Data was collected over two growing seasons and used to develop numerical steady-state as well as transient temperature models to predict the heating and cooling requirements of the greenhouse. A financial model was developed to determine the financial viability of applying these technologies. The results revealed that the alternative energy technologies are not financially viable at this stage. It also highlighted the shortcomings in this specific field of application. However, this model can be used in future to determine the viability of new cooling/heating technologies in the horticultural industry.

Faculty of Health and Environmental Sciences Doctor of Engineering in Mechanical Engineering



Topic: "Blood parameter responses in mice (*Mus musculus*) exposed to an electromagnetic field."

Promoter: Prof. A Fossey, DSc (UP)

Co-promoter: Dr C Weyers, DTech (CUT)

Dr Henry Gleimius obtained his MTech in Biomedical Technology at the Central University of Technology, Free State (CUT), where he is currently a Lecturer.

Exposure to extremely low frequency electromagnetic fields emitted from electrical wiring, domestic appliances and power lines is part of modern life. However, how they affect human and animal health is still largely unknown. To gain some insight into these effects, Dr Gleimius studied the effects thereof on blood parameters in the mouse species *Mus musculus* BALB/c by exposing the mice to such electromagnetic fields for varying numbers of hours per day over a period of one week and twelve weeks. The results indicated that short-term exposure stimulated the immune system by elevating many of the white blood cell populations. In contrast, it was found that, although there were some effects on the blood parameters, adaption mechanisms existed that normalised the different blood parameters in the long term.

Doctor of Engineering in Civil Engineering



Topic: "An investigation of essential oils as antimicrobial agents against antibiotic-resistant bacteria isolated at South African Hospices."

Promoter: Dr NJ Malebo, PhD (UFS)

Dr Gaofetoge Gobodiwang Setlhare was born in Thaba 'Nchu on 23 August 1988. She completed her schooling at Navalsig High School, after which she graduated with a BSc (Medical Microbiology) Degree and a BSc Honours (Microbiology) Degree, respectively, at the University of the Free State (UFS). She obtained the Master's Degree in Environmental Health at the Central University of Technology, Free State (CUT) in 2013. She is currently a part-time lecturer and co-supervisor at CUT.

In the study, new information was provided on the diverse mechanisms of action of Thymus vulgaris essential oil against antibiotic-resistant bacteria *Staphylococcus aureus* and *Bacillus cereus*. The study contributes to the field of food safety by providing alternative options to address the antibiotic-resistance challenge. Furthermore, as growers can potentially benefit from deriving antimicrobial products from essential oils, the study makes a socio-economic contribution in the long term.

Faculty of Humanities

Doctor Of Education



Topic: "Strategies to deal with poor learner safety in the North West Province township secondary schools: Towards the development of a safety strategy"

Promoter: Dr LJ Segalo, PhD (CUT)

Co-promoter: Prof. GJ Schlebusch, PhD (VISTA)

Dr Umziuvukile James Tshatshu is a Teacher Resource Centre Manager in the North West Province. He obtained his BA Degree at Vista University in 1991; a BA Honours Degree at the then Potchefstroom University in 1995; and a BEd Honours Degree at the University of Stellenbosch in 2007. Thereafter, he acquired a MA Development and Management Degree at the North-West University in 2008.

In his doctoral thesis, Umziuvukile explored the phenomenon of school safety. A mixed-methods research approach, with a focus on teachers and learners' concerns about safety challenges in township schools was employed. The research findings indicated that the involvement of learners, teachers, and parents in safety programmes would contribute to safety in schools. Strategies and recommendations for dealing with learner safety in schools were ultimately developed.

Faculty of Management Sciences

Doctor of Business Administration



Topic: "A business model for sustainable SMME pig farming in the Central Free State Province of South Africa."

Promoter: Dr JH van Zyl, PhD (UFS)

Co-promoter: Prof. DO Umesiobi, PhD (FUTO)

Dr Kingsley Orlu's doctoral research focused on the development of a Commonage Co-operative Model (CCM) for sustainable Small, Medium, and Micro-sized enterprise (SMME) pig farming in the Central Free State. The model demonstrated the economics of scale that can be derived by means of resourcing amongst wider stakeholder alliances in order to enhance consistency and sustainability in business performance. As a result, existing models in agribusiness strategic management, which supports Local Economic Development (LED), were improved.

Driven by governmental policies on co-operative development, the model encompasses a value-added chain of small-scale pig farming that fosters co-operation in order to stimulate competition. Major findings of the study revealed that SMME pig farmers are challenged by poor management and organisational expertise. Hence, a co-operative alliance strategy, using commonage-centred groupings, was ultimately recommended.

Bachelor of Radiography pilot students on the verge of completion





Lecturers and supporting staff at the faculty: Back row: Taahirah Mookrey, Matheko Phahlamohlaka, Dr Jeanette du Plessis, Prof. Hesta Friedrich-Nel, Dr Belinda vd Merwe, Marcelle Ramos-Swanepoel and Vuyani Atoni. Front row (seated): Ida-Keshia Sebelego, Sylvia Mokuoane, Henra Muller, Bea Van der Linde, Tanya Wainwright and Roan Slabbert.

The flagship programme for the Bachelor of Radiography in Diagnostics in the Department of Clinical Sciences has reaped fruits amid the first 38 pilot students who will be graduating in autumn 2018. The programme started in 2014 with only 54 students. Currently, these students are placed at ten different private practices and hospitals around Free State and Northern Cape for approximately 51 weeks of their four-year degree to gain clinical competence in diagnostic imaging. Upon completion, graduates have to undergo a one-year community service as part of the requirements of this profession.

According to Dr Belinda van der Merwe, Senior Lecturer: Radiography, the long career journey has prepared the students for the workplace and exposed them to all the important pedagogical approach in the health profession. "Our students are ready to provide patient care in a collaborative team environment. The appealing premise of IPE is that once health care professionals begin to work together in a collaborative manner, patient care will improve."

She further highlighted that these students were pioneers in many aspects, as two of them had attended the Optimax summer school in Norway in August 2017, and the other two had been on a student exchange programme in Norway for three months (August to October 2017). "In thoroughly preparing them to be fully-fledged professionals, the class also joined the Inter-Professional Education (IPE) sessions with the medical, nursing and allied health students at the Faculty of Health Sciences – University of Free State (UFS). Apart from their hectic work scope, they were also involved

in various simulations since their 2nd year as part of the teaching and learning at the Simulation unit of the Medical Faculty at the UFS. They have successfully executed a community service project, undergone integrated assessment, which forms part of the continuous assessment of the degree in the form of combined assessment papers and OSCEs, did research projects and reports thereof and have demonstrated most of the CUT graduate attributes. The students also planned, organised and executed a continuous professional development (CPD) event that equipped them with the necessary skills in organising an event."

The lecturers of the Radiography programme said that they were extremely proud of the group who matured into role models. "We are content that they are ready for the workplace and are hopeful that they will be true ambassadors of CUT and take this career to greater heights! We wish to see them coming back to study more and do research, and find solutions to the most complicated medical spheres."

The fourth-year pilot students for the Bachelor of Radiography in Diagnostics were interviewed, and this is what they said: **Vuyane Atoni** said the course gave him a lot of knowledge, experience and exposure. "This field is broad and a scarce skill as South Africa has a shortage especially in ultra sound." Vuyane also shared his experience as an exchange student, as well as how he had incorporated his international exposure into what he has learnt here at home. "I recently went to Norway on a student exchange programme between CUT and the Oslo University Hospital, the largest hospital in Scandinavia. My exchange was more about learning the differences in clinical practice between South Africa and Norway. I learned a lot from this experience and at this level, I am confident enough to express myself, make presentations and participate in debates with other students around the world."



Practice makes perfect. The fourth years are seen here doing what they love most. They always use each other to test their knowledge and skills. Pictured left: Vuyani Atoni, Obakeng Mapila and Nolwazi Shongwe, pictured right: Cornel Botha (patient) and Juan-Mare Erasmus.

He also highlighted that CUT was one of the two universities accredited to offer this Bachelor's degree in full in South Africa. "I believe that our institution is the best in the country, because this course is more advanced and at NQF level 8, which means we can proceed to Master's level. The degree is well structured and more applied than theoretical. We are well equipped and did everything required to becoming professional Radiographers. We also did a bit of ethical work, so we know our scope of practice and what is expected of us, which means we will always be able to adhere to the scope of practice."

The jubilant Vuyani also said that he was more than ready to face challenges and take on the world of Clinical Sciences by storm. "With all the knowledge and skills acquired, I am ready to showcase them to the world. This year is my exit level and I know what is expected of me, how to conduct myself in a working environment and how to protect patients."

He dedicated his success to all the selfless and highly skilled lecturers who were able to transfer their skills and share their theory and practical knowledge with them and making the course so very interesting. "We were not only taught; we were groomed and nurtured to be the best amongst the best in South Africa and beyond."

Mischca Ismail: "Upon completing my matric, I knew that I wanted to be in the Health Sciences field. Although my first love was Optometry, CUT did not offer it and I had to opt for my second choice -Radiography. Before I came here, I did some shadowing at a local hospital in

Kimberley and that is where my love and interest for Radiography were sparked. Even though Radiography was my second choice, I am thankful I pursued it. I first heard about CUT from a friend who spoke a lot about this course and upon doing research on it, I thought this was it. What makes it more interesting is the love and support we receive from our lecturers. They are welcoming, caring and nurturing and all they want for us is to succeed. Being at the exit level, I feel as if I have grown immeasurably and I cannot wait to join the world of work. When we started, it seemed like a long journey but here we are! I never knew I would become a professional one day. When I go out there, I will surely recommend it to prospective students because CUT is where excellence is."

Career opportunities in this discipline allows employment as a Diagnostic Radiographer in a government or private radiology practice; the educational sector or medical imaging companies as a sales representative. Radiographers registered with the Health Professional Council of South Africa (HPCSA) can open their own private practices after two years of independent practice as a qualified diagnostic radiographer. Graduates find employment at academic hospitals, community health centres, private and public practices, both nationally and internationally, research institutes, as medical representatives, or in medical physics. Radiographers achieving this qualification will be competent to analyse, integrate and apply scientific, theoretical and clinical knowledge. They will also be able to perform advanced and specialised technical procedures, be managers and problem-solvers within one of the categories. This qualification will also prepare the practitioner for research.

Qualification & Code:

BACHELOR OF RADIOGRAPHY IN DIAGNOSTICS						HCBCRD
Campus	Duration of Programme	Enrolment Option(s)	SAQA Credits	NQF Level	Admission Requirements	Selection and/or interview
Bloemfontein	4 years full-time	Semester 1	480	8	National Senior Certificate or equivalent qualification 30 points on the M scale.	Selection

First black female SRC president elected



First black female SRC president, Ms Sinazo Hafula

The Student Representative Council (SRC) takes a lead in many student activities and acts as a link between the student body and the management.

On 06 September 2017, CUT students cast their votes to elect the new SRC office for 2017/18. This year, the elections took a giant turn when the first black female president from SASCO, Ms Sinazo Hafula, was elected into office. She succeeded former female SRC presidents in the likes of Ms Elena Janse van Rensburg who became the first female SRC president in the mid-90s and Ms Faith Kruger, the second president in the early 20s.

The newly elected fourth-year BEd FET Languages student said she was happy to be the first black female SRC president and hoped she would bring change. "I hope that I will be a good advocate for CUT students and ensure that the students' voices are heard on the relevant committees and forums." She also said that her key focus area was to advance academic excellence amongst the CUT student population. "Our objective is to ensure access with success; therefore, no academically deserving student will be excluded on the basis of finance. We want to ensure that students do not encounter any problems regarding their accommodation, meals, books and transport allowance for effective study at CUT."

She said the NSFAS's delayed payments was one of the challenges faced and she had made it her top priority in her list of urgent matters. "I will propose to the Student Services Council that the meal allowance be rolled out monthly and further work hand in hand with the CUT-CFO to ensure that students are not victimised because of NSFAS delays."

In conclusion, she said that they would also like to monitor progress on the biometric system installations in key areas on campus, advocate for a reduction of the application fee, enhance student activism and encourage a vibrant student life by supporting all student organisations. She would also try to ensure that students take advantage of academic resources, and do away with outsourcing services like cleaning, security and maintenance personnel, as well as propose to institutionalise the cafeteria and not use service providers.

Ms Sinazo Hafula was born in the Eastern Cape. She grew up in Welkom, Lejweleputswa District – Free State and matriculated at Welkom High School in 2012.

As a CUT student, she led in the following structures: SASCO treasurer (2014), Chairperson (2015), Chairperson of the Carnival Committee (2016), Deputy Chairperson CUT Education Students' Association (2016), SRC Deputy President (2016/17), SRC President (2017/18).

Did you know?

Sinazo enjoys debating, loves singing and is a big fan of Kaizer Chiefs and Chelsea Football Clubs.

2017 Vice-Chancellor's Prestige Awards



Winners in the Innovation award category: From L-R: Prof Alfred Ngowi, Acting Deputy Vice Chancellor: Research Innovation and Engagement, Mr Jacques Combrinck, Lecturer: Mechanical and Mechatronic Engineering, Prof. Willie du Preez, Professor: Faculty of Engineering and Information Technology, Mr Lebohng Masheane, Technical Assistant: Mechanical Engineering, Mr Johan Els, Project Engineer: CRPM, Mr Gerrie Booysen, Director CPRM and Prof. Henk de Jager, Vice Chancellor and Principal

"Excellence is a continuous moving target that can be pursued through actions of integrity, being a forerunner in terms of products and services provided. Our recipients are indeed the fore-runners at CUT." These were the words of commendation from Prof Henk de Jager, Vice Chancellor and Principal, at the annual Vice-Chancellor's Prestige Awards held on 16 November 2017. The annual Vice-Chancellor's Awards aim to acknowledge the exceptional performance of staff members for their sustained and outstanding achievement in research, innovation, teaching, curriculum innovation, community engagement and support services, which are aligned with the university's vision about social and technological innovations in delivering quality education in the higher education landscape.

For the first time this year, the VC's awards included a category on Entrepreneurship, which is aligned with the university's aspiration of 'reimagining CUT as a transformative, entrepreneurial, engaged university and model University of Technology in Africa and beyond'.

Another new category is the Support Staff Award, which is also a symbol of progress in embracing 'The Human Project' theme, which states that everyone must have a sense of belonging, of feeling important and being able to reach their full potential.

Prof. Henk reflected on CUT's strides, which included recognition by external agencies such as NRF, DST and BRICKS Network. "We are leading the sector in many ways in the fields of curriculum transformation and academic excellence," said Prof. Henk, referring to the increase in research outputs, NRF ratings, and postgraduate recipients, which he attributed to the commitment, dedication and passion of staff members in adding value and bringing credit to the university.

Nominations for the awards are divided into three categories, namely Category A (teaching and curriculum innovation awards), Category B (research and innovation awards) and Category C (community engagement award).

Category A: Teaching and curriculum innovation awards

Early Career Teaching Award: Ms IK Sebelogo, Faculty of Health and Environmental Sciences.

Advanced Career Teaching Award: Prof DK Das, Faculty of Engineering & IT.

Category B: Research and Innovation Awards

Early Career Research Award: Dr B Awuzie, Faculty of Engineering & IT.

Established Researcher Award: Prof PJ Fourie, Faculty of Health and Environmental Sciences.

Category C: Community Engagement Award:

Mr A Mhlaba, Faculty of Engineering & IT

Category D: Innovation and Entrepreneur Award (new)

Innovation Award: Mr LR Masheane, Prof. WB du Preez, Mr J Combrinck, Mr GJ Booysen and Mr J Els from the Faculty of Engineering & IT, Centre for Rapid Prototyping and Manufacturing Entrepreneurship Award: Ms J Coetzer, Faculty of Engineering and IT.

Category E – Support Staff (new)

Mrs M Mbeo, Middle Management, Junior Management, Specialists, Faculty of Engineering & IT and Mr F Motlhanke, Administrative staff, Administration: IT & Logistics.

Among the dignitaries who graced the event is families of the recipients, CUT members of Council, Cllrs Dr Sylvan Seane, Lesiba Sebola and Sylvester Mosoeu, senate and SRC members.



Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning, Ms Ida Sebelego, Lecturer: Clinical Sciences, and Prof Henk de Jager Vice Chancellor and Principal



Front row L-R: Prof. Alfred Ngowi Acting Deputy Vice Chancellor: Research Innovation and Engagement, Prof. David Ngidi, Deputy Vice Chancellor: Teaching and Learning, Prof. Henk de Jager, Vice Chancellor and Principal, Dr Nothemba Mrwetyana, Registrar and Prof. Herman Vermaak, Professor: Computer Systems.

Back row L-R: Prof. Willie du Preez, Professor: Faculty of Engineering and Information Technology, Mr Gerrie Booysen, Director CPRM, Mr Jacques Combrinck, Lecturer: Mechanical and Mechatronic Engineering, Mr Johan Els, Project Engineer: CRPM, Mr Lebohlang Masheane, Technical Assistant: Mechanical Engineering, Ms Jeanne Coetzer, Lecturer: Information Technology, Ms Ida Sebelego, Lecturer: Clinical Sciences, Ms Mpho Mbeo, Officer: Faculty of Engineering and Information



Dr Nothemba Mrwetyana, Registrar, Ms Marizanne Janse van Reinsburg, and Prof. Henk de Jager, Vice-Chancellor and Principal



Prof. Alfred Ngowi, Deputy Vice-Chancellor: Research Innovation and Engagement, Dr Bankole Awuzie and Prof. Henk de Jager



Prof. Herman Vermaak with DVC, Prof. Alfred Ngow (Left) and VC, Prof. Henk de Jager (Right)



Ms Jeanne Coetzer with Prof. Alfred Ngowi and Prof. Henk de Jager



Receiving an award on behalf of Mr Aubrey Rikhotso is Dr Nothemba Mrwetyana (Left) with Prof. Henk de Jager (Right)



With Mr Mabitle Motthanke is Dr Nothemba Mrwetyana and Prof. Henk de Jager



Dr Nothemba Mrwetyana, Ms Mpho Mbeo and Prof. Henk de Jager



Receiving award on behalf of Prof. Dillip Das is Prof. Fidelis Emuze, Acting Dean Faculty of Engineering and Information Technology with Prof. David Ngidi, Deputy Vice-chancellor: Teaching and Learning and Prof. Henk de Jager



Receiving an award on behalf of Prof. Pieter Fourie is Prof. Samson Mashele, Dean: Faculty of Health and Environmental Sciences with Prof. Alfred Ngowi and Prof. Henk de Jager



Prof. David Ngowi, Ida Sebelego and Prof. Henk de Jager



Prof. Henk de Jager delivering a congratulatory message at the VC's excellence awards



From L-R: Prof. David Ngidi, Prof. Henk de Jager, Dr. Miemsie de Jager and Prof. Albert Strydom toasting and celebrating success at the VC's excellence awards

Applied science and technology for Science Week



Joining hands to promote science and technology in the middle from left, Prof. Henk de Jager, Vice-Chancellor and Principal; Honourable Tate Makgoe, MEC for Education: Free State Province and grade 8 learners from Dr Block High School.

National Science Week (NSW) is an initiative of the Department of Science and Technology and a countrywide celebration of science, technology, mathematics, engineering and innovation involving various stakeholders and role players conducting science-based activities. The weeklong event simultaneously takes place in all nine provinces at multiple sites per province and CUT Bloemfontein Campus is one such site.

On 5 August 2017, the Central University of Technology, Free State (CUT) in collaboration with the Department of Education, Free State, the Department of Science and Technology (DST) and the South African Agency for Science and Technology Advancement (SAASTA) co-hosted the National Science Week (NSW) to promote, encourage and raise awareness of science and technology through tourism within communities. The science week was officially unveiled by the MEC for Education, the Honourable Tate Makgoe under the theme 'Advancing science tourism'.

MEC Makgoe said that the myth and thinking that Universities of Technology were not good enough, had to be demystified. "We need to go out there and send a message to kids, teachers and parents to consider Universities of Technology (UoT) because they are the future and have a lot to offer; they are the main source of turning the socio-economic challenges around."

The MEC was impressed with the almost 50 percent student enrolment at CUT in the areas of STEM. He urged the university to work together with schools to promote engineering and ensure that more schools attended the national science week. "Everything we do is science and we need to support the kids on that platform. Children naturally love science and technology as they have that inquisitive mind and it is our responsibility to enhance that curiosity and not kill it," he said.

The MEC mentioned that during the policy conference that he had attended, he had been proud to hear the Minister of Science and Technology, Naledi Pandor, speak about the amount of research and innovation happening in South Africa and mentioning CUT among the best universities in South Africa leading in terms of innovation. "I was proud and happy to hear of such because during my visit to CUT, I also saw great technology and innovations happening in the Centre for Rapid Prototyping and Manufacturing (CRPM), Product Development Technology Station (PDTS) and Idea generator. CUT is an asset we must use it and not shy away from it."

He told the learners also to consider becoming maths and science teachers when choosing careers as, without good teachers, the country would not be able to achieve what it needed. "We need to ensure that we produce good science teachers as they are in high demand."

He further encouraged the kids to aim high and not be afraid of STEM subjects and their challenges. "When I look at you I see future doctors, engineers, scientists, politicians and leaders of the society. Learn as much as possible and never be afraid of mathematics and science. For your success in these fields, all you need is self-discipline, perseverance, and hard work. Never aim too low, aim to be the best and leave a legacy so that by the time you die, people will continue to talk about you from generation to generation," he concluded.

The CUT's Vice-Chancellor and Principal, Prof. Henk de Jager, said that CUT was proud to have almost 50 percent of students in the STEM field. He also said that in collaboration with the Department of Education, CUT was in the process of reprioritizing the Schools Advancement Academy (SAA) to push professional development, training and support in science, technology, engineering and mathematics (STEM) fields.

"Through the commitment of MEC Makgoe, CUT has established the STEM Academy, joining hands with the Free State Department of Education in promoting STEM education even further than the work being done in the School's Advancement Academy."

During his recent visit to Asia, the MEC realised that mathematics, science and technology were the lifeblood of successful economies such as Japan and South Korean. Currently, South Korea is the fourth-most innovative country in the world, with Japan being the fourth-largest economy in the world, primarily driven by its research and innovation in technology, science and mathematics.



Jacobus Faber, an electrical engineer BTech student showcasing some of their faculty's equipment and how they apply science and technology to the Dr Block learners.

Third Annual Herman Mashaba Public Lecture held



Mrs. Nomsa Mosuwe, a proud Free-Stater and distinguished businesswoman during her address at the 3rd Herman Mashaba Lecture. Well-grounded and principled, she occupies a conspicuous space within the corporate world circle.

Universities of Technology are making headways in developing new and innovative ways of producing knowledge for the greater good of communities they are serving.

On 21 September 2017, the Faculty of Management Sciences held its third annual Herman Mashaba lecture themed 'Success stories in Entrepreneurship: a Practical Application'. The guest speaker, a formidable woman and entrepreneur in the corporate world with extensive experience, Mrs Nomsa Mosuwe, delivered an insightful and educative lecture on an arduous journey of her success as an entrepreneur in a male-dominated field of business.

From humble beginnings in Thabong, Welkom, Mrs Nomsa Mosuwe first became an entrepreneur at the tender age of nine, selling eggs, fruit and vegetables at the street corners of Thabong. "I got fascinated by the thought of making money; from then on, I never looked back."

Mrs Mosuwe mentioned that being a successful entrepreneur was not by chance, but choice; it required hard work, focus, perseverance, continuous learning, sacrifice, and passion. "Success is about finding a sweet spot and your true north. Your sweet spot is where your motivation, skills, and strengths intersect. When you find your sweet spot, and begin operating out of it, you will experience an increased productivity, joy, and fulfilment because you will be in your most natural position," she said.

When sharing her entrepreneurial journey with the audience, Mrs Nomsa said that successful business people had mentors and build protégées; they had financial management and put control systems in the business, "Allow yourself to be disorientated so that you can be reoriented. Great leaders make the big picture come to life and embody two qualities – they are highly visionary and practical. Leading well is not about enriching yourself, but about empowering others, staying in touch with macro- and micro-trends, and keeping your customers close by attending to their strategic sessions and giving input."

The lecture is named after Dr Herman Mashaba, a CUT alumnus who received an honorary DTech in Business Administration. Prof. Albert Strydom said that the Herman Mashaba Lecture came into being in honour of Dr Mashaba for his immense contribution to business in this country. He is a self-made entrepreneur who distinguished himself amongst his peers and transcended the challenges of growing his business ventures in an environment that was less conducive and supportive to emerging entrepreneurs like him to enter the mainstream economy.

Mrs Mosuwe had worked as a Business Development Officer for Nedcor, African Bank and she was later promoted to Regional Human Resources Manager (Free State and Natal). She also worked for Vodacom as a Human Resources Manager and played a role in the merger between Vodacom Service Provider (VSP) – used to be called VODAC, GSM and TELJOY to create what is now called Vodacom Group SA (Pty) Ltd. She was headhunted by EMI Music SA as Head of Human resources and Credit management. She served the Group Five Construction (Group Five Engineering/Project) as the Human Resources Director for the African continent and later served on the Board of Group Five Engineering.

She was instrumental in project management and ensuring that project milestones were reached in line with MoUs signed with various stakeholders and clients across the African Continent. In her tenure, Group Five Engineering won the best business units in the entire Group 5 companies. Her educational background comprises a Bachelor of Public Administration (Industrial Psychology) from the North-West University, an Honours degree in Human Resources Development, a Certificate in Labour Relations from the University of Johannesburg, an Arbitration Certificate from the Graduate Institute of Management and Technology and a Master's in Business Administration (MBA) from De Montfort University in UK.

Mr Jackson ready to drive the Internationalisation Project to new heights

Mr Leolyn Jackson was recently appointed as Director of the international office. He resumed his duties on 01 August 2017.



Mr Leolyn Jackson was appointed as Director of the International Office, with effect from 1 August 2017. He has a stellar record of accomplishment as both an academic and leader of internationalisation in the Higher Education sector. He worked in the Higher Education sector for more than 25 years, as a Senior Lecturer; Head of Student Enrolment; Director of the Southern African-Nordic Centre (SANORD); and Director of the International Relations Office (IRO) at the University of the Western Cape (UWC). During his tenure at UWC, he served as a member of the UWC Executive Management Committee and the UWC Senate, and chaired the Senate International Relations Committee. In addition, he managed SANORD, a consortium of 45 universities from the Nordic and Southern African regions.

He serves on the National Directors Forum of the International Education Association of South Africa (IEASA), and as a Council Member of IEASA. He is currently the President of IEASA (2017-2018) and, in this capacity a member of the global Network of International Education Association (NIEA). Furthermore, Mr Jackson is a member of various networks and organisations, such as the African Network for Internationalisation of Education (ANIE), the European Association for International Education (EAIE), the Asia Pacific Association for International Education (APAIE), and the Association of International Education Administrators (AIEA). His research interest focuses on the internationalisation of Higher Education.

Mr Jackson joined CUT at a challenging time for all universities in South Africa, which resulted from global and local dynamics. CUT has fallen behind in terms of the internationalisation targets enumerated in the University's Internationalisation Strategy, aiming to enhance diversity at the university.

When asked about his plan to take the Internationalisation Strategy to another level, meet the targets and ensure a harmonious intellectual home away from home for international students, Mr Leolyn emphasised the importance of international higher education and the role universities had to play in addressing local, regional and global challenges through research initiatives. He also mentioned teaching and learning as another fundamental issue, specifically how the curricula speaks to the needs of society. "Over the years, CUT staff and students have developed a significant brand locally and globally and I want to build on the strengths and further enhance our footprint in Africa and beyond. Our internationalisation strategy focuses on our connectedness with the globe and the impact we should have. It also indicates the importance of international partner collaborations, as well as how we can best harness our skills and expertise to enhance our research and innovation agenda and linkage with our local and global stakeholders. My plan on that is to develop further CUT as a 'model' University of Technology in Africa and globally."

Mr Leolyn further identified the key strategic interventions like branding the services of his office to make it more visible to staff, students and local community, including the local government and business sector and the Embassies. "It is equally important that we should be more visible within the international higher education environment and forge stronger relationships with organisations like the International Education Association of South Africa (IEASA) and its sister organisations globally."

He also wants to build on the excellent work of his predecessors regarding international academic partnerships and further enhance the capacity of the office to sustain CUT's mission on internationalisation strategy. "As singular institutions, it is impossible to address all the local and global challenges. Partnerships and collaborations within the SADC region and Africa, BRICS countries and the rest of the globe are crucial. Globalisation provides us with new technologies and innovation spaces to link with the best skills and resources across the globe and to collaborate on niche research areas as a response to the SDGs and local challenges," he concluded.

First female Dean of Humanities appointed



Settling in her new role as the Dean of Faculty of Humanities, Prof. Nosisi Feza aims for excellence in all she lays her hands on.

The Central University of Technology, Free State (CUT) has appointed the first female Dean of the Faculty of Humanities, Prof. Nosisi Nellie Feza, effective from 1 October 2017.

Prof. Feza is a distinguished scientist and a specialist in Mathematics Education. She holds a PhD: Mathematics Education (The State University of New York); MEd: Mathematics Education (Nelson Mandela University – NMU); BEd (Hons): Science and Mathematics Education (former University of Port Elizabeth – UPE); BEd: Science and Mathematics Education (former UPE); Further Diploma in Mathematics Education (Rhodes University); Diploma in Education: Primary School Education (South African College of Teacher Education); and a Diploma in Primary Mathematics Education (Cambridge University). In addition to these qualifications, Prof. Feza has obtained various certificates, including an Assessor Certificate for Mathematics Teacher Education (NMU); Facilitator in Mathematics Education Certificate (Eastern Cape Provincial Department of Education); Project Management Certificate (former UPE); Self-Development Certificate (former UPE); Family Mathematics Certificate (University of California); Primary Mathematics Education Certificate (University of Cambridge); and Primary Mathematics Certificate (Leeds University). Furthermore, she was the recipient of the following awards: Fulbright Scholarship for PhD in Mathematics Education; Emerging Diversity Scholar Award by Michigan University; and Distinguished Scientist Award by the Venus International Foundation in India.

When asked about her overall plan for the faculty, Prof. Feza said, "I am excited and nervous about my appointment because I am a dreamer and believe in making a difference. Everyone I have met so far is striving for excellence and I believe that together as a team we can work hard to achieve it in our teaching and learning, research and innovations. My role as the Dean of Humanities is to oversee that all our six departments excel in their diverse mandate focusing on developing strengths of each department concerning teaching and learning. The Department of Postgraduate Studies will be the home to research support for all departments in our faculty and therefore will provide training and support to all staff members, encouraging them to conduct research of their practice, influence society, and be innovative. My main challenge is that dreamers like me cannot dream alone, the dream has to be mutual, so my wish is to share this dream with my colleagues so that we can live to achieve it."

She also mentioned that one of the main reasons why she joined CUT was because its vision is aligned with hers. "I am all about society, the country and how we fit into the world puzzle. CUT has a great record of producing skilled force – a major need in our current state of affairs in South Africa. I believe that strengthening this will benefit our region and the country more."

Her main key focus areas towards achieving excellence in higher education in her five-year plan at CUT are:

- Effective teaching and learning that are informed by research and put students at the heart of all practices;
- Research excellence that is aimed at improving practice, influence society, address societal challenges, predicts the future through innovations and international standing;
- Human development of all staff members through training, collaborations within and outside the country, talent development, individual developmental plans;
- Excellent service delivery to all stakeholders, students, communities, DHET, DBE, DST, NRF, Private and Public sector and international collaborators; and
- A marketing strategy that is continuously embedded to CUT practice, influence and commercialisation.

Prof. Nosisi further mentioned that talent management of staff members would be one project that would facilitate a meta-cognitive approach for talent mapping of each staff member to draw career paths and monitor progress by drafting individual plans. She also spoke about service delivery as the tug in strengthening stakeholder's relations, influencing research collaborations, teaching, and learning. "This will ultimately play a role in increasing employability of our graduates. Our students and research will lead our marketing strategy through alumni tracking and showcasing to the society at large. International collaborations will also explore exchange student programmes to expose our students to international practices and cultures."

She is not new to academia and leadership in the Higher Education sector as she has worked in the Higher Education sector for more than 20 years; first as an instructor and later as a Lecturer at NMU; a Teaching Assistant at the State University of New York; a Research Fellow at the University of Northern Iowa; and as an Associate Professor and Head of the Institute of Science and Technology Education at the University of South Africa (UNISA). During her tenure at UNISA, she served on the Senate Committee for Teaching and Learning and the Senate Committee for Community Engagement, as well as chaired the community engagement activities of the College of Graduate Studies.

Prior to joining the academe, Prof. Feza was a Mathematics and Science schoolteacher, and worked for a non-governmental organisation (NGO) that trained rural teachers in Mathematics Education.

She has also published and co-published several articles in accredited journals and conference proceedings, and has successfully co-supervised Master's and Doctoral students. She is a member of the following associations: Association for Mathematics Education of South Africa, Southern African Association for Research in Mathematics, Science and Technology Education National Council of Teachers of Mathematics; the American Educational Research Association, National Association for the Education of Young Children, International Congress on Mathematical Education and International Congress for Qualitative Inquiry Research Advisor for the Zenex Foundation.



Eleven days into her new role as Dean of Faculty, Prof. Nosisi was already up and about. She is seen here addressing faculty students during their prize giving awards held on 11 October 2017.

Meet Director: Risk Management & Strategic Projects



Mr Norman Tinyiko Baloyi, newly appointed Director: Risk Management and Strategic Projects.

Mr Norman Tinyiko Baloyi joined CUT on 01 November 2017 as Director: Risk Management and Strategic Projects to take the portfolio to greater heights.

Mr Baloyi has undoubtedly accumulated credible experience and expertise in a variety of disciplines, inter alia, Finance and Accounting, Human Resources Management and Transformation, Economics, Governance and Strategic Planning, Procurement, IT, Facilities and Operations Management.

Before joining the CUT community, he served as Executive Director at the International Business Research (Pty) Ltd, and as an independent Project Manager at the University of South Africa. Amongst others, he previously held positions of Executive Director: Corporate Services; Chief Operations Officer; General Manager: Research and Development; General Manager: Information & Communication Technology; and Electronic Engineer.

His career highlights and educational qualifications ensured that he met the criteria set to oversee the Enterprise Risk Management (ERM) function of the University in the capacity of Chief Risk Officer, and to provide logistical and advisory support to the Vice-Chancellor and Principal with the management of strategic projects, including transformation.

He has an extensive list of qualifications: in the Social Sciences, Commerce and Management field. He has two Master's degrees, two Honours degrees, a Postgraduate Diploma, a Higher Diploma, two Bachelor's degrees, a programme qualification and a certificate. In the Science, Technology and Engineering arena, he holds two Master's degrees and three Bachelor's degrees.

Furthermore, Mr Baloyi is the author of a series of articles and has presented at international conferences. He has served on over 15 boards in the past, and currently serves on the boards of the following organisations: Union Life; Culture, Religion and Linguistic Rights Commission; Magalies Water; Companies Tribunal and the Film and Publication Board.

CUT explores Internationalisation for enhancement



Mr Cornelius Hagenmeier, Director: International Relations, University of Venda and Executive member of IEASA. His presentation was titled: an overview of Comprehensive Internationalisation as an enabler for our core business.

Internationalisation has become a chant at higher education institutions. Universities across the world are encouraged to incorporate various methods of internationalisation within their scope to reap the benefits of global interconnectedness.

Each year, the Central University of Technology, Free State (CUT) welcomes a range of international visitors from diverse backgrounds and cultures, providing a home to a countless number of African and other international scholars.

On 15 and 16 August 2017, CUT hosted a two-day seminar to enhance Internationalisation within the institution and provide a better understanding of internationalisation and its different components. The seminar provided an overview of comprehensive internationalisation as an enhancer for the institution's core business and looked at the impact of Erasmus+ Projects on internationalisation, including strategic university partnerships as an enabler for internationalisation. The concept of Internationalisation of the Curriculum was also discussed as well as Student Mobility Management, which includes financing, implementation, internal control systems and processes.

Experts from critical accreditation bodies such as the South African Qualifications Authority (SAQA), Universities South Africa (USAf) and TVET colleges presented various legislations and institutional policies governing admission of international students. Presenters from the University of Johannesburg (UJ) and the Vaal University of Technology (VUT) also discussed ways to advance and improve services to international students while the International Student Administration Process at CUT was also unpacked.

International student recruitment challenges and opportunities were also extensively discussed to develop an international student recruitment strategy that will allow capacity development within the international students at CUT. The importance of International Student Associations (ISA) was viewed as a powerful structure for internationalisation drive and student mobility at home and abroad. The association was established two years ago to enhance internationalisation and ensure that international students' voices are heard.

Prof. Henk de Jager, Vice-Chancellor and Principal, said the workshop was a good initiative, which would help CUT to revise and augment the current internationalisation strategy. He said it was critical to embrace the internationalisation project for competitiveness and ranking, because it is a powerful tool in marketing the institution. "We need to align ourselves with all the tools and instruments of the various ranking system," he said.

He also said that CUT is committed to promoting diversity for the purpose of learning different cultures, backgrounds and understanding different people. "This year we have embraced a theme of the Human Project to give our staff members a meaning, and make them feel they can make a difference and reach their full potential, irrespective of their cultures and who they are or where they come from. We want to produce graduates and academic staff who are confident and sensitive when working in any cultural settings, understand different perspectives beyond those of their own and have a solid international experience. We want them to gain intercultural competencies to be flexible, curious, tolerant, adaptable, and be able to communicate appropriately and effectively in multicultural teams and environments."

U.S. Consulate visits CUT



Front row: L-R: Prof. Henk de Jager, Vice-Chancellor and Principal, Mr Michael A. McCarthy, new U.S. Consul General Johannesburg, Mr Jason Green, Deputy Public Affairs Officer and Prof. Alfred Ngowi, CUT Acting Deputy Vice-Chancellor: Research Innovation and Engagement. Back row: L-R: Dr Johannes Hattingh, CUT Lecturer: Tourism and Events Management, Prof. Fidelis Emuze, Acting Dean: Faculty of Engineering and Information Technology, Prof. Samson Mashele, Dean: Faculty of Health and Environmental Sciences and Ms Martina Moss, Admin Coordinator: International Office.

On 12 September 2017, the U.S. Consulate-General Johannesburg paid a courtesy visit to the Central University of Technology, Free State (CUT) as part of his tour around the country. The U.S. Consulate-General is a branch of the U.S. Diplomatic Mission to South Africa, led by the new U.S. Consul-General Johannesburg, Mr Michael A. McCarthy.

When conveying the message to the U.S. delegates, Mr Leolyn Jackson, Director of International Office said that CUT has a remarkable history and is one of the universities in the Free State to have a home for young minds in the country, region and abroad. "CUT leadership has an interest in increasing the USA footprint. We want more research collaboration with the US universities as we address global challenges, we also want more faculty student exchange and study abroad programmes."

Prof. Henk de Jager, Vice-Chancellor and Principal said, "As an institution, we cannot survive in isolation without partnerships, it is critical for the institution to enhance the international project focusing on research, student and a staff exchange but, most importantly, the mutual benefits this partnership will bring for both countries." He also said that internationalisation could be used to promote diversity on campus and through student exchange; students could come back as better global citizens.

Consul-General Michael McCarthy said, "The U.S. government has been working with CUT for some time and are looking forward to nurture the relationship and watch it grow. There are many opportunities in research programmes that eligible students at CUT should know of. These programmes would be beneficial, as students will come back with new information, new perspectives and new contacts that can grow into something more than just an exchange programme. With support from the Vice-Chancellor's Office and International Office, this partnership can succeed."

On 15-16 August 2017, CUT hosted a two-day seminar to enhance Internationalisation within the institution and provide a better understanding of internationalisation and its different components. The seminar provided an overview of comprehensive Internationalisation as an enabler for the institution's core business and looked at the impact of Erasmus+ Projects on internationalisation including Strategic university partnerships.

CUT-Enactus secures a win in every national competition

Front row: R-L: Sekoele Ramajoe- 3rd year Human Resource Management and CUT-Enactus Project Manager, Itumeleng Mompoti- 4th Year BEd Natural Science. 2nd row: R-L: Prof. Crispin Chipunza- Assistant Dean of Management Science and CUT Enactus Faculty Advisor, Namhla Nomnganga- 2nd year BEd Languages and CUT Enactus Finance Officer; Polo Sengoara- 2nd Year Human Resource



A CUT-Enactus team of young, driven students participated in the 2017 Enactus National Competitions held at the Sandton Convention Centre in Johannesburg. The team has been taking part in this competition and winning since 2014. The purpose of the competition is to highlight how a select group of business-minded students and academic leaders across the country can transform the lives of ordinary citizens and enable progress through shared innovation and entrepreneurial actions.

About 27 university-based Enactus teams across the country competed and shared the quality and impact of their projects with the broader audience. They were evaluated and judged by business experts and leaders of the game. These dynamic and inspiring events encouraged creativity and tangible results, leading to stronger community empowerment projects that will ultimately make a difference in the world and improve more lives.

CUT's passionate and innovative team secured the fifth position and a spot in the semi-finals for their Imvuselelo (Revival) project and gained the first place for the same project at the semi-finals under the category of Triple Bottom Line: Sustainability, which was sponsored by Nedbank. The team further secured the second place in the Entrepreneurial Approach category sponsored by Harmony Gold Mining Company limited and a third place in the 2017 Harmony Local Economic Development (LED) Enactus Challenge.

On the Imvuselelo (Revival) project, CUT-Enactus team collaborated with the Mangaung Metropolitan Municipality and Absa Small Micro Medium Enterprise, focusing on capacitating Small Medium Micro Enterprises (SMMEs) from Dewetsdorp and Wepener with knowledge and skills on how to run a successful business, specifically for Morojaneng Lekoko Cooperative that operates a piggery farm in Dewetsdorp.

The beneficiaries thereof were trained as computer-end users, in partnership with the Department of Information Technology at CUT. Enactus also identified business opportunities within the cooperative and helped them realise their livelihood assets such as land and groundwater. The team also assisted the cooperative to turn these assets into local economic development opportunities. In this regard, CUT Enactus collaborated with the in-house Agricultural Students Organisation to start a vegetable garden for commercial purposes using an open-scale hydroponics method.

Students also collaborated with the Unit for Sustainable Water and Environment, and conducted groundwater test and training for cooperative members on how to manage boreholes and make effective use of groundwater resources.

Enactus is an international non-profit organisation dedicated to inspiring students to improve the world through entrepreneurial action. It provides a platform for teams of outstanding university students to create community development projects that put people's own ingenuity and talents at the centre of improving their livelihoods. Under the guidance and support of educators and business leaders, students take an entrepreneurial approach that empowers communities to be a part of their own success.

Background

In 2016, the team came out victorious, bringing home four trophies: two of which were for a first prize and the other for a second prize, with the last one for a special award, beating 27 teams from 26 universities across the country. The winning projects were Katlego and Ecoquettes. The Katlego project was a partnership with Harmony Gold Mine. Ecoquettes is a greening project where recycled paper, sawdust and water are combined and compressed to produce briquettes used for fuel. The project enabled three unemployed women from Rocklands location in Mangaung to own a registered business producing briquettes.

Another CUT student wins national Adzuna Graduate of the Year Competition



Mr Terry Tshesebe, BTech Agricultural Management student and the 2017 Adzuna graduate of the year.

For two years in a row, CUT students have dominated the Adzuna Graduate of the Year Competition, an annual competition that aims to uncover the country's finest graduates, match their skills to better and more fulfilling jobs, and keep South Africa working.

This year, another CUT student, Terry Tshesebe from the Faculty of Health and Environmental Sciences won the 2017 National Adzuna Graduate of the Year Competition, succeeding Mr Myric September, the 2016 winner who beat thousands of other entrants of that year.

Highly motivated by Myric, Terry decided to try his hand and entered the competition winning the national leg. Terry is a dedicated and hardworking student who graduated with his National Diploma in Agricultural Management cum laude, and currently pursuing his BTech, which he aims to pass with distinction as well. He is preparing for his Master's degree under the guidance and mentorship of Prof. Pieter Fourie, Associate Professor in the Department of Agriculture, who saw his potential and took him under his wing in his third year of study.

When asked about his win Terry said, "I entered the competition after attending one of Myric's motivational sessions. I entered for academics, but I also competed under other categories to increase my chances and came out top in all categories."

The winners received packages of fantastic prizes to help them kick-start their careers, including spending cash, a chance to intern at a top UK Company, career coaching sessions, and many more goodies. Terry said he was asleep on the day he received a call from the Adzuna team and was in shock when they told him the good news. "That call caught me off guard; they took me by surprise. Realising that I was not dreaming, I felt the adrenalin rush and that's when I screamed my lungs out from excitement, running up and down the corridors, calling my friends and sharing the news. I also called my mom, who was also overjoyed, and I later sent my dad an e-mail."

He also mentioned that he had realised that nothing was possible and hard work really paid off. Terry said the lesson learnt from this experience was that he knew that he could push himself beyond limits and that locked doors could be broken down. "This win is important to me; it has given my department some recognition and a boost and has also enhanced my self-esteem. The other positive thing about it is the exposure for my career and the industry. The win also came at the right time since this might be my last year here at CUT."

His zeal for agriculture was inspired by the Vaalharts Irrigation Scheme (Jan Kempdorp) the agricultural town in the Northern Cape Province where he grew up. He also attended agricultural school, where his love and interest for agriculture began. Upon completion of high school, he was torn between two career paths, engineering, and agriculture. "Initially, I aspired to study engineering and had to choose between studying what I want or something that I am passionate about. My father and brother who are already in that field, inspired me a lot; thus, I chose to follow suit and I do not regret choosing it over engineering," he said.

His long-term and short-term goals are to obtain his BTech degree cum laude, pursue a Master's degree before 2020, acquire a farm, and become an entrepreneur. He also wants to be a Production Manager at a corporate company or a feed production company or at an animal production farm.

Adzuna is South Africa's largest job aggregator, running its sixth Graduate of the Year Competition, taking place across 11 different countries. Since 2012, Adzuna's annual Graduate of the Year competition has rewarded the brightest and best graduates from around the world with a package of prizes to help them get a firm foothold on their career ladder.

WISA award for CUT woman in IT



Ms Nomabhongo Masana, WISA 2017 winner, master's student, and part-time lecturer with Dr Muthoni Masinde, lecturer and HOD in the department at Sandton-Johannesburg where the event took place.

The South African Women in Science Awards (WISA) has become an integral part of South Africa's annual celebrations of Women's Month in August. The Department of Science and Technology (DST) has been hosting WISA since 2003, as part of the government's efforts to recognise and create incentives for women scientists and researchers. The objective is to create enough role models for young women and girls.

CUT women in IT have taken the lead in women in science and distinguished themselves from their peers since 2016, when Dr Muthoni Masinde, Lecturer and HOD in the department, won the WISA awards under the category of Distinguished Young Women Researchers: Research and Innovation for developing a tool that can predict drought-stricken environments for the farming sector accurately.

Another woman among the 2016 winners in the department is Ms Mpho Mbele, a Master's student and part-time lecturer at Welkom Campus and a breed of scholars under the tutelage of Dr Muthoni Masinde. She won the TATA Fellowship and Special Award from the Department of Science and Technology for her outstanding academic research abilities on indigenous knowledge. Her research was based on integrating local with scientific knowledge regarding environmental pollution caused by mine waste in the Lejweleputswa District, Welkom. This year, Ms Nomabhongo Masana, IT Master's student and part-time

Lecturer in the department, made her advisor and supervisor (Mr Gerald Maina Muriithi) proud when she won the 2017 WISA awards and walked away with the TATA Scholarship worth R60 000. The ceremony took place at the Hilton Hotel in Sandton, Johannesburg, on 17 August 2017.

Ms Masana was awarded the Department of Science and Technology - National Research Foundation (DST-NRF) Innovation Master's Scholarship for 2017 and a CUT research grant for 2016 and 2017 to complete her Master's degree. With her research topic entitled 'Investigation of an Integrate Cloud-Based Electronic Medical Record for Health Clinics in the Free State, South Africa', Masana's interest is in cloud computing, the offers and benefits provided by this emerging technology, and how it can be incorporated into the health sector to improve the quality of health-care services and medical research. Her study proposes an integrated cloud-based Electronic Medical Record (EMR) system, which can be adopted to address challenges with paper-based medical records and the quality of health care. "The aim is to do this by integrating the various existing EMR systems into one central data storage space in the cloud in order to facilitate the storage and sharing of medical data," she said.

Her study aims to develop and present a framework that can be used in the Free State for the adoption of an integrated cloud-based EMR system, addressing the technological, organisational and environmental factors that may influence the adoption of the proposed system in the context of the province's health-care system.

She has a National Diploma (2013) and a BTech degree (2014) in Information Technology from the Central University of Technology (CUT). She has since published two peer-reviewed papers on the adoption of cloud-based EMR systems, one in an internal CUT journal (Interim in 2016), and another at a conference in 2017.

"This was my first time entering the competition. I did not innovate anything; it was a 30-sec video clip describing my research. At the moment I do not have someone I call a mentor, but I do have a supervisor who always guides me in my research, showing me how to be the best in what I do, and I thank God for such a wonderful supervisor. I feel very happy and honoured to receive such a prestigious award that acknowledges the work we do as women in science. I am a person who always stays positive about what I do and yes, I was expecting the award."

She said she intends using the prize money for her studies and getting the necessary resources to help her complete the current qualification. "My secret to success is to prioritise what is important, stay focused on your goals, be dedicated to what you do, love and have a passion for what you do, know who you are and where you want to be and, most importantly, trust in the Lord at all times. I was a bit nervous when my name was called as I was the first to be called, but mostly extremely happy and it is all thanks to God Almighty.

CUT and Maccauvlei cement their collaboration



Exchanging of contracts after signing from L-R: Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning, Prof. Henk de Jager, Vice-Chancellor and Principal, Mr Christo van Hoek, Practice Leader: Management and Leadership and Ms Paula Teigao, Practice Leader: OD ETDP and HR at Maccauvlei Learning Academy.

The Central University of Technology, Free State (CUT) entered into a partnership with Maccauvlei Learning Academy (MLA) whereby delegates who successfully complete their diplomas in Human Resource Management are afforded an opportunity to pursue their BTech in Human Resources Management.

CUT and MLA entered into an agreement to renew 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 sector. The partnership started in 2012 with the first intake of 89 Maccauvlei students registered for BTech Human Resources Management programme at CUT. Since then, this partnership saw over 450 employees across various sectors of the economy successfully completing this prestigious BTech: HR programme offered in a blended, flexible mode of delivery.

The Learning Academy represents a model of partnership that is mutually beneficial to CUT and Maccauvlei. CUT provides Maccauvlei with more skilled and competent employees, while employees are given an opportunity to hone and enhance their skills. The selection and admission are done through an intensive Recognition of Prior Learning (RPL) process for these matured and experienced working students.

"We really value this partnership; the quality of students that we are graduating is matured, driven and always aiming for success of which some continue with a Master's degree, which strengthens the pipelines of this partnership. For this institution, the partnership will widen access, especially to the matured students accommodating the adults who are eager to learn and make a difference in their lives. Thank you for the years of collaboration, we look forward to the years ahead. This partnership is a success story," said Prof. Henk de Jager, Vice-Chancellor and Principal.

Mr Christo van Hoek from the Maccauvlei Learning Academy said that the association with CUT was a friendship that had been built over the years. "We have made a wonderful taste together and I think we have grown a bunch of incredible tastemakers over the years. So far, we have over 80 enquiries for next year," he said.

Mr Van Hoek said the success of the programme was excellent, with close to a 100% pass rate since the start of the project. He also indicated that the Maccauvlei students came from a wide range of industries in South Africa, including neighbouring countries, the mining industry, the South African Defence Force (SADF) and other government departments. "Maccauvlei is proud to be associated with CUT on this project; we are a proud company and celebrating the success created with organisations like CUT in building the history, is a cherry on top for our 60th birthday," he said.

He commended Prof. Tshedi Naong – HOD: Business Management and his team for their commitment, dedication and support provided over the years and was content with the positive feedback received from students. "It is a pleasure working with the CUT team and everyone with whom we have become good friends," he concluded.

The fifth group of Maccauvlei employees has graduated dating back to 2012 when CUT registered the first intake in January 2012. All candidates were accepted after an assessment of Recognition of Prior Learning (RPL) had been completed to ensure they qualified for the NQF level 7 of the programme. Since then, this partnership has seen over 450 employees across various sectors of the economy successfully completing this prestigious BTech: HR programme offered in a blended, flexible mode of delivery.



Front row, from left: Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning, Prof. Henk de Jager, Vice-Chancellor and Principal, Mr Christo van Hoek, Practice Leader: Management and Leadership MLA and Ms Paula Teigao, Practice Leader: OD ETDP and HR at Maccauvlei Learning Academy.

Back row, from left: Prof. Tshedi Naong, Head of the Department Business Management, Dr Lineo Dzansi, Snr Lecturer: HR Management, Prof. Deseré Koki, Associate Professor: HR Management, Prof. Albert Strydom, Dean: Faculty of Management Sciences, Ms Selloane Konyana, Maccauvlei Coordinator: CUT and Ms Esther Palmer, Lecturer: HR Management.



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Centre stage on the photo: Prof. Albert Strydom, Dean of the Faculty of Management Sciences, Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning (center right), Prof. Alfred Ngowi, Acting Deputy Vice-Chancellor: Research, Innovation and Engagement (center left), Prof. Tshedi Naong, Head of the Department Business Management (next to Prof. Ngidi), Prof. Deseré Koki, Associate Professor: HR Management (next to Prof. Ngowi), Ms Paula Teigao, Practice Leader: (3rd person- 2nd row-left), Mr Jacques Taljaard, Lecturer: Business Administration (2nd person-second row-right) and Mr Christo van Hoek, Practice Leader (2nd person- back row-far left) from Maccauvlei Learning Academy.

CUT gears collaboration with GZU



Prof. Crispin Chipunza, Assistant Dean of the Faculty of Management Science, Mr Paul Matungamire, Deputy Dean in the School of Commerce at Great Zimbabwe University and Prof. Albert Strydom, Dean of the Faculty of Management Sciences.

In February 2016, the Central University of Technology, Free State (CUT) entered into a signed agreement with the Great Zimbabwe University (GZU) to collaborate on a number of scholarly engagements, which will serve as a form of cooperation between the two universities.

The agreement establishes a framework for the negotiations of a proposed cooperation between the partner institutions, which includes the development of collaborative research projects, the organisation of joint academic and scientific activities, such as courses, conferences, seminars, symposia and lectures, the exchange of research and teaching personnel, the exchange of students, publications, and other materials of common interest.

As part of the implementation process, Mr Paul Matungamire, Deputy Dean in the School of Commerce at GZU, visited CUT on contact leave from 01 to 26 August 2017 to finalise the benchmarking on the best practices between the two institutions.

The partnership has already gained momentum as three staff members from GZU are enrolled at CUT for doctoral studies in the Faculty of Management Sciences. CUT's seasoned and novice staff researchers from the Faculty of Management Sciences travelled to GZU at the end of September to learn more about

directed Master's programmes; explore the possibility of offering BTech Project Management in Zimbabwe under CUT; and jointly held two workshops on article writing and proposal development. For CUT, the novice researchers are given an opportunity to get international exposure in Africa, and explore collaborative research development areas for their academic growth.

The Faculty of Management Sciences' Tourism Department and Hotel School will assist in the development of the Hotel School at GZU in the near future and GZU has a number of staff members who are keen to pursue their postgraduate studies at CUT. In addition, proposals for joint publications on entrepreneurship studies for 2018 are in the pipeline and both institutions will explore the exchange of staff for sabbatical leave purposes.

"This collaboration is beneficial for both institutions in terms of staff capacity development, sharing of best practices, easy implementation of both institutions' internationalisation strategies, growth in postgraduate students, student exposure, and possible joint funded research projects," said Prof. Crispin Chipunza after the signing ceremony.

JAMK University and CUT formalise partnership



Sealing relations and shaking hands for a brighter future is Dr Jussi Halttunen, Rector at JAMK University of Applied Science and Prof. Henk de Jager, Vice-Chancellor and Principal of CUT.

On 9 November 2017, the Central University of Technology, Free State (CUT) welcomed delegates from the JAMK University of Applied Science in Finland. The purpose of the visit was to formalise a collaborative agreement with CUT as an outcome of a series of engagements between the two entities.

The two universities have similar core programmes in Science, Technology, Engineering and Mathematics. They have agreed on conducting regular interactions collectively with their academics on matters of mutual interest including academic and research collaboration and staff and student mobility between CUT and JAMK. The added benefit to the collaboration is to increase CUT's visibility in Finland and CUT's prospects for funding from main players in higher education such as the Erasmus+ K107 and K2 project.

Prof. Henk de Jager, Vice-Chancellor and Principal, said that the two institutions shared many similarities, which made their partnership ideal. "I think there are a lot of similarities between us. We need to

broaden the scope of innovation and entrepreneurship and focus on staff and postgraduate student exchange programmes. With commitment from both institution, we can be rest assured that this partnership will grow immensely."

Dr Jussi Halttunen, Rector at the JAMK University of Applied Science, said that he was impressed with the university's research and development. "We hope to find more areas of collaboration that will benefit us both and we also looking forward to have good partners in South Africa. I believe that we could share the same ideas for further development."

The JAMK University of Applied Sciences is an international higher education institution with expertise in eight different fields of study, with more than 8 000 students from over 70 countries.

HR student thrives at the SABPP Excellence Awards



Mr Zuko Hlanjwa reaped the fruits of his hard work when he represented CUT at the South African Board for People Practice National Excellence Awards. He received both a trophy and certificate.

Mr Zuko Hlanjwa, an ace student in the Faculty of Management Sciences, represented CUT at the National Excellence Awards hosted by South African Board for People Practice (SABPP). Zuko competed with the five top performing students from Walter Sisulu University; Nelson Mandela University; North-West University; Cape Peninsula University of Technology and the University of Johannesburg.

He and other contestants were judged against their academic performance, leadership qualities, sports achievement, community engagement and other extra-curricular achievements. Thereafter, they had to present and face the panel interview.

As the only representative from CUT to enter the competition, Zuko held the CUT flag high and never disappointed his lecturers and mentors, according to Mr Jacques Taljaard (Lecturer: Employment Relations) and Prof. Deseré Kokt (Associate Professor: Human Resources Management), who played a pivotal role in preparing him for the competition. "They mentored and gave me presentation tips and I'm grateful that I did not fail them," he said. He presented on the topic: "Why is a high rate of talent management essential for HR graduates entering the workplace."

The competition was his first and the experience of presenting before high-level academics and HR professionals was mind-blowing, nerve-wracking and inspiring. "Although my eyes were set on the first prize, I am equally grateful for what I got, as it means that I am the second-best student in the country. This has shown me that I have what it takes to take HR to greater heights in South Africa and beyond. When I got back to campus, I received a victor's welcome from my lecturers and peers. My achievement was also shared with the entire institution and that was when it hit me that this win was bigger than I had thought. It has made a huge difference in building my self-esteem," he said.

Hlanjwa has vowed to enter more and more such competitions for exposure and growth in his career. His advice to his peers is always to see challenges as opportunities and channel the mind

and energies towards the desired goals. When sharing his future dreams, he mentioned that his short-term goal was to secure a fulltime HR job so that he could acquire the necessary experience and skills and continue to study further. His long-term goal was to enrol for a Master's degree in HRM or specialise in Industrial Relations so that he could run his own consulting company. "Being the first child in my family to go to university and about to graduate, this achievement is really a cherry on top and I'm very proud of myself," he concluded.

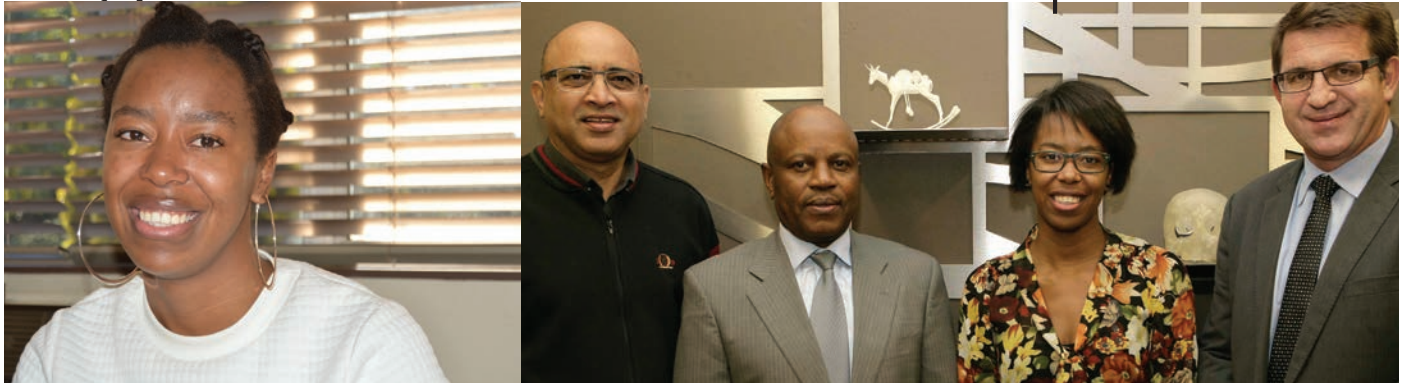
Prof. Desire Kokt said that Hlanjwa's win did not surprise her because he was a top student who could handle any academic challenge coming his way. "I always knew that he would make it. We are very proud of him and this win is important to us, as it shows that we can uphold the standards of our professional body [SABPP] and that our students know what is expected from them as prospective HR managers. Therefore, it is necessary for us to engage in such SABPP activities."

Each nominated student was awarded a certificate of participation and the first-prize winner received a floating trophy and a cash prize of R15 000 from the SABPP (as a contribution towards study fees) and other prizes from sponsors, the first runner-up received R7 000, while the second runner-up walked away with R3 000.

In 2015, the department celebrated the achievement of accreditation certification for the Human Resource Management (HRM) programme by SABPP. The university became one of the only three Universities of Technology in South Africa to be accorded this revered status. The accreditation of these programmes is testament to CUT's commitment to transformation of its programmes to meet demands of the industry and sector as whole.

Accreditation of these programmes is part of the Strategic Transformation of Education Programmes and Structures (STEPS), which is a massive and concerted undertaking to have demand-driven user-orientated programmes. Vision 2020 envisages CUT as a new-generation institution, contributing to the development of the region and beyond, through adopting an output and impact focus and building sustained partnerships with business, government and industry.

Young CUT researcher wins regional FameLab competition



L: Ms Zanele "Sally Sue" Matsane, junior lecture in the Department of Built Environment Pictured Right: Dr Daryl Balia, Director: Institutional Planning and Quality Enhancement, Prof. Alfred Ngowi, Dean of Faculty of Engineering and Information Technology at the time, Ms Zanele Matsane, B-Tech Construction Management student at the time and Prof. Henk de Jager, Deputy Vice-Chancellor: Academic and Research at the time celebrating with Zanele after she won Abe Bailey Travel Scholarship.

On 02 March 2017, Ms Zanele "Sally Sue" Matsane, a 26-year-old PhD Construction Management student and Junior Lecturer took part in the regional FameLab Competition held at the University of Free State for the first time.

FameLab is a competition that promotes Science and Technology by giving young scientists a platform to share their research with the public audience in a layman's language. Competing against 18 talented contestants, Zanele became one of the two regional winners to have impressed a panel of judges with her three-minute research presentation on her current PhD research topic 'Collaborative Construction Management Inspired by the Toyota manufacturing process'.

Her journey at the competition ended at the national semi-finals, which were held in Johannesburg. In a brief interview with her, Zanele expressed her appreciation to her lecturers and mentors who always believed in her abilities and capabilities. "I am very grateful to be surrounded by people who always see the potential in me." Zanele also mentioned that her exposure at the national semi-finals had taught her a lot and she would forever be grateful for the opportunity. "My highlight of the experience was meeting Mr Quentin Cooper, the most brilliant BBC radio journalist and attending his two-day master classes. I was also excited to meet young scientists and researchers in different fields who are determined to come up with solutions to all problems faced by societies. In the spirit of the lessons learnt in FameLab masterclass, I wish to mention that completing my Master's cum laude within eight months in 2016, earned me an invitation and membership to the Golden Key International Honour Society."

Zanele adamant to humanise construction

Ms Matsane spoke openly about her career choice and why she opted for further study. She said that her love for construction management ran deep in her veins as she saw it as one important contributor to the economy, one that could create more employment than any other industry, but it had more problems than any other

does. "Construction is a problem child, it is losing money and wasting resources thus the general public has lost faith in it. My research is aimed at finding solutions to those challenges and come up with a system that will work efficiently to produce with less and maximize profits, referring to the Japan Toyota manufacturer who uses the concept called Supply Chain Management."

She also mentioned that choosing her scholarly topic, she hoped to develop a model system that would bring people in construction together and break the silos that currently existed. In her example, Zanele created a typical scenario during a project where one constructor relied on the other for the successful completion of the project, which she said did not end well in most cases. "If there are five phases in a construction project, phase five cannot be done if phase one is not completed and the person who does phase one is not necessarily the person doing phase five. If the person in phase two messes up his work, everyone after him will suffer the consequences, so in my research, I am trying to develop a mechanism that will solve all those challenges, because this means that more government projects will see completion, more money will be saved, and our country can continue to thrive into a developed country. I would like to see harmony, synergy and synchronization in the sector."

Did you know?

In 2014, Zanele won the prestigious Abe Bailey Travel Scholarship, an all-paid three-week educational tour to the United Kingdom from 26 November to 20 December. Annually, these awards are given to academically deserving students who show qualities of leadership among their peers and the broader society.

Ms Matsane also entered and won the enterPRIZE Job Creation Challenge with an innovative concept focusing on sustainable wealth and job creation. She won 2nd place in the Best Young Entrepreneur Category with a substantial cheque of R100 000.

She was the best academic achiever in 2011.

She completed her Master's degree cum laude within eight months.

CUT makes strides in student exchange programmes



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

Each year, the Central University of Technology, Free State (CUT) hosts students from its international partner institutions and send students abroad on academic exchange programmes for a period of three weeks to a full semester and more. The university has very active partnership agreements and collaborations with several African and international universities and the academic exchanges are mainly for various teaching, learning, exposure, research collaborations and projects. Students will then be absorbed into the institution's academic programmes for the duration of their visit and the results acquired will reflect on their academic record as part of their career growth.

From 28 June to 28 September 2017, CUT students – Ms Maraka Lefera (Master's: Human Resource Management) and Mr Thapelo Moeti (Master's: Marketing) travelled to the Duale Hochschule Baden- Württemberg (DHBW) in Stuttgart, Germany, on a student exchange-programme scholarship with all living and accommodation expenses paid.

According to Maraka, the technology used in class and the style of teaching at the Duale Hochschule Baden-Württemberg is similar to that of CUT. "One major difference, however, is the long hours of class time per one module at a time, which can go up to four to eight hours a day. Another interesting system used is the dual system.

"Although the work scope is intense due to the three months semester, students there must be on an employment contract before enrolling at the university. This means that, during a year, a student attends school for three months (DHBW semester) and alternates the remaining semesters at work gaining experience and returning to school. Thus, lectures are only for two semesters and the other two is for work." Maraka said that even though she enjoyed the pressure, she was still happy with how the curriculum was structured in South Africa and she would still choose CUT as her academic home.

She registered for six modules for the semester. She managed to pass them all with credits. "My time in Germany was one of the best years of my life, as it was the perfect time to work on my Master's thesis." Her modules included Corporate Management: Human Resources and Leadership International Human Resources Management, International Marketing III: Branding Research Project, Intercultural Management: Intercultural Learning and Competence, and Intercultural Management: International Locations and English for Presentations. Classes were presented in English and in some classes, they had either guest lecturers from other countries or representatives from German industries presenting.



Maraka at the Atomium (Square de L'Atomium, symbol of Brussels and Belgium, also the most popular attraction in the Capital of Europe)

The Baden-Württemberg Cooperative State University (Duale Hochschule Baden-Württemberg / DHBW) is located in Stuttgart, capital of southwest Germany's Baden-Württemberg state. The state is known as a manufacturing hub where Mercedes-Benz and Porsche have their headquarters and museums. The University is the first higher education institution in Germany that combines on-the-job training and cutting-edge academic learning aimed at achieving a close integration of theory and practice, both components of cooperative education. The academic studies are on an international scale, fosters international exchange programmes for students and professors and encourages collaborative teaching and research projects. The university offers a broad range of undergraduate study programmes in the fields of business, engineering and social work. All degree programmes are accredited nationally and internationally, count as intensive study programmes and are worth 210 ECTS credits. In addition, DHBW offers postgraduate degree programmes with integrated on-the-job training.



At the site seeing, Maraka said she learnt a lot about the German culture and tradition and visited Arena stadium, home for FC Bayern München.



International Marketing III: Branding Research Project class trip to Konstanz City where they learnt about the lake Constance region.

"The student exchange programme has been the best experience of my career life and has helped me to grow and change for the better. The Duale Hochschule Baden-Württemberg has met all my expectations as a scholar and I would not hesitate to recommend it to anyone."

"I would like to take this opportunity to thank CUT International Office, Office of the Assistant Dean: Research, Innovation and Engagement in the Faculty of Management Science, as well as the DHBW International Office and Baden-Württemberg scholarship for affording me this lifetime opportunity and making my stay in Germany memorable. One lesson that I have taken away from this experience is the German business etiquette which is amazing, and the general technology advancement that blew me away."

Did you know?

- The German exchange programme was not her first international exposure; Maraka had been to Enactus World Cup in Cancun, Mexico for a week in 2013.
- In 2016, she was named the Enactus South Africa Junior Alumnus of the year (under 30) award and was considered for the inaugural 2016 Global Alumni Award.
- Next year, 2018, she has volunteered to be a student ambassador in the International Office promoting international student exchange programmes and encouraging other students to apply for student exchange-programme opportunities availed to them.

CUT hosts entrepreneurial games for local learners



Learners from Dr Blok and Bainsvlei Schools taking part in the VALU-E game to learn management skills at a workshop presented at the CUT Idea Generator.

Innovation and entrepreneurship education has become a movement amongst Universities of Technology (UoTs) with the intention of turning more graduates from job seekers into wealth creators of cities and regions. In 2016, CUT and partners from the government, business and industry launched the Innovation and Entrepreneurship Strategy, five years after the adoption of its Vision 2020.

On 31 March 2017, the University officially launched the idea generator, aimed at introducing a culture of innovation and entrepreneurship among its community. The idea generator is envisaged to serve as a developmental hub where students and staff will work in small groups in support of experts and lecturers to unlock their creative minds and develop their ideas into commercial products.

On 30 June 2017, CUT Idea Generator in partnership with the CUT Community Engagement unit (CE), Schools Advancement Academy (SAA) and Youth Managers Foundation (YMF), hosted 30 learners from Dr Blok Secondary and Bainsvlei Combined Schools in Mangaung to participate in the CUT Entrepreneurial Game – the Valu-E Game.

The Valu-E Game was developed and facilitated by CUT staff members in the Faculty of Management Sciences. The main objective of the game is to stimulate the learners' creativity and teach them basic skills associated with entrepreneurship such as problem-solving, management and negotiation skills.

The initiative also serves as part of school and learner development initiatives. The activities consist of group games where learners learn management skills and accounting systems. In one game, learners had to complete a puzzle game as fast as possible while, in the other, they gained an understanding on the accounting system of a virtual factory and shop, producing and selling vetkoeke.

Other sponsors involved were Interstate Bus Lines and Nedbank.

H i g h l i g h t s

Yet Another Lemon Tree takes the cup



Mr Demitri Matthee M.Tech Graphic Design student; Dr Hanita Swanepoel NIPMO Analyst CUTis; Mrs Lerato Mogotsi PhD Environmental Health student; Mr Edrick van Der Merwe M.Tech Environmental Health student; Dr Jasiu Lewtak Post-doctoral fellow CAFSaB; Mr Cornelius Paul N.Dip Electrical Engineering student; Mr Gareth Gericke N.Dip Electrical Engineering student; Dr Nicolaas Luwes RGEMS.

The Central University of Technology, Free State (CUT) participated in the 2017 SAB intervarsity beer brewing competition, competing against 16 local tertiary institutions and was awarded the first place in the best label design - Yet Another Lemon Tree, beating the neighbouring university, UFS. CUT's winning label was designed in collaboration with Lecturer Demitri Matthee and third-year Design and Studio art students, Cindy Labuschagne and Dané Buchner.



Yet Another Lemon Tree beer label impressed the judges and took the cup at the 2017 SAB intervarsity beer brewing champions competition.



Mr Edrick van Der Merwe M.Tech Environmental Health student ; Mrs Lerato Mogotsi PhD Environmental Health student; Dr Nicolaas Luwes RGEMS; Mr Demitri Matthee M.Tech Graphic Design student; Mr Gareth Gericke N.Dip Electrical Engineering student; SAB brewing, learning and development coordinator Me Kate Jones; Dr Hanita Swanepoel NIPMO Analyst CUTis; Mr Cornelius Paul N.Dip Electrical Engineering student; Dr Jasiu Lewtak Post-doctoral fellow CAFSaB

The SAB Intersarsity Beer Brewing Challenge was founded by former SAB Senior Trade Brewer and pioneer Brewing Legend, Ben Lamaletie. It was through his efforts that SAB sponsored the first university microbrewery at the University of KwaZulu-Natal's Pietermaritzburg Campus in 2003. The competition has since spread to many other universities in South Africa, which took advantage of installing microbreweries as part of their scientific syllabus. These microbreweries serve as valuable teaching aids for students involved in microbiology, chemical technology and engineering programmes.

While the concept of the intersarsity brewing challenge was started in 2003, the first official SAB Intersarsity Beer Brewing Challenge was initiated in 2006 as a means of encouraging responsible beer appreciation amongst students and to introduce prospective SAB employees to the business. In addition, SAB uses the initiative to help create a beer culture in South Africa.

New CUT sculpture erected



ZR Mahabane water fountain revamped

Mr Werner Britz and his maintenance team collaborated with a team of experts from Product Development Technology Station, Mechanical and Civil Engineering Departments, Signrite company and Fibreglass mouldings manufacturers to construct, develop and re-designed the water fountain situated in front of the ZR Mahabane building to give it a new shape and memorable meaning. The re-vamping is part of campus beautification, innovation, branding and marketing.

The concept design

The sculpture is a CUT logo which was further developed as follows:

A sphere with a global print was placed as a focal point in the middle of the glass fiber globe with the logo at right angles to each other and a hoop with the full institutional name. The artwork on the fibreglass ball was hand painted by Signrite company while the fibreglass ball was constructed and manufactured by a fibreglass specialist. PDTs' engineering and design team designed, and manufactured the steel construction, assembled and the installed the statue where it is today.

The symbolism

The circle of the logo that represents a molecule was developed into a sphere which symbolizes the earth (South Africa can be highlighted in the globe). The four "legs" of the logo represents the four cardinal points- north, south, west and east, which denotes education in all spheres and the water feature on the fountain signifies global education

FS woman FARMER- CUT Alumna in the fore front of the Agri-sector



L-R: Pieter Fourie with Dr Liesel Ann Foster at her recent DTech graduation ceremony.

CUT alumna, Dr Liesel Ann Foster, made it to the cover page of South Africa's biggest and most influential magazine for the agricultural sector, the Landbouweekblad. Dr Foster is a forward-looking farmer in Zastron, who proved that adding natural proteins to the additional feed source (lick) given to cattle in winter is not economically justifiable.

Dr Liesel Ann Foster was born in the small town of Zastron in the Free State and matriculated at Zastron High School in 1996. In 2007, she obtained a BTech Degree (cum laude) in Agriculture at the Central University of Technology, Free State (CUT), and thereafter obtained an MTech Degree in Agriculture in 2010 at the CUT.

She has been a successful commercial beef cattle farmer her entire life. The numerous awards she has received bear testimony to this. She was a finalist in the Agricultural Research Council's Beef Cattle Improvement Herd of the Year competition for the Free State region in 2005 and 2006, as well as from 2008 to 2010.

In 2009, she obtained third place in the Free State Department of Agriculture's Female Farmer of the Year competition for producers who supply beef to national markets. SA Stud Book has also awarded her the Gold Award in the Elite Beef Farmer of the Year competition in 2012 and 2013, and a Silver Award in 2014 and 2015.

As actively involved as she is in the agricultural sector, she has first-hand experience of the financial challenges experienced by farmers. In 2011, CUT launched the Stars of Academia and Research (SoAR) fellowship programme for postgraduate studies, which presented Liesel with the opportunity to enrol for a DTech Degree in Agriculture. She decided to use this once-in-a-lifetime opportunity to investigate methods of increasing the profitability of beef cow/calf production systems in the Free State.

She completed her doctoral degree in 2016 with promoter Prof. Pieter Fourie, and co-promoter Prof. Naser (UFS). Her research study was titled 'The profitability and production of a beef herd on transitional Cymbopogon-Themededa veld receiving three different levels of lick supplementation'.



CUTis – where creativity thrives, networks meet and ideas come to life

In 2010, the Central University of Technology, Free State (CUT) embarked on a pioneering trajectory to implement a vehicle responsible for the development and implementation of an innovation ecosystem, which would take the University and its community to the forefront of innovation, research, technology into the future, and CUTis (Central University of Technology Innovation Services) was born.

With its activities securely based on four pillars, namely Commercial activities, the Institute for Continuous Education, Property Management and Fundraising, CUTis evolved from a small fundraising unit to a multi-million, multi-faceted project hub. CUTis is responsible for the commercialisation of the University's innovation and intellectual property portfolio and provides entrepreneurial (prototype) support, development and property rental and fundraising. An exciting part of its mandate is the provision of short learning programmes to the broader South African public.

The Commercial endeavours are closely linked with the Technology Transfer Office, Centre for Rapid Prototyping and Manufacturing (CRPM), Product Development Technology Station (PDTS) and the Research Unit for Evolvable and Manumation Systems (RGEMS). These provide a symbiotic relationship within the innovation ecosystem.

The units, CRPM, RGEMS, PDTS and FABLAB are all fully-fledged innovation hubs. CRPM (Centre for Rapid Prototyping and Manufacturing) dominates the fast-moving world of 3D printing and employs the latest additive manufacturing technology to meet industry needs.

PDTS (Product Development Technology Station) specialises in product design, prototyping and short-run production to help SMMEs with technological support to design, manufacture and innovate new products.

The FABLAB is just that! Small enterprises access all the technological expertise created in other centres and eventually mature into independent members of the Science Park, which opens up a host of services, including management, accounting and financial services, networking, workshops and storage areas, adapted for each enterprise.

RGEMS (Research Unit for Evolvable and Manumation Systems) is all about systems, measuring, optimisation, control and automation in the dynamically changing industrial environment.

Our units and services create a dynamic developmental environment for SMMEs to develop, innovate and learn to become global players in their industry.

The CUTis services underpin the values and standards that are aimed at – CUTis assists in generating new ideas in the Idea Generator, raising funds for manufacturing those ideas, registering the IP and in the end, getting the idea into the market.

CUTis is all about innovation, invention and development; all things new and ground-breaking.



CUTis

Central University of Technology
Free State **Innovation Services**

