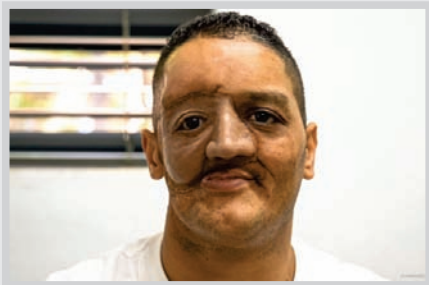




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Acting Vice-Chancellor and Principal, Professor Alfred Ngowi

Dear CUT community

Festive greetings to you all

As we are heading towards the last leg of the 2021 academic year, I would like to thank you all for your support, dedication, and commitment to see us through this year. It has been a year of many changes and challenges, and with COVID-19 pandemic still roaming our streets, I could say it was also hectic in that regard.

As a university, our mandate remains steadfast in our endeavours to becoming the best UoT in Africa. We continue to strive for the best to live by the CUT Vision 2030 which states that "...by 2030, Central University of Technology, Free State will be a leading African University of Technology, shaping the future through innovation".

CUT has grown by leaps and bounds over the past year, and more and more time and effort are spent at strategic level, including on building strategic partnerships and enhancing the financial sustainability of the university in order to position this university as "a transformative, transformational, entrepreneurial and engaged university and 'model' UoT in Africa, impacting on the socio-economic development of the Central region of South Africa and beyond".

Our overall headcount for 2021 for both Bloemfontein and Welkom Campuses is 22 235 students compared to 21 103 in 2020. Furthermore, we held our first successful virtual Autumn Graduation ceremony where 4689 students graduated including 59 Master's and 29 Doctoral students. This year's honorary doctoral degrees were awarded to Dr Kgotso Nkhatho, a renowned author, actor, and playwright; Prof. Mosala, a scholar and administrator in higher education sector and Dr Chaka, a multi award-winning environmental health practitioner who has contributed immensely to the global environmental health community. Our Vice-Chancellor's award was received by the Free State Education MEC Dr Tate Makgoe, for his sterling leadership excellence and immense contribution to the advancement of education, not only in the province, but nationally.

Despite the hardships endured this year, the university managed to shine yet again. Some of the achievements include but not limited to:

- The virtual award ceremony on 26 August 2021 in collaboration with Eskom Expo for Young Scientists to acknowledge and honour young scientists for their innovative research projects.
- On 27 August 2021, we held the Charlotte Maxeke lecture in collaboration with the Free State Department of Education, to celebrate her life and that of women in STEM. The lecture focused on celebrating the life of Charlotte Maxeke through promotion of STEM subjects, improving performance, retention, participation, and throughput rates in primary and secondary school levels.
- On 23 September 2021, Enactus CUT celebrated young student leaders involved in valued community engagement with an award ceremony. The ceremony was a celebration of the work done by the students who have entrenched themselves in Free State communities, seeking to help improve lives.
- The Centre for Global Engagement and Centre for Innovation in Learning and Teaching launched the iKUDU Collaborative Online International Learning (COIL) facility at the CUT Welkom campus on 28 September 2021, as a way of embracing and adapting to the new norm of digital learning. The facility will be used to promote global learning by connecting faculties and students through shared experiences across international borders. This will provide students with the study abroad experience while they are at their university, embracing the concept of internationalisation at home.
- The efforts to becoming an entrepreneurial university continues, as the Faculty of Management Sciences hosted their annual Herman Mashaba Lecture that was delivered by Mr Andile Khumalo under the topic 'The role of entrepreneurship in building the South Africa we want' on 12 October 2021.
- Our master's student, Sylvester Zanoxolo Mqeku won the 2021 StateoftheART Gallery Award at the StateoftheART's Cape Town gallery award ceremony that was held on 16 October 2021.
- The Hotel School and CUTbrU held their annual Beer and Food Affair, a beer and food pairing experience where attendees got to experience a delicious four-course menu prepared by the hotel school and craft beer brewed by the CUT Beer Brewing team.
- We hosted a visit from U.S. Consul General, Mr Vincent Spera and delegates to explore possible areas of collaboration and cement long-standing relations.

Continues to page 5



From page 4

- Tourism month was celebrated through a public lecture co-hosted by CUT and the Department of Small Business Development, Tourism and Environmental Affairs (DESTEA), and parties agreed to plans that would increase domestic tourism.
- We also collaborated with the South African Institute of Physics (SAIP) in hosting a hybrid event from 4-8 October 2021, connecting teachers online from both CUT Bloemfontein and Welkom Campuses. The purpose of the workshop was to equip teachers with the necessary content knowledge and pedagogy to efficiently teach Physical Sciences learners in the classroom.

CUT continues to be a leader in creating niche products and solutions in medical Technology through 3D printing technology. Recently, CUT-CRPM collaborated with a team of medical experts to replace a damaged beak of the blue and yellow macaw bird in the Western Cape. The ground-breaking surgery believed to be the first of its kind in South Africa led by UP's Prof. Gerhard Steenkamp, saw a successful collaboration with CRPM and industry partners to give the macaw bird a new lease of life by 3D printing a fully functional prosthetic beak.

We are among a few universities in the Central region of South Africa that offers programmes that are designed to equip diplomates and graduates with the necessary skills and expertise to be leaders in their chosen professions. We offer accredited academic programmes by highly respected accredited bodies such as SAICA, SABPP, ECSA and have strong affiliation with several Sector Education and Training Authority (SETAs). The Faculty of Engineering, Built Environment and Information Technology has received full accreditation from the engineering council for the newly implemented Diplomas of Engineering in Technology in Civil, Electrical and Mechanical Engineering and Bachelor of Engineering in Technology in Civil and Mechanical Engineering. The University also received provisional accreditation for the Bachelor of Engineering in Technology in Electrical Engineering. Accreditation of these programmes is a true reflection that we provide the quality of teaching and learning to our students.

On a lighter note, we have appointed our new Varsity Cup Rugby head coach and former Springbok rugby player, Braam van Straaten to lead the "Blue Brigade". We are ready for a brand-new chapter in the rugby history. Braam van Straaten joins the ranks of CUT with a wealth of experience, which includes exposure at international level with the Wallabies (Australia), Bermuda and Namibia, to Super rugby with the Western Force (Australia), the Sharks and the Southern Kings.

Our 3rd year Information Technology student golfer, Mojalefa Xaba won the Bloemfontein Captains Cup competition. He is currently serving as CUT and Mangaung legacy team golf captain and has recently won two races in major tournaments that took place in Johannesburg. He was selected by the Free State to join the 'A' team that represented the province at Elements from 9-16 October 2021.

On the international front, one of our part-time lecturers, Clauss Kempen, won a bronze medal at the Paralympics, held in Tokyo, as a guide in the T12 marathon.

We all play a critical role in combating the spread of COVID-19 pandemic, ensuring safety of our families, colleagues, students, and communities we live in and as a caring university, we continue to play a role in keeping all staff and students safe on-site. Therefore, I would like to encourage all CUT community to register for vaccination as part of the preventive measure against the deadly virus.

The university continues to support our alumni for the purposes of deepening a lifelong relationship between the university and its alumni, through opportunities that promote interaction and engagement with the university.

On behalf of the CUT Council and Management, I would like to acknowledge all our external partners – including businesses, industry, government, universities, and society at large – for your support during this year. In addition, the university cannot be successful without the continuous support of, amongst others, the Department of Higher Education and Training (DHET), DSI, the Council on Higher Education (CHE), Universities South Africa (USAf), the South African Technology Network (SATN), professional bodies, science councils, the Sector Education and Training Authorities (SETAs) in South Africa, the National Research Foundation (NRF), and the South African Qualifications Authority (SAQA). Please be assured that we value and nurture these partnerships. Furthermore, I am grateful for the support and guidance of the entire CUT Council. 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 Institutional Forum (IF), Alumni Association, the unions, student leaders, alumni and parents, for your commitment and support during this year.

On 30 September 2021, we bid farewell to the Vice-Chancellor and Principal. The Vice-Chancellor and Principal, Prof. Henk de Jager. Prof. de Jager has been the Vice-Chancellor and Principal since 2017. In his tenure, the university made significant strides, including increasing permanently appointed academic staff with doctorates to 40 percent and also added numerous new academic, research and innovation programmes to its offerings.

It is evident that, despite the recent challenges that we were faced with, the success of CUT remained our top priority. We must continue to lead the work towards the completion of the 2021 academic year by the end of the year. I encourage the entire CUT community to adopt and live the Great Reset motto in our collective efforts to effect the envisaged rejuvenation and resurgence, at all levels within CUT.

Looking back at 2020, there is no doubt that this was a successful year for CUT. I am convinced that our implementation of our vision 2030 will result in 2022 being a successful and results driven year!

I wish you a blessed festive season, and best wishes for the new year.

Kind regards / Ditumediso tse mofuthu / Vriendelike groete

Acting Vice-Chancellor and Principal

Professor Alfred Ngowi

CRPM restores the quality of life through 3D printing technology



CRPM 3D printed titanium frame implant to hold the prosthetic in place.



The facial prosthetic made of silicone for Adams.



Luan Adams with his new facial prosthetic that will help make him socially presentable and regain his confidence.

3D printing better known as Additive Manufacturing (AM) is immensely impacting the medical industry improving the daily work of professionals, bringing hope to the hopeless and restoring the quality of life of people with severe facial disfigurements caused by cancerous tumors or injury.

The AM technologies open the possibility to go directly from Computer-Aided Design (CAD) to a physical prototype or model. This technology helps to make custom products, which can be tailored for each patient's need, outside and inside their bodies.

Through this innovative technology, the Centre for Rapid Prototyping and Manufacturing (CRPM) together with Prof. Cules Van den Heever- a Maxillofacial Prosthetics, have managed to assist numerous patients saving and improving lives in ways never imagined.

Mr Luan Adam is one of many cancer survivors who are fortunate to have benefited from this technology. Adam received a custom-made facial prosthetic implant after losing half of his face due to sinus cancer. He suffered many complications and infections due to tissue transplants which prolonged his journey to get a facial prosthesis that will make him socially presentable and regain his confidence.

The improvements in technology, processes and materials finally made it possible for Adams to get a prosthetic face that was designed and created by Prof. Cules with the help of CRPM, specializing in 3D printed prostheses for medical implants and other devices. "We took a CT scan and through CRPM we printed a planning model, and created a facial prosthetic for Adams made of silicone. CRPM 3D printed the titanium frame implant which is used to hold the prosthetic in place," said Prof. Cules.

Prof. Cules got involved in 3D printing and CUT about 10 years ago. Being the link between clinicians, hospitals and CRPM, he met up with Mr Adams to assess how best they can assist him. "Adams had cancer of the upper jaw of the sinuses, so half his face had to be removed due to cancer. The first operation was just to open his airway so that he could breathe, and the second part was to give him a decent mouth opening and teeth so that he can be able to chew. We made him a facial prosthesis out of silicon to make him socially acceptable. We then used the normal side of the face and mirrored it on the computer to the affected side to give us an indication of where we want to go with it. That prosthesis magnetically attached to the frame and the implant was manufactured. We still need to work on his mouth and bring forward his upper lip and correct that, so it is a very difficult and costly process," he explained.

Prof. Cules and CRPM have been working on donations to treat patients with defects and facial disfigurements to restore their confidence and integrate them back into their communities.

He mentioned that CRPM is a unique Centre in the world and probably one of the best and biggest where remarkable work is being done to help treat patients. "We have a patient pool here in South Africa but, because of fear of the unknown, lack of government resources and socio-economic circumstances, a lot of patients are being left out. We have a unique situation where people are diagnosed very late, we see these huge extensive tumors which you don't see anywhere else in the world so, in a sense this is a world leader, but sadly this work is done and there is no recognition."

The Centre does ground-breaking work in the design, development and manufacturing of medical devices using 3D printing. It received ISO 13485 certification for 3D printing of medical devices making it the first Centre in South Africa and Africa to receive this prestigious certification for an Additive Manufacturing Centre. They also have The South African Health Products Authority (SAHPRA) license for manufacturing of medical devices. The MedAdd Project was successfully implemented as the quality management approach was followed to ensure that quality is not compromised through the manufacturing process of medical devices.



CUT academics help upskill local traditional healers through soap-making



Science meets tradition at the CUT laboratories as Traditional healers spent four- days at the CAFSAB lab, learning how they could integrate their indigenous medicinal knowledge and therapeutic essential oils to make soaps more unique and appealing to their target market and ultimately grow their businesses.



Traditional healers from across the Free State province took time to partake in a soap-making workshop hosted by CUT's -Centre for Applied Food Security and Biotechnology (CAFSAB). The workshops are part of an eco-store model project that is funded by the National Research Foundation (NRF) through the Indigenous Knowledge Systems Grant awarded to Dr Idah Manduna, CUT Senior Researcher in the Department of Health Sciences. The aim of the soap-making workshops is to introduce the community to the development of value-added products (soap) using their knowledge of medicinal plants and therapeutic essential oils.

Ms Ntshiuoa Kobo, farm owner and training conductor from Tweespruit took the traditional healers through all the safety aspects and equipment requirements for various soap-making techniques, before providing a well-rounded lesson on the theory behind soap making.

The workshop included practical sessions, where trainees had an opportunity to apply their acquired theory. An essential aspect of the training involved how they could source quality ingredients to guarantee that their products are up to standard. Trainees were also taught the marketing techniques to ensure that their products flourish in the market. Part of their lessons included experimenting with essential oils, making soap using different oils and fats, as well as infusing their indigenous knowledge to make their products more unique and appealing to their target market.

One of the participants, Ms Mmamoya Rahloua said that the training was an eye-opener and an opportunity to grow her small business. "I am very excited to learn how to make basic soap. With this knowledge acquired here today, I will be able experiment further by incorporating my traditional herbs and medicines, so that I can be able to provide my clientele with a variety of products suitable for their needs. This is also a great opportunity for us to grow our small businesses. I am really grateful!"

As a University of Technology, all research programmes are directed at solving problems in business, industry, government, and communities (this is known as the quad-helix approach) and are aimed at contributing to the socio-economic development of the region which is included in the Community Engagement strategy that is rolled-out via the curriculum.



Ms Ntshiuoa Kobo, the training conductor showing the traditional healers the steps of removing soap from the mould.

CILT launches the first Civil Engineering English-Sesotho Lexicon booklet



Prof. David Ngidi, DVC: Teaching and Learning, Prof. Jaco Gericke, HoD Civil Engineering and Dr Ntsoaki Malebo, Senior Director: Centre for Innovation in Learning and Teaching officially launching the Lexicon Booklet.

The Central University of Technology, (CUT) is making strides in promoting the use of indigenous African languages within higher education sector and slowly but surely, transforming the curriculum.

On 18 November 2021, the Centre for Innovation in Learning and Teaching (CILT) in collaboration with the Faculty of Engineering Built Environment and Information Technology (FEBIT) and the Institutional Renewal and Transformation launched their very first Civil Engineering English-Sesotho Lexicon Booklet.

The lexicon development project serves to enhance and create an enabling learning environment by using indigenous African languages to enable access to knowledge within the disciplines. It also aims to facilitate student's understanding of discipline specific concepts using indigenous African language terminologies.

To date, CUT has produced and translated lexicons for the following fields in Sesotho: Civil Engineering, Biomedical Technology, Legal Technology, Cost and Management Accounting, Science Technology and Mathematics Education.

The translation into Sesotho was authenticated and verified by the Pan South African Language Board (PanSALB).

"The launch symbolizes a big milestone for us. It symbolizes our continued commitment to the development of African languages within the higher education sector. We are committed to create a conducive learning environment for our students. We recognize that language enables meaningful participation and access to disciplinary discourses and this booklet will do just that," said Dr Ntsoaki Malebo, Senior Director: Centre for Innovation in Learning and Teaching.

Prof. David Ngidi, DVC Teaching and Learning said that the lexicon project responds to the language policy framework for the public higher education institution which seeks to promote multilingualism as a strategy to facilitate meaningful access and success in higher education institutions. It further responds to CUT language policy which commits to multilingualism and translanguaging by promoting the use of the three predominant languages in the Free State province namely English, Afrikaans and Sesotho. "Through initiatives such as the development of lexicons, CUT is contributing to the advancement of Sesotho as a developing academic language. Furthermore, the emergence of discipline specific Sesotho lexicon paves the way for promoting the use of Sesotho language to facilitate student understanding of complex scientific concepts."

He challenged the team to take the project forward to a point whereby CUT students can write their masters dissertation and PhD thesis in Sesotho. "This initiative represents the beginning of transforming higher education at a fundamental level. It promotes the use of Sesotho as an alternative to English for Teaching, learning and engagement. This lexicon booklet will undoubtedly be a valuable resource as it will assist CUT lecturers and students to enhance the understanding and use of discipline specific technologies in Sesotho. The use of these lexicons will be a building bridge for communication with the public African languages."

When outlining the lexicon development process, Mr Theletsane, Acting Editor-in-Chief: Sesotho National Lexicography Unit, said that technology barriers are the root causes of many obstacles in health care, engineering, education, and business. He said that terminology is a tool for communication in languages for special purposes. "Terminology plays a pivotal role in teaching and learning of subject matter. The development of discipline specific terminology is crucial to intellectualization of language. CUT has devoted considerable resources to the development of terminology in engineering. It will be noted however that the process of developing engineering terminology is a complex one which must be carefully and competently managed by passionate skillful and highly organized team of engineering technology. Since Sesotho does not have sufficient engineering terminology in the field of teaching and learning, it is thus important to undertake the challenge in this area to suggest strategies that can be applied to solve this challenge," he said.



The first Civil Engineering English-Sesotho Lexicon Booklet.



CUT Students participate in the annual i-Gym innovation challenge



From left: Mr Krzysztof Adamczak from Currency One, leading Polish FinTech company in Poland, Mr Fred Matongo, Deputy Director: CUTis, Lebogang Matlabe and Tshepo Blom- CUT postgraduate students and first prize winners, Dr Marcin Bielicki: Research Project Manager at Poznan University of Economics Innovation Expert at Sense Consulting and Dr Izabeth Conradie, Manager: Idea Generator (i-GYM).

 CUT's i-Gym held its annual innovation challenge where students presented their creative projects to a panel of judges.

Winners of innovative projects were awarded cash prizes to develop and improve their ideas further. Tshepo Blom and Lebogang Matlabe, Postgraduate students and founders of the African Edu-Tech Device, won the first prize for their project: **Bridging the African Edu-Tech Device**. They received a total of R25 000 towards their creation. Nelson Spogter took the second prize for his project: **Silencing Generators and Add-Ons** and received R15 000. Third prize went to Amukelani Nkuna and Khanyisa Dlodlo for the project: **Traffic Department Online App**, they bagged R15 000. Three other projects that impressed the judges are: Automatic elevator panel cleaners by Joy Copane, ASD flash by Omolemo Rammile and Marquard Swimming Pool Upliftment by Maxwell Sekhoane. They all received R10 000.

When sharing his knowledge with the aspiring entrepreneurs, Marcin Bielicki, Research Project Manager at Poznan University of Economics and an Innovation expert at Sense Consulting, mentioned that the most important skill in entrepreneurship is to think of being entrepreneurial instead becoming entrepreneurs. "Entrepreneurial means I don't only want to have a company but, I want to discover something, have the competencies and have a good mindset in order to be ready to become an entrepreneur.

If you are entrepreneurial, you can see challenges as not only stumbling blocks but opportunities, and in so doing, you can easily survive very harsh and difficult situations that come with it. Everything is changing so fast that when you are in your first year, the knowledge you got will probably be outdated. You have to know where to look for knowledge and constantly develop yourself as this is your responsibility," he said.

Asked how they feel about winning the innovation challenge, both Tshepo Blom, and Lebogang Matlabe said they were excited to be the first prize winners. "Our participation in the i-Gym has assisted us to polish our idea. The results are what we were hoping for! We are grateful to i-Gym for this unique opportunity to develop our prototype. This will give us more runway and resources to advance further."

Their project is an initiative envisioned to address challenges facing South African public schools' systems, ranging from a lack of textbooks to content teachers and administrative challenges. The device comprises of two elements - a learning management system as well as a social media component. The initiative aims to address these problems by making available a free-to-use web and mobile application for schools - teachers and parents.

Dr De Smidt selected for the DHET Future Professors Programme



Dr de Smidt is one of 29 applicants chosen for the programme, which received 117 prospective applicants from all 26 South African public universities. "It is very exciting to be part of this programme that accelerates young academics to readiness for the professoriate. I'm going into it with an open and positive mindset and a commitment to work hard and give it my best. I'm also eager to meet with the other participants, to foster new collaborations and see what the future holds," she said.

After completing her PhD at the University of the Free State, she briefly considered working in the private sector but changed her mind when she received an invitation to apply for a post-doctoral fellowship at CUT. "I stayed on as a researcher and gradually developed my research focus area within the Centre for Applied Food Sustainability and -Biotechnology (CAFSaB). I am currently the Deputy Director of CAFSaB. I am also the co-founder and director of a water quality laboratory, Test It LAB, the only privately owned accredited water lab in the Free State," she added.



In the past 10 years, Dr de Smidt has received NRF research grants in both the Thuthuka and Competitive Support for Unrated Researchers programmes (CSUR). She has authored the most cited article in the yeast research journal FEMS and published an article in Letters in Applied Microbiology which was named the "editor's choice". She has also received the CUT Dean's trophy for the best research publication in the Faculty of Health and Environmental Sciences on five occasions and was awarded the Vice-Chancellor's medal for excellence as Novice researcher of the year as well as for Innovation.

Another CUT academic, Dr Olga de Smidt, senior researcher and Deputy Director: Centre for Applied Food Sustainability and -Biotechnology (CAFSaB) has been selected to participate in the Future Professors Programme (FPP), a competitive and selective programme of the Department of Higher Education and Training (DHET) which aims to prepare promising early-career academics to become a new association of South African professors.





CILT virtually hosts seminar on curriculum transformation and renewal



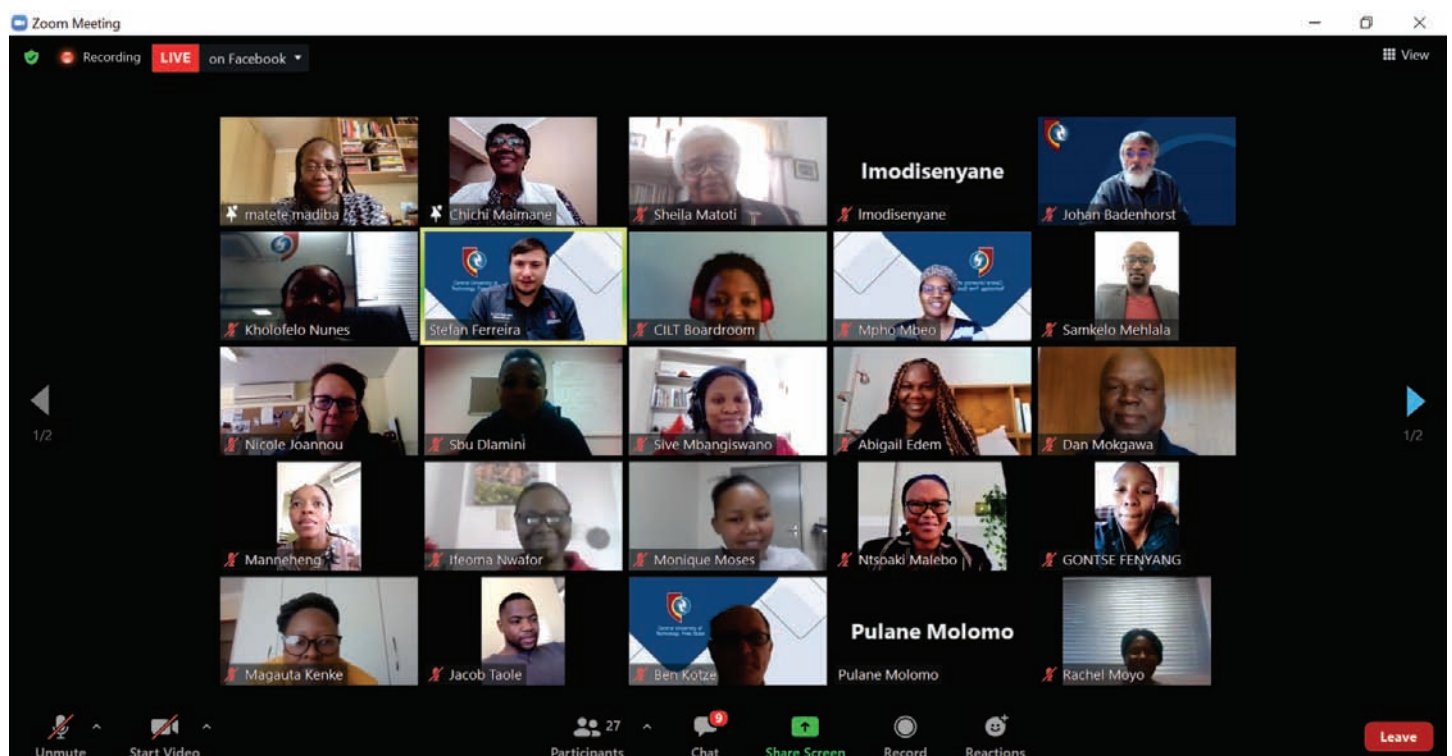
Keynote speaker: Dr Matete Madiba, Director: Student Affairs at the University of Pretoria, virtually delivering her keynote address.

The Centre for Innovation in Learning and Teaching (CILT) virtually hosted a Seminar on Curriculum Transformation and Renewal on 05 October 2021. The seminar was honoured by Dr Matete Madiba, Director: Student Affairs at the University of Pretoria, who delivered her keynote address titled: Transforming, Renewing, Decolonising the Curriculum, Student voices and the Rational and Operations.

Dr Matete Madiba said that the world is changing at a rapid speed and asked whether this speed of change matches the speed of curriculum change and renewal in institutions. "As we watch the speed of change, how many new courses are we seeing? How many of those are being introduced and how often? How much of new content are we plugging into our courses because at times it is not necessary to change the whole degree or the whole course? It is often necessary to kick out and shave off dead content that might be part of a course, module or programme and then introduce new ones, how often are we doing that and who is taking the responsibility to make sure that it happens?"

She also mentioned that besides climate change, C19, and 4IR, other factors detracting from growth potential is spatial inequalities and low economic growth. "We are talking about graduate unemployment, something that should be a shock down our systems and the question is, how is our curriculum shaping to confront these challenges? We have this low economic growth because we are facing a growing shortage of skills. Our education system is weak, our skills are insufficient for the type of work that needs to be done. Too many people lack the appropriate skills necessary for the types of jobs available in our country. There is this mismatch between what we are producing in our universities and what is really needed out there and because of this, the standard of living is threatened, production is not where it should be, and the wages are not allowing decent livelihoods. If our curriculum is not responding to these types of issues, what are we doing then in the education system?" she asked.

She further highlighted that with every challenge faced, there are also big opportunities to be seized and the task should be a partnership of both staff and students. In conclusion, she suggested radical consideration of the curriculum for repositioning institutions for the knowledge and skill project and encouraged everyone to get their hands dirty in achieving such goals. "If we don't do that, we will be very wasteful. There is serious wastage of talent and energy especially if we teach our youth and equip them with things that are irrelevant, things that are not addressing the challenges that we are facing as a country. We should be enjoying that youthful energy and I do not think we are moving in the right pace. We must rethink the speed at which we are moving and should work very hard and not lose the vision of human flourishing. Our lives can be better, and our economy can be unlocked, and we can enjoy more democracy if we work with the curriculum renewal, change and relevance."



Academics who attended the insightful event.

COIL facility successfully launched at the Welkom Campus



Mr Cornelius Hagenmeier, Director: Office for International Affairs at the University of the Free State, virtually delivering his keynote address.

The 'new normal' has indeed triggered more innovative means of teaching and learning, transforming the education system and our interactions in the process. As a way of embracing and adapting to this new norm that has propelled academic institutions to focus more on digital learning, the Centre for Global Engagement and Centre for Innovation in Learning and Teaching launched the iKUDU Collaborative Online International Learning (COIL) facility at the CUT Welkom campus on 28 September 2021.

The launched facility will be used to promote global learning by connecting faculties and students through shared experiences across international borders. This will provide students with the study abroad experience while they are at their university, embracing the concept of internationalisation at home. COIL is a new teaching and learning paradigm that promotes the development of intercultural competence across shared mutual learning environments. A COIL virtual exchange is specifically designed to link students who have different cultural, geographical perspectives and experiences.

Welkom Campus Director, Prof. Solomon Makola said that the facility was established to enhance amongst others, the internationalisation of the curriculum which integrates collaborative online international learning. The new trajectory for the Centre is to be a knowledge hub for CUT on comprehensive internationalisation in the fields of International Academic Partnership, International Students Support Services, university student and staff mobility and internationalisation of activities.

In his keynote address, Mr Cornelius Hagenmeier, Director: Office for International Affairs, at the University of the Free State, explained the iKUDU project as an EU funded Capacity Building in Higher Education (CBHE) project which is implemented over a three-year period from 2019 to 2022 and is coordinated by the University of the Free State and the University of Antwerp in Belgium.

He mentioned that the consortium has been awarded 1 million Euro in funding to develop capacity and some facilities for COIL virtual exchanges which are embedded in curriculum transformation and internationalisation processes. Apart from CUT and UFS, South African partners include the Durban University of Technology, the University of Limpopo and University of Venda while other European partners include the University of Siena, Coventry University, The Hague University of Applied Sciences, and Amsterdam University of Applied Sciences.



Dr Ben Kotze, Assistant Dean: Teaching and Learning in Faculty of Engineering, Built Environment and Information Technology presenting a visual simulation at the facility.

He further elaborated that the project has been conceptualised to develop a contextualised South African concept of Internationalisation of the Curriculum (IoC), which integrates Collaborative Online International Learning (COIL) virtual exchanges. "Hopefully this concept will allow us as South African partner universities to become not only in COIL virtual exchanges but also in advancing curriculum renewal and transformation processes. We understand curriculum decolonisation as a central aspect of curriculum transformation alongside with curriculum internationalisation. The COIL virtual exchanges provide an alternative to physical mobility, which as we all know, has been extremely limited in the South African context mostly because of the socioeconomic realities of our students."

In conclusion, he expressed his excitement about the progress of the project at CUT. "I understand two COIL virtual exchange have already been completed and more are being prepared and significant progress is being made with the curriculum transformation work. In order to successfully internationalise and implement COIL projects such as those which are a part of iKUDU it is critically important to have adequate infrastructure for implementation available. I am excited that today we are launching the equipment that is appropriate for the CUT Welkom Campus context. I sincerely hope that the Welkom Campus iKUDU COIL will not only advance inclusive comprehensive internationalisation at your university but that it can perhaps in different ways also contribute to growing the partnership between the two universities and beyond that within the iKUDU project."



CUT staff members who attended the event.



CUT STEM Academy celebrates the life of Charlotte Maxeke and Women in STEM



Prof. Muthoni Masinde, HoD, Information Technology: Faculty of Engineering, Built Environment and Information Technology, Lieutenant Colonel Phetogo Molawa, SANDF, Helicopter Instructor: 87 Helicopter Flying School and Ms Janet Nel, Acting Director Secondary Schools: FSDoE

Science, Technology, Engineering and Mathematics (STEM) subjects have always been considered difficult, yet important to open more doors for learners, especially in this era of 4th Industrial Revolution (4IR).

There is increased demand of students in Science, Technology, Engineering, and Mathematics (STEM) and unfortunately, the demand has not been matched by an increase in the supply of matriculants who are interested in or adequately prepared for the STEM fields. This is a very concerning issue as participation in STEM subjects has decreased drastically and South Africa continues to suffer in its school education system.

On 27 August 2021, the CUT STEM Academy in collaboration with the Free State Department of Education, held the Charlotte Maxeke Lecture to celebrate her life and that of women in STEM. The lecture focused on celebrating the life of Charlotte Maxeke through promotion of STEM subjects, improving performance, retention, participation, and throughput rates in primary and secondary school levels.

When sharing her 20 year journey as a woman in STEM, Prof Muthoni Masinde, HoD, Information Technology: Faculty of Engineering, Built Environment and Information Technology, said that as a mother and wife, juggling in between family, studies and work is possible and only requires support systems and coping mechanisms in place, commitment and dedication, focus and hard work.

Growing up in Kenya, Prof. Masinde adopted a I-can-do-it attitude, not letting anything stand in the way of achieving her dreams. She received Distinguished Women Award in Science for Research and Innovation from the Department of Science and Technology, which opened doors for her. "It is important to embrace and recognize women because every winner can create another winner," she said.

Dr Marinkie Madioppe, Campus Principal: Distance and e-Learning Campus (South Campus), University of the Free State, said that as educators they need to enforce the basic mathematical and scientific knowledge and skills by making sure that they re-teach concepts that were misunderstood, do question analysis after every assessment, address and clarify the questions and give constructive feedback. "Teachers need to move away from pointing out flaws, and rather let learners figure out and learn from their mistakes and identify their strength, weakness and areas for development.

As we move towards changes within the COVID-19 pandemic and remote learning, I think it is imperative that we also start looking at how best we can learn science and technology and embrace learning from a distance."

"As we celebrate this special day of women in honour of Mama Charlotte, we must be reminded of all these values she has instilled in us. There are many things we can continue to learn from her exemplary life in our quest to enhance our impact in education especially in the lives of women and girls in South Africa. It is my view that our collaborative efforts to empower our women and youth with today's educational currency in the form of a STEM approach of education, we will not only be paying homage to an incredible stalwart of our country's heroic political legacy, but we will be continuing to teach our own not just to fish, but to preserve the source of their bounty and be able to progress and sustainably continue growing and competing in an ever-evolving global context."

Lieutenant Colonel Phetogo Molawa, SANDF, Helicopter Instructor: 87 Helicopter Flying School shared her experience and life journey. Coming from the dusty streets of Thaba Nchu, Lieutenant Phetogo gave meaning to the saying 'your dreams are valid'. As a child, she had always wanted to be a pharmacist, so maths and science have always been an option for her. She never let her challenges deter her from achieving her goals. "As I grew older, I did some research and understood what the career entails and I knew from that point that I did not want to be stuck in an office all day in a mundane job doing the same thing day in and day out. I came across aviation during my research and focused more on helicopter flying which fascinated me the most. I came across the South African Air Force, and I knew that is what I wanted to do for the rest of my life."

She mentioned that being in the air force was challenging physically but throughout her training she always had the end goal in mind and her driving force was 'I have nothing to lose'. "I am still in awe of how I never thought of giving up. The military is very male-dominated environment and being in middle management in the air force, you are faced with many challenges despite your qualifications and capabilities. I obtained my qualification as the first black female helicopter pilot over 14 years ago but somehow, 14 years later, there are only three other black females after me, so where are we missing it? I can say that it starts with recruitment, but recruitment starts with black females qualifying to get here, which means having mathematics and science at the required level. In order to be a pilot or navigator in the air force, you need to have at least a level 4 in Mathematics, Science and English as well as a university entry-level."

Among other accolades, she was awarded for excellence in aviation by the Charlotte Maxeke Institute in 2018. "I am delighted to be here celebrating Charlotte Maxeke because through this award and others that I have achieved thus far, I am able to inspire young girls, the same way that Mme Maxeke has shown us that you too black girl child are capable, enough, and smart. The young girls of today are faced with many adversities and perhaps that is why STEM looks like a mountain to climb. As parents, teachers, and role models to our young girls, what are we doing to instill courage and confidence in these little girls who need to believe in themselves? What are we doing to make them see the bigger picture that they are capable and enough; that being a pilot is indeed a tangible thing and that being an astronaut is indeed within her reach?" she asked.

Faculty of Management Sciences host their 7th annual Herman Mashaba Lecture



At the 7th annual Herman Mashaba Lecture: Mr Andile Khumalo, founder and Chief Executive Officer of KhumaloCo and founder of I AM AN ENTREPRENEUR, sharing his insightful knowledge on the role of entrepreneurship in building the South Africa we want.

The efforts of becoming an entrepreneurial university continues as the Faculty of Management Sciences hosted their 7th annual Herman Mashaba Lecture that was delivered by Mr Andile Khumalo under the topic *'The role of entrepreneurship in building the South Africa we want'* on 12 October 2021.

The inaugural lecture was initiated after the renowned entrepreneur and former Executive Mayor of Johannesburg, Dr Herman Mashaba was awarded an Honorary Doctorate in Business Administration by the Faculty of Management Sciences in 2013. Since the inaugural lecture by Dr Mashaba himself in 2014, CUT has brought a sterling line-up of speakers and many opportunities for internal stakeholders and partners to share their knowledge and meet with world experts in this field.

In his address he highlighted that SA is the most unequal country in the world with about 30 million people living below the national poverty line. All of this affects one particular group and those are black South Africans, who are the majority group in SA.

Khumalo emphasised that inequality is a function of no access to economic opportunity. He said that access to economic opportunity could be restricted because of one's religion, gender, or race and the only two proven ways a person could have access to economic opportunity is to become an employee or an entrepreneur.

He said that every society in the world has a level of inequality and the fact that South Africa is number one on the list, is a problem. "I believe that this inequality can be undone by two things- being an employee or becoming an entrepreneur. These two phenomena are the only ways I know that will sustainably provide economic opportunity. The challenge with becoming an employee is that it has a serious limiting factor, which is the number of jobs available, while on the other hand, entrepreneurship plays a bigger role in society by remedying the situation. I would like to believe that entrepreneurship adds even more value to the economic opportunity because it does not only create a job for the entrepreneur but also, creates more job opportunities for other people; whereas when you are an employee you are not necessarily in a direct position to create economic opportunity for other people."

He argued that if we want to build a better society, we should find a way to support entrepreneurs because they not only create jobs for themselves, but for others as well.

"Inequality is unsustainable and the only way to change or minimize its impact is to create an economic opportunity for the people who do not have much. Economic opportunity is a function of inequality. The only way you can reduce its effect in society is to avail opportunities, yes you can do it as an employee but there is an exponential impact if you do so for entrepreneurship. It is important to support entrepreneurs and we can do that by buying from small businesses, upskilling small business owners, and lastly funding small businesses," he concluded.

Andile Khumalo is a seasoned entrepreneur and Chartered Accountant (SA) with over 20 years in business. He is a Founder & CEO of KhumaloCo, an investment firm with interests in Technology, Media, Telecommunications, Financial Services and Venture Capital. He serves as non-executive Chairman of investee companies Brave Group and Inc.



CUT and DESTEA agree on plans that would increase domestic tourism



Deputy Minister of Tourism, Mr Fish Mahlalela and CUT Dean of Management Sciences, Prof. Albert Strydom, emphasised the importance of partnerships when discussing a national perspective on tourism for inclusive growth.

On 17 September 2021, panellists at the public lecture co-hosted by the Central University of Technology and Department of Small Business Development, Tourism and Environmental Affairs (DESTEA), agreed to plans that would increase domestic tourism. As we celebrate Tourism month, the prestigious annual event analysed the challenges and interpreted policies to guide the sector. Acclaimed speakers engaged with academics, policymakers, and practitioners in the field.

In his welcome address, Prof. Albert Strydom, CUT Dean of Management Sciences, expressed his appreciation on behalf of the University to both the national and provincial departments for considering CUT as an essential partner in tourism, adding that this ensures higher education is offered a chance to contribute to improving the sector.

As the tourism sector works towards recovery following a significant blow due to the COVID-19 pandemic, getting the South African tourism sector back on track will not happen overnight. This is according to Professor Leslie Bank, research professor at the Human Sciences Research Council (HSRC).

In his keynote address, he shared some thoughts on developing domestic tourism in smaller cities and towns. "Domestic tourism is driven by people returning, as we live in a society of migration. People leave to find work elsewhere, such as Gauteng, and they come home for Easter, December. Furthermore, increasingly viewing their home cities as places where they can spend their money, they have a wide range of attractions, and they can also feel the sense of homeliness," he said.


The Deputy Minister of Tourism, Mr Fish Mahlalela focused on a national perspective on tourism for inclusive growth. He added that Tourism month in South Africa is celebrated under the banner of a domestic tourism campaign and the focus on a recovery plan that highlights domestic tourism destinations as the main driver for the recovery.

"Our focus should be on programmes that will lead to the buoyancy of the sector as well as drive transformation. We need to leverage the displaced national and international markets, turn them into new markets, develop new programmes and promote investment. Domestic tourism is indeed showing signs of recovery since December 2020, and trips have mostly stayed consistent. Inclusive and sustainable tourism is close to my heart, and I would love to see all of us in the value chain working together to increase tourism. To do so, we need to implement structural changes, not only for jobs but also for entrepreneurship and economic ownership," said Minister Mahlalela.

CUT Academic shares insights on Tourism Industry during Professorial Inauguration



Prof. Albert Strydom, Dean Management Sciences and Prof. Alfred Ngowi, acting Vice-Chancellor and Principal.

 Dean of Management Sciences, Prof. Albert Strydom, shared an insightful and thought-provoking presentation titled: *'The Tourism Industry: COVID (QUO) VADIS - A Strategic Marketing Perspective'*, during his Professorial Inaugural Lecture held on 4 November 2021, where he drew from his many years of extensive work in tourism, marketing and research, to demonstrate dramatic changes that are taking place within the industry, which he said, requires the sector to adapt its marketing, branding and communication approaches to stay afloat.

The lecture provided an important intellectual discourse for academics to understand his long and arduous journey of research and the important milestone he has reached thus far. It also provided a platform to share his past research and introduce new ideas with intentions of conceiving, developing, and delivering entrepreneurship and innovation education.

When deliberating on his lecture, Prof Strydom said that the tourism businesses should implement a strategic marketing approach to retain current marketing segments or open new ones. "The framework I'm presenting tonight is based on my own experience over many years, rather than a single theoretical framework. Objectives must be smart, specific, measurable, and time oriented. The important thing about market segmentation and target marketing is to use the rifle approach and not the shotgun approach," he said.

He highlighted that strategic marketing is an integrated process where all elements need to be implemented in relation to each other. "All elements must be carefully planned and executed to offer the ultimate experience, not only in terms of own standards, but to always be ahead."

Prof. Strydom joined CUT in 1996 as a Senior Lecturer in Tourism Management. He holds a PhD in Economics, Masters and Honours degrees in Money and Banking. He also plays a leading role in the community, especially relating to the Tourism Industry.

He acknowledged his wife, Lynette, daughters Estie and Santie, extended family members, friends and his supervisors over the years, whom he lauds as an inspiration for his academic pursuits.



Enactus CUT celebrates students involved in valued community engagements



Ms Maraka Lefera, CUT Lecturer Human Resources Management; Boitumelo Tlou, Special Award Recipient; Prof. Crispin Chipunza, mentor and Enactus CUT Faculty Advisor; Yanelisa Giyose, 2021/2022 Enactus CUT President; Prof. Patient Rambe, Faculty of Management Sciences Research Professor and Sizolwakhe Mtetwa, 2020/2021 Enactus CUT President.

Enactus CUT celebrated young student leaders involved in valued community engagement with an award ceremony held at the CUT Hotel School on 23 September 2021. The award ceremony was a celebration of the work done by the students who have entrenched themselves in the Free State communities, seeking to help improve lives.

Enactus is the world's largest experiential learning platform dedicated to creating a better world while developing the next generation of entrepreneurial leaders and social innovators. The Enactus network of global business, academic and student leaders are unified by the vision to create a better, more sustainable world; engaging the next generation of entrepreneurial leaders to use innovation and business principles to improve the world.

Prof. Crispin Chipunza, mentor and Enactus CUT Faculty Advisor, congratulated the recipients for their dedication and service. "Enactus is not a charity organisation. We don't give, we empower. What Enactus students do is incorporated in CUT's Vision 2030 in terms of shaping the future through innovation, because some of the projects that the students do have got an innovative flair and can transform the lives of those that are less fortunate. This year was quite exceptional, there was a new normal, but these students took advantage of that and came up with very innovative projects," said Prof. Chipunza.

Awards included the Service Leadership Awards which are awarded to the members who have dedicated 100 hours of their time to Enactus work; *Beyond The Call of Duty* – awarded to the members who have tirelessly assisted the team to complete all required reports and other needed elements needed for the team to compete effectively with other teams; *Engagement Champions* –

awarded to the members who have shown commitment in executing the tasks presented to them by the team; *Outstanding Service Record* – awarded to the members who have served the team for the longest time; and *Most Determined Team Player* – awarded to the members who have exercised leadership by going an extra mile in ensuring the success of the team.

2020/2021 Enactus CUT President, Sizolwakhe Mtetwa honoured all participants who made implementation of projects and initiatives possible. "This wouldn't have been possible if we didn't embrace our values of integrity, passion, innovation and collaboration in all we did, it would have been impossible without the advice from our board members, the continuous support of our faculty advisors who have been with us from day one, the tireless effort, dedication and commitment of students, my executive team and all the entrepreneurial leaders who worked hard to see us through," said Mtetwa.

The awards also included the *Executive Members Awards* – awarded to overall team leadership for the year 2020/2021; *Special Awards*, awarded to the team leaders who have excelled in specific essentials of the team; *Faculty Advisors Awards* and *Exclusive Awards*.

Yanelisa Giyose, the incoming 2021/2022 Enactus CUT President encouraged her fellow students to gear up for an eventful year to come. "Enactus CUT never used to shine in the past, but we have come to the point where we are number three in the country, so for us to uphold this standard and ensure that we become the champions this coming year, we need to ensure that everything we do within the team is done with integrity and quality," she concluded.

CUT celebrates excellence at the annual Vice-Chancellor's Awards



One of the 2020 recipients: Mr K. Lebelo from Faculty of Health and Environmental Sciences receiving the Community Engagement award. He is flanked by the acting Vice-Chancellor and Principal, Prof. Alfred Ngowi (left) and Prof. Samson Mashele, Acting DVC Research Innovation and Engagement.

"We gather here today to honour, acknowledge and celebrate excellence of our employees, who amongst others, managed to demonstrate that excellence is possible amidst challenges. We do this by demonstrating our research innovation, teaching, entrepreneurship, and community engagement. We have created an environment which recognizes these areas and enhances excellence; and I am proud to say that you have demonstrated that excellence is possible amidst challenges. You are the embodiment of our values and vision, we admire you and expect more great things to follow your way. As an institution, we commend all your efforts towards improving society. You managed to focus on opportunities and contributed to the communities you serve. We also know that you did not operate alone, but were surrounded by your supportive families, friends and colleagues, and we thank them all for their sacrifices and undying support," these were the words of encouragement from the Acting Vice-Chancellor and Principal during the Vice-Chancellor's Excellence awards held on 03 November 2021.

The main objective of these annual awards is to recognize exceptional performance for sustained and outstanding achievements in research and innovation, teaching, entrepreneurship, and community engagement, which are aligned with the university's vision and mission. The awards also aim to stimulate ideas and innovation from employees to exceed expectations. This year, both the 2020 and 2021 recipients in the categories of Research, Innovation and Entrepreneurship, Community Engagement and Teaching were acknowledged.

The recipients of 2020 included: Dr L. Sinxadi from the Faculty of Engineering, Built Environment and Information Technology-Early Career Teaching award, Dr E. Markus from Faculty of Engineering, Built Environment and Information Technology- Early Career Research award, Prof M Masinde from Faculty of Engineering, Built Environment and Information Technology- Established Research award, Mr K. Lebelo from the Faculty of Health and Environmental



One of the 2021 recipients: Ms. N Qumbisa from the Faculty of Engineering, Built Environment and Information Technology. She received the Early Career Teaching Award. She is seen here with DVC Resources and Operations, Dr Gary Paul (left) and Prof. Samson Mashele, Acting DVC Research Innovation and Engagement (right)

Sciences-the Community Engagement award, Dr de Smidt from Faculty of Health and Environmental Sciences-the Innovation award and Prof DY Dzansi from Faculty of Management Sciences-the Entrepreneurship award.

The 2021 recipients are Ms. N Qumbisa from the Faculty of Engineering, Built Environment and Information Technology-Early Career Teaching Award, Prof. F van der Walt from the Faculty of Management Sciences- Advanced Career-Teaching Award, Dr C Chukwuma from the Faculty of Health and Environmental Sciences-Early Career Research Award, Prof. B Awuzie from the Faculty of Engineering, Built Environment and Information Technology- Mid-Career Research Award, Prof K Kusakana from the Faculty of Engineering, Built Environment and Information Technology-Established Research Award and Ms. IK Sebelego from the Faculty of Health and Environmental Sciences- Community Engagement Award.

Prof. Laetus Lategan, Research Professor, said that looking at the literature, there is a reasonable expectation that people will deliver work of an acceptable standard. "It is said that for you to deliver work of an acceptable standard, you must have knowledge and the skill. It is your responsibility to get access to the knowledge, extend the knowledge basis and integrate the knowledge into your own mind and understanding of things.

We are not here to celebrate the expected standard, we are celebrating people who moved to the next level. The class of 2020 and 2021 showed us it is not the ordinary that you must do, but the extra ordinary, so, on top of the expected standards there should be something more. We need to have knowledge, professional behavior, integrity in the workplace, be innovative and resilient. You have showed us that you can do more than what is reasonably expected from you, with that being said, I would like to congratulate you on your achievement."



Engineering Faculty receives ECSA accreditation for newly implemented diplomas



Prof. Herman Vermaak: Dean of Engineering, Built Environment and Information Technology.

CUT offers accredited academic programmes by highly respected accredited bodies such as SAICA, SABPP, ECSA and has strong affiliations with several Sector Education and Training Authority (SETAs). CUT is also among a few universities in the Central region that offers programmes that are designed to equip diplomates and graduates with the necessary skills and expertise to be leaders in their chosen professions.

The Faculty of Engineering, Built Environment and Information Technology has recently received full accreditation from the engineering council for the newly implemented Diplomas of Engineering Technology in Civil, Electrical and Mechanical Engineering and Bachelor of Engineering Technology in Civil and Mechanical Engineering.

The Engineering Council of South Africa (ECSA), is among the most respected accreditation bodies in South Africa, mandated to set competence standards for registering and conducting accreditation programmes for various engineering fields offered at higher education institutions.

The accreditation system assures the public, students, employers, funders, and other stakeholders that firstly, the programme fulfils its key purpose of providing the graduate with the educational foundation for engineering in a stated role at the professional level; and secondly, the teaching, learning and assessment processes are effective.

"Our faculty is increasingly becoming known as a faculty that offers vocationally and technologically based programmes that are responding to the needs of industry and employers," said Prof Herman Vermaak, Dean of Engineering, Built Environment and Information Technology.

The University also received provisional accreditation for the Bachelor of Engineering Technology in Electrical Engineering (Provisional Accreditation of a new programme is done once the programme has been implemented and the first cohort of students has completed 50% of the academic credit requirements towards the programme).

"Accreditation of all our programmes shows the quality of teaching and learning we provide to our students," said Prof Herman Vermaak.

He added that the key to the faculty's success lies in the high premium it places on innovation, along with the work done by different role players to promote applied research outputs in the fields of Science, Mathematics, Engineering and Technology (STEM).

"This great achievement also means that our graduates meet the educational requirement for professional registration with ECSA in different categories," he concluded.

On 08 March 2018, The Engineering Council of South Africa (ECSA) in partnership with the university launched a satellite office in Bloemfontein Central Region, making it the third province in the country to have ECSA offices after Gauteng and Eastern Cape Provinces. The ECSA's primary role is the regulation of the engineering profession in terms of the Engineering Profession Act (EPA), 46 of 2000. Its core functions are the accreditation of engineering programmes, registration of persons as professionals in specified categories, and the regulation of the practice of registered persons.

Eskom and CUT forge regional collaboration to promote excellence among young scientists

Eskom Expo Virtual Awards - FREE STATE AWARD WINNERS

GOLD AWARD WINNER 	ESKOM AWARD WINNER 	ESKOM AWARD WINNERS 	ESKOM AWARD WINNER 
Best Female Amy Pastors Eunice Girls High Bloemfontein	Best Development Robert Booysen Kgauho Secondary Bloemfontein	Best Energy Sowabai Ali & Fatimah Anwar Ficksburg C/S Bethlehem	Best Innovation Dimpho Motsoeneng Welkom Gimnasium Welkom



The deserving students who received awards at the Eskom Expo Young Scientists ceremony.

CUT in collaboration with Eskom Expo for Young Scientists, hosted a virtual award ceremony on 26 August 2021 to acknowledge and honour young scientists for their innovative research projects.

The projects were assessed by a panel of experienced judges who are also experts in the field. Qualifying learners were then selected to represent the region at the Eskom Expo Science International Science Fair (ISF) in October where they stood a chance to win further. At the annual prestigious Eskom Expo for Young Scientists, selected students from 35 Expo Regions in South Africa competed against the best young scientists from around the country and the world.

The prizes awarded were sponsored by the CUT STEM Academy to the value of R163 500.00. Winners received bronze, silver and gold trophies, as well as certificates.

Mr Parthy Chatty, Executive Director of Eskom Expo for Young Scientists congratulated all learners who participated in the expo research project or an engineering project because it is a huge achievement. "Your ability to complete your science project under these challenging circumstances is proof that you are self-motivated and above average. I hope you all achieve the best assessment you can for your hard work and continue to pursue your careers in the sciences. I look forward to seeing many of you at the ISF 2021 finals and the rest of you all again in 2022."

In his keynote address, Prof. Alfred Ngowi, then Deputy Vice-Chancellor: Research Innovation and Engagement said "we are now in the 4th Industrial Revolution. This, unlike the first three, is not based on a single technology but multiple technologies which are most physical, cyber and biological, and the ability to combine these different types of technologies will give people an advantage."

"There are things that will be done by machines much better than humans and there are those skills and work that cannot be done by machines. We are referring to technologies like Internet of Things (IoT), Artificial Intelligence (AI) and 3D printing. Yours is to understand the role of machines and how they will work, so that you can work with them effectively. We are also going to give you the skills of the things which machines cannot do and those are innovation and entrepreneurship. Innovation is a human activity which requires human creativity and entrepreneurship is for everybody. Entrepreneurship and innovation are key things and through this competition, you will be equipped with the key skills in innovation," he concluded.

Brief background of CUT's participation in the Expo of Young Scientists

In 2018, CUT and the Expo for Young Scientists entered into a partnership to encourage participation of young inquisitive minds in Science, Technology, Engineering and Mathematics Innovation ("STEMI") activities within the province. The partnership is in line with CUT's vision of engaging with the communities it serves in order to improve their quality of life. The university also launched the STEM Academy envisioned to be a training and developmental hub for professional teachers and lecturers to improve content knowledge of Science, Technology, Engineering and Mathematics in schools, colleges and universities, which will ultimately promote throughput pass rates in the STEM subjects in line with goals of the national development plan.



Teachers equipped with necessary skills to improve physics education



Teachers, facilitators and CUT education students who attended the event at CUT Bloemfontein Campus

CUT in collaboration with the South African Institute of Physics (SAIP), held a hybrid event from 4-8 October 2021, connecting teachers online from both Bloemfontein and Welkom Campuses to a 5-day workshop aimed at equipping them with the necessary content knowledge and pedagogy to efficiently teach Physical Sciences in the classroom.

Maths and Sciences are not only considered as the gateway subjects but are also perceived to be the most difficult subjects that learners are struggling with. The pass rate of these two critical subjects has been concerningly declining and that, is a serious problem.

This year, CUT and SAIP signed an MoU to train Physical Science teachers in the Free State Province to ensure that they deliver quality education to learners. SAIP's primary goal is to improve physics education and research, develop and nurture an inclusive next generation of physicists in South Africa to address socio-economic challenges and contribute fruitfully to the achievement of Sustainable Development Goals (SDGs) of the country.

Dr Modise Motalenyane, Assistant Dean: Research, Innovation and Engagement in the Faculty of Humanities, said that the education system has faced numerous challenges including under-skilled science teachers.

"I believe that this platform will contribute towards the efforts put in place in addressing the shortage of physical science teachers in South Africa. It will also contribute towards the new methodology and innovative ways of teaching physical science in these challenging times. It is also our mission to work with science teachers through the Department of Education to identify classroom needs, challenges and practice in teaching and learning of science. We are committed to ensuring that our learners get the best quality education considering the 4th Industrial Revolution.

Prof. Makaiko Chithambo, Professor of Physics at Rhodes University and President: South African Institute of Physics said the workshop will assist to endow teachers with experimental skills. "The goodness of experimentation is that it tests knowledge against misconceptions, and it is one of the best ways to inspire students. Students can construct their own knowledge and that is one of the best ways to learn, discover and know. We also want to help teachers with ways of attracting and retaining students in physical science. We need to encourage girls to stay in physics and take up careers in physics. If we are to prepare students for further studies, we need skilled, confident and competent teachers so these kinds of workshops are one way of achieving this goal"

Ms Ntswaki Nteo a teacher from Refihletse Combined School in Verkeerdevlei said that she is happy to have been able to attend the workshops as it was an eye opener for her. "As a young teacher, I was reminded of teaching approaches that I can use to get information through to learners so that they can understand better. My expectations were met, certain misconceptions were ironed out and I am happy with the presentations. Now I have a better understanding and are in a better position to tackle my classroom challenges."

Another teacher, Ms Thandi Makhanya from Moroka High School in Thaba Nchu said that she is also pleased with the workshop however, "I wish these workshops could be conducted in the beginning of the year. I am happy that I managed to attend. I wish all science teachers could also attend."

The next workshop for the Free State will be held in January 2022. For more information on the project, kindly contact Mr IH Phage on: iphage@cut.ac.za and info@saip.org.za



U.S. Consulate Johannesburg visits CUT



CUT and U.S. Consulate delegates who attended the meeting.

The U.S. Consul General, Mr Vincent Spera and delegates visited the Central University of Technology on 16 September 2021 to explore possible areas of collaboration and cement their long-standing relations.

The delegates were warmly welcomed by the former Vice-Chancellor and Principal, Prof. Henk de Jager who mentioned how critical partnerships are in ensuring the success of any organisation. "As a university, we believe that we will never be able to achieve success without partnerships. We also believe that through holding hands with others, we will be able to achieve more than doing it on our own. You may be seen as guests now but, I hope that when you leave today, you will leave as our friends. Partnerships are a critical element of our success and I believe such partnerships must be a win-win situation."

During the engagements, CUT representatives presented innovative and impactful projects that are currently active and how the Consulate through various programmes can improve the CUT footprint in the US. The delegates also had an opportunity to tour the campus and visit some of the research centres.

Among the various international partners and collaborations on the CUT list are, Illinois University and the Faculty of Health and Environmental Sciences in the Department of Agriculture collaboration, Nebraska State University and the Faculty of Engineering Built Environment and Information Technology in the Department of Information Technology, Station 1 Laboratory Inc. a US non-profit organization based in Massachusetts and the Faculty of Engineering Built Environment and Information Technology, the University of West Kentucky and the Faculty Humanities with a specific focus on STEM Education Research as well as the Georgia State University and the Faculty Humanities with a specific focus on Teacher Education Development Research.



2022 CHE Institutional Audit launched



Four task teams comprising of staff, student leadership, and stakeholders have been established to assist the institution in assessing the effectiveness of the overarching quality assurance system, particularly regarding how it affects students and their success.

CUT's former Vice-Chancellor and Principal, Prof. Henk de Jager, officially launched the 2022 Council on Higher Education (CHE) Institutional Audit. The process will assist the institution in assessing the effectiveness of the overarching quality assurance system, particularly on how it affects students and their success.

Prof. de Jager highlighted that the audit's focus would be on CUT's academic projects, namely, teaching and learning, research, and community engagement. "The main focus is to evaluate our quality assurance framework and good practices on quality assurance across all activities of our university," he said.

The four task teams include staff, student leadership and stakeholders who will focus on Institutional Governance and Management, Design and Implementation of Institutional Quality Management Systems, Coherence and Integration of Institutional Quality Management Systems and Curriculum Development and Learning and Teaching.

"The most important aspect of this audit is our self-evaluation report, that will assist us to ensure that we improve where we are lagging and have a self-reflective, honest report at the end of the day," added Prof. de Jager.

He encouraged the CUT community to walk the extra mile for this university and take it to greater heights.

CUT Hotel School building glass roof is a sight to behold!



The newly completed glass roof in the courtyard of the Hotel School.

It is the beginning of a new dawn for the CUT Hotel School as it recently embarked on a journey to revamp the ancient structure that has been in existence for over 100 years. It is important that routine maintenance and preventative maintenance are made on such old buildings to prolong their life span for generations to come. These renovations are envisaged to enhance the brand image and potentially attract partners from industry, corporate and local communities.

The newly completed glass roof in the courtyard of the Hotel School was designed and documented by Hennie Lambrechts Architects of Bloemfontein as the first phase in the refurbishment and renovation of the historical 1912 Eunice House on the CUT Campus. A research program and detailed survey of the Republican Style building was conducted to identify structural defects, deficiencies, non-compliance of services and insensitive additions over time.

According to Hennie Lambrechts, Principal Agent for the Hennie Lambrechts Architects, the existing courtyard is a unique feature of historical significance, a rare example of an architectural enclosure still in existence and in use. The protection of this multi-functional space during adverse weather conditions determines its value. The architects designed a cost and energy-efficient glass roof structure with integrated electrical, mechanical and AV technology, to strengthen the architectural space in harmony with the scale and rhythm of the original layout.

The future construction phases will include the separation and re-designing of the sub-standard main kitchen and training facilities, as well as the upgrading of the lounge service area as satellite kitchen for a new solarium as café venue. The extensive restoration of the existing structure and upgrading of the interior including lecture rooms and services will conclude the proposed building program.



All pictures supplied by: Sebedisan Group: An evening aerial view of the gorgeous, upgraded Hotel School building.

Ms Jaydee Snyman, Operational Manager at the Hotel School, said that the roof project has been on the cards long before she joined CUT in 2016. “The old roof really needed some TLC for us to deliver on the standards that we train our students, and as firm believers of walking the talk, we had to lead by example. The previous roof panels could no longer be found in the market as it is old stock that was long discontinued,” she said.

Jaydee further highlighted that the Hotel School is known to be one of the best in the country where students are trained, equipped with the fine-tuned curriculum and are well groomed for perfection. “We do not only offer services to the university but to external clients as well. This newly renovated building will not only serve as a marketing tool but will add the much-desired value to our teaching and learning aspects, as well as increase the number of events we host. It will further provide our students with more hands-on practical training opportunities to learn from within a protective environment, improve their skills and understanding of the industry and apply the theoretical knowledge. This gives us an opportunity to groom them to be future industry leaders.”

“The new roof with the bright lights really gave the Hotel School building a long overdue facelift that enables us to offer our clients the modern events look with a history of tradition and skills instilled in one. The roof, upgraded boardroom, smaller upgrade to kitchen and restaurant facilities will assist us to be able to market facilities to the industry partners, local communities, and corporate clients. We are looking forward to the launch of our new Hotel School look and venue facilities when this pandemic gives us the opportunity to do so,” she concluded.

2021 Beer and Food Affair a success!



Mr Greg Brown, Regional Manager: MICTSETA; Dr Olga de Smidt, Deputy Director: CAFSaB; Cllr. Matthew Rantso, CUT Chairperson of Council; Madam Justice Mahube Molemela, CUT Chancellor and Prof. Alfred Ngowi, Acting Vice-Chancellor and Principal.

The Hotel School and CUTbrU held their annual Beer and Food Affair, a beer and food pairing experience where attendees are treated to a four-course meal menu prepared to perfection by the Hotel School and craft beer brewed by the CUT beer brewing team.

When welcoming the guests, Chairperson of Council, Cllr Matthew Rantso, said the aim of the fair is to connect CUT with the communities it serves, strengthen ties with its surrounding economic space and sustain a public affinity. "Tonight, you will be able to taste the outcome of our ingenuity to secure a sustainable beer supply that will benefit the region in the near future, enjoy an evening of guilt-free indulgences."

Dr Olga de Smidt, Deputy Director: Centre for Applied Food Sustainability and -Biotechnology (CAFSaB) said from a South African perspective, beer lovers have only been exposed to four styles of beer and that does not mean that the commercial beer available is not excellent quality, characterful as well as good representatives of these styles. "Our aim tonight is to give you a little bit of an introduction to other styles and in this case, we will introduce you to the craft beers with a few fun facts about their history."

Prof. Alfred Ngowi, acting Vice-Chancellor and Principal said that both CUT and partners could draw inspiration from the Food and Beer Fair to develop innovative and entrepreneurially oriented students. "Dr de Smidt's work is the epitome of what we as an institution strive for. We salute you for the sterling job you have done on this project. The university depends on the expertise of academics to develop the type of collaborations visible at this fair. What we see here shows our commitment to entrepreneurship and innovation projects which we are embedding into our academic programmes," said Prof. Ngowi.

The team behind the success of the project included Prof. Ryk Lues, Director: CAFSaB; Dr Crowther Dalene, acting Head of the Hotel School; Mr Janwillem Scheepers, CUTbrU Brewer; Dr Olga de Smidt, Deputy Director: CAFSaB; Mr Anton Erasmus, SAB Trade Brewer; Ms Jaydee Snyman, Operational Manager: Hotel School and Prof. Nicolaas Luwes, CUT Associate Professor.



L-R: Mr Greg Brown, Ms Beverly Rantso, Cllr. Matthew Rantso, Mr Sello Molemela, Madam Justice Mahube Molemela, Prof. Alfred Ngowi, Ms Itumeleng Kgololo-Ngowi.



A team of experts who brought the event to life: L-R: Prof. Ryk Lues, Director: CAFSaB; Dr Crowther Dalene, acting Head: Hotel School; Mr Janwillem Scheepers, CUTbru Brewer; Dr Olga de Smidt, Deputy Director: CAFSaB; Mr Anton Erasmus, SAB Trade Brewer; Ms Jaydee Snyman, Operational Manager: Hotel School and Prof. Nicolaas Luwes, CUT Associate Professor.

Meanwhile, CUTbru team won the best African Wild Ale category at the Brewing and Tasting Intersvarsity, which was co-hosted by SAB and CUT, through the Centre for Applied Food Security and - Biotechnology (CAFSaB) in association with UFS. CUT hosted the competition this year at the Bloemfontein Campus. Now in its 14th year, the competition aims to get students excited about brewing and beer culture and the judging is done according to the Beer Judge Certification Program (BJCP) style guide.

12 Universities participated in the competition under 50 categories. "Because we were the overall winners last year, everyone was gunning for us. When people from other teams found out we are from CUT they started asking a lot of questions, which made me realise that we had set the bar quite high, and that meant the competition was a bit tougher this year," said Lehlohonolo Qhanya.



The CUTbru team won the best African Wild Ale category at the Brewing and Tasting Intersvarsity. Back: L-R: Dr Olga de Smidt, Lehlohonolo Qhanya and Janwillem Scheepers. Front: Magauta Hlatywayo and Puleng Zacharia.

Prof. Makola releases his third book titled '70 Women and One Man'



CUT Chancellor, Madam Justice Mahube Molemela, who is one of the 70 women featured in the book and has impacted the life of the author, Prof. Solomon Makola. The book was launched by CUT's Library and Information Services.

Welkom Campus Director, Prof. Solomon Makola recently launched his third book titled '70 Women and One Man'. The book describes Prof Makola's journey on his search for the ultimate meaning of life while book reviewers described it as an inspirational read that offers healing through its pages. The book follows the success of his two academic books-'Find Meaning, Stop Wondering' and 'Pimp the Pain'. In the book, he shared divine narratives about seventy significant women he met on his journey to discover the ultimate meaning of life, integrating humanity (human spirit) with divinity (holy spirit).

CUT Chancellor, Madam Justice Mahube Molemela, who is one of the seventy women featured in the book, stated that this was a moment to be celebrated. "That a man will publicly acknowledge the influence of women in his life is indeed admirable. This attests to the fact that Prof. recognise the important role played by women in society, and that he respects them. The book is a perfect illustration of the far-reaching power of therapy. I realise now just how apt the Chinese proverb is, which states: 'a single conversation across the table with a wise man, or woman is better than 10 years of study,'" said Madam Justice Molemela.



CUT bid farewell to the Vice-Chancellor and Principal



Professor Henk de Jager delivering his farewell address.

On 30 September 2021, CUT bid farewell to the Vice-Chancellor and Principal Prof. Henk de Jager. Prof. de Jager has been the Vice-Chancellor and Principal since 2017. His association with CUT dates to 2012 when he was Deputy Vice-Chancellor: Academic and Research until 2015; and later, Deputy Vice-Chancellor: Research, Innovation, and Engagement.

In his tenure, the university made significant strides, including increasing permanently appointed academic staff with doctorates to 40 percent and also added numerous new academic, research and innovation programmes to its offerings.



From left: Mr Letsoalo Letsoalo, Junior Project Engineer: CRPM, who handed over a CUT 3D printed titanium trophy, Dr Gary Paul, Deputy Vice-Chancellor: Resources and Operations, Cllr Matthew Rantso, Dr Sally Dzingwa, Institutional Registrar, Prof. Henk de Jager (holding his trophy) and his wife, Dr Miemsie de Jager.

Ayanda Nyathi – breaking ground for women in security



CUT's new Deputy Director: Protection Services, Ayanda Nyathi believes that the security profession chose her. When she was first introduced to various sectors within the security career field and seeing that it was a male-dominated industry, she knew she had to be part of the women that would change the narrative around the field.

As the first woman to hold this role within CUT, facing challenges is not new to her. "This career field is known to be male-dominated. For many, when they think of security, physical strength comes to mind, and it is believed that women don't have such strength.

When Nyathi decided to pursue her studies, she did not even consider security as a career. "My first degree is in psychology and as I was busy with my Honours in psychology, the opportunity to join the field of security presented itself and I grabbed it with two hands. I then had a complete change of career, which saw me complete various qualifications in security."

Her security qualifications include a Postgraduate Diploma in Security Management and a Master's in security management, both with Wits University. "I have also completed a Postgraduate Diploma in Business Management, and I am currently completing a Master's in Business Administration. I have been privileged to work for the national government where I held roles such as a Security Advisor and a Border Intelligence Officer. I have also worked within the financial sector where I had an opportunity to be responsible for both physical and cyber security," added Nyathi.

She said that moving into the higher education sector has given her a new and exciting challenge. "I am loving the new environment and I am grateful for the support and welcome I have received thus far. I am looking forward to creating a safer CUT and I cannot wait to work collaboratively with the larger CUT community to better enhance the protection of personnel, students, visitors, assets, and the infrastructure," she concluded.

Apart from her career, Ayanda is also passionate about creative arts and choral music.



Mpho Ndesi's work-in-progress emerges as the best presentation at the GANet 2021 virtual conference on social sciences



On 21 August 2021, CUT Master's Education student, Mr Simon Mpho Ndesi, received a certificate of achievement for the best presentation award at the virtual Global Academia Network (GANet) Conference on Social Sciences, Business, Innovation and Education 2021, that was held at Kuala Lumpur, Malaysia.

The main objective of GANet 2021 is to provide a platform for researchers, professionals, scholars and academics to exchange and share their knowledge, information, new ideas and experience with their peers expected to join from different parts of the world.

What sets Ndesi apart from the rest is that his research paper, which is still a work-in-progress, was selected as the best research paper at the conference. The paper presented is part of his M.Ed. research project titled: *'Towards improving practical work in Physical Sciences: The role of professional learning communities.'* Ndesi is supervised by Dr Motshidisi Lekhu, Prof Gregory Alexander and Dr Willie Thabane.

Click [here](#) to be directed to the YouTube link:



Presenter: Simon Mpho Ndesi

Title: Towards Improving Practical Work in Physical Sciences: The Role of Professional Learning Communities

Presentation Slides: <https://drive.google.com/file/d/1S1ax...>

Another presenter who presented during this conference was Sanel Van Zyl, M. Ed graduate. Van Zyl is supervised by both Prof. Gregg Alexander and Dr Motshidisi Lekhu.

Click [here](#) to be directed to the YouTube link:



Presenter: Sanel Van Zyl

Title: Issues Affecting Novice Teachers' wellbeing in Multicultural School Contexts of South Africa

Presentation Slides: <https://drive.google.com/file/d/1pMFZ...>

i-GYM hosts their first award ceremony

On 04 November 2021, the Idea Generator Unit, also known as the i-GYM, held their first award ceremony to recognize and acknowledge employees, students, entrepreneurs, and members of the community who have been participating in innovation challenges and entrepreneurship development programmes to develop innovative ideas and projects into products that can be commercialized.



Pic 1

Handing out the certificates is Mr Glarington Quvile, CEO: CUT Innovation Services (CUTis). Pic 1: Maxwell Sekhoane received a certificate in recognition of participation and outstanding performance as a top contestant awarded with a prize towards the development of his innovative project under the student category of the i-GYM 2021 annual innovation challenge.

Pic 2: Ms Jeanne May received a certificate in recognition of participation and outstanding performance in the two-day entrepreneurial development training that was held at Heidedal.

Pic 3: Ms Sally Joubert received a certificate in recognition of participation and outstanding performance as a top contestant awarded with a prize towards the development of her innovative project under the staff category of the i-GYM 2021 annual innovation challenge.



Pic 2



Pic 3



Former Springbok Rugby Player heads CUT Ixias



Mr Braam van Straaten, former Springbok rugby player and new CUT- Ixias Head Coach.

The Central University of Technology, Free State (CUT), is ready for a brand-new chapter in their rugby history with the appointment of kicking legend, Braam van Straaten, as their new Head Coach with the "Blue Brigade" in Bloemfontein.

According to the club Vice-Chairperson, Mr André Pawson, CUT Ixias will again be in excellent hands with the experienced Van Straaten at the wheel of rugby coaching at South Africa's smallest rugby university, CUT.

"We are super excited about having him at the steer of our rugby on campus", Pawson said. "He is an excellent coach, with a superb track record as general- defence- and kicking coach, from provincial- to international level. "We are confident that Van Straaten will continue taking CUT to even greater heights than we enjoyed over the last five years", Pawson added.

Braam van Straaten joins the ranks of CUT with a wealth of experience, including exposure at international level with the Wallabies (Australia), Bermuda and Namibia, to Super rugby with the Western Force (Australia), the Sharks and the Southern Kings.

With rugby coaching experience dating back to 1996, Van Straaten proved himself as a valuable defensive- and kicking coach at all levels of world rugby.

"There is no doubt that we will greatly benefit from his experience and abilities, and we are looking forward to a long and successful partnership with this legend of rugby", Pawson concluded.

Student golfer wins the Bloemfontein Captains Cup Competition



CUT student and golfer, Mojalefa Xaba (left) with his partner Fatso Olifant (right) from Mangaung Golf Association won the 2021 Captains Cup Competition.

Sports at CUT not only lead students into successful sports careers, but also contributes significantly to the well-being of student body.

Mojalefa Xaba, 3rd year Information Technology student from the Eastern Free state in QwaQwa, is currently serving as CUT and Mangaung legacy team golf captain. The 27-year-old has been in the game for 18 years and his love for the club-and-ball sport started when he was a golf ball picker. "As time went by, I started hitting golf balls at a range like everybody else and I never looked back. What I love most about golf is that it is a one man's game and most importantly, it teaches you to be disciplined and responsible."

Xaba said that his favourite golfer and role model is Tiger Woods, "he inspires me because he gives it his all every time he steps on the golf course and my goal is to become a professional golfer like him. I always look back from where I come from and think to myself, I'm in a good position to achieve my goals and I'm working hard to achieve it. The reason for my self-confidence is that I'm currently with one of the best coaches in the world, Mr Quintin Williams, and I'm positive that we are working towards greater things."

Asked how he finds the balance between golf and his academics he said "finding a balance between the two is very difficult but I try to make time as they are both important in my life. I've won a couple of big tournaments in my golf career with the Captains Cup being one of them. I'm very proud of what I have achieved so far, and I thank CUT golf Club for the support they have given me as well as the opportunity to study."

The Captains Cup is a Bloemfontein golf competition that was established in 2017 to bring golfers together to enjoy two days of competitive golf on a beautiful, manicured golf course in honour of the Bloemfontein Golf Club and its fund-raising projects.

Among other accolades under his belt, Xaba ranked number one in South African Golf development board under 18 in 2009. He became part of the Ernie Els & Fancourt Foundation for a period of 3 years (2010-2012) and according to Free State golf history, he became the first player of colour to win the overall Free State Open Tournament twice. He was personally invited by Ernie Els to go watch the Honda Classic in Florida (America) in 2012. He represented South African Golf development team playing against the Scotland team and managed to halve the game. He also represented the Free State in different categories at the inter-provincial tournaments from 2011 to date.

He received the Best Player of the Tournament Award at inter clubs- Kyalami, Johannesburg this year (2021). He is a three-times-winner of the Peter Itholeng Tournament that is taking place in Bloemfontein. He's part of the team that managed to take CUT team to the A- division at USSA tournaments in Qheberha. He recently won two races in major tournaments that took place in Johannesburg and was selected by the Free State to join the 'A' team that represented the province at Elements from 9-16 October 2021.



CUT student scoops the 2021 StateoftheART Gallery Award



Pic 1



Pic 2



Pic 3

L-R: Sylvester Zanoxolo Mqeku happily showing-off his certificate award. Pic 2: Art pieces 'Carbon Generations' that won him the award. The Red Iron oxide, Chrome oxide and Rutile dioxide on Sandcast Terracotta clay 30 x 10cm. Pic 3: Mqeku in action at the art studio where it all began.

CUT Master's student, Sylvester Zanoxolo Mqeku has won the 2021 StateoftheART Gallery Award at the StateoftheART's Cape Town gallery award ceremony that was held on 16 October 2021.

Sylvester was amongst the top ten shortlisted finalists that were selected from hundreds of entries by artists across South Africa with the judges scoring them on creativity, originality, and technical skill. The award aims to champion contemporary art by emerging artists resident in South Africa, increasing exposure and encouraging further professional development opportunities. Participating artists submitted their art pieces based on the theme 'On The Brink: Visualising Climate Change' and were challenged to engage with the reality of climate crisis and its impact within a South African context.

As the winner of the 2021 Award, Mqeku received a cash prize of R40 000 to support the development of his other projects and a solo exhibition with StateoftheART Gallery in 2022.

Mqeku who is originally from Matatiele, a town located in the northern part of the Eastern Cape Province, is currently studying towards his master's in Design and Studio Art degree. He began his tertiary education at the Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth with the background of Art, Design and Architectural Technology. He completed his two years of Introductory Art and Design studies with majors in painting, graphic design, photography, sculpture, ceramic design, drawing and art theory. After graduating with a diploma in ceramic design, he moved to Bloemfontein and commenced volunteer work at the Oliewenhuis Art Museum. In 2016 he obtained a B-Tech in Fine Arts from Tshwane University of Technology (TUT). "When I first enrolled at the university (NMMU), I started with architecture but later fell in love with art and design. I then ditched my initial choice and joined the School of Music Art and Design, and the rest is history! Since I started my master's studies at the Department of Design and Studio Art here at CUT, I've been building a large store of experimental work as a component of my dissertation. This work has influenced my technical control and understanding of a casting method that I've invented and developed."

As a person who likes pushing himself to harder in the art practice, Mqeku saw it fit to enter the competition because this year's theme featured an article which he explored in his master's Dissertation Literature review (On the Brink: Visualizing Climate change). "What inspired my design was firstly to respond to the theme of the competition, but it also resonates with my research study titled 'Innovative sand casting for the ceramic studio', as it directly addresses the nature of thinking I've been inspired with as a researcher."

Asked how it feels to be a winner of this magnitude, he said that he is thrilled about his achievement as arts is probably the most difficult career for anyone looking to make a living. "Winning this award has added an advantage to years of perseverance and it gives me a new understanding of my capabilities and how much stronger I can be."

He said that he would like to see himself showcasing his work at several places around the world and giving back to CUT as a community of local and international excellence. "There is a lot of interest in artists and thinkers from Africa to the world in general, and I believe such interest can be generated and channelled through creative experimentation. This can happen during research, innovation and collaborations."

Mqeku has also received other awards, but they mostly involve travelling outside South Africa. In 2019 he went to France, 2020 Senegal and this year Italy.

CRPM gives the macaw bird a new lease of life

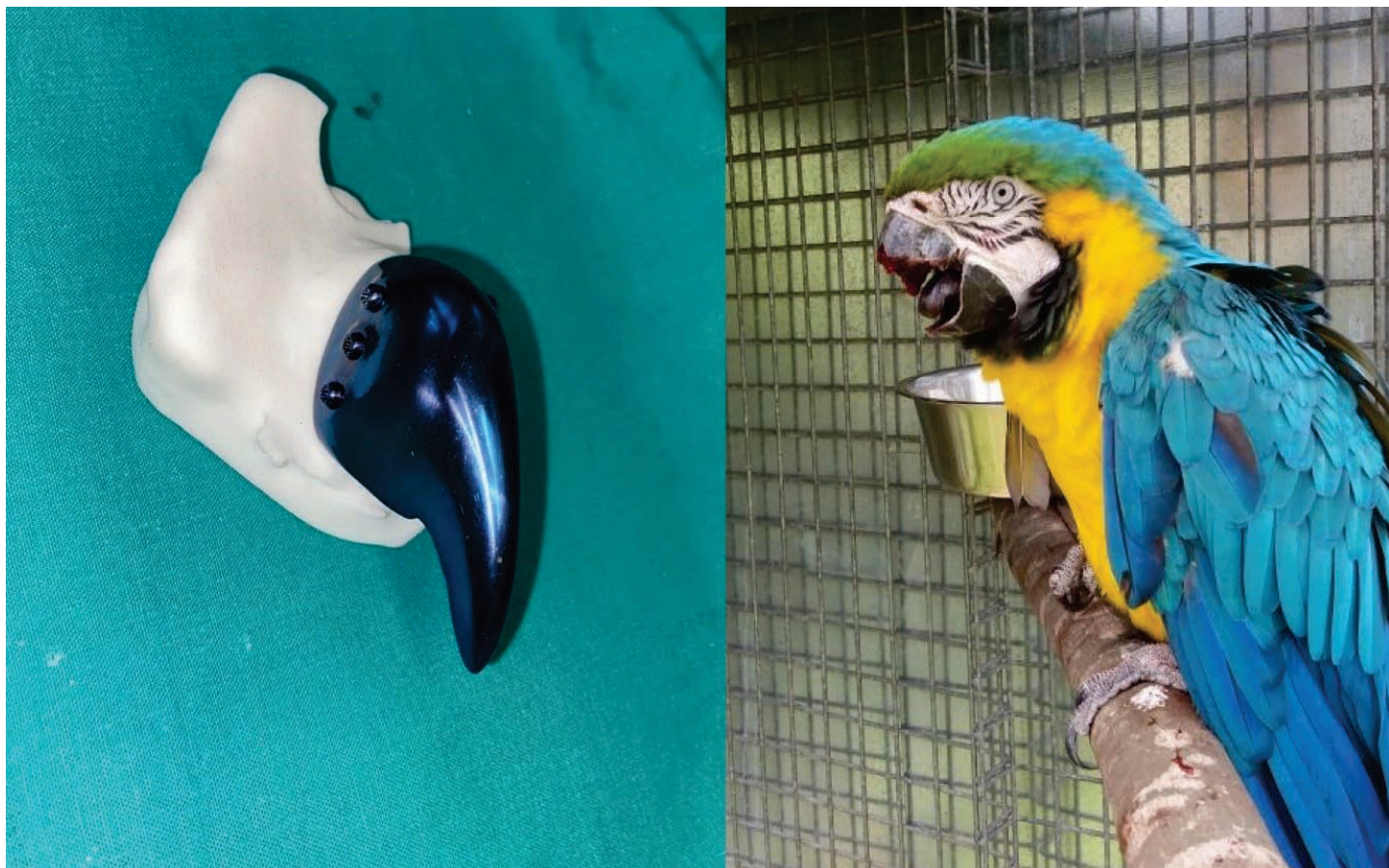


Photo Cred: University of Pretoria: Max, a blue and gold macaw from a bird sanctuary in the Western Cape, received a fully functional 3D-printed prosthetic beak after getting into scruffles with other macaws, during which its beak was first damaged and then ripped off.

CUT continues to be a leader in creating niche products and solutions in the medical Technology through 3D printing technology. Recently, CUT-CRPM collaborated with a team of medical experts to replace a damaged beak of the blue and yellow macaw bird in the Western Cape. The ground-breaking surgery believed to be the first of its kind in South Africa led by UP's Prof. Gerhard Steenkamp, saw a successful collaboration with CRPM and industry partners to give the macaw bird a new lease of life by 3D printing its fully functional prosthetic beak after getting into two scruffles with other macaws, during which his beak was damaged and ultimately ripped off.

The university's research and innovation is world class especially in 3D printing, applying knowledge and solving problems. The Centre does ground-breaking work in the design, development and manufacturing of medical devices using 3D printing. The centre also received ISO 13485 certification in 2016 for design and manufacturing of patient-specific implants by means of 3D printing, making it the first Centre in South Africa and Africa to receive this prestigious certification. They also have The South African Health Products Authority (SAHPRA) license for the manufacturing of medical devices.

Established in 1997 as part of a research initiative, the centre has advanced drastically in making impact and changing the lives of ordinary people around the country through applying innovative technology.

The university is currently hosting the Research Chair in Medical Product Development through Additive Manufacturing (3D printing technology)- an initiative intended to enhance South Africa's research outputs and innovations in areas that are crucial to our national innovation strategy.

The centre has won numerous awards locally and nationally, for their sterling work, touching and changing the lives of ordinary South Africans, among them is the NSTF-South32 Award, also known as the 'Science Oscars' of South Africa- for Innovation using 3D printing to reconstruct deformed faces of many South Africans from disadvantaged backgrounds



