



Central University of  
Technology, Free State

# GRATIA

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2<sup>nd</sup> Semester 2011 - 1<sup>st</sup> Quarter 2012



***Celebrating 30 years***  
*of social and technological innovations*

Celebrating



Years of  
Technological Innovation

**Soaring to 2020**

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University of Technology, Free State (CUT)

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# Message from the Vice-Chancellor and Principal

*This issue of Gratia is dedicated mainly to two of the three strategic sets of our Vision 2020, namely, how we shall strengthen or even re-build our foundations to make CUT ready to deliver on our vision; and, how we shall establish strategic partnerships with various partners in government, business and industry, and broader civil society organisations.*

*For us, building strong foundations is about excellence in research and innovation and in teaching and learning. We believe that these must find expression in the socio-economic development arena. To this end, this issue presents a number of new demand-driven programmes we have introduced recently. These programmes will go a long way to ensure socio-economic development impact, primarily in our region, but beyond, too.*

*Further, the issue showcases a number of events that signal that our process of building the right foundations to produce 'cutting edge innovations' and thereby become 'a cut above the rest' is not without some initial tangible outputs.*

*Lastly, we share with the reader a number of events that make our academic and social life as a university, exciting. Again, these constitute integral elements of building an academic culture to sustain our vision.*

*Starting with our academic and social life, we celebrated 30 years of existence as a tertiary education institution. We opened our doors in January 1981 to about 285 students; and, we have now grown to about 12 500 students. As if we had a carnival, we held a series of functions, exhibitions and public lectures. Indeed, the whole mood on campus during the week of 19 September was a carnival one. That week in September, as you will notice, coincides with South Africa's heritage week. By choosing to celebrate our anniversary during this week, we were signaling that part of CUT's heritage as a university of technology has been producing social and technological innovations over many years since our establishment. By popular demand, we may have to mount an abridged version of this carnival every year so that more Bloemfontein and Free State people could get to know what we are really about!*

*Universities tend to supply programmes to the market in the hope, perhaps, that they will create demand. As a university of technology that has to cater for the needs of the workplace, CUT's approach to programme development is demand-driven. Two of our new demand-driven programmes, most notably the Association of Accounting Technicians (AAT) programme launched in 2010, produced some graduates at certificate level last year.*

# Prof. Thandwa Mthembu



*We are proud to have strategic partners in this area, the AAT and the South African Institute of Chartered Accountants.*

*This innovative programme constitutes our contribution as CUT to government's Operation Clean Audit 2014.*

*The mid-level technicians we produce will help municipalities and government departments to manage and account for their finances better and thereby earn clean audits.*

*The same year we built many strategic partnerships: locally, regionally, and internationally. Our Feeder School Project is gaining momentum; and we hope to have a mutually beneficial relationship with our feeder schools. We have signed memoranda of understanding with various bodies including the Black Management Forum (BMF), the Afrikaanse Handelsinstituut (AHI), FABCOS, and many others. Various projects are in place.*

*My colleagues and I have built or strengthened various international partnerships with international organisations like the Institute of Management in Higher Education of the OECD, the International Association of University Presidents (IAUP), and the International Association of Universities (IAU), where I have been invited to speak and share the unique elements of our vision and its practical implementation. You would not be invited to speak to an international gathering if you had nothing to offer that others want to hear more about! Thus, what we are doing locally and regionally is quickly translating into something that the world wants to emulate. This way, we are slowly but surely becoming global players.*

*Two of our staff members received Fulbright Scholarships to the USA and returned earlier this year. Our lecture and academic workshop series is going from strength to strength. Most notably were workshops on air quality, weather monitoring systems and food security, and on broader sustainable development. These are part of our Sustainability@CUT project. Prof. Uli Holzbour from Aalen University of Applied Sciences in Germany and a number of our own academics are working hard at sustainability as COP17 proceeded in Durban.*

*We ended 2011 by hosting an exciting and well organised thanks to all our staff who made this possible - international conference of the South African Technology Network (SATN). I am privileged to have been elected yet again early in November as chairperson for another two years. Having embarked on a process called STEPS (Strategic Transformation of Educational Programmes and Structures), which I reported on in the June 2011 issue of Gratia, CUT demonstrated that it can help to lead the whole sector on curriculum transformation - something that tends to be limited to curriculum theorists rather than being seen in practical implementation at universities. ■*





# *Building the foundation*



Central University of  
Technology, Free State

# NEW! Infrastructure Development takes on more than new buildings

In the previous edition of Gratia we reported that two of the six building projects that were identified to be extended or upgraded on the Welkom and Bloemfontein Campuses have been completed. The Student Academic Support Centres, with 24-hour study and computer room facilities for students, were erected.

In partnership with the Department of Higher Education and Training (DHET) - strengthening the hands of its partners in education CUT's Council funded the development of new academic buildings and the upgrading of existing infrastructure, which put CUT in a position to develop four new buildings and extend two others.

The projects that were identified to be extended have commenced. They are:

- The extension of the BHP Billiton building, Faculty of Engineering and Information Technology.
- A new wing for the Dirk Coetzee building housing office space, the dean's office, lecture rooms and rooms for practical work for Emergency Medical Care (EMC).
- A new building for the Faculty of Humanities, specifically the School of Teacher Education, which will house offices and laboratories.

CUT is constantly striving to improve and upgrade its efficiency and physical standards, not only changing its culture and organisational design, but also transforming its state-of-the-art facilities. In order to deliver high-quality appropriate science, engineering and technology (SET) academic programmes supported by applied research, CUT endeavours to promote access with success and to attract potentially successful students to become employable graduates.

Apart from the new buildings on the campuses, CUT is also investing in other infrastructure developments. Through engagement with the student leadership, Management and Council have been able to achieve the following: to assist academically excellent and financially needy students, better cafeteria services (including card swipe facilities), and new residences on the Welkom and Bloemfontein Campuses adding hundreds of new beds by the end of 2012.

Prof. Thandwa Mthembu in a recent communiqué to campus stated: "One of the most stable and progressive universities in the country is undoubtedly CUT. We have begun to see students coming from other troubled universities enrolling here because the parents, the sponsors and the public find CUT to be a university where students attend all the classes set for the year without unnecessary disruptions". ■



■ BHP Billiton building



# Humanities



Dirk Coetzee building ■

# CUT forging ahead towards 2020 through strategic partnerships

CUT has made tangible efforts in the realisation of its institutional vision. As part of this transformation agenda, the university has placed greater emphasis on research and innovations for industrial and socio-economic development through the establishment of strategic partnerships.

To support these innovations four centres have been established.

They are the Centre for Rapid Prototyping and Manufacturing (CRPM), the Product Development Technology Station (PDTs), the Seda Agricultural and Mining Tooling Incubator (SAMTI), and the National Medical Device Innovation Platform (NMDIP). Together they are integrated product research and development niche areas and serve as commercial and research wings for the University.

The focus areas include - but are not limited to - the following: rapid prototyping, rapid manufacturing, medical product development and rapid tooling.

In August 2010, Prof. Thandwa Mthembu launched an institutional project, namely the Diversified Income Project (DIP) aimed not only at revitalising the University's fundraising model, but also developing and forging strategic partnerships for exciting and envisaged University projects. Since the launch of DIP in 2010, a greater part of this year was dedicated to achieving this strategic thrust and repositioning CUT's organisational capacity in recognition of the huge potential that partnership engagements represented for a number of University projects.

Ms Geralda Winkler, who was in the employ of the Communications and Marketing section of the University at the time, was co-opted to assist with DIP. Her portfolio in DIP is also directly linked to her involvement in an institutional developmental project namely,

the Leadership in Education and Development Fellowship Programme (LEAD). DIP has created a number of interesting opportunities for the institution, which include the advances CUT has made in its partnership engagements both locally and overseas - where the University has approximately R12.4 million pledged over a short space of time.



In June 2011, Prof. Mthembu undertook a trip to the USA the purpose of which was two-fold. Firstly, he delivered a paper entitled "Developing (internal and external capacity) through partnerships: a CUT case study" at the International Association for University Presidents (IAUP) Triennial Conference in New York. His paper received positive reviews and was extensively covered in the University World News Africa. The IAUP also appointed the Vice-Chancellor as a member of the IAUP/UN Commission for Disarmament Education, Conflict Resolution and Peace. In addition, he was also selected as the Regional Chair:

Sub-Saharan Africa, and as a result, a member of the Executive Committee of the IAUP.

Secondly, the trip also explored opportunities to further forge strategic partnerships with US universities and organisations. Some of these included meetings with the Council for Advancement and Support of Education (CASE) and the National Association of International Educators (NAFSA).

CUT's Vision 2020 commits the institution to the socio-economic development of the central region of South Africa by being an engaged university that focuses on producing quality social and technological innovations. In order to achieve the vision a strong emphasis is placed on forming strategic partnership such as the one formed with IAUP and others during the course of the visit. CUT looks forward to long and successful partnerships. ■



# Students talk about what CUT's Feeder School Bursary Partnership Programme means to them

The CUT Feeder School Bursary Partnership was established in 2010 in an effort to redress the institution's development relation with high schools that have been identified in the region.

The purpose of the programme is to assist learners who consistently perform well in Science, Engineering and Technology (SET) subjects to continue their studies through the bursary. The best learners in Mathematics and Physical Science are funded to study through this initiative, which forms part of CUT's Vision 2020. It also strengthens relationships with feeder high schools, supporting not only the learners but also the schools.

We asked two bursars of the Feeder School Bursary Partnership and future leaders of the country a few questions on their experiences thus far.

Jacques van Niekerk is a second year Civil Engineering student and Lehlohonolo Sithole is a second year student in Electrical Engineering.

## What inspired your decision to study at CUT?

**Jacques:** One day I would like to be a civil engineer and CUT offers me the best options in this field of study.

**Lehlohonolo:** As I am from a technical school background, CUT was always high on my list of institutions to continue my studies at. After careful consideration I chose CUT because the university offers a high standard of education, a record percentage of students are employed after graduating at CUT in my field of study, and it has exceptional lecturers and a very appealing campus which is central and neat with good facilities.

## What are your plans for the future?

**Jacques:** I would like to complete my BTech degree - four years - in Civil Engineering and then begin my career at an established engineering company.

**Lehlohonolo:** When it comes to my plans for the future, they are not set in stone. The world of electrical engineering offers me various options, such as working for large companies i.e. Eskom or in the mining industry and then there is always the entrepreneurial option.

## Has the Feeder School Bursary helped you in a significant way?

**Jacques:** The bursary makes a significant difference; without the extra help I would have been struggling to meet most of my study essentials.

**Lehlohonolo:** The bursary makes a huge difference in my family. I am one of four children, and we survive on a teacher's salary. The bursary alleviated the cost of my education on the strained family budget. ■



■ Jacques van Niekerk & Lehlohonolo Sithole

# STEPS

## Project moves Vision 2020 up a gear

**The STEPS Project is a major undertaking spanning the entire university curriculum.**

STEPS - the Strategic Transformation of Education Programmes and Structures is a massive and concerted undertaking mandated by Senate to give substance to Vision 2020. Vision 2020 envisages CUT as a new-generation institution, contributing to the development of the region and beyond, through adopting an output and impact focus and building sustained partnerships with business, government and industry.

Taking its orientation from this vision, the STEPS process began with a major conference in mid-2010 to explore the distinctive nature of a university of technology, and to hear the expectations of employers of CUT graduates. The key insights from the conference were taken into a workshop of some 100 CUT academics and management staff in August 2010. The workshop delegates, through intra- and inter-faculty discussions, identified key strengths and weaknesses in CUT qualifications and processes, and important areas for further consideration. By year-end these priorities had been assigned to 18 inter-faculty task teams of CUT academics, mandated to research the topic assigned to them, and to propose recommendations to address the issues.

The STEPS Project is a major undertaking spanning the entire university curricula. "STEPS will stretch our thinking and expose us to new ideas," said Prof. Thandwa Mthembu and STEPS champion, at the beginning of 2010 and the start of the project.

Several of the task teams formulated subsequent to the workshop were briefed to look at rationalisation and innovation within the

four Faculties. Others were to explore the viability of several new problem oriented, career-focused, interdisciplinary curricula that had been identified at the workshop. Yet others were briefed to explore and make recommendations on university-wide matters such as the admission of under-prepared students, innovative teaching and learning, Work Integrated Learning (WIL), continuing education and inter-faculty research. In this manner, STEPS has involved the majority of academics at CUT in some way or another for the past 18 months, shaping innovations to implement Vision 2020.

This half-year has seen the outcomes from the STEPS task teams including nine new and re-engineered curricula with a developmental orientation, as well as numerous proposals for improved teaching, work-integrated learning, and student preparedness coming to fruition and being tabled at Senate and Council.

In 2012, the process of accreditation will commence which is an exciting and much anticipated outcome of the project. Seven of the qualifications are entirely new. These are grouped as follows:

### **New Curricula addressing improved Service Delivery for Development**

- Higher Certificate in Community Development Practice
- Advanced Diploma in Logistics and Transportation Management
- Advanced Diploma in Health Management

### **New Curricula addressing improved Sustainable Development**

- Higher Certificate in Renewable Energy Technologies
- Diploma in Sustainable Energy Advising
- Advanced Diploma for Agricultural Extension Officers
- Bachelors in Hydrology and Energy Technologies





■ Ms Getrude Bohloko, Deputy Registrar: Academic Administration, Prof. David Ngidi, Dean of the Faculty of Humanities, Prof. Mark Orkin, STEPS project co-coordinator engage during one of the final task team sessions for 2011.

## ***Two further curricula have been radically transformed***

*The Baccalaureus Educationis (BEd) programmes - offered to future teachers - have been fundamentally redesigned around school-based learning. Education Studies will be taught as integrated, cross-cutting themes, rather than in disciplinary silos as in the present programme.*

*Another exciting transformation is the Diploma in Design and Studio Art that has been designed to replace the present ten sub-critical design-related programmes. The new qualification will produce multi-dimensional 'creatives' who can produce over a range of visual platforms, and includes modules on professional practice and business entrepreneurship ensuring a well-rounded curriculum.*

*During the course of the STEPS process numerous documents have been written and circulated, which consolidate the evidence, rationale and conclusions that have been reached. These, as well as inputs to the conference, may be accessed at <http://www.cut.ac.za/steps/index> by anyone who would like more information in this regard.*

*STEPS has contributed greatly to the CUT's Vision 2020 goal attainment of socio-economic development of the central region through social and technological innovation by shaping the academic future and ensuring high-quality, niche-focused teaching and learning.* ■



# Government and CUT become partners in better service delivery for central region

■ Masego Seate and Neria Semela, AAT students, Prof. Thandwa Mthembu, Ms Chantyl Mulder, SAICA Senior Executive: Professional Development, Transformation and Growth, and Ms Eloise Laurence, CUT Project Manager for the AAT programme.



Two projects, which are delivered in partnership with government, have had an indelible effect on the potential careers of government officials as well as service delivery of the organisations.

CUT and the Free State Department of Education (DoE) began talks in 2008 on how to assist the FS DoE better their employee deliverables and qualifications in the Human Resources (HR) section through comprehensive training, and in 2010, the first group of 55 students were enrolled for the National Diploma in Human Resources Management. The group are full-time employees of the FS DoE at various locations (Bloemfontein, Welkom, Sasolburg and Phuthaditjhaba) hence they attend classes in block sessions varying from two to four hours.

They have the same coursework as a regular NDIP HR Management student and write the same assessments as the full-time students, which pose a challenge to the students and lecturers - but one they plan to overcome. A tight ship is run to ensure quality standards are upheld.

The ground-breaking project under the leadership of the School for Entrepreneurship and Business Development in the Faculty of Management Sciences will be completed in January 2014, and we look forward to the end results with great anticipation.

The second project is the new Accounting qualification offered at CUT in partnership with the South African Institute for Chartered Accountants (SAICA) and the Association of Accounting Technicians (AAT).

The first group was awarded the Association of Accounting Technicians certificate on 2 November 2011. The qualification was launched at CUT in 2010 to give clerical-administrative accounting professionals the opportunity to study a prestigious internationally recognised accounting body qualification. The qualification also was put in place to assist government with Operation Clean Audit 2015, to help municipalities across the central region and beyond with reducing wastage and ensure better financial management.

The qualification has been targeted at all staff levels from clerical-administrative to professional accounting positions ensuring that accounting and financial employees are provided with the skills they need to make a positive contribution to a business or financial department. The qualification offers three certificate levels: the first year culminates in a Certificate of Accounting, the second year in the Advanced Certificate in Accounting, and the final (third) year is the Diploma in Accounting.

CUT's Vision 2020 commits the institution to the socio-economic development of the central region of South Africa by being an engaged university that focuses on producing quality social and technological innovations. In order to achieve the vision a strong emphasis is placed on forming strategic partnership such as the one formed with SAICA, AAT and government. ■

# CUT and partners join hands for socio-economic development of the central region

*Like any institution that wants to be taken seriously, CUT needs to build robust relationships with important strategic provincial and national stakeholders, including private sector leaders.*

*The signing ceremonies between CUT and AHI BFN, as well as the Foundation for African Business and Consumer Services (FABCOS), took place on 25 and 27 October 2011 respectively. The Memorandums of Understanding (MOUs) were an important course of action for developing the strategic partnerships. The MOUs can be seen as the outcome of various consultative processes between CUT and both partners and the signing of the MOUs served as an important milestones to demonstrate the value of these partnerships in driving CUT to strive for even higher goals and making the institution's endeavours a continuing success story.*

## AHI BFN

*The partnership between CUT and AHI was not a new endeavour but now has been formalised and both organisations are looking forward to a fruitful working partnership.*

*A project show-casing tour took place on 10 August 2011 and key stakeholders in the AHI collective were invited to CUT's Bloemfontein Campus for the tour and a brainstorming session. The purpose of the experience was to identify fields of interest where the two organisations can join hands. The project show-casing tour included various projects undertaken by the Centre for Rapid Prototyping and Manufacturing (CRPM) and the Product Development Technology Station (PDTS), such as the automatic medical bed for the prevention of bed sores, various medical implant devices, and the water trough mould-making animal drinking water troughs.*

*"The signing ceremony is a reaffirmation and approval of AHI BFN that CUT is on the right track in pursuit of its commitment to building partnerships with various institutions", said Dr André van den Berg, AHI BFN Chairperson. He continued by stating that "It is also an acknowledgement that the signing of the MOU is the beginning of an exciting collaboration between the two institutions".*

*CUT has a vision that by 2020 it will be a university that focuses on producing quality social and technological innovations in socio-economic development. To achieve this, CUT has formulated various strategic sets and one of them is building strategic partnerships, which will assist the institution to focus on innovation for industrial and socio-economic development and establish incubation platforms for SMMEs and therefore, the AHI BFN as well as FABCOS are key partners to the vision. >>*

# FABCOS

*For the past year, CUT has held talks with FABCOS to address ways and means of maximising partnership opportunities for the mutual interest and aspirations of both. It was in February this year that a process of establishing FABCOS as a partner to CUT was set in motion. Members of FABCOS visited CUT's Bloemfontein Campus to explore the University's innovations and research in science, engineering and technology.*

*The intent of the partnership is to bring CUT and FABCOS together to focus on exploiting the organisational strengths of the two parties for the benefit of the socio-economic development and advancement of the central region. Specific initiatives that will be pursued through this agreement include: holding brainstorming sessions on a quarterly basis to identify and set in motion joint projects of mutual interests; and identifying areas of development that require specific proposals or solutions, which will propel the partnership forward in terms of advancement of the region.*

*We look forward to a long, prosperous and flourishing partnership with both organisations, engaging more partners as we continue down the road of excellence.*

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■ (From the left ) Ronald Masheane, Mechanical Engineering BTech student shows Prof. Mojalefa Ralekhetho, former acting Deputy Vice-Chancellor: Resources and Operations, Ms Rothea van Biljon, and Dr André van den Berg, AHI BFN management a concept car that could potentially assist the disabled.

■ Prof. Talvin Schultz, Deputy Vice-Chancellor and Principal: Institutional Planning, Partnerships and Communications, and Mr Paul Mohosho, Chairperson of FABCOS in the Free State Province during the signing ceremony at CUT.



■ In the CUT mechanical workshop, Mr Ludrick Barnard, Director of PDTS explains how the automatic medical bed for the prevention of bed sores works to the group.



■ Prof. Talvin Schultz, Deputy Vice-Chancellor: Institutional Planning, Partnerships and Communications at CUT, and Dr André van den Berg, Chairperson of AHI BFN, engage during the MOU signing ceremony.









# *University Life*



Central University of  
Technology, Free State



A time for new beginnings

# Spring G

September is marked by trees and flowers in vernal bloom a time for new beginnings. On 9 September 2011, the university took time out of the usual academic calendar to acknowledge the achievements of our graduates.

Certificates, diplomas and degrees were awarded during the ceremony with eight master's degrees and three doctorates conferred in the four faculties: Engineering and Information Technology, Health and Environmental Sciences, Humanities, and Management Sciences.

CUT's Vision 2020 places the institution on the road to enhancing our fit for purpose training and development, encouraging critical discourse. ■



■ Pictured are from left Prof. Ryk Lues, co-supervisor of the study, Marina Snyman MTech in Environmental Health: "Isolation and antimicrobial susceptibility characterisation of *Listeria* spp. At selected food premises in central South Africa", and Dr Olga de Smidt, also co-supervisor.

■ Prof. Herman Vermaak, co-supervisor of the study, Daniel De Bruyn - MTech in Electrical Engineering: "Investigation and development of a system for secure synchronization of information in a wireless mesh network", and Mr Ben Kotze, supervisor of the study.



■ Prof. Carlu van der Westhuizen, supervisor of the study, Mowelase Shiya MTech in Agriculture: "Relationships between rainfall, veld type, stocking rate and productivity of Bonsmara cattle in the arid-sweet bushveld at Mara research station, Limpopo Province", and Prof. Pieter Fourie, co-supervisor.



■ Dr Masilonyana Motseke, supervisor of the study and Kgantse Kiri MTech in Education: "Factors contributing to poor discipline among grade 7 learners in Maokeng primary schools in the Free State Province".

# raduation



Dr Willem Boshoff received his Doctor Technologiae: Public Management. The title of his study: "Political reality of local government service provision in the Free State Province". On the photo with him is the Dean of the Faculty of Management Sciences, Prof. Albert Strydom.

Dr Walter Derbyshire received his Doctor Technologiae: Environmental Health. The title of his study: "Game meat production in the Xhariep district of the Free State Province: Evaluating and optimizing resources". On the photo with him is his study promoter Prof. Ryk Lues, Director of the School of Agriculture and Environmental Sciences.



Dr Desmond Thobi received his Philosophiae Doctor: Educationis. The title of his study: "Developing an induction and mentoring programme to assist newly appointed principals in selected education districts in the Free State Province". On the photo with him is his promoter, Prof. Gabriel Schlebusch, associate professor in Teacher Education.



Dr Walter Derbyshire, Prof. Thandwa Mthembu, Drs Desmond Thobi and Henk Boshoff during the Doctorandi Dinner.



# CUT's second Professorial Inauguration in 2011

Prof. Almon Shumba presented his inaugural address on child abuse as a form of violence to children, which is practiced by perpetrators, including some teachers who are entrusted to protect and guide learners.

Prof. Shumba from the School of Teacher Education in the Faculty of Humanities, a decorated scholar with more than 58 published articles, 22 papers read at international conferences, and recently rated as a NRF researcher joined the academic elite on 14 September 2011. His inaugural address, *Child Abuse in Schools: Issues and Challenges*, briefly touched on the three well-documented abuses; sexual, physical, and emotional, but also highlighted a fourth abuse called the hidden curriculum. This abuse was revealed and documented by Prof. Shumba during the course of his research.

Over that past few years CUT has inaugurated five new full Professors, with many more to come. In 2010, CUT appointed five research professors, which is a remarkable academic achievement for a university of technology.

Teachers play an important part as role models and moral educators within schools, because they act in loco parentis to their learners. As such, teachers are expected to guide their learners and make them aware of their role and place within society. However, whilst most teachers can be trusted to respect their learners and not inflict harm, it sometimes happens that a teacher abuses his or her position of power and authority in the school and chooses to disregard the human rights of children. Child rights are human rights, and children are entitled to full protection from all forms of abuse, neglect and exploitation, as enshrined in the United Nations Convention on the Rights of the

Child. "Child abuse knows no boundaries," said Prof. Shumba. He added that the effects on abused children may include hostility, aggression, alcoholism, withdrawal from society, and depression.

The hidden curriculum abuse revealed by Prof. Shumba may be one of the oldest forms of abuse that was neglected and never well-documented; it refers to children being involved in the domestic chores of the school and/or teacher. This includes grocery shopping, babysitting young children, fetching water and/or firewood, washing a car or clothing, etc.

**The hidden curriculum abuse revealed by Prof. Shumba may be one of the oldest forms of abuse, which was neglected and never well-documented.**

Prof. Shumba ended his inaugural address by stating that perpetrators of abuse should be blacklisted, and that as a society we should work hard to make learners aware of such maltreatment.

CUT's Vision 2020 trajectory has in part the goal of focusing the world's attention on CUT and the central region for socio-economic development, but also to showcase the outstanding capacity we have, and with strong researchers of Prof. Shumba's calibre this goal will be achieved. ■



■ Prof. Almon Shumba, Dr Gift Vinger, Registrar at CUT, Prof. David Ngidi, Dean of the Faculty of Humanities, and Prof. Isaac Ntshoe, research professor in the field of Vocational Pedagogy and programme director for the evening.

■ Prof. Almon Shumba during his inaugural address



# *CUT celebrates three decades of technological and social innovation*



CUT celebrated 30 years of technological and social innovation, as well as our university's heritage, from 19 to 23 September 2011.

CUT's 30th anniversary coincided with the national Heritage Week, which was considered an important platform to celebrate the CUT's heritage in the context of what it has contributed to the socio-economic development of the central region. During its existence, CUT has witnessed many changes and tremendous achievements in serving the central region of South Africa and the country as a whole. This milestone is a reflection of the University's pursuit of quality education and academic excellence. The university celebrated its heritage by showcasing its intellectual products, as well as social and technological innovations. Here are just some of the highlights during the week long festivities:



Official Opening Event of the 30 Year Celebrations on 19 September 2011.



## *Open Exhibition of social and technological innovations in each of the four faculties.*



*Faculty of Engineering and Information Technology, 19 September 2011. Computer Systems Engineering students, Elie Ngandu (NDip) and Tebello Mohola (BTech) with the autonomous driven vehicle.*



*Faculty of Engineering and Information Technology, 19 September 2011. A group of second-year Civil Engineering students at the open exhibition. From left: Besto Moleko, Thabang Ngobeni and Mpanyane Makhene.*



*Faculty of Health and Environmental Sciences, 19 September 2011. Staff members taking part in the exhibition, from left: Ms Juanita Jonker, School of Health Technology, Ms Nicky Nigrini, Faculty of Health and Environmental Sciences, Mr Kobus van Vuuren, visitor to the exhibition, Ms Claudia Diré, School of Agriculture and Environmental Sciences, and Ms Jeanette du Plessis, School of Health Technology.*



*Faculty of Health and Environmental Sciences, 19 September 2011. A group of second-year students in the Emergency Medical Care programme at the exhibition in the Main Hall.*



*Open Exhibition - Faculty of Humanities, 19 September 2011. During the week-long celebrations the School of Design Technology and Visual Art exhibited various art forms. Pictured are Mr PW Burger, lecturer in the school, and the talented second-year student, Lefa Thabakholo, posing with his self-portrait.*



*Open Exhibition - Faculty of Management Sciences, 22 September 2011. Dr Zorada Hattingh, lecturer in the School of Tourism, Hospitality and Sport, Thobei Thobei (BTech Tourism), Leigh Kinnear (BTech Hospitality Management), and Sello Pule (BTech Tourism) assisting at the exhibition.*



*Faculty of Management Sciences, 22 September 2011. School of Government Management representative.*



*Open Exhibition - Student Services, 19 September 2011. At the exhibition of CUT's Choir accolades is Lebohang Masheane, project assistant at PDTS, Maraka Lefera, second-year Human Resource Management student, and Moletsane Teboho, student assistant in Governance and Student Life.*

***CUT has a proud sporting history with Alumni that includes rugby greats Os Du Randt and André Venter as well as Zola Budd, former Olympic track and field competitor and world record holder.***



*La Boule Competition (a French ball game), 20 September 2011*



*Basketball Hoop Shooting Competition, 20 September 2011.*



## *Academic Development and Support Seminar, 20 September 2011.*



*Mr Nico Baird, Instructional Designer at E-Learning and Education Technology, presents the active learning centre and smart class concepts at the seminar.*



*Academic Development and Support Seminar  
20 September 2011*

## *Community Engagement Workshop, 20 September 2011.*



*During the workshop Prof. Laetus Lategan, Acting Deputy Vice-Chancellor: Academic shared CUT's Vision 2020 and the broad focus of the new strategic trajectory.*



*From left: Facilitator for the workshop, Dr Jerome Slamet, Senior Director of Community Interaction at Stellenbosch University, Ms Jeeva Munsamy, Community Engagement Manager at CUT, and Prof. Laetus Lategan.*



*Food and Beverage Training, 20 September 2011. The napkin folding session was presented by Mr Marius Burger, and pictured are Ms Priya Nundlall, Institutional Planning, Partnerships and Communications, and Ms Natasja Theron, Office Manager of the Vice-Chancellor learning the finer techniques of napkin folding.*



*Dean's Cocktail Event, 20 September 2011.*

## *Beer and Tapas evening with Loyiso Gola on 20 September 2011.*



*Atrio Coffee Lounge at the Hotel School,  
21 September 2011.*



*From left: Master of Ceremonies, Lindsay Batterson, Ms Grethe de Wet, lecturer at the Hotel School, Loyiso Gola, South African comedian, and Prof. Thandwa Mthembu, Vice-Chancellor and Principal.*

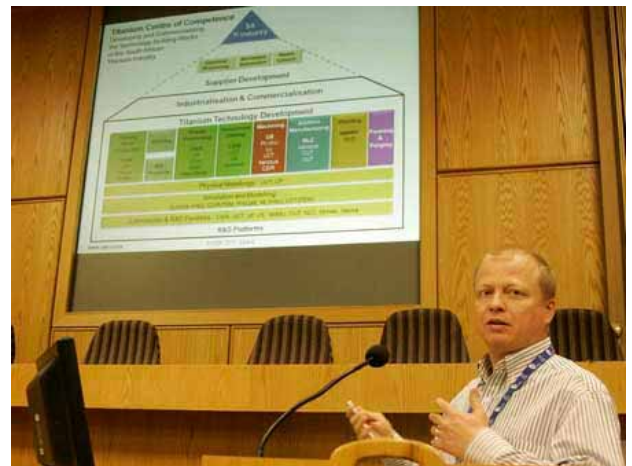


*Loyiso Gola on stage entertaining the guests with his hilarious outlook on life.*

## *Titanium processing with direct metal sintering seminar, 21 September 2011.*



*From left: Prof. Deon de Beer, Vaal University of Technology, Prof. Jorrie Jordaan, Director of Technology and Innovation at CUT, Dr Hilda Chikwanda, CSIR, Mr Gerrie Booysen, Director of CRPM at CUT, and Dr Oliver Damn, CSIR-TiCoC.*



*Dr Oliver Damn, providing an overview on the Titanium Centre of Competence.*



## *Celtic vs. CUT, 21 September 2011.*



*The Bloemfontein Celtic Football Club enjoyed a friendly game of soccer against CUT.*





*Traditional dress and food was on exhibition, hosted by student cultural groups.*



*Dance Club, 21 September 2011. Various student groups including the drama society, dance club (pictured), and the poetry club showcased the talent on campus.*

## ***Fun Run for everyone!***



*Fun Run on 21 September 2011.*

## ***Sparkling Wine and Sushi evening with Jeannie D and Chef Janice Mentor.***



*Head Chef Lize Jacobs of CUT's Hotel School, Jeannie D, and Janice Mentor.*

*Mr Hein du Plessis, a guest at the event, Janice Mentor, and Jeannie D sushi it up.*





## *Coaching session in action.*



*Jeannie D gives Mr Teboho Ncokazi chopstick tips.*



*Dr Hanette Brewer  
busy coaching the  
group of eager  
students Netball on  
22 September 2011.*



*Tour guide Mr Johan Hattingh,  
lecturer at the school recounts  
the history of Bloemfontein and  
South Africa at the national Anglo-  
Boer War Museum and Women's  
Memorial.*

## *City Tour and Gourmet Picnic*



*On various days  
during the 30 year  
celebrations, an  
open top bus City  
Tour and Gourmet  
Picnic was hosted  
by the School of  
Tourism, Hospitality  
and Sport.*



*A group of Hotel school students who assisted guests on the tour and picnic.*



*Public Lecture with Dr Daan Velthausz, 22 September 2011.  
Dr Velthausz from the Netherlands was the guest speaker. The lecture entailed innovation reflecting on what has happened and will be happening in technology and innovation around the world.*

## ***Food and Wine pairing with Ryk Neethling and Lize Jacobs.***



*On 22 September 2011 Ryk Neethling, Olympic Gold Medalist born and raised in Bloemfontein and Lize Jacobs listen as Mr Marius Burger discusses the finer points of wine tasting.*



*The sportsman chats about his 20-year swimming career and the Olympic gold medal he and three team members received in the 4100 m freestyle relay.*



*Teargas pose for a photo before taking to the stage in the Boet Troskie Hall.*



*CUT students perform as support Act for Teargas on 23 September 2011.*

## ***Dean's Seminar on the next generation of academics on 23 September 2011.***



*Dean of the Faculty of Engineering and Information Technology, Prof. Alfred Ngowi takes the floor at the seminar.*



*Academic staff members take part in the Dean's Seminar, discussing the next generation of academic.*



# Founding members join CUT for a day of commemoration

CUT celebrated 30 years of social and technological innovation throughout 2011. On 25 November, the celebrations came full circle when the founding members - who were instrumental in the establishment of the institution were invited back to the campus to observe the progress made and reminisce about the beginnings of our beloved Central University of Technology, Free State.

CUT began as a Technical Institution in temporary buildings on 1 January 1981 and the administrative staff component was two - an administrative officer and a secretary. Only 280 students enrolled in 1981 and measured against the thousands we have today, one can but smile at our humble beginnings.

Our founding members were welcomed back at the campus by Prof. Thandwa Mthembu during an afternoon session that included a campus showcasing tour. "Welcome back to a university that so many of you helped to build. Our foundations are so strong because of you," said Prof. Mthembu. >>

Mr Diteboho Segopa and Tshepo Modisenyane, CUT's tenors and final year students in NDip: Marketing and NDip: Electrical Engineering respectively.



■ Our three Vice-Chancellors to date are (from the back): Prof. Japie van Lill - 1981 to 1995, Prof. Bertus Koorts 1996 to 2006, Prof. Thandwa Mthembu 2007 to current.

■ The group takes part in the project showcasing tour (Prof. Japie van Lill in the middle). CUT'S first Rector.

*Prof. Japie van Lill, CUT's first rector (1981 to 1996), affirmed that CUT's motto from day one was "Science in Practice". This still is the case today, with a slight variation on the words. Prof. Mthembu emphasised this during his address; stressing the importance of continuing to bring social and technological innovations to the forefront. "We have to enter the space of social innovations as not all problems can be solved with technological innovations," he said.*

*Prof. Chris Jansen van Rensburg, a pillar in the university's history, started working at the institution in 1983 and for 22 years toiled tirelessly to improve our institution. He noted that he was struck by the enthusiasm of the staff members when he joined, despite the challenges they were facing. Prof. Van Rensburg remembered the days when Prof. Van Lill enrolled students by hand in a leather-bound book, pruned the roses himself, and when CUT owned only one photocopier machine.*

*Prof. Mthembu focused on the vision change the institution had recently embarked on. He stressed that our core business of teaching and learning and the focus on science, engineering and technology were intact. The new Vision 2020 has four key objectives: being an engaged university; high quality of social and technological innovations, socio-economic development, and the significance of focusing our efforts on the central region. "We want to see the fruits of our research, it must change the region through social and technological innovation which will lead to socio-economic development," explained Prof. Mthembu. He added that CUT has been able to convince the Free State Provincial Government to invest in the youth of the province - a remarkable achievement as an academic institution.*

*Another aspect that was touched on was that CUT would like to encourage two-way interaction between the institution and the broader community for mutual beneficial partnerships. We believe that engagement is vital, and not only delivering service or outreach programmes, we want to engage our partners. Our belief is that we will become a world class university by uplifting our local region, thinking globally but acting locally. Our actions toward this can be seen through the AAT qualification assisting municipalities with Operation Clean Audit 2015 by training staff in good accounting practices. "We have also shifted our fundraising initiative to a new view, no longer soliciting money but drawing up partnership proposals using our innovations and channeling our energy into the Diversified Income Project (DIP), and in so doing, engaging government, business and industry. Finally, centres and units such as the Centre for Rapid Prototyping and Manufacturing (CRPM), the Product Development Technology Station (PDTs), FabLab, the National Medical Device Innovation Platform (NMDIP), the Seda Agricultural and Mining Tooling Incubator (SAMTI) have the ability to bypass tedious organisational processes and in so doing "get the work done". Their establishment makes a major contribution towards the turnaround time at which CUT can produce social and technological innovations. All these undertakings and many others will make CUT fit for purpose and will ensure that we can achieve our new Vision 2020", announced Prof. Thandwa Mthembu. ■*



■ Prof. Thandwa Mthembu, Dr Boet Troskie, Mr Tate Makgoe, Prof. Japie van Lill, and Prof. Bertus Koorts.



■ Dr Boet Troskie, CUT's Chancellor was the host for the evening at his home - Eden Place.



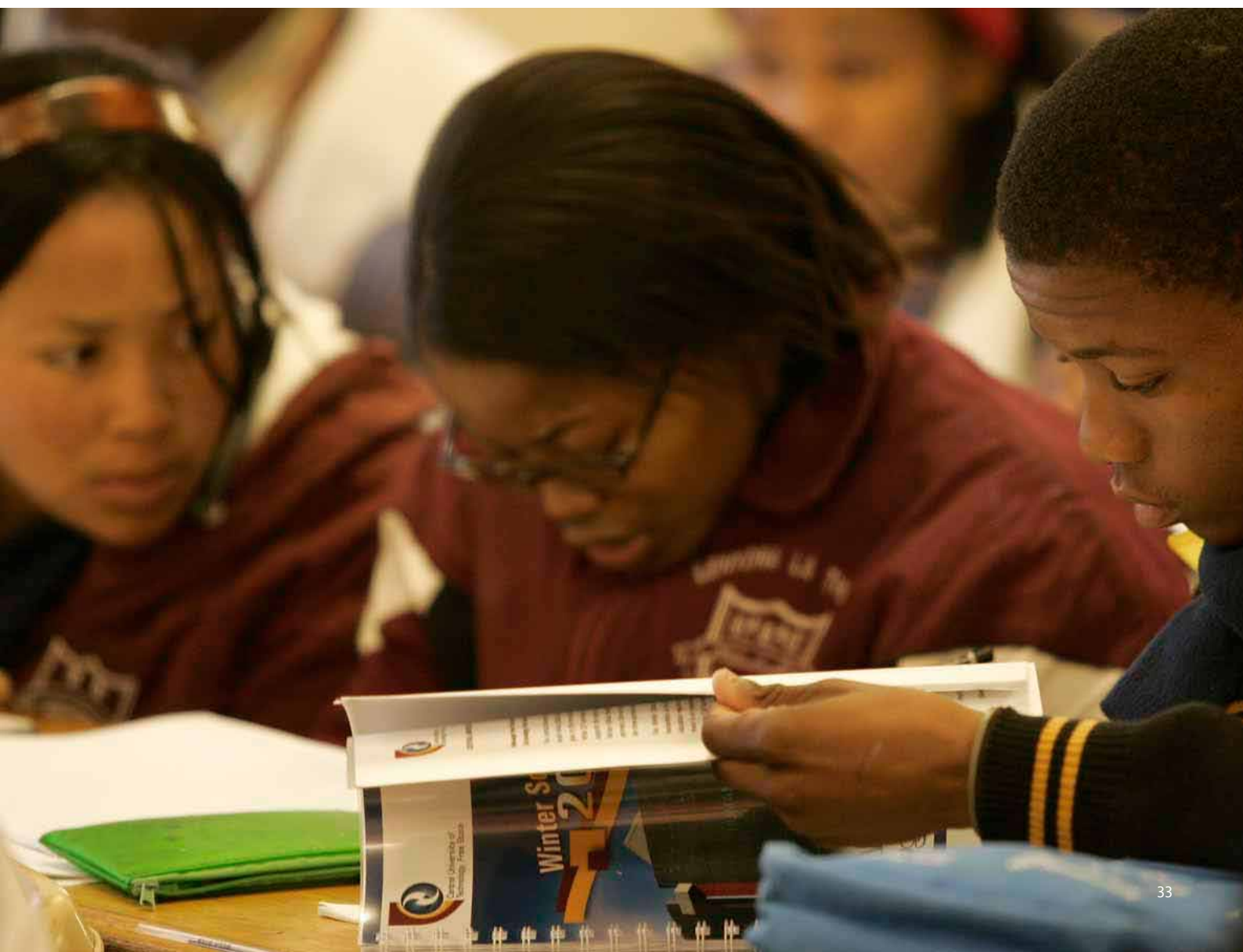


# Partnership project prepares Grade 12 learners for their final exam

*The Winter School project, a strategic partnership between CUT, Standard Bank South Africa, and the Free State Department of Education, began with the aim of assisting a few learners to better understand their subject content with a week of extra classes once a year. This would help to prepare them for the final Grade 12 examinations. Since its inception, the project has grown to some 2 800 learners at the Winter School (June/July recess). With the growing interest and the success of the project, CUT and its partners expanded to include a Spring School during the September recess.*

*The subjects are offered by CUT lecturers and qualified teachers, and include Economics, Life Sciences, History, Mathematics, Business Studies, Geography, Accounting, Physical Science, Engineering, Graphics and Design.*

*2011 saw a record number of students attending the Winter School a total of some 2800 matric learners. >>*



*The Summer School was attended by 1 500 learners. In 2010, the Free State Department of Education identified schools that needed assistance with learning and made it compulsory for learners from these schools to attend. These schools noted a vast improvement in their final Grade 12 results, which may be an contributing factor to the record number of learners who attended in 2011.*

*During the official opening of the Winter School, the Free State MEC of Education, Mr Tate Makgoe, was vocal about the fact that education, and particularly mathematics, would alleviate South Africa's backlog and propel the country in knowledge and skills development.*

*CUT sponsored 120 learners from the Feeder Schools, which are part of the CUT Bursary Programme, to attend (For more information on the Feeder School Bursary Partnership, see the article on page 11. The Bloemfontein Campus is opened up to the learners, which includes the library for them to study in between classes. A range of mind exercise games, as well as physical activities, and motivational speakers form part of the week's activities.*

*CUT's Vision 2020 commits the institution to the socio-economic development of the central region of South Africa by being an engaged university. This major project with Standard Bank and the Department of Education delivers tangible results for the region. CUT is looking forward to a long and successful partnership. ■*

Learners engaging in the physical activities on offer between classes.







■ CUT's Boet Troskie Hall is filled to capacity at the Winter School official opening.



■ The Free State Education MEC, Mr Tate Makgoe, during his address.

# *CUT offers school learners and students the competitive advantage in innovation*

## *CUT the ideal venue for the start of National Science Week*

*CUT's Bloemfontein Campus was the ideal venue for the Department of Science and Technology to host its annual flagship event, National Science Week, on 30 July 2011. More than 500 learners, educators and officials from various schools and districts in the Free State Province visited CUT on the day of the launch.*

*The specific emphasis of the event was to review the role of science in economic development as the theme of 2011 and to promote an awareness and appreciation of science in South African society.*

*The Faculty of Engineering and Information Technology, through its Centre for Rapid Prototyping and Manufacturing (CRPM) and the Product Development Technology Station (PDTs), held a number of demonstrations ranging from the parts of jet engines to the development of medical products. Some of these inventions at CUT are hacking a trail in the field of technological innovations.*

*School learners who were invited from across the region, especially from the Feeder Schools, remain an important part of CUT's 2020 Vision. CUT is supporting these schools and the learners who steadily perform well in science, engineering and technology. Through this partnership, CUT is realising its pursuit of uplifting the central region of South Africa by means of socio-economic development. >>*



■ Learners are guided through programmers offered at CUT Open Day.

■ Learners explore the programmes offered at the Faculty of Health and Environmental Sciences during Open Day.



## CUT's Career Fair and Open Day a natural extension of the DST Science Week

### Career Fair

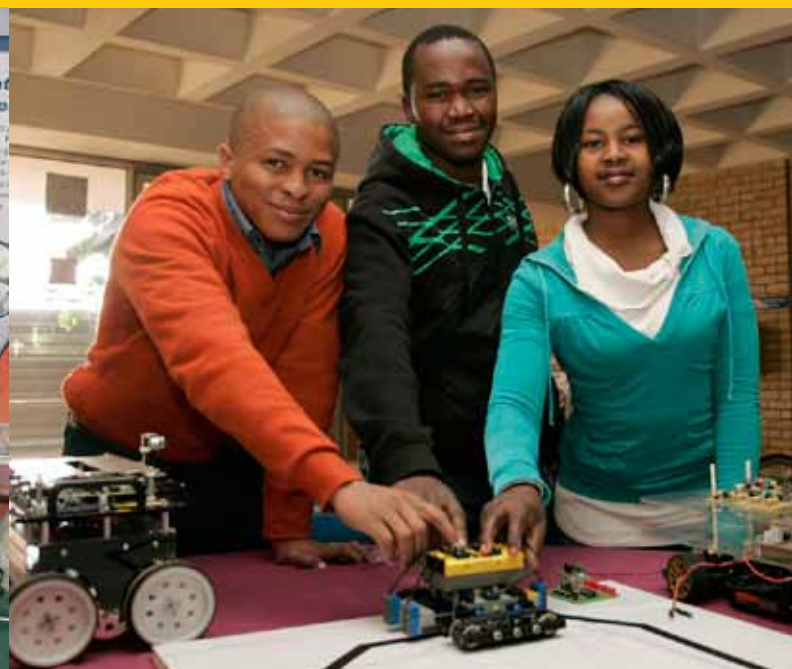
Many universities are confronted with the challenge of delivering graduates who upon completion of their studies can make an intellectual contribution and competently apply what they have learnt. This is according to Prof. Thandwa Mthembu, Vice-Chancellor and Principal, in his welcoming address at the opening of the Career Fair on 3 August 2011.

Prospective employers came to CUT's Career Fair in order to showcase a range of employment opportunities, and to facilitate the possible placement of CUT's senior students within the respective companies. The Careers Office at CUT created this platform for senior students to acquaint themselves with prospective employers. It also allowed students the chance to enhance their professional and industry interaction, as well as broaden their understanding of corporate South Africa and the inherent qualities that youth bring into their employment - beyond a certificate.

During the Career Fair, a job search coach, Mr Gerard le Roux, was present to assist students and potential employers to find common ground. CV clinics were set up to equip students with the necessary skills to compile good quality résumés. >>



■ Learners explore the exhibitions in the Faculty of Engineering and Information Technology.



■ Xolani Yokwana, Tebang Phali, and Lindiwe Bokopane, BTech (fourth year) students in the Electrical Engineering programme, exhibit their innovative projects.





■ The Boet Troskie Hall abuzz with potential graduates and companies recruiting CUT students.

## Open Day

Learners from across the central region were invited to explore CUT's Bloemfontein Campus on 6 August 2011. The four faculties arranged exhibitions and tours of their high-tech facilities.

Engineering and Information Technology, Health and Environmental Sciences, Humanities, and Management Sciences opened their facilities to learners, teachers and parents to observe academic excellence with demonstrations and general information on the programmes offered by CUT.

CUT's 20 Feeder Schools also attended the Open Day. The Feeder School Bursary Programme, in partnership with high schools in the central region, was established in 2010 to assist learners who consistently perform well in science, engineering and technology. ■



■ Ayanda Kalako and Tsholofelo Molaudi, second year Office Management and Technology students, Julia Qhoai, third year Human Resource Management student, and Karabo Motaung, third year Electrical Engineering student compiling highly competitive cv's for today's job market.



# Sustainable Development at CUT

## Preserving the environment for future generations

CUT has begun the process of implementing sustainable development as a central characteristic of the institution's strategy - Vision 2020 - and everyday operations.

Prof. Thandwa Mthembu, offered a good definition of Sustainable Development at the workshop held on 30 August 2010: "Sustainable development meets the needs of the present without compromising the needs of the future generation to meet their own needs". It is the preservation of our environmental resources.

Examples of Sustainable Development projects are recycling, the utilisation of wind and solar power, organic farming, Fairtrade certification (allowing people to identify products that meet agreed environmental, labour and developmental standards), and the Rainforest Alliance (to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behaviour).

UNESCO acknowledged the joint efforts of CUT and the Aalen University of Applied Sciences to implement a system for Sustainable Development at CUT during its spring meeting. The German National Committee of UNESCO awarded the title of "Project of the United Nations Decade for Education for Sustainable Development" for 2011/2012 to Central University of Technology, Free State. Prof. Ulrich Holzbaur hands over the award to Prof. Mthembu during his August 2011 visit to CUT.



## CUT students show their commitment to Sustainable Development

During the month of October students in the Extended Curriculum Programme (ECP) participated in a sustainable development project at CUT's Bloemfontein Campus. The exciting project incorporated group work, cartooning techniques (animation), and design principles and techniques.

Groups designed a super hero to save the planet and the final product was a combination of all the super hero designs. A larger than life version of the design was created from recyclable materials which the students collected on campus. Aqua Trash, the super hero, was erected in front of the Graphic Design Building and serves as a reminder to everyone to implement the three R's in their everyday life: Re-use, Reduce, and Recycle. >>

- Students in the front row: Molebogeng Mangena, Coliwe Ngapa; and in the back, Chaz-Lee Katz, Percy Mangoaela, Jacques Edwards. Behind the students is Aqua Trash - the new super hero on CUT's Bloemfontein Campus.





# The next stage for Sustainable Development at CUT

*Prof. Ulrich Holzbour, co-manager of Sustainability Development and an exceptional professor at CUT, traveled from Aalen University in Germany for a period of two weeks during November 2011. The purpose of his visit was to engage in workshops, discussions, and meetings with the various sustainability teams.*

*During his visit Prof. Holzbour delivered a guest lecture as part of CUT's Public Lecture Series, starting with the Johannesburg Declaration on Sustainable Development (2002), and linking the Sustainability Portfolio of CUT to the pillars of sustainability and the impact areas of the university. The three pillars of sustainability are economy, ecology and social development, and they directly mapped onto the CUT sustainability portfolio which shows the institutions commitment to change. The three pillars deliver socio-economic development on the one side, and resource and environment conservation on the other, which is part of the strategic dimension of the University's development in pursuit of our new vision and core values. The ranges of impact on campus, the community, even the nation and the world were linked to the stakeholders which include the staff and students, business, industry and government, as well as the scientific community and to the core activities such as operations, community development, teaching and learning, and research and innovation were discussed. Some of the specific projects that will be explored are the Green Campus project, energy and water, engineering for sustainability, entrepreneurship, social responsibility and community engagement.>>*



■ The Sustainable Development Management Team is Prof. Jorrie Jordaan, co-manager of Sustainable Development at CUT and Director: Technology and Innovation, Prof. Le Roux: acting Director: School for Entrepreneurship and Business Development and School for Accounting, Mr Logan Munsamy, lecturer in the School Government Management, and Prof. Ulrich Holzbour.



## *CUT joins ranks of global contributors through COP 17*

*During 2011, CUT was approached to be part of the RTCC (Responding to Climate Change) conference or COP17 (Conference of Parties), as it is generally known. The objective of the conference was to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human induced interference with the climate system. International role players took part in the massive event and CUT sent a delegation to Durban to be part of the two-week discussion. By taking part in the RTCC conference, CUT showed our commitment to engage and further explore sustainable development - making a further conscious effort to shift attitudes and behaviours. ■*



■ Dr Hester Roberts, one of the CUT delegates who attended the RTCC 2011 conference.





# *Research Excellence*



Central University of  
Technology, Free State

# Public Lecture Series 2011 promoting intellectual discourse at CUT

*CUT has made great strides over the past two years with the public lecture series - an initiative that encourages critical discourse and supports an institutional culture of dialogue and diversity in the Free State region.*

*Experts in fields such as economics, politics, sustainable development, business management, trend analytics, and assessment in higher education shared their experience, knowledge and thoughts with us.*

*Here follows a summary of each guest lecture presented.*

## **Two motivational guest speakers deliver momentous lectures encouraging CUT**

*At the beginning of the year and half-way through, two guest speakers were invited to encourage and inspire CUT's community.*

### **Stand Up and Deliver**

*"We have moved past the information age into the age of consciousness, and your greatest asset is no longer intellectual capital but talent capital," said Mr Billy Selekeane during his lecture at CUT on 31 January 2011. Mr Selekeane is an author and an internationally acclaimed motivational speaker who inspired the audience. In 2009, he was awarded the Communication and Leadership Award by Toastmasters International. He addressed the issue of values, stating that values by means of behaviour will ultimately affect the institution, and must be congruent to where the institution is heading. On the issue of teamwork and organisational culture, Mr Selekeane said "If you have found the essence of who you are, you will add that to the team; that in turn will add to your institution and in so doing you add value". He added, "Give people a chance to use their talent; we learn more from failure than success". >>*

Mr Billy Selekeane



## ***You cannot afford to fail***

*Mr Thabo Malapile's main objective has always been to equip people to discover and live their purpose; he discussed various methods to succeed during his lecture at CUT on 15 June 2011. The rationale of his lecture was to refresh, inspire and encourage CUT to move forward on the road towards Vision 2020. The Vision 2020 statement affirms that by 2020, CUT will be an engaged university that focuses on producing quality social and technological innovations in socio-economic developments, primarily in the central region of South Africa. >>*

**Mr Thabo Malapile**





## Guest speaker discusses South African economy and Africa's new trajectory

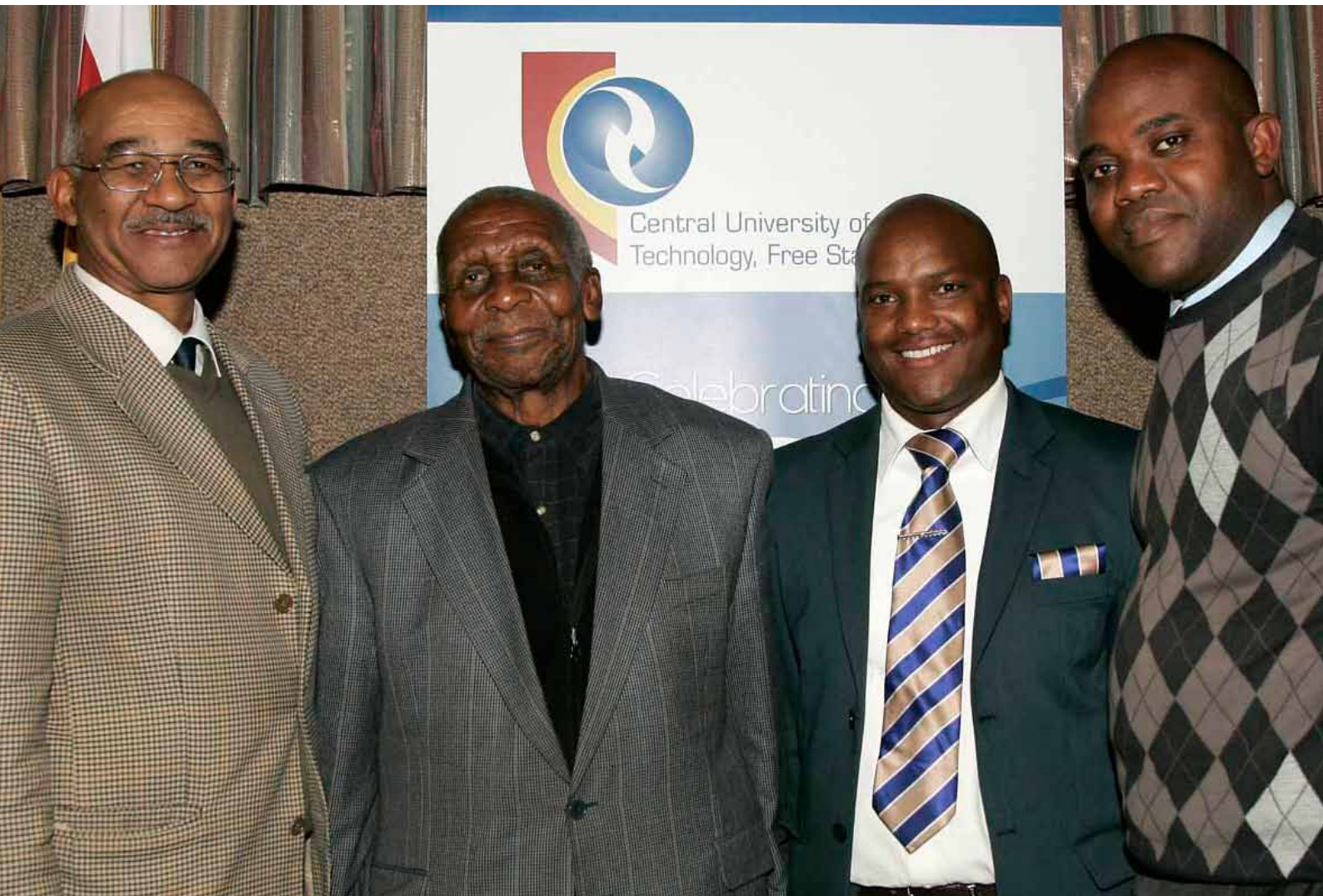
*"The world's view of Africa is outdated". This is according to Mr Mike Schussler during his guest lecture at CUT on 25 February 2011 entitled How does the South African economy compare with the Global Economy. The guest lecture was presented in cooperation with PWC and AHI Bloemfontein, two of CUT's valued partners. Mr Schussler, an economist well-known for his innovative research and for being quoted in both foreign and local media, has won the Economist of the Year Competition twice in the past ten years. "Fifty countries with a vastly different heritage, culture and needs is not something that other continents need to deal with, but best of all, Africa is starting to believe in its own future". He made this statement on the basis of fixed investment growth in Africa, which is currently standing at 12% and business consumption statistics which also show growth. "Africa is no longer asking for aid but rather trade," said Mr Schussler. "We have a good tertiary education system but results of public and international tests given to school learners show that we need to focus on upping our game in basic education system as we are not at the top of the list anymore," he added. Schussler said that although South Africa claims to be an emerging market, it grows like a developed country, and the current growth rate is 1%. He continued by stating that "We have a responsibility to grow the economy and in order to do that, the education sector must produce individuals who can do so". Schussler urged all present to assist government in becoming more efficient, stating that "if government fails, we fail". >>*



■ Mr Werner Landman, manager at PWC, Prof. Thandwa Mthembu, Vice-Chancellor and Principal, and Mr Mike Schussler.

## Discover your hidden value

*"If you stop reading, education stops." This was the word from Mr Earnest Mchunu, a guest speaker in CUT's Public Lecture Series. He advocated the discovery of one's hidden value by listening more and broadening one's outlook by reading further than your own fields of interest. Throughout the guest lecture, held on 22 June 2011 in partnership with the Black Management Forum, Free State, Mr Mchunu, a self-proclaimed "Cheeky Native" (also the title of a book he wrote), shared his lived experiences. He referred to the divided state of African nations, stating that we would move forward faster if we worked towards the same goal instead of the every man for himself system. And as a strong believer in the power of women, he also asserted that more of the world's top leaders should be women as they are the mothers and builders of the earth's consciousness. Mr Mchunu has written a book called Top Level Advice to Managers and Business Owners and he is currently busy with People at the bottom are holding me up. He made an impassioned plea for people to listen more and to look inside themselves ensuring that they discover their hidden value. "Don't confuse rudeness with cheekiness," said Mr Mchunu "but ask the burning questions". >>*



■ Prof. Talvin Schultz, Deputy Vice-Chancellor: Institutional Planning, Partnerships and Communications, Mr Earnest Mchunu, Mr George Motloi, BMF Bloemfontein Branch, and Mr Norbert Nyamsi, BMF, Free State Chairperson.



## *It's time to extricate ourselves from victim mentality*

*"Doubting ourselves of what we already know is a suffering that black people must extricate themselves in order to create a winning nation," asserted Prof. Sipho Seepe, a renowned political analyst on 21 July 2011. The lecture flowed out of an article published in the Sunday Independent on 3 July 2011 entitled Victim Mentality back among blacks. The article, followed by an interview on SAFM on 5 July 2011, made a strong statement on the self-doubt experienced by black South Africans. Much ground was covered during the guest lecture, but the common theme prevailed in most that was presented; ranging from fault-finding amongst black people to how best they can take full ownership of their lives. Prof. Thandwa Mthembu, Vice-Chancellor and Principal at CUT, a co-author of the article, said: "South Africa has a tendency of democratising issues. If there is a problem with certain teachers it becomes the education system, and not the particular teacher or teachers". Instead of tackling issues, many black South Africans have been socialised into doubting their own ability to uplift themselves and to maximise their potential and opportunities that are presented by government's transformation agenda. Prof. Seepe explained that black South Africans are not considered to be experts because they do not write and that they have a knowledge production rate of only 3% of our entire GDP, and Africa - in its entirety - less than 2% of the world's GDP.*

*"We cannot expect to move forward and grow as a country if we cannot even generate ideas but taking responsibility for ourselves. We are not producing enough intellectual capital we seem to have abandoned our intellectual responsibility," he added. "The notion that you need to be well connected in order to be successful in business has resulted in the stultification of the most innovative brains, making it difficult to come up with new innovative business ideas," said Prof. Seepe. >>*



■ Prof. Sipho Seepe and Prof. Thandwa Mthembu.



## Dion Chang discuss trends and information overload in the 21st century

Millennials, the new Generation Y, following the Baby Boomers will change careers an average of 29 times in their lifetime. The question then is whether higher education allows these fast thinking, acting, changing Millennials the options they need. The School of Design Technology and Visual Art at CUT hosted one of the most highly decorated trend analysts, known both nationally and internationally for his work in fashion and design, on 26 September 2011. Five years ago Dion Chang was determined to change the face of the industry and to assist business with macro trends (everything from politics, religion, youth culture, media, entertainment and technology), packaging information they need to know into digestible chunks that had a huge influence in the industry. "In order to cope with all the information that is flung at us in the 21st century we edit out information we see as irrelevant, but in doing so we inadvertently place blinkers on our perspectives," said Chang.

"The boundaries of business are shifting and becoming blurred; there is a tendency to cross-pollinate industries and the reason is that people are looking for instant gratification we are no longer interested in silos. Due to the fast pace of innovation some developing countries are leap-frogging technologies and overtaking developed countries. For instance, mobile banking technology can be used in certain African countries, and the technology is not even available in Europe or America," said Chang. This phenomenon of change also affects higher education and that is why CUT is busy with an intense analysis of the entire university curriculum. The ongoing STEPS Project (see page X) is an in-depth look at all the programmes offered by CUT in order to ensure we deliver graduates that can work, contribute and grow in the new world, where according to Chang, "collaboration is the new engine room of the 21st century". >>



■ Ms Carol Kühn, lecturer at the School of Design Technology and Visual Art, Dion Chang, and Prof. Frances van Schalkwyk, Acting Director of the School of Design Technology and Visual Art.

## Public Lecture explores pillars of the US educational system

*"The primary purpose of a university is the creation and dissemination of knowledge," affirmed Prof. Joyce Mac Kinnon during her guest lecture on 22 November 2011. This was her seventh visit to CUT. Prof. Mac Kinnon is a Professor and Associate Dean for Academic and Student Affairs, School of Health and Rehabilitation Sciences, Indiana University Purdue University in Indianapolis (IUPUI), USA and a visiting professor to the Faculty of Health and Environmental Sciences.*

*She said each institution that finds itself in the field of Higher Education can identify its core purpose by assessing what it focuses on predominantly and slot itself into one of four categories namely Discovery, Integration, Teaching and Application. Discovery would be a university that largely creates new knowledge; Integration would intone research in a specific group of disciplines; Teaching would be assisting students to expand their knowledge, and Application would take the discovery and apply the knowledge in the real world. Further elaborating on the four categories, she observed that our institution as a university of technology could find itself in the category of application which would suggest that we take what is known and apply it in the real world; although each institution will need to have a combination of the four categories.*

*Prof. Mac Kinnon discussed the three pillars of the American Higher Education System. The first pillar is the creation and dissemination of knowledge, universal access for all, no matter what gender, race, ethnicity etc., academic freedom the right to publish research results even if they are negative or unflattering to an organisation, and not imposing your own values and culture on students. The second pillar is a general education foundation that includes mathematics, science, communication, humanities, social sciences (literature) and world culture - no matter what the student is studying. And thirdly, the institution layers on their unique cultural elements. These pillars form the basis of higher education institutions in America, which in 2010 statistics showed 18 million students partaking in some form of further education and 4 000 institutions. ■*



■ Prof. Joyce Mac Kinnon during her lecture.

# *A day in the life of a Fulbright Scholar*

*By Kabelo Sebolai*

*Kabelo Sebolai, the programme coordinator of Academic Literacy Development, visited the Northern Arizona University from August 2009 to July 2011.*

*I was awarded a Fulbright Scholarship to pursue a master's degree in Teaching English to Speakers of Other Languages (TESOL) at the Northern Arizona University in the United States and I left South Africa on 2 August 2009. My first destination was Boston University, a leading private research institution with two primary campuses in the heart of Boston, where I attended a pre-academic programme for two weeks. This provided the opportunity to meet 29 other Fulbright students from across the world who would be attending universities far and wide.*

*Northern Arizona University (NAU) is one of three state universities in Arizona with a main campus located in Flagstaff. The university is primarily a four-year, high-research, residential campus offering bachelor's, master's, and doctoral degrees.*

*On my arrival in Flagstaff, I commenced my studies for the master's degree in all earnest. What made my studies at NAU exceptionally insightful was that I was taught by internationally renowned figures in the field of TESOL/Applied Linguistics including Profs Bill Grabe, Linguistics; Fredricka Stoller, Reading and Writing Instruction; Joan Jamieson, Language Curriculum Design and Program Administration; Doug Biber, Language Testing, Computer Assisted Language Learning, Grammar, Corpus and Linguistics; and Okim Kang, Listening and Speaking instruction, and Research in Applied Linguistics.*

*In March 2010, I was awarded the Albert Marchwardt Travel Grant by the international association to attend the annual TESOL Conference which was held in Boston, Massachusetts. The conference was a valuable experience where I again was afforded the opportunity to meet and interact with other experts in the field of Applied Linguistics/TESOL. The most amazing part was that I read their books and articles for my studies - a once in a lifetime opportunity! Overall, my academic experience was overwhelmingly positive; I continued my studies at NAU, co-presenting and attending various conferences during my stay in America and I graduated with my master's degree in May 2011.*

*Back in South Africa, I resumed my duties at CUT in July 2011. It was exciting to put what I had learnt to good use. I am currently focused on directing our academic literacy development efforts at - designing and developing the English for Specific Purposes (ESP) curricula. ■*



- At the end of the Spring Semester in May 2011, the English Department at NAU hosted an end of semester party. From left: JM Dunn, an American classmate in the MA TESOL programme, Dr Joan Jamieson, our Language Assessment professor, and me. Front row: Orion and Aurora, JM's children, and Hope, Aurora's friend.



- Classmates Ceann Meyers and Pakize Uludag on graduation day in May 2011.



NAU Social Science Building



- The W.A. Franke College of Business is a new five-storey building on the southern portion of Northern Arizona University's (NAU) campus. The facility includes state-of-the-art computer laboratories, classrooms, seminar and conference rooms, a student common area, a café, offices, an auditorium and business development areas.

# *CUT academics make waves in the field of air quality*

*For the first time in the 34 year history of the triennial Indoor Air conference series, two academics from the African continent presented papers; both are from Central University of Technology, Free State (CUT).*

*The 12th International Indoor Air Quality and Climate Conference, to promote the science of indoor air quality and climate, took place in Austin, Texas from 5 to 10 June 2011. The CUT's representatives were Dr Ntsoaki Malebo, Dr Karabo Shale, Ms Jane Nkhebenyane from the Unit of Applied Food Safety and Biotechnology, and Katlego Mokoena, an MTech and SoAR project student.*

*The Stars of Academe and Research (SoAR) Fellowship Programme is part of CUT's Vision 2020, which makes support available to young master's and doctoral graduates who aspire to be part of the next generation of academics; wishing to creatively contribute to teaching, research and innovation as well as to the diffusion and transfer of technologies and skills which are needed to advance the University's contribution to South Africa's socio-economic development.*

*Dr Shale and Ms Nkhebenyane presented papers titled respectively Bio-aerosol contaminants in a peri-urban dairy plant and Food-borne micro-organisms associated with aerosols in the food preparation area of HIV/Aids hospices in Central South Africa. The conference provided a platform to discuss, collaborate, and share new ideas about indoor environmental quality (IEQ) and the discussions were fruitful for the team representing CUT. Further collaboration and partnership possibilities were discussed, and they received an invitation to attend the Healthy Buildings 2012 conference in Australia. ■*



■ Pictured are Dr Karabo Shale, Dr Ntsoaki Malebo, Prof. Glenn Morison, Missouri Rolla Science and Technology University, Ms Jane Nkhebenyane and Katlego Mokoena.

# *CUT celebrates African University Day exploring art in curriculum design*

*African University Day was initiated in 1994 by the Organisation of African Unity and the objective was to sensitise people to the role of the African University in the socio-economic development of Africa.*

*The day is celebrated annually on 12 November and a theme of interest to higher education is put forward. Some of the themes over the years have touched on gender equity, the promotion of quality in higher education, preparing the African University for the 3rd Millennium, knowledge creation, distance learning, the Millennium Development Goals, and sustainable development - a subject close to CUT's heart. In 2011 the theme touched on a very real challenge and the prospects that all universities are facing, which is the harmonisation of curricula and qualifications in Higher Education.*

*CUT celebrated the day on 10 November 2011 the day was marked by the major project undertaken by the institution, namely STEPS Strategic Transformation of Educational Programme and Structures - an in-depth analysis of CUT's own curricula to ensure we keep offering the best qualifications.*

*The guest speaker, Dr Jannie Pretorius, has research interests which include aesthetic education, appreciative inquiry, and the use of popular music for lifelong learning. His discussion on art and a connected curriculum in Africa showed the audience a different way of thinking about teaching and learning, and how to engage students through different art forms. In the world of artisans they are only as good as their last performance, but in education we are spoiled by a captive audience because in order to achieve, students must be willing to learn. Can we as educators face the reality of the changing world? The influx of media tools and the ease of access has created a conundrum for educators; on the one hand they themselves benefit from the social media tools, search engines (no longer bound to research tools such as journals or workshops), but also struggle to engage a generation of over-stimulated students.*

*In concluding, the lecture delivered the following propositions to promote an engaged teaching and learning environment: using a variety of colour, sound, and equipment, be an expert in the field, ensure a deep blend of diversity, engage the students, and finally, have enthusiasm for the field of interest.*

*The high-impact session ended with a call to ensure inter-disciplinary teaching and learning, which is one of the STEPS outcomes - allowing faculties to collaborate far more than what was previously possible. STEPS is part of CUT's Vision 2020 undertaking to create an institution that encourages a diverse, democratic and academic ethos. ■*



- *Prof. Mabokang Monnapula-Mapesela, Dean: Academic Development and Support, hands over a token of CUT's appreciation to Dr Pretorius.*



- *Pretorius and Prof. Laetus Lategan, acting Deputy Vice-Chancellor: Academic, with some of the pieces used during the seminar to engage the audience.*

# *UoTs discuss new generation universities*

## *Universities of Technology: cutting edge institutions*

*"Curriculum Transformation at Universities of Technology towards the development of new generation universities" was the theme for the fourth annual conference of the South African Technology Network (SATN) proudly hosted by CUT from 27 to 29 November 2011.*

*Universities of Technology (UoT's) mandates have recently become significantly more relevant than before within the South African education landscape. Thus, this conference served as a continuation of the previous conferences in terms of the broad objectives of consolidating these mandates, including but not limited to, advocating the needs, interests and purposes of technological higher education to government, industry and other groups, as well as promoting international co-operation within the global context of the higher education.*

*The role of SATN is to provide an important mouthpiece for Vice-Chancellors of UoTs to network with one another and gain insights into a wide range of innovative best practices and developments affecting universities of technology. The SATN partnership facilitates the promotion of international co-operation; fostering links and exchanges of information with similar organisations in higher education in South Africa and abroad.*

*SATN was established in 2006 by five universities of technology, namely Cape Peninsula University of Technology; Central University of Technology, Free State; Durban University of Technology; Tshwane University of Technology; as well as Vaal University of Technology. Two years after its establishment SATN registered its own trust. The partnership further expanded to Mangosuthu University of Technology (MUT) and the Polytechnic of Namibia, after joining SATN in 2009 and 2010 respectively. It enables Vice-Chancellors of the respective UoTs to strategise around best practices, challenges and developments affecting this sphere of higher education.*

*Prof. Thandwa Mthembu, SATN Chairperson, expressed the hope that the discussions undertaken over the two-day conference on transforming curricula would lead to tangible changes. The first day looked at the philosophies, content and structure of UoT curricula, as well as technology-enhanced teaching and learning methodologies. Day two focused on quality and academic standards within the Higher Education Qualifications Framework (HEQF), as well as the implications on curricula transformation at UoTs.*

*International guest speaker Prof. Leesa Wheelahan from LH Martin Institute for Higher Education Leadership and Management at the University of Melbourne delivered a keynote address on the forms of knowledge and types of tertiary education, focusing on the implications for UoTs. "Theoretical knowledge connects the past, present and future," said Prof. Wheelahan. She stated that Work Integrated Learning should ensure that applied disciplines are transferred to knowledge curriculums, a task for UoTs as applied knowledge institutions.*

*On day two, Prof. Neil Garrod, the Deputy Vice-Chancellor at the University of Greenwich in London, delivered his keynote address on the quality, standards, programmes and structures of UoTs. He discussed various aspects of restructuring that took place in United Kingdom universities, adding that UoTs have a unique opportunity to be an enjoyable environment and have the power to be innovative, as well as distinctive and cutting edge. ■*



■ Profs. Neil Garrod and Leesa Wheelahan.



■ A group of delegates attending the conference. From left back row: Profs. Chris Jansen van Rensburg, Director of SATN, Themba Mosia, Administrator of the Tshwane University of Technology (TUT), Neil Garrod, Thandwa Mthembu, Tjama Tjivikua, Rector of the Polytechnic of Namibia, and front row: Profs. Duma Malaza, CEO of Higher Education South Africa (HESA), Leesa Wheelahan, and Irene Moutlana, Vice-Chancellor and Principal of Vaal University of Technology (VUT).



■ CUT staff members who attended the conference: Mr Rajend Padayachi, Deputy Director: Academic Planning and Quality Assurance, Ms Getrude Bohloko, Deputy Registrar: Academic Administration, Prof. Mojalefa Ralekhetho, former Acting Deputy Vice-Chancellor: Resources and Operations, and Ms Jane Nkhebenyane from the Unit of Applied Food Safety and Biotechnology in the Faculty of Health and Environmental Sciences.



# STATE OF THE UNIVERSITY OF ADDRESS

Professor Thandwa Mthembu  
Vice-Chancellor & Principal

21 January 2012

We are gathered here today, as the CUT family and stakeholders – students, parents, guardians, sponsors, leaders of business and government, professors and other staff to witness the official opening of Central University of Technology, Free State. This is an important occasion as we publicly recommit ourselves to the honorable task of educating and training the young minds in our midst and the next generation leaders.

I wish to address a special word of welcome to our students and their parents/guardians/sponsors. We celebrate with you today your entry into tertiary education. We are here to assist you in this learning process, and we wish to see you flourish here at CUT. May you go from strength to strength and accomplish all that you have set your mind to. It will require determination, self-discipline, hard work and diligence. It is indeed one of the most important steps that anyone could take in setting themselves up to succeed in life, henceforth. Remember, knowledge is power, and you are empowering yourself, through your studies, to become the best that you can be! We embrace you as part of our family, and we are looking forward to assist you on your journey of life-long learning.

You will have opportunities here to develop not only intellectually, but socially as well. There will be lots of support to your intellectual, moral, spiritual, emotional and physical health. The new building just in front of this hall and the Lapeng Centre to the west of it are dedicated to a host of student support service in all the areas I have mentioned.

Like many of the staff members seated here behind me and many in the audience who studied engineering, hotel and tourism management, graphic design, photography and fine arts, clinical technology or radiography right here, you will be a leader in the field of your choice.

Like Os Durant and Andre Venter who studied here, some of you will be great rugby players. In fact, we are the current champion of the varsity Shield Rugby Competition among 4 other universities we competed against. You know what: CUT is only 30 years old. We celebrated this in style just last year. The four other universities we competed against UKZN, Wits, Fort Hare and UWC have a total of over 300 years of life and experience. But, we beat them hands down.

Like Nicky Boje who studies here, some of you will become great cricket players. No doubt, the CUT team is the regional champion in cricket. Like Zola Budd, one of the greatest distance runners of our country, you might just get a taxi named after you.

Just one other good thing about CUT, more especially to the new students and their parents/guardians! Bloemfontein provides a very stable and calm environment. But, CUT's Bloemfontein Campus' location does that even more.

To the west, just outside the university's main gate is a police station. Should anything untoward happen to a student, we do not even have to call the police, we just shout out loud and they walk in and deal with whatever the problem is. To the east of the campus are two churches to provide almost onsite spiritual and moral care to all of us. Church bells ring all the time and remind us about our creator right in our rooms, whether we are in church or not. To the north are courts that we just walk to when there are issues that require pronouncement of guilt or innocence. There are these people who do not study on time; and, they try to cram a whole year's work a few days before the examinations. Sometimes, some screws come off in their heads. To the south of the campus, is the psychiatric hospital that quickly deals with such cases. So, the Bloemfontein Campus is very secure.

May I, therefore, welcome and thank you all for joining us on this important occasion? Your contribution as CUT's stakeholders is greatly appreciated, whether you are a direct actor in our daily endeavor of building a first-rate institution, or a member of the wider public that holds us accountable for: this public asset we manage on your behalf, for the policies entrusted to our care and for accomplishing that which we have promised.

As we welcome you all to CUT, we need to reflect together on important issues: our achievements and challenges in the recent past, as well as near-term strategic priorities that we hope will sustain us into the future. You may well ask: but some parents are here only to leave their children and listen to a short speech marking just that. But, the young minds you will be leaving behind will be with us for the next 3, 4, 5, 6 or whatever number of years. You and they better know more intimately what this university is about.



*This is the first month of my second 5 year term as Vice-Chancellor and Principal. And, for the first time in the history of CUT, and I would dare say in the history of South African universities, I am actually delivering a state of the university address to the whole internal and external community of CUT, not just a welcome address to first year students.*

*Before I do so, I should give you an idea what a Principal of a university, and I would dare say, of any institution or organisation should have or should do in his or her leadership role. Just four (4) things, namely:*

- 1. S/he must have a Plan (a vision and a strategy).*
- 2. S/he must have excellent People (to execute that vision and strategy students, staff and partners).*
- 3. S/he must have a quality Product (to sell or deliver to those interested in it; and that product, for us qualifications and innovations, must translate to something useful in society).*
- 4. S/he must have Pennies and other resources (that allow him or her to do all of the above).*

*My address will, therefore, touch on all these four fundamental aspects of what a Principal should be about and ultimately what a university s/he leads should be about.*

*I have the pleasure and honor, in this respect, to confirm that this university has reached what I may term the “tipping point” in our determined journey of building a stronger, focused, engaged and innovative institution. I expand on this theme later in my address; suffice to say that we at CUT presently stand at a critical juncture whereby the foundation for becoming a university of technology worthy of leadership should firmly be in place. The next step is becoming just that a stronger, focused, engaged and innovative public university that imparts practical knowledge and skills - which in turn contribute to socio-economic development and wealth creation in our country.*

*Let me begin my address by outlining our journey of building a purposeful and innovative university of technology. When I was honored to become the leader of this institution in 2007, I gave an inaugural address in which I shared some aspects of my vision for CUT. I enunciated it further in 2008 through what we called then, the VC’s 15 point Strategy. Through a process of engagement with internal and external stakeholders, this has become a shared vision ultimately owned by the broader CUT community. This year and beyond the Strategy Execution Unit, the executives and senior managers and all staff will use our shared vision to rally and motivate us all with steadfast fortitude.*

## **AN ENGAGED UNIVERSITY FOR SOCIO-ECONOMIC DEVELOPMENT:**

*a new generation and counter-trend university*

*Some universities enjoy ivory tower positions that masquerade as “undisturbed contemplation”, “disinterested objectivity”, “dispassionate immersion”, and “aloofness” from the rest of society. They do not want to dirty their hands and begin to look like the unwashed, “the wretched of the earth”, as Franz Fanon wrote. Yet, all universities were created by and for society to prosper.*

*In contrast to the elitist notions referred to above, our overarching idea, therefore, of a university of technology is that it has to be a new generation and counter-trend organisation.*

*According to Nasser and Vivier , new generation is a term describing those organisations, principles and methods which defy the traditional way of doing things in order to find new horizons for the process of value-creation in organisations in particular, and the nation in general. It implies that the organisation is able to take a quantum leap and effect such major changes as are required to make it a leader in its sector. New generation organisations are recognized for their high degree of innovation, psychological stamina and levels of creative insight.*

*Related to this concept is the concept of a counter-trend organisation, which they assert describes new generation organisations which are able to perform despite environmental turbulence that is, they ‘buck the trend’ of inadequate economic performance in the economy. They are typified by their ability to create value despite the many negative factors including the deteriorating mindset which surround them. They have a strong belief in their own ability to make things happen. They can overcome their tunnel vision and aversion to risk in order to become ‘can do’ organisations.*

*Being such a new generation and counter-trend organisation, CUT as a university of technology shall boldly play a direct role in socio-economic development defined simply and ultimately as lifting millions of our people out of poverty.*

*For us at CUT, what I just described above is what we believe a university of technology should be about. The rest of what we do should fit within the framework of a new generation and counter-trend university that embeds itself firmly in socio-economic development.*

*The past four years have provided us at CUT with ample opportunity to painstakingly construct the building blocks for becoming a great university of technology, the highlights of which I now turn to, before looking at what lies ahead in turning our vision into reality.*

*Earlier, I referred to this university being at a “tipping point”. In his book *The Tipping Point: How Little Things Can Make a Big Difference*, Malcolm Gladwell defines a tipping point as “the moment of critical mass, the threshold, and the boiling point.”, and I would add: a*



critical edge or state.

I stand before you to validate that we have reached such a critical state at CUT by doing a number of “little things” which in our context, mean several comprehensive reforms that we believe are key to enabling our university to lead in its field.

Permit me to share the most crucial four of these all-inclusive reforms as well as the anticipated outcomes. These four exercises broadly speaking were intended to do the following: firstly, to give us a shared purpose as a university of technology; secondly, to enable us to build a first-rate team of leaders, executives, managers and staff to carry out our vision and mission relentlessly and efficiently; thirdly to sharpen our programs and courses and align them to demand and according to relevance; and fourthly, to prioritise our budgetary resources in accordance with our core business and strategic imperatives so that we put our resources where our mouths are. By the way, they four critical reforms and challenges align with the four P’s enunciated above, as will become clearer soon.

Let us look at each of these in more detail.

## **A SHARED PURPOSE AS A UNIVERSITY OF TECHNOLOGY: CUT’S VISION 2020 (The Plan)**

Building on the notions of the role of a university of technology in development I highlighted earlier, we conceived and have begun to implement our shared Vision 2020. It has five key principles:

As a technological university, innovation is essential to our Vision 2020 we therefore see social and technological innovation to be the focus of our academic, skills development and research programs.

Measuring the result of our work is also fundamental to our vision we at CUT are not about quantity and generalities but about measurable performance, outcomes and impact subjected to systematic and robust monitoring and evaluation.

Socio-economic development and entrepreneurship is at the heart of everything we do CUT’s endeavours in knowledge-production and human capital development have to be relevant and aligned to the agenda of improving lives in our province, the central region of our country, and in South Africa as a whole. In a nutshell, our vision as an engaged university guides and grounds us into partnering with business, government and the broader society the golden quadrilateral that binds public policy, innovation and commercialization of scientific and technological ideas for creating greater prosperity.

Our geographical location and our local and regional comparative advantage as a result of our location also matter. Our location should reflect and shape CUT’s agenda and priorities because we exist primarily to address the needs of our communities, our province, region and country. Primarily, local and regional development should be the epicenter of our revolution.

Finally, quality and excellence are the glue that holds everything together. CUT has to strive and thrive in providing the best services in education and training, research, innovation and entrepreneurship development.

To assist the Vice-Chancellor and CUT’s executives as custodians of Vision 2020, a Strategy Execution Unit (SEU) staffed by a team of five senior policy analysts has been established to strengthen the centre of the university as it leads the process of implementing our vision. This recognizes the fact that the vision and strategies to achieve it require close attention in terms of well thought out and planned implementation, regular monitoring, evaluation and introduction of timely corrective measures.

## **BUILDING A FIRST-RATE CORPS OF CREATIVE AND INNOVATIVE LEADERSHIP, MANAGEMENT, ADMINISTRATION, TEACHERS AND RESEARCHERS (People)**

This is a complex process that requires a critical mass of multi-skilled and innovative minds to lead the process of socio-economic development and wealth-creation. I should emphasize here that the term “critical mass of multi-skilled and innovative minds” is not applied to mean technology specialists or nerds but to the entire body of a dynamic and socially astute university. In our case, this includes teachers or lecturers, researchers, leaders, administrators, managers, staff and students alike. Indeed as the late Steve Jobs, who built Apple, the largest technology company in the world by revenue and profit, fittingly put it, “a properly run company could spawn innovation far more than any single creative individual.”

And so it should be with a focused, efficient, effective and an innovative new generation and counter-trend university of technology like CUT. Such a university should attract and retain a critical mass of excellent, creative and innovative people who produce outcomes that can be felt by all in our society. Like a magnet, it should draw this critical mass of innovative people to its core; people who are swollen with research and other educational insights and ideas and who consequently turn such insights and ideas into useful products that help to develop our local and regional economy and ultimately our national economy. In the more flourishing cases this ‘critical mass’ grows into thousands that would form a reservoir of knowledge and talent that is put at the disposal of national developmental needs.

Let us be clear on this. It is not difficult to prove that in countries such as the United States of America, there are no successful technology hubs without first-rate and counter-trend universities, especially universities of technology. The cyber city of Boston would be inconceivable without MIT, in the same sense that Silicon Valley is implausible without Caltech, Stanford, and Berkeley. Such universities are magnets that attract innovative and creative minds, especially the young, optimistic, energetic and, I should add, ‘crazy’ people.

Such people constitute the heart and soul of experimenting with new ideas and commercializing them into start-up companies as well as creating thousands of high-tech employment opportunities. These are the people who change the world you and you and you seated there. As Apple's "Think different" commercial said in 1997: "The people who are crazy enough to think they can change the world are the ones who do". Our challenge is to create a critical mass of these 'crazies' and just change this world!

We need these types of people in all spheres and levels of our operations: in Council, the Institutional Forum, Senate the SRC, executive and senior management, administration, as well as amongst our students. Such people will constitute our first-rate A-team that will drive this university to greater heights.

Institutional success obviously depends on this A-team, and A-team people are profoundly affected by a work culture and environment. A poor environment that is not conducive to creativity, innovation and excellence drives away the A-team.

A question may well be asked: How does one learn to innovate and become a high performer and naturally a member of the A-team? Will Rogers says: "A man only learns in two ways, one by reading, and the other by association with smarter people". And, indeed, in the words of Colin Powell, "Any time you tolerate mediocrity in others, it increases your mediocrity." Now, most people read quite a lot here. As I said earlier, it's the critical mass of smarter, creative, innovative and crazy people that we need not the mediocre ones that will take this university to the next level of leadership in the sector.

Our 2011 institutional audit has shown us CUT's strengths, weaknesses and gaps and has led to an action plan of how to address these challenges. At executive level, we begin the year with a new Deputy Vice-Chancellor for Resources and Operations, who was recruited late last year. The exercise of recruiting the Deputy Vice-Chancellor for Academic Affairs continues this year as is the case with filling all vacancies at managerial and director levels across the institution.

For us, therefore, the question of capacity to deliver by attracting and retaining top performers is of great importance. We fully realize that team- creation and building is the most vital imperative and duty for CUT. We will achieve our vision only with qualitative and productive contribution from everyone in the entire system. Having a common direction, and communicating our strategy and vision of where we are going is one thing we must have an A-team to rally together and make it happen.

## **SHARPENING OUR PROGRAMS, COURSES AND INNOVATIONS, AND ALIGNING THEM WITH DEMAND (The Product)**

Having a vision and an effective team for executing it in turn requires a 'product' and this is another area in which we have been working hard to achieve greater clarity. Our reform agenda in this regard is the Strategic Transformation of Educational Programs and Structures (STEPS) process which we embarked upon in 2010. This process has enabled us to identify our strengths and weaknesses in curricula, research, innovation and other educational processes. This exercise permits us to re-shape our education and training as follows:

As a result of STEPS, we will increasingly become known as a university that has evidence of demand for its education and training. CUT qualifications should in the near term become vocationally and technologically based, targeting well-defined labor market segments and employers as opposed to graduates that may increase the ranks of the unemployed.

And taking from our Vision 2020 that necessitated STEPS in the first place, the exercise has mapped and enabled CUT to fully grasp how to be more responsive to new and pressing needs in the job market, our regional and national economy and development more broadly. A large part of STEPS has been to identify such opportunities and trends and crystallize them to CUT's course and program offerings and its research and innovation projects.

Equally important has been the question of resource implications for the entire CUT's repositioning exercise. Institutional reorganization of this magnitude naturally means aligning our resources envelopes with the tasks our vision compels us to execute, requiring more financial resources or transferring them from one field to another.

The outcome of the STEPS process has been the nine (9) brand new and demand driven programmes we shall introduce in 2013. These include programmes in renewable and sustainable energy, a revamped and innovative BEd programme and a market-oriented art and design programme you have never seen anywhere in this country. We will also rationalize a number of programmes that are sub-optimal and that lead to swelling the ranks of the unemployed. This year, we will take the new programmes through the quality assurance and approval processes.

In addition, we have a number of teaching and learning related initiatives including research and innovation initiatives, ranging from how work integrated learning will be embedded in every programme we offer; how we will deal with under-preparedness in our system; how we will provide life-long learning opportunities through continuing education for especially the working people of the Free State mainly who may never had access to tertiary education and how our innovations could be translated into economic opportunities. This is just to mention a few.

Clearly, the year 2012 is the year of implementing the STEPS outcomes as reflected above? This process should firmly set us on a trajectory of graduating young people into the market place on a far more sound footing befitting a first-rate new generation and counter-trend university of technology, and of producing research and innovation that lead to prosperity for many.

## **PRIORITISING OUR BUDGETARY RESOURCES IN ACCORDANCE WITH OUR CORE BUSINESS AND STRATEGIC IMPERATIVES (The Pennies)**

*The fourth imperative after the vision, the A-team, and the product is finance. I am pleased to report that CUT is in a healthy financial state. No millions or billions of over-draft here. We live within our means.*

*Crucially, our efforts of aligning our priorities to budgetary resources have paid significant dividends. We will continue to work in this area for even better results in the coming years. I cite a few examples for illustration, all of which have enabled us to put more resources to our strategic priorities besides freeing resources for academic and research pursuits:*

*In 2007, CUT barely engaged in strategic planning, primarily due to the fact that there were no funds to justify the full extent of such an exercise. This was no way to manage an institution. Reversing this dire situation became our top priority. And, beginning in 2009, we begun to allocate resources to strategic planning and strategic priorities which, I am happy to say, now stand at approximately 20% of our total revenue. For a university with a total budget of only about half a billion, this is a significant amount. This strategic budget allocation permits us to fund projects in support of Vision 2020 and the other strategic priorities.*

*Prior to 2007, our investment in academe was questionable to say the least. We aggressively tackled this unacceptable state whereby in 2007, CUT was for example still spending 51% its salary budget on support staff and therefore only 49% on academic staff. We have since reversed this and reduced spending on support staff salaries to 41%, which then allows 59% of our salary budget to be spent on academe.*

*Furthermore, between 2009 and 2011, we established about 56 new full-time academic posts, a close on 25% increase of academic posts. This was achieved without using CUT's reserves, let alone any over-draft. These posts include 6 research professorship positions by which we seek to increase capacity and leadership in research and innovation. Understandably, the restructuring process is always complex and challenging, but it enabled CUT to refocus its investment in academe.*

*Between 2007 and 2011, CUT's revenue grew by a remarkable 54%. This was not due to student numbers growing sharply during this period, but because of careful enrolment planning, re-alignment of the size and shape of the University, and improvements in our graduation rates. I must hasten to add that the MTEF government subsidy increases are also responsible for this revenue increase.*

*Finally, we are scheduled to complete the formulation of our budgeting framework by the first quarter of 2012, where we will do away with financial allocations based on historical patterns in favor of priorities and divisional planning and performance. This will be the next major milestone of transforming CUT into a more focused and purposeful technology institution.*

*In my inauguration address as Vice-Chancellor and Principal of CUT on 25 May 2007, I noted that our success depended on working together with business and industry, government and broader society; and that "we should use our collective intellectual, financial, social and political might to help the rest of society and its organs to improve the quality of life of our people. That way, CUT will have engaged with the community."*

*Since 2007, we have built a host of strategic partnerships with local and provincial and national government and with business and industry. They are not just feel good partnerships, there are serious projects being implemented in this regard.*

*As should be evident from what I have said, we have been undertaking a series of reform exercises during the last four years aimed at building a strong foundation for such a multi-stakeholder collaboration and as I said at the beginning of this address, we have reached a tipping point of building a great and an innovative new generation and counter-trend university of technology for achieving this goal.*

*I say to CUT internal and external stakeholders gathered here today and those that are not present that 2012 is the start of dogged implementation, requiring our A-team to do so.*

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- We know what to do with regards to our strategic direction and vision.
- 
- We know where the strengths, weaknesses and gaps at all levels of our management and administration lie and will work towards steadfastly building an A-Team that will take us where we want to go.
- 
- We know the programs and courses and innovations (the products) that are to render our teachers and students more relevant and responsive to the demands of our country's market and development agenda.
- 
- We know the priority areas where our financial resources should be targeted for the greatest impact.

*Let us therefore execute our vision and programs with resolve and fortitude. And when we assemble here next year in 2013, our discussion should centre on outcomes, results and impact of our work in addition to the desire of shifting the tipping point to the next level.*





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