

2016

A YEAR IN REVIEW

EDITORIAL

UCT is not just a collection of lecture halls. It is not only research excellence or long-standing history. UCT is its people. It is the students, staff, friends and colleagues who make the university what it is. With that in mind, we celebrate the journeys of some of those who make UCT what it is (pages 34–39).

2016 was a tumultuous year. Fortunately, the academic year was completed. We were challenged to look more carefully at the society we live in and ask ourselves what work needs to be done.

Distinguishing UCT, the university's strategic planning framework for 2016 to 2020, has plotted the course to begin answering this question and doing the work (page 6).

We celebrate the culmination of the insourcing project that saw more than 1 000 people officially join – and for some, re-join – UCT's ranks (pages 38–39).

This publication reflects on a year of discussions, of concerns over the state of higher education, and of continued attempts to respond to the problems of our society through engaged research.

We could never hope to encompass the story of 2016 in all its contradictions.

This is just a snapshot of a year that was a blend of some uncertainty, excellence and robust debate.

Most of all, this publication tells a story of continued progress, hard work and of an institution that achieved much in what can be described as a successful year.

CONTENTS

02 EXECUTIVE NEWS

02 A university in transition

04 Where to on fees

06 Strategic plan changes the game

10 TRANSFORMING UCT

11 What is engaged scholarship?

14 RESEARCH AND INNOVATION

16 Medical breakthroughs in UCT research

22 Graduation highlights

24 Students by numbers

26 TEACHING AND LEARNING

26 Inclusive education: a matter of social justice

30 EXCELLENCE

30 Sports Science has a new boss

34 JOURNEYS

36 Child soldier's PhD turns hurt into hope

40 DISCUSSIONS

40 Funding, protest and rankings

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CHALLENGE AND CHANGE

In the 20 months from the start of the Rhodes Must Fall movement through end-2016, UCT has faced multiple, spirited challenges. These are historic times for higher education in South Africa. The year was stressful, disruptive, unsettling, but also transforming.

Fees-related protests escalated on campuses across the country, centring on the call for “free, quality, decolonised” higher education. Issues of student accommodation, institutional culture, gender violence, mental health, and disability services all contributed to the protests.

At the same time, financial pressure on universities as a result of declining government subsidies did not let up and we implemented a range of austerity programmes to ensure our long-term financial health. This exacerbated the mood of anxiety felt by some staff.

The protest-related disruptions affected everyone – and many non-protesting staff and students were affected by incidents of clearly unacceptable behaviour, including intimidation and violence. We learned how difficult it is to create a secure and safe environment in a campus which has no access control. We learned how divided we are about the use of private security or any forms of force on campus – even to protect the rights of non-protestors to continue studying. We gained deeper insight into the experiences of black students – the multiple factors contributing to “black pain”. We have experienced the chilling effect that identity politics is having

on free speech and academic freedom. We are learning about the ways in which our institution and curricula reflect our colonial legacy, and we are grappling with ways to change that.

We also witnessed the deep commitment of thousands of staff members to the institution and their students. They went the extra 10 miles to ensure that the academic year could be concluded – rescheduling teaching, developing online options for delivering their teaching, sacrificing family holidays and research time to run catch-up courses and repeat exams. They have put in a phenomenal effort and I, on behalf of the executive and the Council, and tens of thousands of students and parents, express our deep gratitude to the academic and administrative staff for this commitment which, often at great personal cost, ensured that we completed the year successfully and peacefully.

A year of achievements in which we exceeded our goals

In spite of the disruptions and how they dominated the media coverage, 2016 was a highly successful year for UCT in terms of our core missions of teaching, research and engaged scholarship. We saw a significant increase in research publications, in the number of individual donors giving to UCT, consistency in our position on various world ranking systems, and high graduation rates (as well as course pass rates).

A selection of our activities, awards and successes during the year, as well as the challenges we faced, are reflected in this publication. The highlights included, among other stories, several medical research breakthroughs, stories about staff and students who made an incredible contribution, graduation highlights, the insourcing project, exciting appointments in leadership positions, and reflections on key facets of transformation.

A year of innovation New staff

In October 2015 we made a commitment to bring workers who had been outsourced in the 1990s back as permanent UCT staff. Honouring that commitment in July and November 2016, we welcomed more than 1 200 ‘new’ staff members – some of whom have been working at the university for many years for contracted services. Their conditions of service have improved radically – from reductions in hours per month to increased leave, access to medical aid and remuneration packages that have improved between 50 and 100 percent. To the staff who managed this process, and to those who were so patient during the process, thank you.

While the formal insourcing process is over, it will take some time for both UCT management and the insourced staff to adapt to a new way of operating. There are some unresolved issues which are still a source of tension.



Research highlights

We had many reasons to feel proud of our researchers' achievements in 2016. Here are just three.

Research teams are attracting billions

UCT's external research income in 2016 was R1.57 billion (a 14% increase since 2015).

A new Wellcome Trust Centre of Excellence

Towards the end of 2016, the Wellcome Trust announced its new centres of excellence. There are now 11 such centres in the world, 10 of these in the UK. The 11th? It's here, at UCT, in infectious diseases.

A third of all A-rated scientists in South Africa call UCT home

In 2016, five UCT scientists were awarded their A-rating for the first time. Another four had their ratings renewed. This brings the total of A-rated scientists at UCT up to 40, one-third of all A-rated scientists in South Africa.

H3D researchers identify potent anti-malarial candidate

Researchers from UCT's Drug Discovery and Development Centre, H3D, have identified a potent new anti-malarial development candidate with potential for both treatment and prevention of malaria. The compound, referred to as UCT943, is the second preclinical candidate to come out of the collaboration led by H3D, which involves the Switzerland-based Medicines for Malaria Venture (MMV) and an international network of partners.

To find out more about researchers' achievements and how their work is furthering the United Nations' sustainable development goals, read the latest research and innovation report.

Visit research.uct.ac.za to download the report.

New leaders

Over the course of 2016 we officially welcomed our new registrar Royston Pillay and three new deans, Professors Penny Andrews (Faculty of Law), Ingrid Woolard (Faculty of Commerce) and Bongani Mayosi (Faculty of Health Sciences). We also made three new appointments: Professors Mills Soko (Director of the Graduate School of Business), Mamokgethi Phakeng (Deputy Vice-Chancellor for Research and Internationalisation) and Loretta Feris (Deputy Vice-Chancellor for Transformation), who all started their terms of office on 1 January 2017.

In June 2016, we said a very grateful goodbye to outgoing Council members and chair, Archbishop Njongonkulu Ndungane, and welcomed in a new Council under the leadership of Mr Siphon Pityana.

It takes many heads and hands to steer an institution, especially one as large and complex as UCT, and I feel privileged and proud to have these new executive members and Council leaders as part of the team.

A new vision

For the past two years, UCT has been debating and developing a strategic plan that can see us into 2020. This vision outlines where we'd like to be in five years' time, and what we need to do to get there. In large part it seeks to advance UCT's excellence in research, teaching and social responsiveness by ensuring we become more inclusive, that

we recognise and incorporate the multiple cultures and ways of knowing of our diverse campus community, and ensure that we create an environment which allows everyone's talent to thrive. In the process, our goal is to shift the identity of UCT from being predominantly white, Anglo-Saxon, to one which is fully inclusive and more assertively celebrates African and Coloured, and continental cultures and heritages.

Part of moving forward is also about reckoning with the past. For this reason, UCT executive agreed, with student groups, to establish an Institutional Reconciliation and Transformation Commission (IRTC), specifically to deal with the events of February 2016 and what became known as the Shackville protests. This commission is part and parcel of our commitment to robust debate and dialogue, and to asking and addressing difficult questions.

New approaches in research and teaching and learning

A collaborative mindset is key to solving some of the most complex challenges of our time. This year has seen the launch of projects and research units that cut across diverse disciplines in research, thinking, teaching and scholarship.

The Future Water institute, for example, launched in September 2016, aims to address water scarcity using science, technology, innovative thinking and an understanding of the human and social factors. It draws

on the skills and resources of 10 different departments across six faculties.

At UCT's School of Design Thinking – which launched its first programme in March 2016 – students, industry and government executives come together across disciplines to collaborate on real-world challenges and develop human-centred solutions.

The Curriculum Change Working Group, established in 2016, aims to facilitate a process for the whole UCT community to engage in critical curriculum transformation. This means reflecting on questions of coloniality in curricula and pedagogy, and on contextual relevance and unconscious exclusion. It is also about renewal for changing societal needs.

A new year

As we face the oncoming year, and the inevitable challenges it holds and the changes it will usher in, I have no doubt, based on my engagement with the variety of student and staff constituencies, that we all share a desire to see UCT thrive. This report reminds us of how much there was in 2016 to be proud of, towards a shared vision that can see us through stormy weather.

Thank you to staff and students for making the university what it is today, and for committing to making it even better tomorrow.

Sincerely,
Dr Max Price
VICE-CHANCELLOR

UCT executive supports co-funding of higher education

The UCT executive argued for co-funding of higher education in its submission to the Commission of Inquiry into Higher Education and Training in 2016.

Government subsidies and tuition fees should be the main sources of funding, it argued.

"In an ideal world, if South Africa were a rich country with little inequality and was already providing sufficient state funding

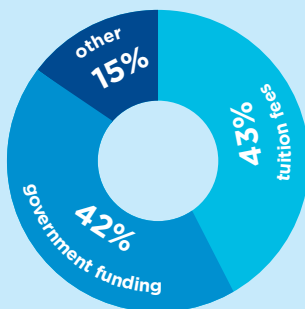
to support socio-economic rights, such as universal fee-free quality primary and secondary schooling, universal access to early childhood development centres, health care, social welfare support for all elderly

2017 FEES MODEL

increases decided by UCT's council on 10 December 2016

THREE FUNDING SOURCES FOR UCT CORE OPERATIONS:

government subsidies; student fees; and research income, investments, donations, commercial ventures and other funding.



- In 2016 42% of UCT's budget came from government funding.
- 43% was made up by tuition fees.
- 15% came from other sources and activities.

In 2016 UCT committed R126 million of its budget to student financial aid.

For the first time in 2017, first-year students who receive funding from the National Student Financial Aid Scheme (NSFAS) will be given free laptop computers for use at the university.

UCT sourced between R280 and R300 million from sponsors, foundations, alumni and corporates for bursaries.

HOW MANY UCT STUDENTS RECEIVED FINANCIAL AID IN 2016?

A total of 6 925 undergraduate students were financially supported by either NSFAS, UCT or corporates, which translates to almost 40% of undergraduate students receiving financial assistance.

UNDERGRADUATE

Financial aid (NSFAS and UCT top-up funding)

2 820

GAP¹ (UCT funded)

887

External bursaries (corporates, NGOs, foundations, philanthropy)

3 218

¹ UCT provides GAP funding for students whose household income is between R230 001 and R600 000 (the so-called missing middle). GAP funding is covered by UCT as there is no NSFAS funding allocated for these students.



POSTGRADUATE

2 726

postgraduate students

A total of 2 726 postgraduate students received some form of financial assistance for 2016.

A significant number of these students were funded by the National Research Foundation.

WHY HAVE FEES INCREASED?



1

Higher education is underfunded. University subsidies from government to universities over the last two decades have not kept pace with enrolment numbers.

2

The consumer price index (CPI) is currently at 6%. UCT's teaching and related internal inflation is deemed to be 8.57%.

3

Increases are based on: inflation, salary increases, insourcing costs, exchange-rate devaluation impacting on libraries and laboratories, and rates and utility increases.

and unemployed people, we would support a system of no-fee higher education," the UCT executive said in its submission.

In the medium term, however, South Africa's limited public resources would have to be spread among a myriad other pressing needs. The UCT executive argued that it cannot support the idea that higher education is the highest priority and a doubling of public expenditure to replace all fees.

"We therefore argue that for the foreseeable future, higher education should have two main sources of funding - government grants and tuition fees."

UCT's proposal strives to achieve equity, using a co-funding model to achieve fairness for both poor and wealthy students.

"Although fees could be set to zero for the very poor and lower income groups, and set high for the wealthy, the difficulty of administering this multiple fee level system for different levels of income is too complex. The same goal can be achieved far more simply and efficiently by offering grants to the very poor, which covers their total fees and thus effectively creates fee-free education; part grants but mostly loans to the missing middle; and charging higher fees to the wealthy."

The proposal also detailed arguments about whether financial aid should be in the form of bursaries or loans, and emphasised that government must still substantially increase its subsidy to higher education institutions.

"The government subsidy must rise significantly (at least 30%) to bring it closer to benchmark countries spending 1% of GDP," the executive wrote.

"Where fee income is substantial, it also allows more of the government subsidy to be allocated to postgraduate studies and research - areas which are not adequately funded through the current subsidy system."



STUDENTS WITH A HOUSEHOLD INCOME BELOW R600 000 & MISSING MIDDLE

The fee or accommodation increase for students with a household income of R600 000 or less will be completely covered by a grant from the Department of Higher Education and Training (DHET).

This includes both NSFAS-funded students, as well as so-called missing middle students. The DHET grant will cover the cost of increases up to a value of 8% for fees and accommodation.

UCT now provides an increased financial aid package to these eligible students to cover the additional 2% increase to their accommodation and meal costs.

Increases will not affect NSFAS loans.

Students on financial aid will not have to pay more than their expected family contribution (EFC), which has been unchanged since 2015.

Eligible students staying in private accommodation will receive an increase of 10% in their financial aid allowance to cover rental costs.

Eligible students in self-catering residences will receive 10% more to account for rising food prices.



STUDENTS WITH A HOUSEHOLD INCOME ABOVE R600 000

These students saw an increase of 8% for tuition fees and 10% for accommodation costs.

As these students had no 2016 increase this could be broken down into a 4% increase for fees and a 5% increase for accommodation for both 2016 and 2017.



INTERNATIONAL STUDENTS

There was an 8% fee increase for students from the Southern African Development Community (SADC) and a 10% fee increase for students from outside the SADC.

There will be an 8% increase in the US dollar-based fee for the 2017 Semester Study Abroad programme.



Why has the cost of residence gone up?

- 1 There has been an increase of 10% for UCT accommodation.
- 2 In real terms, the increased cost to UCT for accommodation is 15.38%.
- 3 Increases are based on: insourcing costs, building and catering costs and food inflation.
- 4 In 2017 there will be a greater focus on increasing non-student revenue streams, for example, growing revenue from vacation accommodation.



UCT'S STRATEGIC PLANNING FRAMEWORK CHANGES THE GAME

Forging a new identity for the university by consciously looking to redress inequalities within and beyond the institution, and fully embracing UCT's African identity in the global higher education landscape – these are the goals in the proposed strategic plan that will guide UCT's work and evolution from now until 2019.

The plan was signed off in December 2016.

Broadly, the plan embodies UCT's commitment to widen and accelerate transformation at the institution.

The strategic plan is being developed against a backdrop of shrinking financial resources, caused mainly by decreasing government subsidies to universities. UCT's own austerity measures are designed to protect the institution's financial future despite this funding crisis. According to the new plan, prioritising work is key, especially at a time when austerity is forcing "hard choices".

Accordingly, many of the strategies contained in the plan won't require additional money. Take the commitment to stimulate students' social consciousness and cultivate their ability to become critical, active citizens, for instance. That is largely a matter of teaching style and choice of reading material.

Similarly, the commitment to foster intellectual honesty, rigorous debate and openness to new ideas and beliefs is a matter of behaviour that might need little monetary investment, but promises rich rewards.

Transforming the staff and students

One of the overarching goals is best described in full, as it appears in the plan: "to forge a new identity through changing institutional practices that reproduce power relations based on patterns of historical privilege and reconfiguring structures, policies, procedures and systems that impede transformation".

This involves, in part, holding leaders, including heads of department, accountable for implementing the institution's transformation objectives, and reconfiguring the Transformation Services Office so that it is better equipped to prevent all forms of harassment and unfair discrimination.

Another strategy proposes reviewing the composition of all institutional committees to ensure they represent marginalised groups, including those based along racial and gender lines.

The plan also seeks to lay the groundwork for a more diverse and representative student body and to find ways to attain the university's employment equity targets. Interrogating practices, policies and structures that block the realisation of employment equity and changing accordingly is a key course of action.

When advertising for vacancies and new positions, advertisements must as a norm include statements of preference for appointable black South African candidates. Deans and executive directors must monitor selection and recruitment practices and present reports to the University Transformation Advisory Committee (UTAC).

Advance African scholarship

The aims here are numerous. They range from advancing "knowledge of global and continental problems through bringing an African lens to research and teaching programmes which offer alternative epistemologies, ontologies, theories, methodologies" to having a "significant number of unique local and continental archives of photographs and film, audio recordings, manuscripts, maps, music, art and artefacts from a range of disciplines".

The plan also strives for extensive collaboration across Africa and the globe.

UCT hopes to achieve this by inviting leading African scholars as visiting fellows, improving the recruitment of international students from the global south, and providing seed funding for strategically selected new collaborations, including the African Research Universities' Alliance.

A research-intensive university

By developing a new wave of young academics, the strategic plan recommends that UCT's pool of researchers is constantly "added to, rejuvenated and diversified".

It lays out strategies for creating a pipeline of researchers, for challenging the university community to think meaningfully and innovatively about the direction and emphasis of research, and pledges to provide researchers with advanced technological support.

Engaged scholarship

Essentially, the university wants to enhance its impact and influence on societal challenges by consciously allocating resources to research designed to build a more equitable social order and promote economic growth.

The aims include increasing the number of courses and programmes that provide opportunities for community-based education and "service learning", and evaluating the societal impact of UCT's engaged scholarship.

The plan also calls for the establishment and maintenance of a database of social responsiveness activities to improve planning and monitoring of the nature and range of activities.

Innovative teaching

One of the proposed strategies in the plan that has already been enacted is the establishment of the School of Design Thinking.

With regard to teaching, the university seeks to expand its provision of continuing education courses, opportunities for public dialogue and online courses that are responsive to the needs of, and debates in, society.

The plan also details the university's thinking around creating more opportunities for students to learn about the African continent and debate important local, continental and global issues and to expose students to disciplines outside of their primary focus.

Notably, the plan pledges to equip academic staff with the ability to interrogate their assumptions and beliefs about the curriculum and their students, which is a key element of the decolonisation of the curriculum.

While this plan will guide the university's course through to 2019, the goals will remain relevant long thereafter.



NEW UCT COUNCIL APPOINTED

The new UCT Council was appointed on 1 July 2016 for a four-year term, which will end on 30 June 2020. The Council is led by chair Siphosiso Pityana (pictured). The deputy chair is Debbie Budlender.

Pityana is a businessman and chairperson of the Council for the Advancement of the South African Constitution. He is also an advisor for the Labour Relations Council and the Ministry of Education and a consultant on the Forum of Vice-Chancellors of Historically Black Universities. Pityana is an advisor for the Science and Technology Initiative and convener of the recently launched Save South Africa campaign.

Council plays a central role in the life of the institution by steering the critical decisions involved in running the university. The 30-member Council consists of executive officers, employees of the institution, students, and persons who are neither members of staff nor students of the institution. The Council members are appointed by a wide range of constituencies.

These members bring a diverse range of skills, backgrounds and talents to the institution. Council responsibilities include determining the mission, objectives, goals, strategies and policies for the progress of UCT; ensuring an environment that is conducive to efficient, effective, economical and ethical attainment of these goals; maintaining a financially secure, healthy and viable environment; and accounting for all decisions taken at the university, including the submission of the required reports and documents to the minister of higher education.

SPECIAL TASK TEAM

MANAGES YEAR OF INTENSE CHANGE

In the face of ongoing disruptions in higher education and the growing focus on equity and transformation in 2015 and 2016, Vice-Chancellor Dr Max Price instituted the Special Executive Task Team (SETT).

In this period of unprecedented disruption and protest by groups of students, SETT worked with multiple stakeholders across the UCT campuses to anticipate and defuse tensions; to ensure good communication with the campus community, particularly when events unfolded rapidly; and to ensure a safe environment.

The task team was led by Deputy Vice-Chancellor Professor Francis Petersen. Other members included then acting Deputy Vice-Chancellor Professor Anwar Mall; Dr Russell Ally, Executive Director of the Development and Alumni Department; Roland September, Director: Risk Management in Properties and Services; and Gerda Kruger, Executive Director of the Communication and Marketing Department.

UCT kicks off IRTC process

UCT has laid the foundations for the Institutional Reconciliation and Transformation Commission (IRTC).

The purpose of the IRTC was outlined in the agreement signed by Vice-Chancellor Dr Max Price, members of the executive and students from the SRC Candidates / Shackville TRC and other groups in November 2016.

The IRTC intends to address the long-term issues faced by the university community in the hopes of creating a new, inclusive identity in a transformed and decolonised UCT.

The commission will be overseen by the IRTC Steering Committee, which is made up of 19 representatives and 19 alternates from all key constituencies (including students, academics and alumni). They will engage individually with their constituencies to inform the terms of reference for the IRTC's work.

The IRTC's purpose, as envisaged in the November agreement, is twofold. Firstly, it will unpack the limits of acceptable protest, including the handling of protests, the role of the executive, a review of disciplinary processes, interdicts and possible amnesty. Secondly, it will also make recommendations on institutional culture, transformation, decolonisation, curriculum change, discrimination, identity, rape culture, gender identity, disability and any other matters that have been raised since the Rhodes Must Fall protests in 2015.

In the spirit of restorative justice, the IRTC is also tasked with considering applications for amnesty (or the continuation of clemency) for individuals who have been subject to a student disciplinary tribunal for offences relating to protests up to 6 November 2016. Clemency may be granted on the basis of a number of principles, which are outlined in the November 2016 agreement.

The IRTC will assess each individual's actions, then determine whether the seriousness of the actions, proportional to their context, motivation and other factors, justify the granting of amnesty or the continuation of clemency.

The IRTC will then ask for submissions from the university community on the amnesties granted and make recommendations on how the university should deal with such matters in the future.

Details of all pending charges relating to protests will also be released to the IRTC. It will make recommendations on how to deal with each of these outstanding cases.

The decisions, processes and actions of the executive up to 6 November 2016 will also be subject to the investigations and recommendations of the IRTC process.

To keep up to date with the IRTC's work, visit the IRTC page on the UCT news website.



*The events of the February 2016 Shackville protests, amongst others, will be reviewed by the Institutional Reconciliation and Transformation Commission (IRTC).
Photo: Ashley Furlong GroundUp*

Loretta Feris appointed new DVC for Transformation

Professor Loretta Feris took up her portfolio as Deputy Vice-Chancellor for Transformation on 1 January 2017.

Professor Feris's current research focus helped prepare her for the transformation portfolio. She is a National Research Foundation-rated researcher whose work is aimed at shaping conversations around human rights, accountability and social justice, in particular environmental justice, both in South Africa and globally.

Before joining UCT she was Associate Professor of Law at the University of Pretoria, where she was instrumental in developing a master's programme on trade and investment law in Africa. Her career includes a stint at the Washington College of Law at American University in Washington DC, USA, first as International Legal Studies Fellow and later as assistant director of the International Legal Studies Program, Assistant Coordinator of the Humphrey Fellowship Program and Adjunct Professor of Law.

She joined UCT in 2009 as Associate Professor in the Faculty of Law, where she is now director of the Institute for Marine and Environmental Law. She currently lectures in pollution law and natural resources law as well as international environmental law.

Professor Feris has served UCT in a number of positions. Within the Faculty of Law, she is the chair of the Higher Degrees Committee and until last year she was the director of Research,

during which time she also served on the Faculty Management Board.

She has been a member of the University Research Committee and was the deputy chair of UCT's Conference and Travel Committee from 2012 to 2015. She is currently the chair of the Conference and Travel Committee. She is also a member of the University-wide Selection Committee on Honorary Professors and Honorary Associate Professors. Until earlier in 2016 she was the vice-chair of the Black Academic Caucus.

She advises the United Nations Environment Programme on priority areas for the environmental law agenda in respect of the Montevideo Programme IV process. She is a law commissioner of the International Union for Conservation of Nature (IUCN) and a member of the IUCN Academy of Environmental Law, where she served on the teaching and training committee (2007-9) as well as on a task team on innovative teaching of environmental law (2009).

Speaking at her inaugural lecture in 2014, but no less relevant today, Professor Evance Kalula said, "Professor Feris is a sign of what is to come, and while we cannot expect her to bear the burden of putting all historical wrongs to rights, she is already a role model. For Professor Feris, the best is yet to come."



GSB to grow South African business

UCT's Graduate School of Business (GSB) can and must play a broader role in influencing policy and practices in order to move the South African economy forward. So said Associate Professor Mills Soko, GSB's new director as of 1 January 2017.

Soko has worn many hats at UCT, first as a student in 1992, then later as a research assistant in the Equal Opportunities Research Project.

He returned to UCT many years later, after holding a number of leadership positions in government and business, particularly through the International Chamber of Commerce and Africa Business Network. He took up the position of senior lecturer at the GSB in 2006.

It may be a tumultuous time at the institution, but Soko is motivated and determined.

"I am passionate about the UCT GSB and I am excited to play a role in making this great school an even greater learning institution and provider of business and management

education that is also relevant and engaged," he said upon his appointment as director designate in 2016.



There is much that the institution can be doing to foster the growth of South African business, Soko notes. Training business leaders and entrepreneurs to go out and contribute to a fruitful business sector is one means of moving South Africa forward. Tackling unemployment, poverty and inequality is another.

"One of the ways in which the GSB can maximise its impact on South African business, for example, is to use its convening power to facilitate meaningful dialogue and bridge the trust gap between the government and business," he said.

"South Africa's progress in realising the country's economic potential has been partly stunted by deep-seated mutual suspicion and distrust between business and government," he continued.

"If managed wisely, structured and purposeful interactions between business and the government can provide a vital platform to generate the level of cooperation needed to address the daunting challenges besetting our country," he concluded.



2016 SPOTLIGHT ON UCT LIBRARIES

For UCT Libraries, 2016 was a year with a distinctive open scholarship focus, which enhanced the visibility and discoverability of both UCT research output and local unique collections. Successful initiatives included a steady increase in the scholarly content in the institutional repository; the completion of a retrospective digital conversion project for UCT theses and dissertations; the successful implementation of an online submissions process for contemporary theses and dissertations; and university approval for article processing charges (APCs) funding to assist researchers with publishing in accredited and peer-reviewed open access journals.

The foregrounding of the university's unique local African and manuscript collections remained a strategic priority. Project-based (usually with donor funding) and research-led digital collection development has been successful for several years. In 2016 work continued in the Special Collections, with university funding, for a five-year conversion project of research-led archival collections, focusing on the humanities, to digitise and migrate collections that are stored in obsolete formats.

In 2016 UCT Libraries continued to consolidate its role and staff expertise in the "library as publisher" service in Open Journal (OJS) and Open Monograph Publishing (OMP) initiatives to give visibility to open journal, book and textbook publishing. To date, UCT Libraries has published three open journals, four open monographs and one interactive textbook.

The Webometrics Ranking Web of Repositories is a strategic indicator used to evaluate online institutional visibility. Since its 2015 debut in the rankings, the Open UCT repository has steadily improved its placing,

which indicates that its content is both visible and discoverable. In the most recent ranking (January 2017), the OpenUCT repository was placed 342nd out of 2 284 repositories in the world, sixth out of 74 in Africa, and fifth out of 22 in South Africa.

UCT eResearch, established in 2014 in partnership with three campus stakeholders: UCT Libraries, Information and Communication Technology Services (ICTS) and the Research Office, is an innovative support environment for data-intensive science at the university. In support of eResearch, UCT Libraries initiated digital scholarship services that provide online data-management services, including data-management plans. The next stage is to implement a data repository. In 2016, as part of strategic partnership building, an important achievement for UCT Libraries was the installation of a data visualisation wall, funded by ICTS, in a newly refurbished researcher collaboration space in the main library.

During 2016 significant time and effort was invested in designing a new organisational structure and individual job roles to meet changing research practices and needs, without compromising long-standing practices and services. The enhanced service model for UCT Libraries includes Faculty Liaison Librarian teams with balanced Teaching, Learning and Research support capability for online services; Digital Library Services, including Research Data Management; Scholarly Communication; and Publishing Services. An important consideration in designing the new organisational structure has been to align and integrate library research support processes in the university-wide Electronic and Research Administration (eRA) system that is managed by the University Research Office.

Distinguishing UCT to raise funds for poor students

The Distinguishing UCT campaign, the university's flagship fundraising drive, is an ambitious project that aims to grow the institution's unrestricted endowment to R1 billion by the end of 2019.

UCT has invited all alumni, foundations, corporates and friends, both locally and internationally, to support this campaign as it strives to secure its tradition of scholarly distinction for the generations to come.

The campaign was kick-started in late 2014 with the value of the unrestricted endowment then at around R550 million. Its current value stands at around R633 million.

The campaign also supports the university's new Strategic Plan for 2016–2019, thereby ensuring the long-term sustainability of UCT's academic and development work.

All donations to the campaign will help to achieve three main goals: advancing excellence, investing in talent and realising transformation. These goals pertain to UCT's commitment to increasing African knowledge production and developing African solutions to global challenges; boosting UCT's financial aid programme for poor students; and building a university whose institutional profile and culture reflects the democratic transition that has taken place in South Africa.

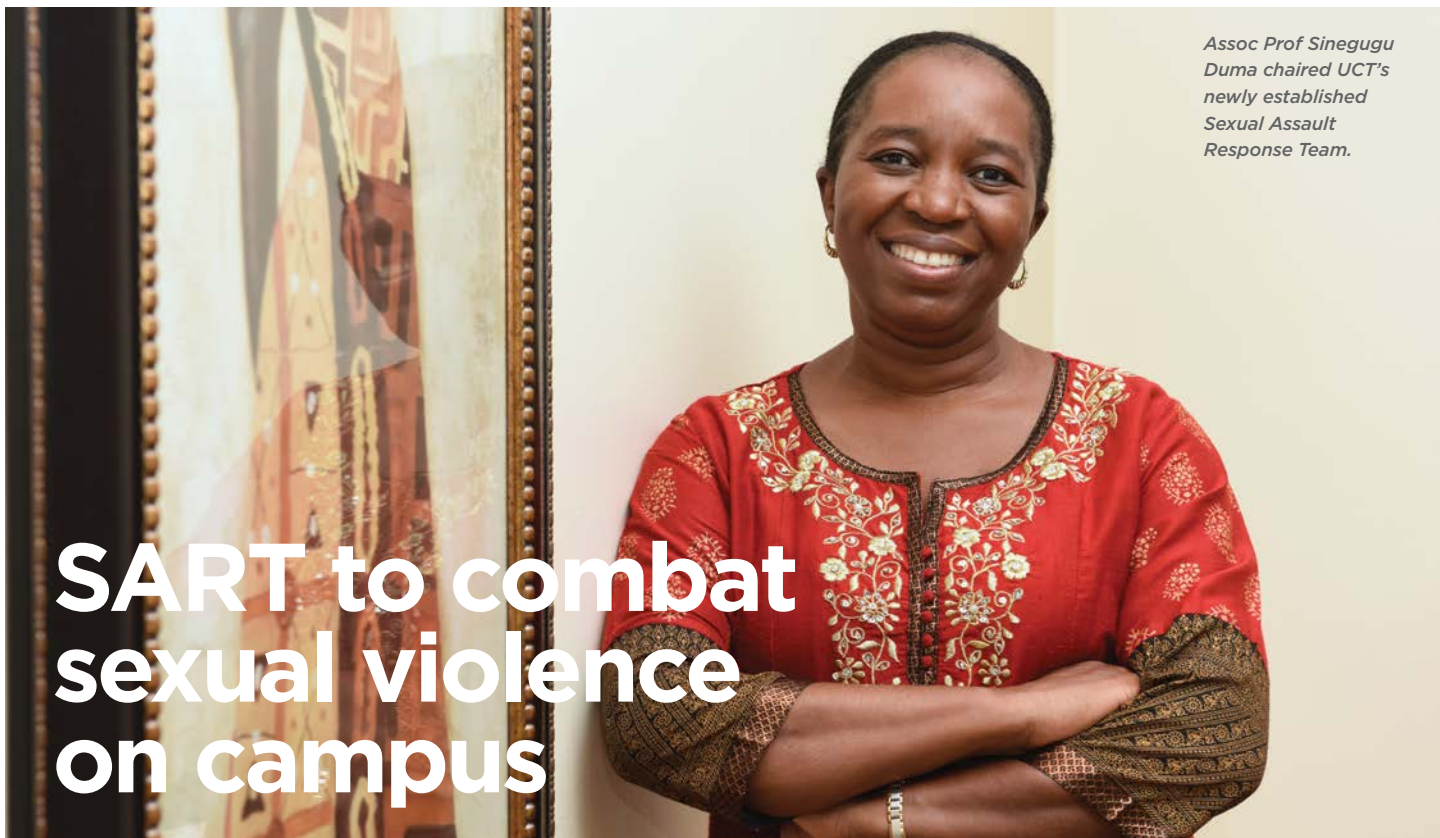
Executive director of the Development and Alumni Department, Dr Russell Ally, said that the importance of the Distinguishing UCT campaign has been highlighted by the student protests of the past two years, which exposed a fundamental defect in higher education – that the existing funding model has not kept pace with the changing needs of the sector.

"The campaign responds directly to this challenge by seeking to grow the university's unrestricted endowment to buttress it against this financial insecurity," he said.

"A significantly stronger, unrestricted endowment will place UCT in a position where it can contribute meaningfully towards making higher education accessible to all talented young people in our country, regardless of their economic status," Ally added.

TRANSFORMING UCT

South African universities have again been challenged to look at themselves and reassess the kind of environment they create for those who study and work there. UCT continues to think about the ways in which the university can reflect the cultures, backgrounds and knowledges of all its students and staff, from its physical environment through to the university curriculum.



Assoc Prof Sinegugu Duma chaired UCT's newly established Sexual Assault Response Team.

SART to combat sexual violence on campus

The Sexual Assault Response Team (SART), established by UCT in 2016, is designed to systemically respond to and prevent sexual violence on the university's campuses.

Founded and chaired by Associate Professor Sinegugu Duma of the Division of Nursing and Midwifery, SART uses a survivor-centred approach that seeks to take the onus to prevent and investigate sexual harassment, sexual assault and rape away from survivors.

An oft-cited stumbling block to legal recourse is that the onus rests on survivors to press charges against alleged assailants. Not so, says Duma.

"Once a survivor has reported a case, the university needs to take it upon itself to pursue charges against the perpetrator," she says.

After careful consideration of UCT policy, Duma confirmed that survivors needed only to make a statement, beyond which it was the university's responsibility to press charges, in the same way that a public trial would be the state versus the perpetrator.

Whether the survivor chooses to then step forward as a witness is a different matter, she says.

"What it means is that we need to go back to the university community and, in addition to talking about prevention, talk about what this means to the university. People need to know that the responsibility for pursuing charges is not on the survivor," says Duma.

She summed up SART's mandate as follows: "Responding to and preventing sexual violence on campus, guided by the principle of survivor-centred, comprehensive and compassionate care".

In addition to training first responders and other targeted groups, SART has three more working groups that are responsible for organising prevention and awareness campaigns; communication; and the review, revision and development of policies.

"The policies we have are older than the Sexual Offences Act – and even if they were developed at the same time, there has never been a process to check whether our policies speak to the Act, and how we could marry the two," says Duma.

The SART team comprises Duma; Giselle Warton of the coordinating team; and representatives of the Discrimination and Harassment Office (DISCHO), Campus Protection Services, survivor groups and other key stakeholders.



Umlilo (left) and Syllable Whyt-lyon dropped some of their new material, to the delight of the crowd.

Rainbow Week: My pronoun is ...

Queer hip-hop artists Umlilo and Stash Crew's Syllable Whyt-lyon brought the heat to the lawns of the HIV/AIDS Inclusivity and Change Unit (HAICU) on the penultimate day of Rainbow Week.

Organised by Rainbow UCT in collaboration with HAICU, the week was spent celebrating and interrogating the meaning and complexities of being an LGBTQIA+ person in South African society and at UCT. In 2016, students questioned the use of pronouns – the he's and she's – as a way of reinforcing, and breaking, gender stereotypes.

Kuda Masamvu, acting chair of Rainbow UCT, explained why it was important to analyse the language used to refer to and define one another.

"People tend to think that doesn't matter, so your physicality should determine what your pronoun should be," explained Masamvu.

But that's not the case, he said.

"People's physicality is not necessarily how they identify."

Sianne Abrahams, HAICU's project officer, who coordinates UCT's institutional sexual diversity response, added that there was a collective responsibility to enact change.

Is all engaged scholarship SOCIALLY JUST?

Emeritus Associate Professor David Cooper, a retired sociologist, describes how a leafy Cape Town suburb is trying to persuade a social scientist to design a survey, write up a report and convince the city council that all of the residents want to erect gated fencing around their peaceful suburb on the slopes of Table Mountain, ostensibly to keep criminals out.

This anecdote illustrates a question that has vexed Cooper since he argued that universities needed to incorporate a third mission to their teaching (first mission) and research (second mission) responsibilities. This third mission would be one of academic engagement (or "engaged scholarship" to use UCT's term), particularly with local communities, that promotes "socio-economic-cultural development", as he puts it.

To cut a rather long story short, Cooper was left with a head-scratcher. Doing a survey to gate that community would technically constitute engaged scholarship, by his own definition, but would it be progressive?

Simply: no.

In some cases, merely enacting a third mission can be quite "conservative and even reactionary", says Cooper.

He thus argues that an explanation of engaged scholarship needs to be more widely debated: "You need to specify what type of third mission you're advocating for. In terms of my value system, it's a mission for social justice."

Much of UCT's engineering research is funded by sectors of industry and some of its health research by big pharma. So, the funding impact on research agendas is

difficult to ignore. In a sense, that means UCT's scholars have, in certain ways, been academically engaged for decades.

This raises the question of *who* scholars engage with, instead of simply accepting engagement with any or every non-academic constituency.

"I used to think that if I could just persuade people in favour of the quadruple helix* rather than the triple helix, everything would be hunky-dory," he sighs. "Now I think it won't be.

"It's much more complicated. So we need a double battle. We need to win the idea of the third mission ... But this can be sidestepped. People can say, 'Fantastic! Now engage only with conservative groups in society and about profits for industry, and we don't care where that goes.'"

But scholars can get creative even within the current use-oriented research funding framework, says Cooper.

"You could do work with the mining industry where you bring in the mining unions and look at how job conditions and pollution can be dealt with. That could be what I call social-justice oriented, [because] you're looking at creating more jobs and better wages and more environmentally green production."

It all comes down to what one understands as the public good, he says.

**The quadruple helix is the interaction between universities, industry, government and civil society that Cooper posited as a means of ensuring that more socially progressive research is done.*

DISCHO REVIEWED

UCT's Discrimination and Harassment Office (DISCHO) came under scrutiny in 2015 after the university's Council requested that it be reviewed following criticism that DISCHO was not fully effective in addressing sexual violence and harassment on campus.

The review panel, chaired by Associate Professor Sally Swartz, investigated whether DISCHO's services were in line with UCT's policies and whether there were opportunities for improvement. The report was released in April 2016.

A key outcome was the establishment of a new unit, borne of the merger of DISCHO and the HIV/AIDS, Inclusivity and Change Unit (HAICU), which will subsume the responsibilities of DISCHO. Other recommendations included professionalising advisory services for those affected by harassment and discrimination, with the appointment of professional advisors to deal with racism and racial harassment, and gender identity and sexuality complaints.

It also recommended that training about social justice issues should be compulsory for line managers, student councils, residence wardens and other leadership structures. It also called for DISCHO's lines of accountability to be reviewed, and that its current structure and operations, including its location, be reappraised.

The review concluded that DISCHO's work must be integrated into an overarching transformation plan that seeks to eliminate the structural inequalities that impact on the lives of students and staff because of their race, ethnicity, gender, class, disability, sexual identity, location, language, religion, culture or age. Here, it found that theories of change, thematic coherence, appropriate governance structures, adequate resourcing, clear communication, benchmarking, monitoring and evaluation, and research support are all critical components of an integrated plan.

AFRICAN CASE STUDIES WILL HELP DECOLONISE BUSINESS SCHOOL'S CURRICULUM

African business schools lack relevant, local case studies for their teaching, relying instead on first-world examples. But thanks to a joint investment with the Harvard Business School Alumni Club of SA, UCT's Graduate School of Business (GSB) hopes to change this.

Both institutions will invest R1 million each in a new case study centre at the GSB's Breakwater campus. The centre will help academics on both sides of the Atlantic to write business case studies and develop relevant teaching material that is focused on African social and economic realities. This is seen as a major step towards decolonising African business schools' curricula.

Until now the trend has been to use case studies from universities abroad, notably Harvard

Business School. However, these do not prepare local business leaders sufficiently to allow them to cope with the conditions and realities of Africa's emerging-market economy. African business schools still lack relevant, local material, said then GSB director, Professor Walter Baets.

Baets said that there had been talk at a recent African Academy of Management conference in Nairobi about developing local teaching material and decolonising the curriculum.

"For many, there is simply too much of a focus on Western case studies and textbooks," he said.

The GSB hopes that the new development will create the largest body of Africa-focused business learning material to date. It is envisaged that the new case study centre,

a library of material on emerging-market business and social innovation, will be the largest on the continent.

"This is an exceptional investment and a potential game changer when it comes to business education on the African continent," said Dr Francois Bonnici, the director of the GSB's Bertha Centre for Social Innovation and Entrepreneurship. "Investing in local material means that African business education is where it should be when it comes to business in Africa – leading, not following."

Bonnici said that the new material would advance students' understanding of the particular context and challenges for ventures with social purpose in African countries, and would raise the standard of business education on the continent.

Millions set aside for Africa's first social impact bonds

The Bertha Centre for Social Innovation and Entrepreneurship at UCT's Graduate School of Business has been working with national, provincial and local government to design and pioneer the use of social impact bonds (SIBs) – an innovative financial instrument that has been proven to deliver better health and social outcomes globally.

That work came to fruition when the Western Cape departments of Health and Social Development announced the

allocation of budget for three social impact bonds to improve the health, nutrition and developmental status of pregnant women and children who live in low-income communities.

Together, the two departments set aside approximately R25 million for priority outcomes over the next three years, with an additional amount to be contributed by the private sector.

An SIB is a contracting and financing mechanism to drive better social outcomes.

They work by attracting socially motivated investors to fund social services upfront. If the pre-agreed outcome targets are achieved and independently verified, government and/or private funders then repay the investors.

While the three new SIBs are the first to be launched in the developing world, there are more than 50 in operation in the global north, which have typically resulted in improved public services and public sector savings.

TEACHING AND RESEARCH ARE BEING REIMAGINED

For more than a decade, scholars at UCT have been grappling with the idea of realigning the curriculum to one that does not sideline values, knowledge and identities that are rooted in Africa and the global south.

Professor Mahmood Mamdani attempted to do so with his Problematising Africa curriculum in the late 1990s, and a new African Studies undergraduate major based on that syllabus will be pioneered here in 2017. Many others across the university have also devoted considerable work to decolonise the curriculum, from content to pedagogy. Student protests at UCT and around the country over the last two years have catalysed urgency in the “decolonisation” of university curricula in particular.

In the words of Vice-Chancellor Dr Max Price, this work previously “has been somewhat patchy”. With this in mind, the university’s management established the Curriculum Change Working Group in 2016.

The working group will facilitate a process for the entire UCT community to systemically engage in critical curriculum transformation. The ultimate goal is to create a framework to guide curriculum transformation at UCT, from the sciences to the humanities.

The working group is co-chaired by Professor Harry Garuba (School of African and Gender Studies, Anthropology and Linguistics) and Associate Professor Elelwani Ramugondo (Occupational Therapy). Both academics and students are represented in the group.

Some topics on the table include the purpose of a public university in Africa, which explores the socio-historical context of the emergence of the public university as a site of knowledge production and dissemination.

One seminar asks whether it is important to create spaces for subaltern knowledges to surface in curriculum and teaching – subaltern in this case being, for instance, knowledge generated by people and scholars in the global south, which had been written out of colonial curricula.

Yet others explore if doing science at a university may or may not be different from doing science for purely experimental or business reasons, say. The working group could drill down into what professors assess in tests and assignments, how diversity in the classroom – or lack thereof – may necessitate rethinking approaches to teaching, and whether race, gender and inequality have any place in the mind of a student of finance, economics, management and technology.

This is a constant process – while the goal of a decolonised, relevant and progressive curriculum is tangible, the group will aim to set in motion a culture of continuously looking to improve our wares as a university.



RENAMING: Opportunities and pitfalls

UCT’s Council agreed to change the name of Jameson Hall at a meeting held in June 2016. The following buildings were also up for renaming: Beattie Building, Otto Beit Students’ Union and Smuts Hall on upper campus; and Wernher Beit Building on medical campus.

Council agreed with the Naming of Buildings Committee (NOBC) that a careful consultative process is required to choose new names. The NOBC is advised by the Task Team on the Naming of Buildings, Rooms, Spaces and Roads.

“This renaming is already under way at UCT and indications are that, in the wake of recent events on campus, it has gained momentum. How we do that is part of the current and ongoing debate,” said Dr Maanda Mulaudzi, lecturer in UCT’s Department of Historical Studies and member of the university’s NOBC.

“In renaming buildings and spaces, it is tempting to take the easy option. We don’t want to simply do that: just name a building after some hero. But if you’re not really thinking about the more important issues, [like the] visions that these people represent, I’m not sure that that process will necessarily advance transformation,” he said.

The task team welcomed suggestions for alternative names. The invitation to submit suggestions was open to students, staff and members of the wider UCT community, including alumni around the world.

UCT reviews curation policy

The removal of Cecil John Rhodes’s statue in 2015 prompted wider discussion about the display of art on UCT campuses, as well as the lack of a curation policy at the university.

UCT community members raised concerns about controversial artworks, mentioning also their placement and groupings as compounding, in particular, the negative representation of black people.

The Artworks Task Team (ATT) was established in September 2015 to address these concerns and to create a hospitable environment for all students and staff.

In its March 2016 statement, the ATT outlined its role: “to conduct or commission an audit, an assessment and an analysis of statues, plaques and artworks on campus that may be seen to recognise or celebrate colonial oppressors and/or which may be offensive or controversial”.

The ATT proposed that a core cluster of artworks, identified as controversial, be temporarily removed for safekeeping while the university decided on a curatorial policy and resolved how and where they would be displayed.

This statue of Saartjie Baartman by Willie Bester has been controversial since its unveiling on campus. A number of students felt that the work repeats history by putting the naked figure of Baartman on display again. Students covered up her body and head with cloth. This is the subject of ongoing debate.



RESEARCH AND INNOVATION

Big data's rise to the pinnacle of global research imperatives is undoubtedly informing much of the work done by UCT's academics. From the Square Kilometre Array to breakthroughs in cancer diagnosis, big data is already advancing what is possible. In the pages that follow, we'll glance at these and other important milestones on UCT's research landscape.

RANKINGS

In 2016 UCT was ranked the best university in Africa (Quacquarelli Symonds, Times Higher Education).

Times Higher Education 2016 (146th)
Rated first in Africa

Quacquarelli Symonds 2016 (171st)
Top 10 globally: Development Studies –
(2017 QS World University Rankings by Subject)

TOP 50:
• Geography

TOP 100:
• English language and literature
• Agriculture and forestry
• Education
• Law
• Politics and international studies
• Architecture and the built environment
• Medicine
• Archaeology
• Engineering (mineral and mining)
• Anthropology

RESEARCH INCOME



External funding
2015: R1.38 billion
2016: R1.49 billion



Intellectual property
2015: R3.8 million
2016: R15.2 million



Patents filed
2015: 56
2016: 67

R1.4 billion +
value of research
contracts signed



2 226
research
contracts signed

In 2016 UCT received more funding in direct grants from the US National Institutes of Health (NIH) than any other higher education institution outside the US.

“Research is, at its best, profoundly transformative. This is a particular imperative for the University of Cape Town, located as we are in a country, and on a continent, of vast wealth and deprivation – with the opportunity to make a difference. We must ensure that the difference we make answers the most pressing needs of our local communities and environment, but we must also do research that changes the wider world, stretches the limits of human imagination and adds to humankind's understanding of our natural and social worlds.”

DR MAX PRICE, VICE-CHANCELLOR





“The world is wobbling on its axis, and the old certainties – good and bad – are unravelling. To cope with the uncertain future we face, we are going to need three things: an unrelenting commitment to excellence, an exceptional focus on transformation and the courage to do things differently. Among all these uncertainties, I am sure of this: that the research community at UCT is up to the challenge.”

PROFESSOR MAMOKGETHI PHAKENG, DEPUTY VICE-CHANCELLOR FOR RESEARCH AND INTERNATIONALISATION

POSTGRADUATE DEVELOPMENT

Approximately 10 500 students, 36% of total enrolment, embark on postgraduate studies at UCT. This increased from 31% in 2012.

Current numbers include roughly:

			
2 000	1 500	5 200	1 800
doctoral students	honours students	master's students	PG dip students



GLOBAL NETWORKS

UCT aims to bring Africa to the world and to draw international expertise to the continent as a whole. The university is currently a member of the following university networks:

- The International Alliance of Research Universities (IARU), a network of 11 research-intensive universities, including the universities of Oxford, Tokyo and Yale, which allows its members to address the major challenges of our time.
- The Worldwide Universities network (WUN), a leading global higher education and research network made up of 21 universities.
- The Southern African–Nordic Centre (SANORD), which comprises institutions of higher education and research for all Nordic countries and southern Africa.
- The Australia–Africa Universities Network (AAUN), which connects researchers and academics through institutional partnerships in order to address common challenges.

HIGH-LEVEL RESEARCHERS

15% of SA total – The National Research Foundation (NRF) allocates ratings based on a researcher's recent research outputs and impact, as perceived by international peer reviewers. Nationally, UCT has more NRF-rated researchers than any other university in South Africa.

33% of SA total – A-rated researchers are international leaders in their fields. A third of the country's A-rated researchers are at UCT.

18% of SA total – The Department of Science and Technology and the National Research Foundation fund research positions (called SARCHI chairs) at universities across South Africa in order to strengthen the country's ability to produce high-quality research, innovation and students. 18% of the country's SARCHI chairs are at UCT.

A UNIVERSITY IN AFRICA

UCT's research is committed to enabling Africa to solve its own Africa-specific problems. To achieve this, many of our researchers have established extensive networks across Africa. These are three examples:

Afrobarometer

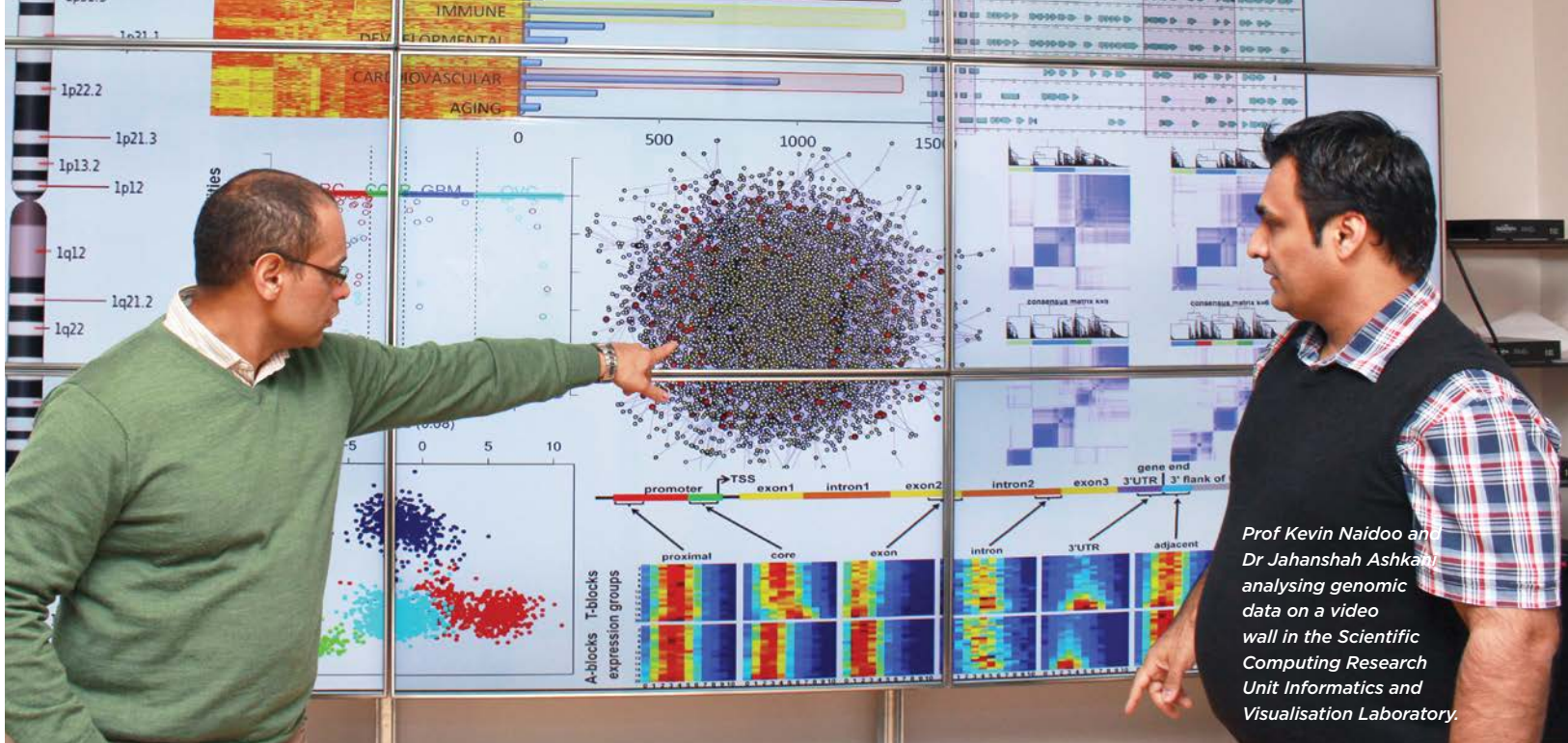
The Afrobarometer is an African-led, non-partisan research network that conducts regular public attitude surveys on democracy, governance and well-being in Africa. Six rounds of surveys, with more than 220 000 African citizens in 37 African countries, have been conducted. The data will be used to contribute to the Index of African Governance compiled by the Mo Ibrahim Foundation.

h3aBionet

h3ABioNet is a UCT-led, pan-African bioinformatics network that comprises 32 research groups distributed among 15 African countries and two partner institutions in the US. The network supports H3Africa researchers (a network of research sites funded by the National Institutes of Health and the Wellcome Trust) and their projects while developing bioinformatics capacity within Africa. At the time of going to press, 700 participants had been trained at workshops across Africa.

Square kilometre array (SKA)

The SKA project is an international effort to build the world's largest radio telescope. The telescope will be co-located in Africa and Australia. UCT is playing a leading role in a flagship programme that will create data science capacity for leadership in the MeerKAT SKA precursor survey projects, other global precursor and pathfinder programmes and SKA key science.



Prof Kevin Naidoo and Dr Jahanshah Ashkan analysing genomic data on a video wall in the Scientific Computing Research Unit Informatics and Visualisation Laboratory.

UCT RESEARCHERS IDENTIFY GENETIC PATTERNS FOR CANCER

A UCT research team discovered that each of six cancer types (breast, colon, lung, kidney, ovarian and brain) has a unique genetic expression pattern which can be used for accurate early diagnosis and targeted treatment.

Professor Kevin Naidoo, who holds the SARCHI Chair for Scientific Computing, and Dr Jahanshah Ashkan, both from UCT's Department of Chemistry, made the discovery.

Using statistical classification algorithms on massive tumour gene expression data, the researchers found that the gene expression pattern of a patient can be used to accurately classify cancer types.

This discovery lays the groundwork for developing an early diagnostic. The expression patterns may further be used to identify variations within each of the cancer types, which can then guide specialised patient treatment.

The discovery of a cancer-type carbohydrate-related gene signature led the team to a genomic classification of cancer

types. Their work, which was published in *Scientific Reports*, describes the statistical analysis of 1 893 patients' tumour gene expression data from The Cancer Genome Atlas Research Network.

This analysis was made possible through the use of computational big data analytics – the examination of large data sets containing a variety of data types – to reveal, in this case, the hidden expression patterns of each cancer type.

An early cancer diagnostic is critical for patient survival, as most cancers can be cured if discovered in their early stages. The ability to identify distinct subtypes of cancer opens the door to further research, which will guide the choice of specialised treatment to significantly enhance a patient's chances of survival. This

complements the shift towards personalised medicine approaches that deliver specialised oncotherapy to patients following diagnosis.

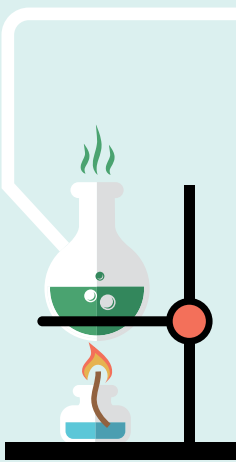
Professor Naidoo is now leading a multi-laboratory collaboration that includes scientists in the divisions of pathology and human genetics at UCT's medical campus and the Centre for Proteomics and Genomic Research. Their work entails the analysis of blood samples of South African patients. They hope to develop a low-cost gene expression tool for breast cancer, which will form the basis of a routinely used early diagnostic.

This discovery demonstrates the importance of computational big data analytics in biomedical sciences and the developing field of precision medicine.

MEDICAL BREAKTHROUGHS

Omega-3 can boost the positive effects of vitamin B in warding off dementia

While research has already established that B-vitamin supplements can help slow mental decline in older people with memory problems, an international team (including UCT) found that having higher levels of Omega-3 fatty acids in your body could boost the B-vitamins' effect.



Cheaper HPV vaccine might come from tobacco

In a pioneering step towards using plants to produce vaccines against cervical cancer and other viruses, UCT researchers generated synthetic human papillomavirus-derived viral particles called pseudovirions in tobacco plants.



MENTAL HEALTH CARE CAN BE COST-EFFECTIVE IN POORER COUNTRIES

Findings by UCT's Programme for Improving Mental Health Care (PRIME) show that mental health care can be provided cost-efficiently to thousands of poor people in low- and middle-income countries.

EXHIBITION DISMANTLES THE EARTH'S CRUST

UCT's Department of Geological Sciences exhibited an array of wonderful rock specimens from its world-renowned Upper Mantle Research Collection. It's the largest of its kind in the world with some 14 000 curated specimens weighing in at an estimated 20 tonnes.

The exhibition, *Messengers from the Mantle: Diamonds and Craton Roots*, commemorated 50 years of mantle research at UCT. It ran from 29 August to 2 September 2016 as part of the 35th International Geological Congress (IGC), which was held at the Cape Town International Convention Centre.

"An important aspect of the exhibit is illustrating how the mining industry has produced mantle samples crucial to scientific research and, in turn, how research on mantle samples has helped refine exploration models that have allowed new diamond deposits to be discovered," said Dr Phil Janney of UCT's Department of Geological Sciences.

At the exhibition's formal opening event, the mantle collection was renamed after its founder, Emeritus Professor John Gurney, who established the Upper Mantle Research Collection and made it available to researchers around the world.

"Over the past 50 years, the collection has been mainly under the stewardship of Prof Gurney, and it is mainly through him and his former students conducting trips to collect mantle specimens brought to the surface in kimberlite pipes and diamond mines, both throughout southern Africa and internationally, that the collection has grown to its current great size," explained Janney.

Visitors delighted in the samples on display. This is the biggest collection of mantle rocks globally, housing some 14 000 specimens.

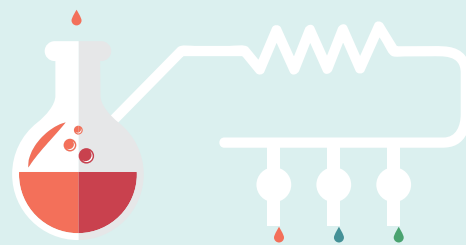


Low-cost urine test reduces HIV-associated TB death rate

A UCT-led clinical study on a urine test able to diagnose tuberculosis in severely ill HIV patients led to a call for its immediate use in public health programmes because it has the potential to save lives. Leading medical journal *The Lancet* hailed the results of the trial as a breakthrough for patients with HIV-associated tuberculosis.

INFLAMMATORY PROTEINS OFFER INSIGHTS INTO HOW TB SPREADS IN THE LUNGS

Research by senior postdoctoral fellow Hlumani Ndlovu and senior lecturer and group leader in the Division of Immunology, Mohlopheni Marakalala, found proteins in the body that promote lung inflammation which helps the bacteria that causes TB to spread throughout the lung. Now identified, the next step is to find the drugs that will inhibit these proteins and limit lung inflammation.



Study reveals the obstacles mothers face in getting help for their critically ill children

A year-long research study by UCT and the University of Oxford highlighted the difficulties facing critically ill or injured children when accessing quality emergency care in South Africa. The research found that three of the 30 deaths included in the study could have been avoided with better care, and another 14 were "potentially avoidable".

Physio intervention helps arthritis pain management

Intervention showed that physiotherapy programmes can have a significant effect in managing pain for sufferers of end-stage arthritis and may even alleviate the need for joint surgery.



UCT RESEARCHERS HONoured AT NRF AWARDS

A host of UCT researchers were honoured at the 2016 National Research Foundation (NRF) Awards.

Professor Mark Engel from the Department of Medicine accepted the Research Excellence Award for Early Career or Emerging Researcher, shared with Professor Nosipho Moloto of the University of the Witwatersrand. This award recognises exceptional research performance by NRF Thuthuka grant holders. Engel's research focus is on rheumatic heart disease, which still has a high mortality rate in the developing world.

Two other young researchers were recognised: doctors Katye Altieri and Robyn Pickering were awarded P ratings, which are assigned to researchers under 35 who are considered likely to become future international leaders in their respective fields.

These awards, which focus on early-career researchers, are testament to the success of UCT's efforts to bring more top-rated researchers up through the career pipeline.

According to the NRF, A-rated researchers are "unequivocally recognised by their peers as leading international scholars in their field". Five UCT researchers were awarded A ratings for the first time, based on the quality and impact of their research outputs in the recent past:

Professor Anusuya Chinsamy-Turan,
Department of Biological Sciences

Professor Bruce Hewitson,
Department of Environmental and Geographical Science

Professor Bongani Mayosi,
Department of Medicine

Professor Gerald Nurick,
Department of Mechanical Engineering

Professor Chris Reason,
Department of Oceanography.



Professor Bongani Mayosi

Lewis leads the way in science awards

Professor Alison Lewis was one of four UCT winners at the 2016 Department of Science and Technology's Women in Science Awards. Dr Muthoni Masinde, Belinda Speed and Xolisile Thusini also won awards.



Prof Alison Lewis, the first woman dean of the Faculty of Engineering & the Built Environment and winner of 2016's Distinguished Woman Scientist - Research and Innovation award.

Professor Alison Lewis, dean of the Faculty of Engineering & the Built Environment, was awarded the Distinguished Woman Scientist - Research and Innovation award for her overall contribution to research and innovation in the physical and engineering sciences.

Her longstanding interest in water and water treatment led to her research into the treatment of acid mine drainage. This resulted in a process called eutectic freeze crystallisation, which converts contaminated mine water into clean, potable water.

The process is now being commercialised - with a plant being implemented at Coaltech's Optimum Colliery in Mpumalanga and another in the pipeline for Eskom.

Dr Muthoni Masinde, a senior lecturer and head of ICT at the Central University of Technology (CUT), received the Distinguished Young Women Researchers Research and Innovation award. Masinde's PhD at UCT entailed the development of a tool that combines African indigenous knowledge of natural disasters with information and communication technologies, such as artificial intelligence, wireless sensor networks and mobile phones to accurately predict droughts. Her contribution led to the establishment of a CUT research unit on informatics for drought in Africa.

Belinda Speed, who is completing her PhD in forensic medicine in the Department of Pathology, received the Department of Science and Technology Doctoral Fellowship. Using pig carcasses as a substitute for human bodies, Speed's research focuses on the baseline decomposition rates of bodies in the marine environment in the Western Cape climate. Her research will provide comparative data for local forensic anthropologists to identify bodies and provide sound evidence in court cases.

Xolisile Thusini, who is completing her master's in experimental high-energy physics in UCT's Department of Physics, received the Tata Africa Scholarship. Her research project on the ATLAS experiment (a particle physics experiment at the Large Hadron Collider at CERN) is aiding the search for the extremely rare fundamental interactions: the same sign W boson scattering within proton-proton collisions produced by the Large Hadron Collider.

FUTURE OF SA WATER LOOKS BRIGHTER

Amid grim predictions of global water scarcity and world water wars, UCT launched the Future Water Institute.



Recognising the importance of interdisciplinary approaches in tackling South Africa's challenges, UCT set out to nurture its interdisciplinary research. The Future Water Institute was one of the five winning proposals that responded to the university-wide call.

Built upon a substantial research footprint in water, the institute allows for greater impact of research. Future Water maintains that water scarcity can and must be addressed using science, innovative thinking and an understanding of the human factor.

The team put forward a plan supported by strong sociological, technical, environmental, legislative and governance expertise.

Launching the centre on 8 September 2016, Vice-Chancellor Dr Max Price explained how the institute encompasses the skills and resources of 10 departments across six faculties, while maintaining an open call to other researchers.

Traditionally, chemical engineers think about water reprocessing; civil engineers consider water treatment, warehousing and distribution; sociologists and anthropologists look at human behaviour and how this may need to change; and scientists consider environmental impact.

In the new paradigm, the Future Water team will combine their knowledge to find integrated and sustainable solutions for our water challenges - ranging from personal water use to agricultural, industrial and mining use.

All the while, the economic, legal and policy considerations of this valuable public resource, such as pricing, will be deliberated.

"The ability to bring this together is one of the unique features that a university can offer," Price said.

The institute aims to address water sources, governance, policy and modes of use within four planned areas of cross-cutting research.

Professor Sue Harrison of the Department of Chemical Engineering, and director of the Future Water Institute outlined the thematic areas: new taps (new water resources), blue-green infrastructure (water-sensitive management), adapting to change (building resilience/governance) and maximising value (maximising value from minimum resources).

Through these approaches, the team hopes to expand existing water resources, encourage water sensitivity and efficiency, maximise the productivity of resources, and address health and nutrition through technological solutions, sociological perspectives and governance.

Intimately linked as it is to food, energy, human and environmental health, economic

development and political instability, water is the top long-term global risk, Harrison explained. And new ways of thinking and acting are required to address this risk.

Exploration should include storm-water and rain-water harvesting, treating waste water and desalinating water. A range of projects, both current and planned, will bring together work already being done at the university. One such project, The Water Hub, seeks to bring innovation and development together to inspire a new generation to do water work.

Based at the abandoned water treatment facility in Franschoek, lying along the banks of the contaminated Stiebeul River, the project hopes to combine nature's many restorative processes with new ways of reimagining the sciences in order to address issues surrounding water, energy and food.

The Water Hub's water and sanitation is completely off the grid. It will test and showcase sustainable water-management processes to treat polluted run-off and improve the quality of the Stiebeul River, grow its own food sources and experiment with ecological housing.

The plan is to establish The Water Hub as an attractive conference venue, complete with its own restaurant, to support the costs of this state-of-the-art interdisciplinary research centre.

HIDDEN GALAXIES

*Big, bright and surprisingly easy to miss.
Photo: ESA/Hubble & NASA*

An international team of scientists, including UCT's Professor Renée Kraan-Korteweg, discovered hundreds of hidden nearby galaxies just beyond the Milky Way.

They made their groundbreaking discovery by peering through the Milky Way with a radio telescope. The study involved researchers from Australia, South Africa, the US and the Netherlands.

The find sheds light on a mysterious gravitational anomaly that is known as the Great Attractor. Despite being just 250 million light years from Earth - which is very close in astronomical terms - the new galaxies have been hidden from view until now by our own galaxy, the Milky Way.

Thanks to the Parkes radio telescope in New South Wales, which is equipped with an innovative receiver that scans the sky 13 times faster than before, the scientists were able to survey this hidden part of the universe.

"Even so, the data gathering went on for various years," said Kraan-Korteweg, chair of Astronomy at UCT.

She and collaborator Dr Anja Schröder at the South African Astronomical Observatory (SAAO) were among the lead authors of an article on the topic, published in the *Astronomical Journal* on 9 February 2016. They worked with first author Professor Lister Staveley-Smith of the University of Western Australia node of the International Centre for Radio Astronomy Research (ICRAR).

The discovery may help to explain the Great Attractor region, a diffuse concentration of mass that appears to be pulling our galaxy, the Milky Way, and hundreds of thousands of other galaxies towards it at a rate of two million kilometres per hour.

The team found 883 galaxies, "about half of which had never been seen before," said Schröder, who scrutinised all available multi-wavelength imaging data for possible counterparts.

Kraan-Korteweg, internationally recognised as a leader in unveiling the galaxy and mass distribution behind the plane of the Milky Way, said astronomers had been trying to map the galaxy distribution hidden behind the Milky Way for decades.

"We've used a range of techniques, including telescopes at the SAAO, but only radio observations have succeeded in allowing us to see through the thickest foreground layer of dust and stars in the inner Milky Way. An average galaxy contains 100 billion stars, so finding hundreds of new galaxies hidden behind the Milky Way points to a lot of mass we didn't know about until now."

Such systematic surveys with radio telescopes are, in a sense, precursors to the much deeper surveys for neutral gas that have been planned with the Square Kilometre Array (SKA) precursors, such as MeerKAT.

SKA Answering questions not yet asked

How did the universe evolve? Are we alone? Astronomers hope to answer these big questions with the Square Kilometre Array (SKA), the world's biggest radio telescope, which is being built in the Northern Cape.

"Radio astronomers will use SKA to understand how stars and galaxies are formed and evolve over time and whether there is life elsewhere in the universe," said Professor Russ Taylor, UCT University of the Western Cape SKA chair. He was talking at UCT's first Café Scientifique for 2016.

"[SKA] will answer questions we have not even asked yet. The SKA can do this in a way that no technology has been able to do before."

Although radio astronomy took off in the 1940s, precipitating a golden era, by the 1980s

astronomers dreamed of building bigger telescopes for the next era of exploration.

"We realised that, despite all the advances in astronomy, we knew very little about the universe. The light that we could see with our optical telescopes was a very small fraction of what the universe is made of. The real mysteries of the nature of the universe were not in the places we would see light, but in the dark regions between the stars and the galaxies, the stuff we call 'dark matter'. It's like seeing the foam on top of the ocean or the tip of the iceberg. Most of the universe is not in the stars and galaxies. It's in what we can't see."

That dream grew into SKA, involving 22 countries and 122 institutions. South Africa and Australia were identified as the sites to build the radio telescope. The Inter-University Institute for Data Intensive Astronomy (IDIA) partnership, launched in 2015 with Taylor as its director, will develop crucial capacity for big data management and analysis.

In 10 to 12 years the project could be providing interesting answers to those big questions, and by 2030, with the full SKA up and running, "we'll definitely have an answer", said Taylor.

CREATING WATER SOLUTIONS

Africa is home to the highest number of water-scarce countries in the world. The impact of water shortages was felt acutely in 2016 over southern Africa, and South Africa is experiencing its worst drought in a century.

Growing populations and urbanisation are increasing demand, while water supply is shrinking. In the current water crisis, the continent cannot afford to lose one drop. And yet it does continuously – through leaks in pipes and general mismanagement. In 2015 a Water Research Commission study found that at least a third of the water in distribution systems is being lost through leaking pipes.

Not only are South Africans facing the prospect of water shortages, but with ageing and insufficient water infrastructure, the spectre of substandard water quality is also a very real possibility. UCT engineers are at the forefront of research and programmes to address this looming crisis.

Professor Kobus van Zyl from UCT's Department of Civil Engineering heads up a research group on water distribution systems that aims to understand the mechanisms of leakage within these systems. Other areas of interest for the group include the operation and maintenance of water distribution systems, water demand management and smart water metering. Recently, he and his team invented a device that could change the game.

Van Zyl's research led to the development of a pipe condition assessment device, which is currently being patented with UCT. The device is easily transportable and connects to a section of pipe using a hydrant connection.

Van Zyl believes that switching off the water supply is the worst thing that can be done to a water distribution system.

"As soon as there is no pressure in the pipes, polluted water from outside the pipes enters through the leaks," explained Van Zyl, referring to the 'water shedding' in KwaZulu-Natal.

Van Zyl also points to the socioeconomic ramifications of an intermittent water supply.

"Air and grit pass through water meters and consumers are then billed quite literally for air. Water meters are also damaged by the materials (soil and stones) passing through them. It becomes easier to make illegal connections when there is no pressure in the pipes.

"Unscrupulous opportunists get water from the part of the region where there is water, and sell it to the residents who don't have water at exorbitant prices."

The government must spend roughly more than a hundred times its current budget allocation for water management over the next four years to avoid a fullscale water crisis.

Water recovery

Acid mine water is another threat to South Africa's precious water supply. Professor Alison Lewis, dean of Engineering & the Built Environment, and her research team offer the process of eutectic freeze crystallisation as a solution to this problem. The process separates acid mine water into potable water and salts, some of which have commercial value in the mining industry.

"We need to move to thinking about resources and not toxins, and resource recovery not waste," she said.

Urban Water Management

The Urban Water Management (UWM) group is an accredited research unit currently investigating ways to place water at the centre of design processes for cities. It combines the expertise of six departments across three UCT faculties and seeks integrated and sustainable approaches to water management in an urban setting.

The UWM furthers its goals through involvement in projects like the Liesbeek River Plan. According to Dr Kirsty Carden, UWM research officer, the plan looks to provide new knowledge and designs for the Liesbeek River.

APP EMPOWERS SMALL-SCALE FISHERS

"Abalobi is a project by the small-scale fishing community themselves, to own the process of implementing the Small-Scale Fisheries Policy they fought for," said Dr Serge Raemaekers, who directed the development of the Abalobi mobile application in 2016.

The Abalobi project advocates for social justice, poverty alleviation and transformation for traditional fishers living on the South African coast by helping small-scale fishers to manage their businesses, increase their market visibility and lobby for community fishing areas.

The data gained from fishers measuring and recording their daily catches may help government to develop policies to manage the competition between small-scale fishers and commercial vessels.



On bad fishing days, the small-scale fishers often resort to catching reef fish and sharks to cover fuel and other expenses. The first phase of the Abalobi project will capture information about these fishing patterns.

21st-century support for research

UCT's implementation of Converis, new software to automate and streamline the research project life cycle, will provide a one-stop shop for researchers to manage and track the administrative workflow within a project life cycle and beyond.

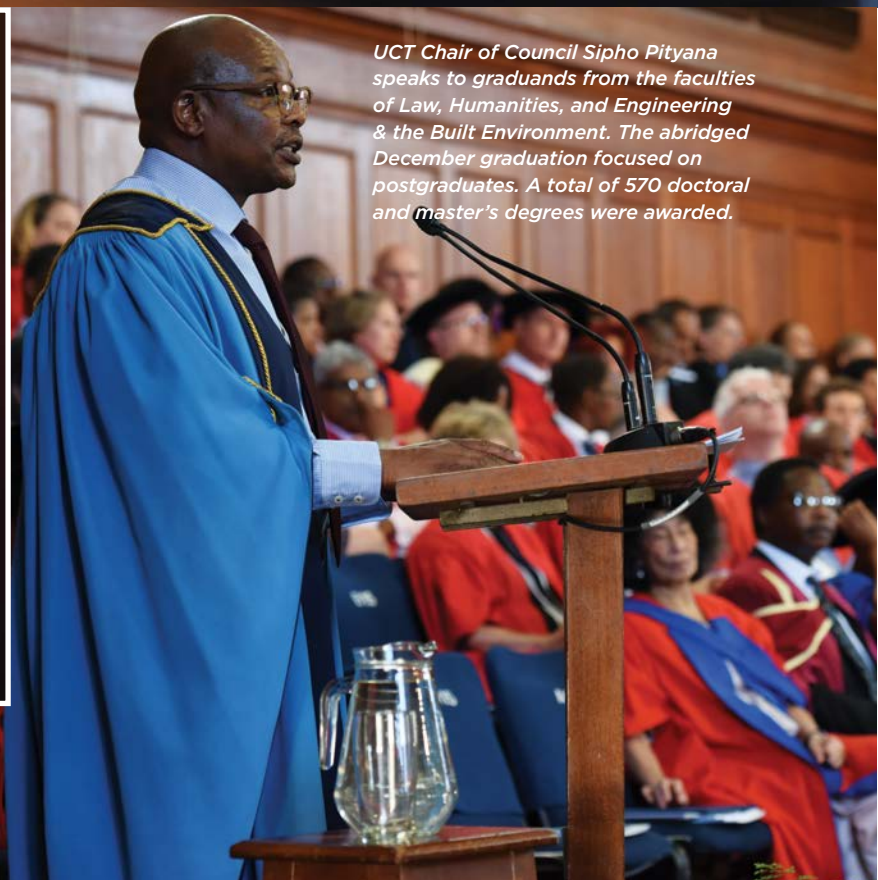
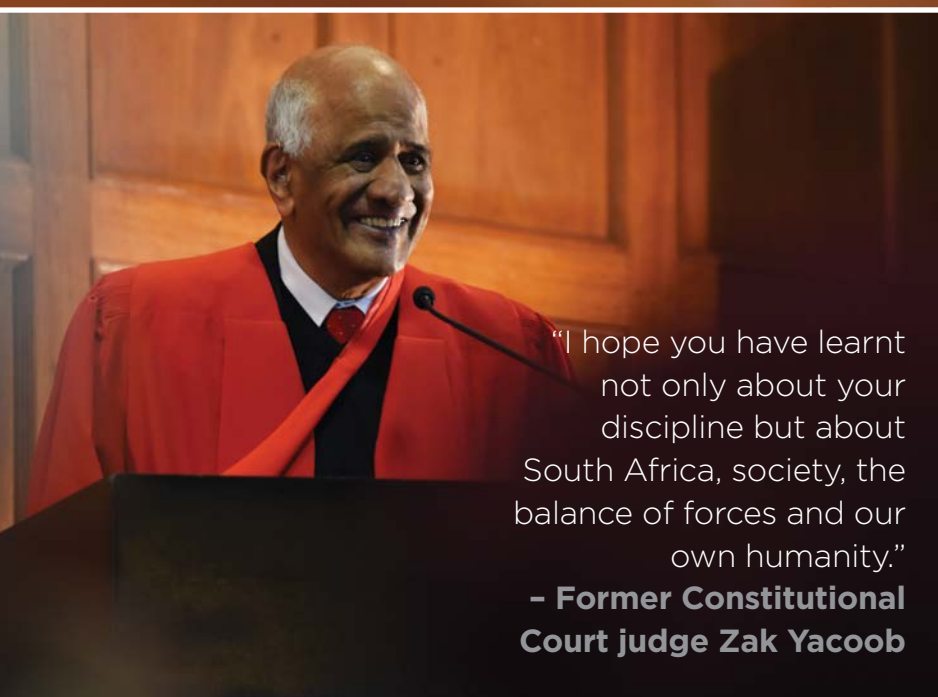
Supplied by Thomson Reuters, Converis is the cornerstone of the new electronic research administration (eRA) system that UCT will roll out over two years. This will support UCT's burgeoning research enterprise and provide technological solutions to administrative processes, lifting the onerous administrative burden.

The software guides the researcher from the point where an idea is born and a funding opportunity is identified, through to post-publication with automatic CV updates.



‘Young people should **never tolerate** injustice’ - MOSENEKE

Memorable moments: graduands delighted in insights from leaders, anti-apartheid activists and legal experts during the 2016 graduation ceremonies.



"I will be listening and watching to hear and see what you say and do, using your special skills and knowledge to try to address the problems we face in South Africa and the world."

- UCT Deputy Chair of Council Debbie Budlender



"It seems to me, Vice-Chancellor, that in our history young people have borne the brunt of the push for a better society ... That restlessness is again upon us. You, as an institution, know more about that than most places ... But it is the young graduates and other youth I want to address on this. Young people should never tolerate injustice. Why should they?"

- Emeritus Deputy Chief Justice Dikgang Moseneke



"Go out; make a difference in some way. Through your attitude and actions, you will be honouring the sacrifices made by hundreds of young people on June 16, 1976, 40 years ago, and in the struggles that followed up until today."

- Vice-Chancellor Dr Max Price





STUDENTS BY NUMBERS

UCT aims to produce graduates with internationally recognised and locally applicable qualifications, underpinned by values of engaged citizenship and social justice. We strive to provide a high-quality educational experience through inspired and dedicated teaching and learning, exposure to the creation of new knowledge, cultivating competencies for global citizenship, stimulating social consciousness and attracting a diverse community of scholars.

Students come to UCT from all over Africa and the world

5 278

In 2016, 5 278 international students studied at UCT from 112 countries (39 of them African).

2 661

Of the total student population, 2 661 are from SADC countries: Angola, Botswana, Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe.



STUDENTS BY FACULTY (UNDERGRADUATE AND POSTGRADUATE) IN 2016:



7 445
Commerce
(including the Graduate School of Business)



4 559
Engineering & the Built Environment



4 457
Health Sciences



6 688
Humanities



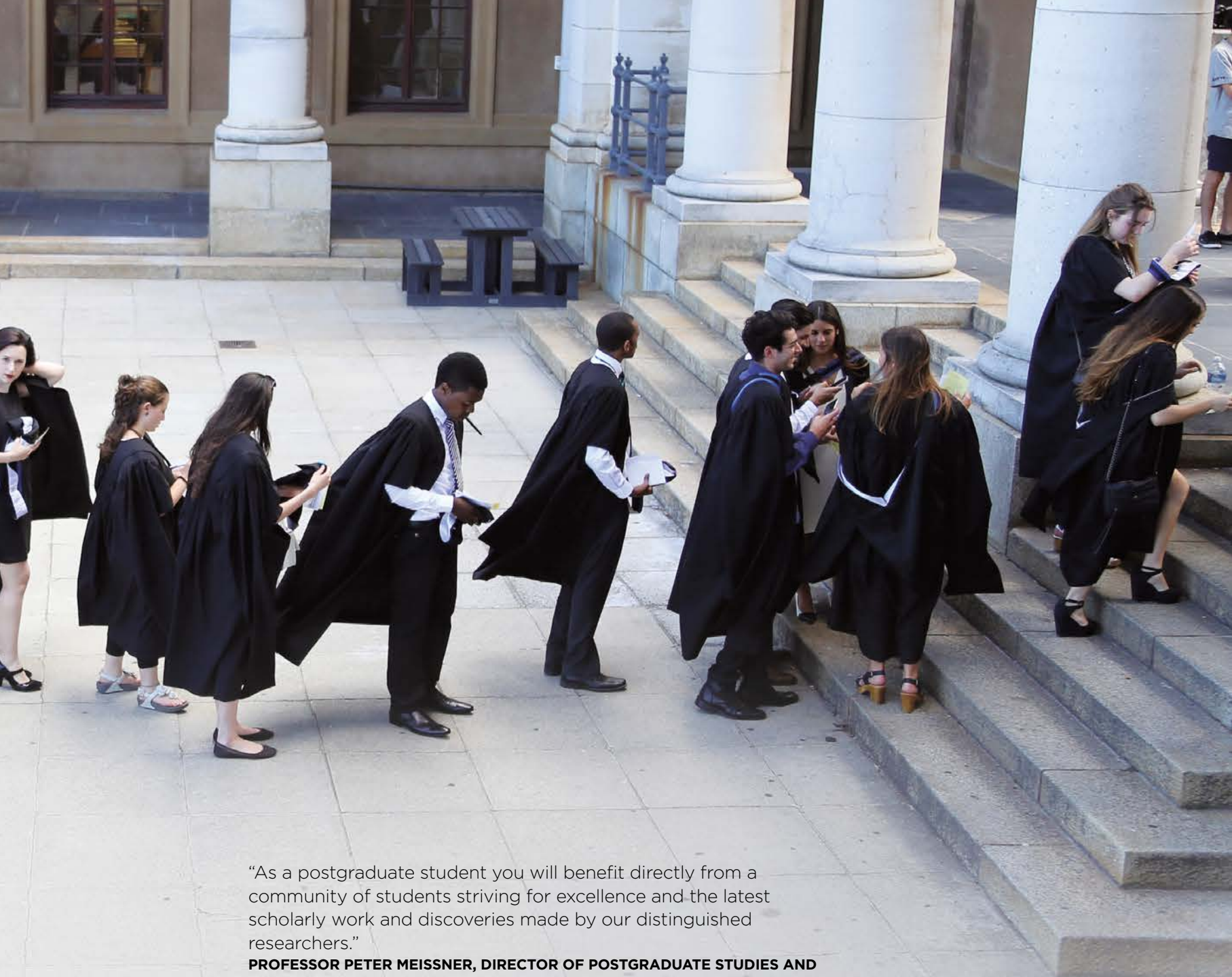
1 359
Law



2 723
Science



In 2016 UCT was home to 29 074 students
(18 421 undergraduates and 10 653 postgraduates)



“As a postgraduate student you will benefit directly from a community of students striving for excellence and the latest scholarly work and discoveries made by our distinguished researchers.”

PROFESSOR PETER MEISSNER, DIRECTOR OF POSTGRADUATE STUDIES AND RESEARCHER DEVELOPMENT

UCT postgrads in numbers

Every year approximately 10 500 students (36% of total enrolment) embark on postgraduate studies at UCT, including roughly:

2 000 doctoral students	1 500 honours students	5 200 master's students	1 800 PG dip students
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UCT also has the highest number of postdoctoral fellows (340 in 2016) of any university in Africa.

+/- 6 800 Students live in any one of UCT's 32 catered or self-catering student residences (many more are accommodated privately off campus). UCT's largest residence, Obz Square in Observatory, opened its doors in 2012 to accommodate 880 students.



2016 GRADUATION NUMBERS

JUNE:
+-4000 graduates
over 13 ceremonies

DECEMBER:
570 over 2 ceremonies
(only doctoral and masters graduates)

119 PhDs
451 Master's

“Postgraduates are the engine room of research at UCT and are pivotal to our future success. UCT is committed to creating a research environment that enables young researchers from diverse backgrounds to develop their skills and make a meaningful contribution in whatever discipline they choose.”

PROFESSOR MAMOKGETHI PHAKENG, DEPUTY VICE-CHANCELLOR FOR RESEARCH AND INTERNATIONALISATION

TEACHING AND LEARNING

Despite disruptions due to student protests, UCT's staff and students successfully completed the academic year. The university continued its reputation for excellence, with first-rate teaching, innovative learning methods and improved facilities. Here we take a look at some of the highlights in the teaching and learning arenas.



The only one of its kind on the African continent, UCT's Disability Studies unit is working hard to develop African theories on disability.

This discipline seeks to understand the socio-economic factors contributing to how people with disabilities engage with society. Understanding that disability and disabled people's experiences of society cannot be understood within one silo alone, the unit is fundamentally interdisciplinary.

This collective of academics and practitioners is brought together by a powerful, advocacy-driven approach to research and teaching.

"The reason it is interdisciplinary is we believe that we learn a lot about our social condition and about humanity by looking at disability," explains division head Dr Judith McKenzie (pictured above).

Changing perceptions of disability

Originally trained in speech therapy, McKenzie became interested in inclusive education and disability studies while providing care in rural Mpumalanga.

Problems surrounding perceptions of disability, by medical practitioners in particular, became all the more apparent during her time in rural communities.

Traditionally, medical practitioners look at disability as a medical condition and as a problem that needs to be solved. When it

cannot be solved it becomes a case of charity, McKenzie says.

"The problem with that model is that it takes all of the power and agency away from disabled people and puts it in the hands of the professionals or the carers."

Barriers to education

Concerned as she is with inclusive education, McKenzie has found exceptional partners in her Disability Studies colleagues.

They have recently embarked on a research project that seeks to address the lack of teacher training to meet the needs of children with disabilities, specifically children who are blind, deaf or who have severe intellectual impairment. The project's combination of research and support encapsulates the understanding of disability in context as an issue of social justice.

There is a massive gap in teacher training in South Africa. Even teachers in special schools often do not have training in the particular disability they are working with. The Disability Studies division is trying to address that need through this action research project.

The division has undertaken research and teaching projects to ensure that this support is provided, both within the homes of people

with disabilities and in their broader communities.

Dr Brian Watermeyer is assessing the challenges faced by families raising children with disabilities. This addresses structural burdens such as poverty, as well as disability-related issues such as high care requirements.

Sumaya Gabriels and Anthea Hansen convene the Higher Certificate in Disability Practice to see to the training of rehabilitation care workers, who are able to provide support to disabled people and their families within their communities.

The unit applies the same thinking to employment opportunities that arise within the division.

"If we are talking about inclusion of disabled people, we need to ensure that that happens," McKenzie explains.

Opportunities for employment are also being addressed through research. Professor Theresa Lorenzo, who founded the division in 2003, is examining the myriad ways that sport and its related activities can be a much-needed channel into creating work for disabled people.

Given the difficulty of accessing education as a person with disabilities, the unit recognises prior learning when considering applicants.

"So that means that a person who has a lot of experience in the disability sector, not necessarily disabled, but often they are disabled, can compile a portfolio and apply for courses."

Accessibility through online learning

The division also runs a successful MOOC, "Education for All: Disability, Diversity and Inclusion". The course is aimed at teachers, other professionals and parents interested in developing inclusive education.

Hoping to provide further access, the unit began developing its postgraduate diploma into a blended-learning project in 2014 with the help of the Centre for Innovation in Learning and Teaching (CILT).

"One of our colleagues, Ikechukwu Nwanze, worked very hard on building online accessibility," she said.

The team spent much time thinking about how to facilitate online engagement. Students were encouraged to critically examine one another's work and write blogs. Lecturers were also more accessible this way, actively responding to questions and facilitating discussions.

Despite these successes, McKenzie is adamant that this will not be a workable model without dedicated staff members providing support and engaging with students.

These dedicated support roles are crucial, she says, if the university wishes to further integrate blended learning into its curriculum.



Richard Perez is the d.school's founding director.

DESIGN SCHOOL TO ENABLE REAL-WORLD PROBLEM-SOLVING

The new UCT School of Design Thinking, or d.school as it's commonly known, which launched in the first quarter of 2016, promises to equip students with the ability to think laterally when tackling social problems and real-world challenges.

"Students will be trained to become effective problem solvers," said Richard Perez, the d.school's founding director.

The first pilot, for postgraduate students from UCT, ran for 10 weeks from 8 March.

More pilot programmes were introduced during the year, including short design-

thinking boot camps, training programmes for postgraduates, introductory courses, open days for undergraduate students, and executive training.

The d.school will also be partnering with other UCT entities to offer exposure to design thinking and design-led innovation.

"The d.school's overall objective is to promote design thinking as an enabler of innovation and new outcomes that can meet the needs of users in complex socio-political and economic contexts," said Perez.

The basic tenets of training for design

thinking, he explained, are collaboration, human-centredness, creative thinking and learning through doing.

Perez explained how people often associate the word *design* with "styling and artefacts", rather than as "a process towards developing new solutions and outcomes" that might serve society.

"The establishment of a d.school will help to raise awareness around the potential of design and what the design-thinking process might mean for addressing the complex economic and social challenges that face society today."

The coldest place in Africa

The Department of Physics at UCT acquired a dilution fridge in 2016, which officially makes it home to the coldest place in Africa with a temperature of 8.190 mK (milli Kelvin), ie 122 times colder than the known naturally coldest place in the universe - the Boomerang Nebula.

This state-of-the-art instrument has a base temperature of 7 mK, which is seven thousandths of a degree above absolute zero.

This facility will provide valuable training opportunities for students at all levels and will allow UCT to become a player in a very active and exciting international field, said Associate Professor Mark Blumenthal, the physicist who will oversee the use of the dry fridge. Blumenthal's area of expertise is low temperature nano-electronics.

The fridge has a powerful 10 tesla superconducting magnet, which is 25 000 times more powerful than the Earth's magnetic field, and allows the physicists to manipulate the spin of electrons.

It will also be used to train students in understanding vacuum systems, cryogenics and solid state physics.



THE NEW LECTURE THEATRE



UCT's upper campus has a new 400-seater lecture theatre at the southern end of University Avenue. It is now the largest venue on campus and the first to earn a four-star green rating from the Green Building Council South Africa.

The building was designed with all-natural finishes to ensure low or zero maintenance. Brushed stainless steel rails and glass panels make for clean lines indoors. One of the building's many environmentally friendly

features is the harvesting of rain water to flush the toilets.

The new lecture theatre is next door to the Jammie Shuttle's South Stop, which further enhances its accessibility and adds to its

green-building credits.

The writing benches are accessible to people who use wheelchairs, and the auditorium also has technology to assist the hearing impaired.

MULTILINGUALISM MEETS OPEN ACCESS

Jargon-laden subjects are difficult to grasp. But when your home language is not English, it's that much harder.

In a move to better equip their students, the College of Accounting embarked on a unique blended-learning project that is both multilingual and open access.

The initiative, called Learn Accounting, is led by Associate Professor Jacqui Kew and seeks to explain key accounting concepts in understandable terms and in students' home languages.

Learn Accounting has been in development since 2013, during which time it has amassed

11 650 registered users online, more than half of which are not from UCT.

The decision to make the project open access speaks to its collaborative nature. It was developed in conjunction with academics from universities such as Wits and Walter Sisulu.

"What this has shown is that it is possible to take the learning space to the student," said Associate Professor Goolam Modack, the acting head of Accounting. This allows students to drive the learning process

and to take ownership of their studies in an environment that works for them.

The project required academics, who normally expand upon complex concepts during a full lecture, to refine their teaching methods and to condense concepts in a seven- to 10-minute video.

Learn Accounting is one of a number of initiatives implemented to ensure that students from diverse contexts receive proper support.

MELLON FELLOWS GRAPPLE WITH BLACKNESS AT UCT

Dr Gideon Nomdo has been a Mellon coordinator since the Mellon Mays Undergraduate Fellowship (MMUF) programme was formally established at UCT in 2002. Having been funded by the Mellon Foundation himself, Nomdo unpacks the idea behind the programme.

The MMUF programme aims to recruit young black students into academia. The American programme branched out to South Africa and has been running at UCT since 2002. Each year five students are selected as Mellon Mays Undergraduate Fellows.

"The competition this year was out of this world," he says about the 2016 MMUF cohort. "It's getting tougher every year. They're well read, articulate and they've thought about what they want to do after the graduate degree."

The fellowship pushes its fellows to think out of the box and deal with identity issues both from a UCT and a South African context.

"Issues of race and identity are huge items on Mellon's agenda," explains Nomdo, who lectures in the Centre for Higher Education Development.

"It's quite interesting to see how they [the students] unpack issues of how they identify as black."

In 2004 the MMUF started admitting coloured and Indian students, which has added diversity to the cohort and has made the programme more dynamic.

"In the first few years, it was very interesting to see how coloured students identify and how black African students identify as black in terms of the South African context," says Nomdo.

He infuses identity politics into his teaching as a matter of course.

"We get students to think very carefully about what it means to be a future black academic," he says.

It started in the dockyard

Nomdo is a teacher by training and trade, and he revels in nurturing young scholars.

But his was not a linear trail from Belgravia High School. After matriculating in 1984, Nomdo had ambitions to be a toolmaker.



Nomdo argues that it's essential to have students interrogate their identities as a core part of their academic experience. Photo Je'nine May.

"We get students to think very carefully about what it means to be a future black academic."

"My friends were toolmakers and they were driving fancy cars, so I figured I wanted to be one too," he grins.

So off he went to the Simon's Town naval dockyard to learn the trade.

"Lucky for me, the toolmakers' shops were crowded!" he laughs.

But it was after spending six months hammering out ship parts in a blacksmith's workshop that he balked at the idea of spending the rest of his life making tiny metal springs.

So he enrolled at Hewat, the teacher training college in Athlone, and completed a higher diploma in education. Thereafter he

spent "the best two years" of his life teaching at Turfhall Primary.

His UCT journey began with an undergraduate degree in 1992, and it continues. Nomdo has been teaching in the Academic Development Programme in the Faculty of Humanities since 1999.

MMUF's mission at UCT is about correcting historical disadvantage, says Nomdo. With South Africa's legacy of apartheid, the five students selected each year are all from historically disadvantaged backgrounds.

"It's all about how one navigates and negotiates their identity in the institution," he says.

Distance learning gains momentum

Massive open online courses (MOOCs) are freely available for anyone and everyone.

They are a form of self-directed distance learning that caters to vast numbers of learners through audio and video lectures as well as online discussion forums.

Given the push towards new and innovative teaching methods, a number of UCT departments have been adapting their course content into MOOCs with the help of the Centre for Innovation in Learning and Teaching (CILT).

One such free online course, "Climate Change Mitigation in Developing Countries", is presented by Professor Harald Winkler, director of UCT's Energy Research Centre, together with colleagues from the Mitigation Action Plans and Scenarios (MAPS) programme.

The course delves into some of the challenges and complexities faced by

government bodies in developing countries that are trying to grow their economy without causing further damage to an already vulnerable environment.

It presents facilitation process techniques, where academics and members of society co-produce knowledge to address these challenges, as well as energy modelling, scenario building, innovation and policy.

MEET THE SPORTS
SCIENCE INSTITUTE'S

NEW BOSS

Dr Phatho Zondi, the new chief executive officer of the Sports Science Institute of South Africa (SSISA), had always wanted to study medicine. But sport is in her genes.



Medical alumnus Dr Phatho Zondi, the new chief executive officer of the Sports Science Institute of South Africa.

At Westville High School she played provincial netball for KwaZulu-Natal and excelled in track and field events. Later, at UCT, she played netball for a Western Province development side.

"We grew up in Clermont and would often accompany my dad to Lahee Park near Pinetown where he trained for Comrades, and my mother kept fit. Running was a family affair."

In the end, the dilemma was solved quite simply. Her sister called one day after hearing renowned sports scientist Tim Noakes on SAFM radio.

"Phatho, listen, I think this is what you want to do."

Sports science offered the perfect combination.

Mind the gaps

After completing an MBChB at UCT, Zondi signed up for a postgraduate sports medicine degree at the University of Pretoria. Working with both professional and recreational athletes gave the new clinician good exposure to sport and sports medicine at different levels.

But med school had also taught her to look for gaps. She'd noticed that health practitioners are undertrained in finance and business matters. To fill this hole in her own development, she tackled an MBA at the Gordon Institute of Business Science.

Heading up SSISA calls on all facets of her training and experience. She also brings an

impressive pedigree having worked with SA Rugby (she's a former team doctor for the u20s), the South African Sports Confederation and Olympic Committee and World Rugby. Zondi was chief medical officer for the South African team at the 2014 Commonwealth Games in Glasgow, team doctor for South Africa at the 2012 London Olympic Games and medical officer at the 2010 FIFA World Cup.

In addition, she is president of the South African Sports Medicine Association, a member of the medical advisory committee for the South African Olympic Committee and serves on the South African Institute for Drug Free Sports Appeal Board.

Community with a view

SSISA is a great brand, says Zondi.

"The institute has pioneered sports science and exercise in South Africa and, with UCT's Division of Exercise Science and Sports Medicine (ESSM), has a strong foundation in research and teaching and service delivery. The challenge now is to take hold of new opportunities and redefine our space, given the changing context of the world and the dynamic landscape of sports science and exercise medicine.

"It's important that we continue to lead in the space of high-performance and demonstrate our ability to apply science to produce world-class performances in selected sports."

But there is another gap Zondi has in her sights: the community beyond the leafy green belt, where socio-economic conditions shape the population. Factors like diet and lifestyle are linked to rising obesity, especially among black women, and to hypertension and diabetes.

This is where she and colleague Professor Vicki Lambert, head of ESSM, believe the hard graft lies. (Attached to UCT's Department of Human Biology, ESSM is SSISA's research arm.)

SSISA already has sound community programmes in place, but these must grow. Community programmes must begin with early childhood development and by introducing children to physical activity as early as possible. The youth sector is critical.

"To effect meaningful and sustainable change, we must build partnerships with government departments, from health to social welfare to correctional services."

Transformation in sport is also vital to harnessing the collective potential of our nation, across gender, age and disability platforms.

"It's an exciting time to be involved in sports and exercise medicine; things are changing. As a woman in this industry I may be frustrated that things aren't changing fast enough, but I need to acknowledge that change is happening. I make it my business to support women in sport, as a clinician and as an academic and researcher and industry leader."

Sports rehab clinic for Groote Schuur

UCT's Division of Exercise Science and Sports Medicine and the Department of Orthopaedic Surgery formally rolled out the public-sector Sports Injury Clinic at Groote Schuur Hospital in 2016. The clinic is a first for South Africa and will cater to a broad sector of the public that has not been able to access or afford sports injury rehabilitation services.

Drs Jeroen Swart and Caroline Dalton, both sports medicine academic staff at the Division of Exercise Science and Sports Medicine, will provide clinical sports medicine services to the public every Wednesday at

the Orthopaedic Outpatient Clinic at the hospital. Patient referrals will be accepted via an online referral system on the UCT website.

The clinic will tend to both acute and chronic sports injuries. Patients needing early surgical management will be fast-tracked into subspecialist orthopaedic clinics at Groote Schuur. This was organised by Dr Michael Held and Professor Stephen Roche.

Swart said that many lesser-privileged patients had been unable to access sports medicine expertise and had been sidelined from physical activity as a result of their injuries. The new weekly clinic will allow these patients to access the care that they could otherwise not afford, he added. As an additional service, Winelands Radiology, a private group of radiology practices in the Western Cape, will assist patients at the clinic who have limited means by providing a set number of free MRI scans at reduced rates. Dr Lithebe, head of the Division of Sports Medicine at the University of South Africa, hailed the clinic as a "groundbreaking" development.

PATHER WINS CREATIVE WORKS AWARD

Associate Professor Jay Pather, director of the Institute for Creative Arts, re-imagined Shakespeare's *Julius Caesar* by creating a theatrical spectacle that includes directing, choreography and cabaret and bringing it to bear on the current state of the nation.

Pather's work is never simplistic or formulaic and he is not inclined to simplify either the form or the narrative of the work he creates. His extraordinary and multilayered works are visually spectacular and defy

categorisation as they blur elements of dance, film, theatre and performance art.

His portfolio is extensive, but it is *Qaphela Caesar*, a multidisciplinary re-imagining of Shakespeare's *Julius Caesar*, that earned him the UCT Creative Works Award for 2016.

The work was conceptualised in 2010 and first performed in the Cape Town City Hall.

The production is a distillation of Pather's concerns and ideas and offers a lens through which to view his creative process – primarily

a self-reflective and collaborative one that makes extensive use of improvisation.

He believes that the relationship between art and politics is ingrained and that even making art which is not political is taking a political stance.

Given the timeless nature of the themes he explores and the prevailing political milieu, 2016 was the perfect time to revive this political drama.

Perhaps in the not-too-distant future we will be prevailed upon once again to lend our ears.

RENEGADE REELS IS A REBEL IN ITS OWN RIGHT

Dr Litheko Modisane won 2016's UCT Book Award for *South Africa's Renegade Reels: The Making and Public Lives of Black-Centred Films*.

The film studies lecturer's book expands on the methodology most film scholars use, which is to read "between the lines" of a film.

"[Films] are also affecting the way people see things wherever they are watched. They are calling people into this kind of discursive bubble called a 'public' – by public, I mean this abstraction that comes into being in relation to these films as they circulate and are engaged with.

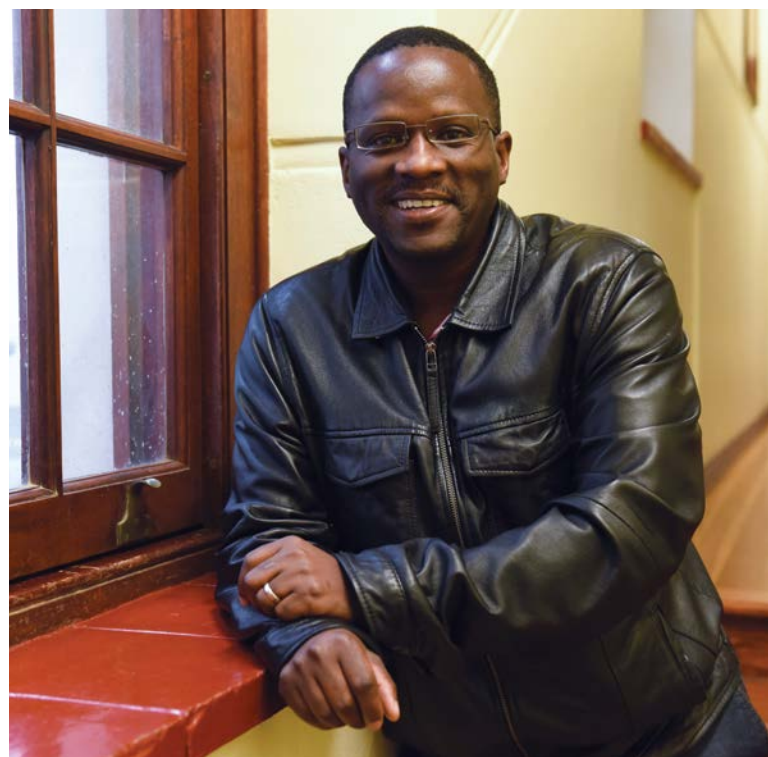
"The way I approach film is quite different to how [students] have been taught. There's resistance, but there's also excitement in class."

Students nowadays cross cultural borders daily, he said.

It's a tricky balance. Students' ideas of Africa must be constantly challenged, according to Modisane. There is an idea of Africa that's constantly trapped within certain logics of difference.

"One always has to say that this is a different time, actually," he said.

"You need to understand that the 'time' of Africa and the 'time' of the entire world, including the West, are not necessarily dissimilar. We need to think beyond that anthropological gaze that puts Africa at the infancy of the world, at the infancy of history."



MASTERCARD SCHOLARS TURN IDEAS INTO ACTION

UCT MasterCard Foundation Scholars Fadzai Muramba and Christina Nyandoro attended the Clinton Global Initiative University (CGIU) 2016 meeting at the University of California, Berkley.

The MasterCard Foundation Scholars Program is an education initiative that has committed to develop next generation leaders who are dedicated to leading positive social and economic change in Africa.

UCT partnered with the programme to provide scholarships to academically talented yet economically disadvantaged students in sub-Saharan Africa to pursue undergraduate or postgraduate studies at UCT.

Muramba, who is completing her master's in development studies, was drawn to apply for the MasterCard Foundation scholarship because of the additional support the programme gives its scholars.

She said, "It's given me the opportunity to meet scholars from other African countries and engage with them on a personal level. Being in meetings with them and conversing with them, you get to understand what it's like to live in

Malawi or Kenya, for instance – a perspective you'd never get if you didn't have that close relationship."

Nyandoro, who is doing her master's in commercial law, came to UCT after being awarded the scholarship.

"I'm a first-generation student, so I'll be the first in my family to graduate," she said.

The conference inspired both Muramba and Nyandoro to launch effective and inclusive social movements within their own communities back in Zimbabwe, and to appreciate diversity.

Muramba plans to get a taste of the corporate world after completing her studies.

"If I ever come back for a PhD, I plan to use what I learnt in industry as a launching pad for my research," she said.

Nyandoro has no plans to study further yet, but would like to explore opportunities in industry.



MasterCard Foundation Scholars Fadzai Muramba (left) and Christina Nyandoro believe that the opportunity will open many doors for their future in terms of career and personal development.

UCT ALUMNUS IS HUMANITARIAN HERO OF THE YEAR

Thousands of his peers in the humanitarian aid and development sector voted UCT alumnus Sean Casey as the AIDEX Humanitarian Hero of the Year.

America-born Casey has an MPhil in HIV/AIDS and Society from UCT. He's worked in the public health sector in over 30 countries. He was a first responder during the Ebola outbreak in West Africa and after the earthquake in Nepal in 2015.

He has supported survivors of torture in Iraq, helped with child soldier reintegration

in Sri Lanka and the Democratic Republic of the Congo, and has been involved in sexual minority protection initiatives in Syria, Nigeria and Pakistan.

Based in Thailand, Casey is the senior global operations advisor for International Medical Corps.

His relationship with UCT developed out of an exchange agreement with the American University of Paris where he was an undergraduate. He decided to spend a semester abroad in Cape Town during his third year.

UCT's Claude Leon Merit Award winners

The Claude Leon Merit Awards are given to young researchers by the Claude Leon Foundation in recognition of their contribution to their field of study. The award serves as encouragement to these individuals to continue outstanding scholarly achievements as young researchers.

In 2016 six UCT scholars were awarded the Claude Leon Merit Award.

Dr David Ikumi, senior lecturer in the Department of Civil Engineering, was acknowledged for his wastewater research. Ikumi's research focuses on the mathematical modelling of wastewater treatment systems and seeks to contribute solutions to averting the current water crisis in Africa.

Robotics designer in the Department of Electrical Engineering **Dr Amir Patel** received the award for his research into the motion of the cheetah tail and how this can be applied to designing more agile robots. The award will fund the placement of novel sensors on captive cheetahs to help him obtain high-fidelity data from live animals.

Neuroscientist and senior lecturer in the Department of Psychiatry **Dr Fleur Howells** was recognised for her research on psychotic disorders. With her research she aims to understand the neurobiological mechanisms that underlie the diagnosis of schizophrenia, which will serve to improve both diagnosis and prognosis of the disorder.

Natural curiosity drives **Dr Sudesh Sivarasu**, from the Department of Human Biology, to develop novel medical devices and orthopaedic biomechanical devices. The biomedical engineer has a special focus on health technologies for low-resourced settings and has conceptualised his own Frugal Biodesign Process, which he has successfully implemented in both India and South Africa.

Dr Johann Diener was awarded for his geological research. His interests lie in what a rock in the Earth's crust does when it's heated so much or put under such pressure that the minerals inside it start to melt. He investigates this process through thermodynamic modelling in which mathematical descriptions of the minerals are plugged into predictive computer programmes to test how rocks behave under extreme conditions.

Dr Melvin Varughese, from UCT's Department of Statistical Sciences, is a statistician who was recognised for his work on diffusion processes. This statistical model is useful for capturing the dynamics of phenomena that change randomly over time. Varughese also uses machine learning techniques to analyse astronomical datasets.

MAMOKGETHI PHAKENG NAMED BUSINESS- WOMAN OF THE YEAR

Professor Mamokgethi Phakeng, UCT's new Deputy Vice-Chancellor for Research and Internationalisation, was awarded the prestigious Businesswoman of the Year Award in the education category in August 2016.



The annual awards are managed by the Businesswomen's Association (BWA) of South Africa, and recognise the contribution of women in the fields of education, social entrepreneurship, and science and technology.

Phakeng was awarded for, among other things, her work as founder of the Adopt-a-learner Foundation, which provides financial and educational support to students from township and rural areas, enabling them to acquire higher education qualifications.

A B2 NRF-rated scientist, Phakeng joined UCT on 1 July 2016. She was previously at Unisa where she turned around the research enterprise from focusing solely on increasing the number of research outputs produced to ensuring excellence, transformation and sustainability.

In 2008 she became the first African woman to be appointed to co-chair a study

commissioned by the International Commission on Mathematical Instruction. Phakeng holds a PhD in Mathematics Education from the University of the Witwatersrand, and has won several awards for her research and community work, including the Order of the Baobab, Silver.

On receiving the award, Phakeng said: "While this award recognises me as an individual, I am very aware of the fact that nobody succeeds on their own, so I am forever grateful to the many people who supported, advocated, opened the way for me as well as those who criticise me because they all contribute the human being that I am and the woman that I am constantly becoming. I hope this award serves as a reminder to all young black women from township and rural areas that there is nothing wrong in being ambitious and dreaming big as long as one is willing to work hard to achieve one's dreams."

Farzanah Mall, president of the BWA, said, "The BWA congratulates all the finalists and winners of this year's awards. These are all outstanding leaders both in terms of their respective business achievements as well as who they are as people.

"The finalists and winners do, to a much greater degree than most, instill hope in those they lead and interact with, and practise being relevant and authentic, which is why they stand out among their peers.

"We are proud of our continued association with BWA and the ongoing advocacy work it undertakes to promote the role of women in leadership," said Wrenelle Stander, senior vice president for Public Affairs and Real Estate Services at Sasol.

UCT Chancellor Graça Machel was also honoured at the event with a Lifetime Achievement Award.

UCT joins elite research alliance

UCT became the 11th member of the International Alliance of Research Universities (IARU) in January 2016.

In joining the strategic partnership, UCT became the first new member since it was formed ten years ago by research-intensive universities who sought to deepen their collaboration. They comprise Australian National University; ETH Zurich; National

University of Singapore; Peking University; University of California, Berkeley; University of Cambridge; University of Copenhagen; University of Oxford; the University of Tokyo; and Yale University.

Vice-Chancellor Dr Max Price said that joining IARU would provide an ideal platform for the university to share - and gain - knowledge and resources on a global scale.

"Universities are operating in an increasingly complex, global and challenging environment," said Price. "It is vital that we learn from one another and that we ensure that African-specific perspectives are part of the conversation. The University of Cape Town very much looks forward to sharing its knowledge and resources in this global forum."

JOURNEYS

The university space is a collective of individuals, with complex lives and contexts. Each of us has a unique journey to and through UCT and contributes to the space in various ways: be it through vigorous daily work or socially responsive research. We take a look at some of the people who make UCT what it is.

Professionalise dysfunctional municipalities

Violent service protests across the country reflect the disjuncture between the needs of civil society's poorest and local government's roll-out of resources and services. It's a topic close to Phindile Ntliziywana's heart.

One of UCT's six New Generation of Academics Programme (nGAP) participants, Ntliziywana's PhD examines how the public service, specifically local government, can be improved.

Lady Frere in the Eastern Cape, where Ntliziywana grew up, epitomises the plight of many traditional rural settlements. With low levels of economic development and high levels of unemployment, people rely on social grants.

Ntliziywana says the community, caught in the cycle of neglect, is "defeated, disempowered and disinterested".

Poor levels of professionalism in the public service also play a large part, he says. His LLM thesis (University of the Western Cape, 2009) focused on how the professionalisation of local government's administrative arm could address capacity deficits. His PhD thesis proposes that professionalisation could go

a long way to stemming incapacity and dysfunction in many municipalities.

After a short course on federalism at the Swiss University of Fribourg as a postgraduate, Ntliziywana joined UWC's Community Law Centre (now the Dullah Omar Institute) as a researcher. He spotted the nGAP advertisement in 2015 and, well, took the gap.

The nGAP programme is a partnership between government (specifically the Department of Higher Education and Training) and universities. The first three years are devoted to development: candidates are sheltered from teaching commitments to allow them to complete their PhDs. For the next three years they're inducted as academics and then appointed to fulltime posts. Each candidate is assigned a mentor.

"The programme ensures black academics find a presence in institutions of higher learning, which have been an 'only whites' bastion from time immemorial," says Ntliziywana.

"Because of the institutional culture and other barriers, not all of us would make it here. This gives us a head start."



JOAN BYAMUGISHA: A LESSON IN PERSISTENCE



Computer science PhD student Joan Byamugisha had just finished high school in 2003 and was waiting to start her studies in medicine at Makerere University in Kampala, Uganda, when life threw her the ultimate curveball.

At first she thought she was coming down with a bout of malaria. But the diagnosis was leukaemia and within weeks the disease had irreparably damaged her optic nerves, which robbed her not only of her sight but also her dream of becoming a doctor.

What followed was a period of rapid adjustment, but Byamugisha was still determined to pursue a university education. She spent four months learning braille and the necessary computer skills. When her brother, who has a background in IT, suggested she consider studying computer science, her academic career was born.

With Makerere University unable to assist, she enrolled at the Uganda Martyrs University (UMU) in 2005, which welcomed her as their

first visually impaired student.

Three years later she emerged with a first-class bachelor's degree in computer science and economics, but she soon found that nobody wanted to employ a blind person. Undeterred, she studied further, enrolling for a distance-learning master's in software engineering at De Montfort University in Leicester.

After completing her master's in 2011, Byamugisha landed a job at UMU lecturing in the IT department and heading their new special needs department. The academic bug had bitten, however, and by 2013 Byamugisha realised that she needed to start working towards a PhD before she got "too comfortable".

In 2014 the UCT opportunity came up via the Hasso Plattner Institute. She found herself having to complete a flurry of forms and to pack up over a weekend to make it in time for registration.

With her funding set to carry through to 2018, she hopes to graduate in June of that year.

GLASGOW HONOURS UCT LEGAL EXPERT ON **WOMEN'S RIGHTS**



UCT's Prof Rashida Manjoo received an honorary doctorate from the University of Glasgow.

UCT's Professor Rashida Manjoo exudes calm and authority. No doubt, this demeanour has stood her in good stead in a career that has spanned human rights activism under apartheid to a more recent six-year stint as a special rapporteur on violence against women for the United Nations.

As the UN's representative, Manjoo visited 19 countries, speaking to women in camps, prisons, refugee detention centres and elsewhere to gather information on the causes and consequences of violence against women.

The stamps in her passport include troubled countries like Honduras, Somalia and Afghanistan but also more 'developed' places like the United Kingdom and the United States.

Manjoo's work as an "activist academic" dates back to the 1980s in apartheid South Africa and includes her work with the Street Law Programme and in the law clinic at what was then the University of Natal.

The bringing together of "town and gown" is something that lies close to Manjoo's heart.

"My social justice and human rights work

is framed by my own context and reality," she explains. "My parents couldn't afford education, so after matric my first job was as an accounts clerk in a clothing factory."

Juggling work and children, she obtained three degrees and immersed herself in activist work.

Her activism was initially part of the broader struggles against apartheid oppression, but as it became clear that a new era was dawning, she deepened her work on the human rights of women and processes to embed this in post-apartheid South Africa.

"We had learned from many other liberation struggles that the gender struggle would not necessarily be high on the agenda and thus this needed to be made explicit," she recalls.

Manjoo's UN role included providing thematic reports to the Human Rights Council in Geneva and to the General Assembly in New York, pushing the conceptual understanding of member states on violence against women, its causes and consequences.

A particular focus was identifying the "normative gaps" in international law between

human rights standards and violence against women occurring on the ground.

In her view, violence against women is not limited to conflict zones. Instead, it is part of a continuum of the low-level warfare that women face on a daily basis in their families and communities, and is exacerbated in times of conflict.

She is not sure exactly what caught the eye of the University of Glasgow, which is due to award her an honorary doctorate in June 2017.

Her investigation of the UK during her 16-day, fact-finding mission as the UN rapporteur included a public lecture at the university. And while in the UK, she delivered some home truths about the over-sexualisation of children.

She also made headlines when she was refused entry into the Yar's Wood Immigration Removal Centre, where female detainees had complained about their treatment at the hands of male guards.

This serves as proof that governments all over the world remain defensive about human rights issues.

WHY DO WE STILL **ASPIRE TO WHITENESS?**

"Why would people hate you for the colour of your skin?" asks Zuziwe Msomi. It's this question that has spurred Msomi, an nGAP lecturer in the Centre for African Studies, to interrogate racial identity in post-apartheid South Africa.

"I suppose I came into academia because I like research," says Msomi, who took up the lectureship at UCT in January 2016. "I like finding out answers to things that have always bugged me. Theory helps a lot with that."

"One of my earliest memories is of my dad telling me that when I go to school, people will hate me, and will hate me for no other reason than the colour of [my] skin. And that made no sense to me. I actually laughed."

But going through primary school, high school and academia, Msomi encountered myriad racialised experiences that she couldn't quite explain.

"I entered academia to make sense of why the world is the way that it is. Why would people hate you for the colour of your skin? Why would a social good such as respect or dignity - even just the recognition that you too are a human being - sometimes not happen?"

Questions like this have always bothered Msomi, and she's sought theories that explained this.

"I've found out that theories can provide some insight, but they have the danger of becoming stories that we recite and fail to recognise that in practice they're not quite adequate."

This has driven her to research "whiteness as a norm, and white supremacy".

"The daily practices that cause people to treat whiteness as the norm and as something to aspire to; why do we have that?"

"We need to explore why whiteness continues to be the norm."



Zuziwe Msomi is asking the tough questions. Why, in post-apartheid South Africa, does whiteness still appear 'normal'?



Child soldier's PhD turns hurt into hope

At the age of nine, when most children are at school, Julius Okello was wearing a military uniform and carrying a sub-machine gun.

Abducted in 1986 at the age of nine and recruited as a child soldier for the rebels in the Ugandan Bush War, Okello was one of an estimated 3 000 children taken by the National Resistance Army (NRA), who were fighting to depose President Tito Lutwa Okello.

Okello shot and killed a man for the first time that year. In the carnage of the civil war, there may have been others, but he didn't see them die. He was too small to see much above the tall grass of north-eastern Uganda.

ABDUCTED RECRUITS

They came in January that year while a group of village children were playing a game of soccer. They habitually raided villages to 'recruit' civilians, especially children, to fill their ranks. Okello didn't know his mother was running from the village to warn them that the rebels were coming.

She was too late.

The rebels – members of the NRA, the military wing of Yoweri Museveni's National Resistance Movement (NRM) – rounded up the children. Okello was taken with his 19-year-old sister, but they were separated. He never saw her again and got word of her only much later.

"They had used her and killed her."

He doesn't know where she is buried, or his mother, who was also raped and killed.

He recalls the events of that day: "They took us back to their barracks and told us we could not go back [home]. They were going to train us: how to handle a gun, how to

dismantle and reassemble it. After three days we were given uniforms. They said, 'Now we are going to liberate your community.'"

Child soldiers were widely used by the NRA, first as small, mobile units of guerrillas, and later as soldiers when the NRM seized power in 1986.

'KEEP MOVING'

The recoil of a sub-machine gun was enough to floor a *kadogo* (little one). But Okello soon learnt how to hold steady, guided by his 'godfather', Amodoi.

In their first camp at Malera in the Kumi District, their unit came under heavy attack by the government forces. Okello had to learn fast and, in the dense bush, Amodoi was his teacher and guardian.

"He was there for me; he guided me; he protected me, telling me 'sleep here', 'take cover', 'shoot', 'don't shoot'. I was always with him. But inside I was terrified."

Thirty years later he still weeps when he remembers, and the nightmares still plague him.

Besides Amodoi, Okello had two friends, also little more than boys. Fifteen-year-old Bosco Awic was gunned down during an ambush, his blood spattering Okello who was just behind. But there was no stopping to tend the wounded.

"Our commander instructed us to keep moving. I said: 'Please, what about my friend?' Bosco was lying in a pool of blood. But we kept moving."

SIZE ON HIS SIDE

Slight for his age, Okello was overwhelmed by the load he carried: gun, food, water, bedding roll and ammunition. But being small sometimes helped. Once, separated from his unit and under heavy fire, Okello became isolated in the bush. He could hear Amodoi calling him.

Under cover of the long grass, Okello crept between two groups of ambushers and fired on both sides to confuse them. They returned fire, hitting one another, fooled by a boy unable to fill his boots, now awash with blood from a bullet he didn't feel. Wounded in the leg, Okello escaped by crawling through the grass to safety where Amodoi found him.

With the hindsight of the faithful he says, "I'm one hundred percent sure it was God's grace."

That battle raged for three days. They ran out of food and were drinking water off the top of mud that was putrid with their dead. The flies sounded like swarming bees.

"We didn't have gloves and we had to carry the corpses. The smell was terrible, terrible, terrible ..."

His best friend, Paddy Mukasa, was fatally shot in that onslaught – and then Amodoi was struck down. Okello did the only thing he could.

"I used my army shirt to push back his intestines. I held him until they [the medics] came and took him to Lira Hospital. It took seven months for him to recover."

GUIDING LIGHTS

He wasn't to know it then, but other events were to play a lasting role in his life. At a mission hospital in Acholi near Kalongo, Okello was given

a book of cartoons – a graphic novel of the Bible. He was struck by the “God who could calm the waters” and by the penetrating insights of three words: “Do not kill.”

The book became a companion and comfort in the displacement and upheaval of the bush war. And, somehow, he never lost it. “I still have it.”

He also remembers the cross on the mountain top at Kalongo. At night it would light up, spilling hope into the valley below.

It was while recuperating in Kalongo that Okello got to know a family of American missionaries. There was a woman he remembers only as Helen. She became a mother to him.

“She loved me so much,” he says quietly. “She took care of me. She used to invite me for breakfast and send her children to bring food and clean drinking water. She tried to get me back to school; I was nine years and eight months old. She told me, ‘Julius, stay with us,’ and she told my commander, ‘I want that child.’ ”

When he was transferred to Lira, she ran after the vehicle, pleading for his release. From the back of the truck he heard her crying and calling: “Julius, come back!” He could do no more than watch her recede into the distance in tears.

LIFE FOUND

By the end of 1986 the NRA had defeated the last government resistance and Museveni came to power. Some of the Uganda People’s Army (UPA) soldiers had already surrendered and had been integrated into the NRA. Okello was given an army number and the rank of lance corporal and was made a section commander in the 29th Battalion, 304 Brigade. He was a month shy of his 10th birthday and drawing a salary.

But then a new threat had risen in the north: Alice Auma’s Holy Spirit Movement with its sinister military wing. Auma was defeated in 1987, but in her wake came Joseph Kony’s Lord’s Resistance Army.

Okello was transferred to Gulu military barracks where he and Amodoi were reunited. They were dispatched to the border of western Uganda where Amodoi was at Okello’s side for the last time.

He struggles with the memory of their last battle together.

“That’s where I lost him. He told me, ‘Julius, I don’t think I’m going to make it. Be a strong person.’ ”

Okello was refused permission to escort Amodoi’s body back to his hometown in Katakwi District.

“I didn’t see how he was buried.”

Okello was transferred back to Acholi and was 12 when his rehabilitation began, first at the military barracks under the careful mentorship of Stephen Bakanoba, an army district liaison education officer. Bakanoba convinced the adolescent Okello to return to school and in 1992 he started at primary level with the rudiments of English. Bakanoba later introduced Okello to Stephen Birija, the proprietor and head teacher of Masindi Academy.

There Okello excelled academically and was exposed to sports, eventually representing his high school at national level in athletics by qualifying for the international 100 m, 200 m and relay events.

But his progress was slow in other spheres. His memories of Amodoi plagued him and he had terrible nightmares. He worked hard, remaining at the school or in the barracks during school holidays (“There was nowhere else to go”). He gave his army pay to the community’s widows and orphans.

“I didn’t know the importance of money. I had little use for it.”

SERENDIPITY

After completing high school in 1999, Okello was accepted at Makerere University and graduated in 2004 with an MSc in economics. Because of social issues he struggled with, it had taken a year longer than anticipated.

And then serendipity struck.

A chance meeting at Makerere reunited him with members of his family. Recognising something in Okello’s face, a man stopped him in a university corridor one day and asked: “Are you not Okello Julius? What is your father’s name? Do you know your village?”

“I told him my name and I told him I knew only the name of my village, Pingire, in the Soroti District, but I’d forgotten the place.”

The man said: “You are one of our sons. We have been looking for you for the past 21 years. I am the brother of your father. We even buried a banana stem to symbolise your death.”

He was reunited with his father, uncle and family at his master’s graduation.

During all this time, Okello had been asking the army to retire him, eventually persuading

them that 22 years of his life – including his childhood – had been service enough. He needed to think about his future.

DEDICATING A PhD

Unsure, with few resources and coping with recurrent post-traumatic stress, Okello said he had contemplated suicide. But in 2005 he secured a German Academic Exchange Service or DAAD scholarship. He was intent on studying conflict studies at Makerere, but his background in economics led him instead to UCT. Here he accepted an offer (one of two at UCT) for doctoral studies in the Department of Social Development, supervised by Professor Vivienne Taylor and Dr Khosi Kubeka.

Okello’s research concerns social protection services for vulnerable groups in post-conflict societies. His PhD fieldwork takes him back to the war-torn fields of Uganda where he lost many of his family members – and his boyhood. He conducts his fieldwork in two regions that suffered heavily in the civil war. One of these is Katakwi, Amodoi’s home district.

“My thesis will be dedicated to God, my creator, my mother and sister, and to the memory of my ‘godfather’, Amodoi.”

Okello knows well the vulnerability of women and children in the path and aftermath of civil war. His PhD will answer a question that has preoccupied him more and more: How can we best help women and children in African countries where there is war and conflict?

Using social policy development, econometrics analysis and modelling, he hopes to design a conceptual framework that can be used by various organisations: the United Nations, African governments, the African Union, the East African Community, the International Labour Office, the World Food Programme, UNICEF, Save the Children, Oxfam, Saferworld and the UK’s Department for International Development to secure the vulnerable, particularly child labourers.

“I am asking God to give me the opportunity to serve his people,” he says.

He’d like to consider tackling postdoctoral studies in Taylor’s department, but he is uncertain whether continued student protests at UCT will derail such plans.

The next step will be a job that will give him an opportunity to help vulnerable communities to access social protection services such as education, health, food, water and work that improves the quality of life for poor households.

“But God will take care of the future.”

FROM HURT TO HOPE

Thirty years after he was taken from his family, Okello also carries physical scars: bullet wounds to his legs and arms and shrapnel in his skull.

It still hurts.

But he believes that telling his story will help children who have lost hope.

It is also his way of paying tribute to two women who graced his life for a short time: Joyce Mary Apulet, the mother who never lived to see what her son achieved; and his second mother, Helen, the American missionary.

“I pray God will reunite me with her [Helen]. I am still looking for her.”

He is desperate for her to know how far he’s come since they met in Kalongo so long ago.

“I’m sure if she knew I’m alive and doing a PhD, she’d be mad [jubilant]!”

Hope is still Okello’s companion and comfort.



Child soldiers watch the inauguration of Yoweri Museveni as president of Uganda in 1986. Photo William Campbell / Sygma via Getty Images

INSOURCING

A MORE INCLUSIVE FAMILY

UCT welcomed nearly 1 000 new staff members in 2016 following a massive project to insource service staff such as gardeners, cleaners, security guards and caterers. The result is an enlarged and more inclusive UCT family, said Vice-Chancellor Dr Max Price.

The insourcing operation followed an agreement signed with the National Education, Health and Allied Workers' Union (NEHAWU) in October 2015.

The majority of these new staff were officially welcomed by the university on 1 July 2016. These were service staff contracted to UCT on a full-time basis by six companies: TurfWorks, G4S, Sibanye, Metro Cleaning Services and Supercare. Due to contractual

obligations, the last group of service staff from C3 Food Services, which catered for the residences, were insourced on 1 November 2016.

The new staff represent a 25% increase in university personnel – a mammoth logistical task for Human Resources, Properties and Services and the Finance Department. Equipment, supplies and uniforms needed to be purchased and new systems had to be implemented to ensure a smooth operation.

The process was guided by Section 197 of the Labour Relations Act of 1995, which deals with the transfer of employees. In essence, this meant that the insourced staff were employed by UCT on no less favourable terms and conditions of service than before.

"We are impressed and proud of what has been achieved in such a short space of time," said Dr Price at the official welcome, a celebratory tea hosted in Jameson Hall. He went on to underscore the value that these staff provided in being the eyes and ears of the campus – and being the friendly and helpful face of the institution.

"Many of you know how the university works better than I know. Many of you have been here longer than I have."

Operationally, the insourced staff continue to be managed by Properties and Services and the Department of Student Affairs.

Price commended those who have put in the hard yards to ensure that the transition happened on time and without major disruptions.

Price said: "I'd like to recognise the work and commitment of the unions in the insourcing process and particularly the Joint Shop Stewards Council. I want to thank DVC Professor Francis Petersen, who has overseen all the processes and represented the senior management team in all the negotiations. A high-level steering committee chaired by Emeritus Professor Cyril O'Connor also played a critical role."



(From left)
Felicia Dwantyi,
VC Dr Max Price
and Moira Ruiters
of the UCT
Educare Centre.



'I do it for the students'

Jammie Shuttle driver Nazeem Mobarah, known around campus for his infectious smile, has been at UCT for 11 years. He was one of many contract staff members who became permanent staff members in 2016.

Mobarah was born in District Six and later moved to Mannenberg in the Cape Flats where he did his schooling.

"When I left high school, I didn't get to finish studying because my mom passed away and it was a bit difficult for my family."

As the only boy among six siblings, he had to work to help his father put his sisters through school.

"Now I have my own family and I'm settled, I can think of studying again. I've been a shop steward and done other things in life, so I know I'm a people's person," he says.

Mobarah spent 20 years working at Golden Arrow as a bus driver, but he felt that he needed a change, so he left the company.

He began working as a Jammie Shuttle driver in 2005.

"That was still the teething period. We were still working on our shifts and trying to mould the transport service that we have now."

As he pulls closer to the bus stop, the students recognise him and start smiling and laughing. One goes as far as hugging him as they get on the bus.

"You just saw how students perform when they see me," chuckles Mobarah. "I always go that extra mile. I do it for the students and it makes me really happy knowing that I put a smile on someone's face."

Mobarah says that being on contract for all those years caused uncertainty.

"We were unsure of where we were going or if we would still have work. We were still hanging then. But now we feel more secure," he says with a beaming smile.

"I think now everyone will focus on going all the way and giving their best. It's all about team work," he says. "Everybody is overwhelmed and loves the idea of officially being in the institution."



Insourced: Thando Gxalaba's dream of studying further has been given a new lease of life now that he's a full-time UCT employee.

GXALABA'S STUDY HOPES REKINDLED

Thando Gxalaba's hopes of earning a qualification have been revived now that he's a full-time UCT employee with a range of new studying opportunities.

Gxalaba is a general assistant in the kitchens at Tugwell Hall residence. He is one of 267 employees who were officially insourced from residence catering suppliers C3 Food Services on 1 November 2016.

Due to contractual complexities, C3 staff were the last group to join the UCT community following the university's decision in 2015 to insource service staff - the workers contracted to provide services such as security, grounds maintenance and gardening, cleaning and transport.

Gxalaba, who hails from the Eastern Cape, had his sights set on becoming a lawyer. But opportunities were scarce for the young teen from Umtata. And life was hard in the Eastern Cape, he said. And so, Gxalaba headed for Cape Town to join his parents, who were working here.

He enrolled at Thandokhulu Secondary School in Mowbray and put his head down to study. But things didn't go to plan and he left school after Grade 11.

"We were poor; the family was struggling," he explained.

Honouring his responsibilities as "the man in the family", Gxalaba set out to find work. For five years he walked the northern suburbs flat, going from house to house delivering community newspapers, clocking up kilometre after kilometre for "small money".

His sister was working for catering company Fedics, contracted to the new Khayelitsha Hospital, and pointed him to a job

opportunity as a cleaner there. It was good news for Gxalaba.

"I'm a person who likes to enjoy my work."

When a post at the catering company came up at UCT (they were also contracted here), Gxalaba took a shot at it.

"So I got a transfer to UCT and started three years ago. Now I'm working as a general assistant in the kitchen."

As a high schooler he didn't imagine he'd be working with food - or 610 young women students.

"It feels like they're my younger sisters," he jokes. "I still dream of being a lawyer, if things work out. UCT gives us opportunities to go to school again."

If not, he wouldn't mind learning to be a chef.

The Orlando Pirates and Barcelona supporter loves to contribute to the youth and the community.

Between his shifts in the kitchen, Gxalaba is an assistant soccer coach at junior level in Nyanga. He once played in the number five jersey until a hit-and-run accident wrecked his knee. Now he contents himself with the aspirations of a new generation, the young six- and seven-year-olds with their own dreams of glory.

"I appreciate being at UCT - I waited a long time for this opportunity and I'd like to encourage my colleagues that in everything they do they should not forget God. For everything they want, they should ask God. He will answer them."

SUPPORTING WORKERS

When Nopasika Eunice Mbinda worked for Metro Cleaning Services, her manager would often find her outside. When asked what she was doing there, her answer was candid and revealed a firm career goal. "I need air. I want to talk to people. I want to listen to people."

Mbinda supervises the cleaning staff at Leo Marquard residence, a job she was doing for Metro from 2010. It was a long road for the former casual worker who worked half days at UCT from 1999 to 2002 before becoming a permanent cleaner.

Now, as a UCT employee and only 18 months from graduating with a social work degree from UNISA, Mbinda knows what she wants her next career step to be.

"I want to be based on the counselling side," she says. "As I see it, there are a lot of people that need counselling in this work environment due to their personal problems."

She understands how intimidating it can be to confide in people that you know. "I love working with people," she says. "Maybe [management] will say that Mbinda has got a point and create an office for a counsellor for the workers. I would be very happy working there."

She embarked on her social work career because of her own experience. When her cousin was confined to a hospice because of her mental disability, it fell on Mbinda to look after her children and remain a pillar of strength.

As a supervisor, she ensures that everybody completes the tasks set for the week. Her nine cleaning staff have a Herculean load in tidying up after 420 students on 11 floors. "I'm waiting for management to come and assess, so they can see that I really need two extra people," she says. "In the meantime, we're continuing."

Mbinda is aware that this is a new task for UCT and there are chinks in the system that are being ironed out. This is most apparent when finding solutions for absenteeism. UCT doesn't have a pool of staff to draw on that can cover workers who are unable to come to work.

It helps that Mbinda has been around UCT for such a long time and knows the ropes at every residence. The young men of Leo Marquard have a special place in her heart, though.

"When you clean, they approach you with a smile. 'Mama, be strong. It's going to be okay,' they say. So you feel like these are just kids. They are being kids. Let me just do my work. Just treat them as equals."



UNDER-FUNDING, NOT PROTESTS,

IS DRIVING SOUTH AFRICAN UNIVERSITIES DOWN GLOBAL RANKINGS

Professor Danie Visser, who retired as Deputy Vice-Chancellor for Research and Internationalisation at the end of 2016, penned a missive in *The Conversation* about the burning issues of funding and protests in South Africa's universities. In short, he maintains that government must come to the party.



The release of the Times Higher Education (THE) 2016-17 and Quacquarelli Symonds 2016-17 rankings coincided with a resurgence in protests at many of South Africa's universities.

Most of South Africa's universities have dropped down these ranking tables.

Some people argue that the protests had a direct effect on universities' global standing on rankings tables.

But it's unlikely that the protests themselves directly affected rankings. Instead, decades of government under-funding in the higher education sector may have been at least partly to blame.

The University of Cape Town handed a memorandum to the Department of Higher Education and Training [in September 2016]. It stated: "We believe that government has not acted decisively to ensure sustainable and adequate funding to address the systemic crisis in the higher education sector. Government has placed an undue burden on students, parents and universities to fund higher education."

This may seem unfair: the government dramatically increased the amount of money it gives to universities. But so have students. And educational inflation played a part too. In real terms, the amount universities receive in state subsidy as a proportion of their total income has declined from 49% in 2000 to 40% in 2012.

Funding has a direct effect on many of the indicators that are used to measure

performance in world university rankings. With less funding, staff-student ratios rise. Top staff, who produce the most papers, leave for more lucrative salaries abroad. Universities can't afford to send their academics to many conferences, so fewer conference papers are produced.

How rankings are calculated

UCT has, for some time, been able to compensate for the drop in government funding for research.

But not all South African universities are in a position to do this. And a point will be reached where external income, for which there is increasingly tough competition, is not enough.

Universities don't yet need to despair. First of all, a drop in rankings does not mean a drop in actual performance. On most of the indicators, in most of the rankings, UCT continues to improve as it has done for many years.

It is perfectly possible for an institution to improve its scores and still see a significant drop in the rankings. If other institutions have improved their scores even more than yours, they will climb above your institution in the rankings.

This is important. It's exactly what is happening to South African universities. Institutions from elsewhere in the world improved much more significantly. And it is no coincidence that the countries which saw a rapid rise in the rankings were mostly those that chose to invest heavily in their universities.

Reputation matters

There is one way in which the student protests themselves, rather than the under-funding that caused them, may have directly affected some of the indicators by which universities are measured.

Each ranking uses different indicators to measure a university's performance. But on the whole they are a combination of hard data, such as citations – the number of times an author has been cited, or referred to – and ratio of staff to students. There are also more qualitative "reputation" indicators. These are achieved by asking academics and employers to list the top institutions in their fields.

It is these "reputation" indicators that could be directly affected by the protests.

South African institutions were particularly hard hit in the reputation indicator in THE's latest rankings. However, some universities that were affected by the protests bucked the trend: the University of the Witwatersrand rose in the THE rankings. So there is no clear evidence of a causal relationship between the protests and the universities' performance in the rankings.

But does it matter?

In assessing the extent to which #feesmustfall protests might have affected South African universities' rankings, I have left aside the much larger and more important question of whether it matters.

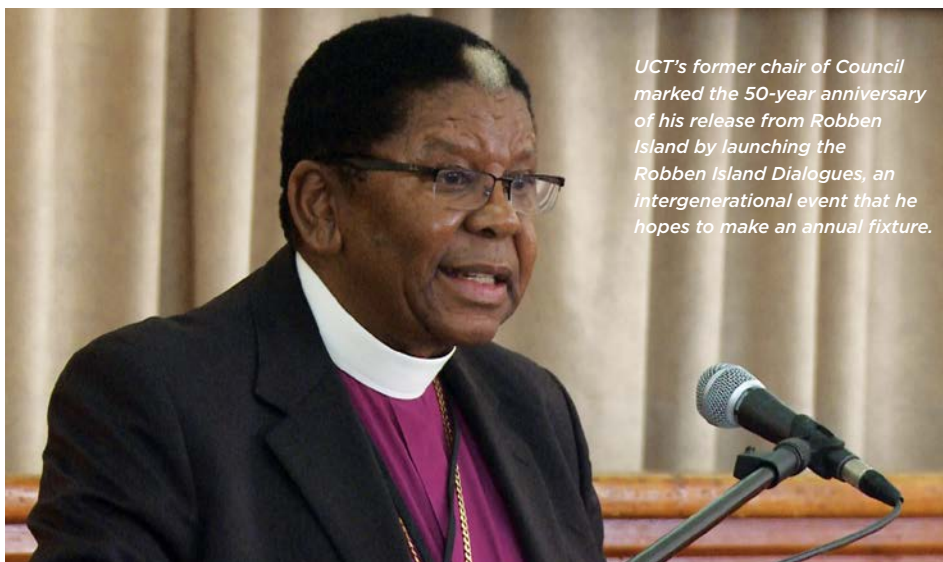
Universities certainly regard rankings with a measure of caution. Rankings are very imperfect measurements of excellence. They take no account of the contexts in which universities find themselves, particularly those based in developing or emerging economies. They do not measure some of the functions of a university that the sector would regard as critical: for instance, whether the research a university undertakes makes a difference, or whether the graduates it produces are thoughtful and productive citizens.

Nevertheless, the drop in rankings has been greeted with consternation in the media. The coincidence with the university protests could lead to a damaging narrative that the country's universities are inevitably "going to the dogs".

I can categorically state that UCT is nowhere near that kind of precipitous decline. However, if under-funding from government continues and the issue of fees is not resolved, I am less confident of our and our sister universities' future.

This article first appeared in The Conversation on 26 September 2016.

This is an abridged version of that article.



UCT's former chair of Council marked the 50-year anniversary of his release from Robben Island by launching the Robben Island Dialogues, an intergenerational event that he hopes to make an annual fixture.

FORGET NUCLEAR POWER: FUND EDUCATION

At the inaugural Robben Island Dialogues on 22 September 2016, Archbishop Ndungane called on South Africa to abandon nuclear power and fund free education.

Fifty years since his release from Robben Island, UCT's former chair of Council Archbishop Njongonkulu Ndungane called together the inaugural Robben Island Dialogues to address the many crises faced by South Africa.

"Thinking back to the island in 1963, I recall how a dream was born as I lay on a cold cement floor one night. It was a dream not just for South Africa, but for the whole of Africa. The quest for an Africa whose children are liberated, educated and have all the basic essentials for a decent and dignified life," said the archbishop.

This dream has remained with the archbishop and has motivated him all his life. Although they were prisoners, and faced many hardships on the island, they were driven by the fact that their vision for freedom and liberation would be realised.

As young men and women, they were angry, impatient and passionate, he remembered.

"At the same time, we were disciplined, eagerly soaking up the ideas, advice and plans from our elders, comrades and colleagues to deliver liberation and freedom."

He addressed the young attendees: "We need your energy, intellect and creativity. We need your ability to think of things in a different way."

Fifty years since Robben Island

The journey to Robben Island is a little bit like being in South Africa right now: the boat trip can be turbulent, uncertain and a little scary.

So said Namhla Mniki-Mangaliso, director of African Monitor, as she opened the intergenerational discussion on the island.

The hope was that this could be a space where ordinary South Africans could reflect and have meaningful conversations about issues facing the country.

"We wanted to create a platform where we bring together a cross section of individuals who can start talking about the dream that was."

She added that this needs to be done with the express intention of finding solutions, instead of endless talk-shops with no tangible outcomes or actionable solutions, as is too often the case.

In his address, the archbishop said, "We are, today, at a crossroads in our country. The winds of change are blowing again. In the more than 20 years since our democratic elections, some have become complacent and no longer feel the wind.

"We have allowed a morally bankrupt leadership to entrench itself. We have turned a blind eye to the desperation of vulnerable, poverty-stricken people. Some have become

stinking rich, while others still grind out a daily existence in shacks, without the most basic facilities."

Women and children, already at risk of daily violence, are all the more vulnerable in overcrowded informal settlements with no electricity, water or proper sanitation.

"Our students have been driven to the edge of anarchy in their struggle to get affordable education. Make no mistake: that wind is blowing again," he added.

While there is much to concern South Africans, and despite the many squandered opportunities, the archbishop noted that the country has still made progress in service delivery, housing and health care.

"We remain one of the biggest economies in Africa, with good infrastructure, energy and technological resources. We have a solid regulatory framework – institutions such as the Constitutional Court, the public protector and our judiciary are independent and not afraid to assert themselves, [or] uphold accountability and justice," he said.

An unsustainable system

The archbishop voiced extreme concern about the national treasury's decision not to budget for a zero percent increase in university fees in 2017. In conjunction with ever-declining governmental funding, universities are growing increasingly financially dependent on student fees. This has resulted in a completely unsustainable higher education system.

"My call today to government is: fund a national plan for education. Forget about nuclear power," said the archbishop.

Arguing that there is no rational reason to continue pursuing nuclear energy, the archbishop noted that doing so will only force South Africa deeper into national debt, from owing just under two trillion rand to owing three trillion rand.

"If we go the nuclear route, there is no way we will solve the education crisis, either now or in the future," he said.

In 1998 he had called on government to abandon the arms deal and put together a national plan for education.

"If we'd done so, we could today be adequately funding our tertiary institutions. I was, of course, ignored. And today we are in an educational crisis, which, if not resolved, will see the demise of our tertiary institutions within a decade."

Minister Blade Nzimande's proposal to address the needs of poor students only provides short-term relief, he said.

The solution, argued the archbishop, lies between government and the private sector. The latter, in particular, will benefit most from the skills passed on by our universities. It is fitting, therefore, that the private sector should donate a fixed portion of their annual turnover to fund higher education.

"If government and the private sector were to take the initiative and come up with a comprehensive, well-thought-up and generously funded long-term plan, I believe that would go a long way towards persuading students that their plight is being heard and that meaningful action is being implemented," he said.

The archbishop warned that without immediate action this generation will be blamed for closing down our universities and adding them to the ghost institutions of our continent.



WHICH MINIMUM WAGE IS WORTH THE RISK?

The benefits of setting a national minimum wage at R2 447 per month could, on average, outweigh the costs, but setting it at R3 400 could risk far greater job losses, warned a 2016 research paper from UCT's Development Policy Research Unit (DPRU).

W eighing up the costs and risks of setting a national minimum wage at these two levels, the DPRU, in a study led by Professor Haroon Borhat, argued that a baseline of R2 447 could result in job losses of up to 281 000 people across the board. This is, however, far more palatable than the more than 566 100 low-wage workers who might expect to lose their jobs should the baseline be set at R3 400.

But when it comes to the bigger picture of socio-economic equity, a national minimum wage would only be one – and perhaps a minor – component of a broader social programme to reduce inequality, boost employment and grow the economy.

Discussing the possible outcomes of setting a minimum wage, Borhat said, "We've got anywhere between 500 000 and 600 000 jobs that could be lost. There's significant sectoral variance in the potential job losses, with many of the jobs lost in sectors such as business services, domestic work and agriculture.

"So the real question for me is: Can we find a creative way to set a national wage that recognises it is going to bite some low-wage sectors much more than others?"

The job losses in mining are miniscule, for example. But in agriculture, the job losses could range from 11 000 to 50 000, and in domestic work from 40 000 to 130 000.

"Mining has already seen wages increase, so why mining won't see many losses is because the [proposed] national minimum wage is set at a non-binding level."

Brazil is often cited as a poster child for what a national minimum wage can do to boost productivity and increase employment, said Borhat.

The research shows, however, that a minimum wage played only a minor role in the "Brazilian growth miracle", he said. "Leave aside the fact that the growth miracle is now over. The massive poverty reductions and stalling of inequality that you saw in Brazil was primarily a function of two things: one is the conditional cash grant system, and improvements in the quality of the education system, which led to an increase in the supply of school graduates."

That drove down the wage premium, and with more people competing for higher-skilled jobs, inequality went down, and the massively improved quality of the labour supply fuelled

growth and created an aggregate demand kick for growing employment, said Borhat.

"But that's a schooling question. If we could figure out a way to turn around the Grade 12 outcomes – both from the quality of improvement outcome to a labour-market signalling outcome – so you see a greater uptake in the employment of Grade 12 graduates, then that's where you can start."

These strategies are workable in South Africa, then, if sectors like education come to the party.

"You can find situations where you want to improve the quality of the schooling system precisely so that it acts as a trigger for unlocking this cycle of inequality, because what you're then doing is reducing the wage premium on skilled workers."

And that's the crux of the argument put forward by Borhat and his research team.

"For internal labour markets, obviously if you raise the national minimum wage, you're going to reduce wage inequality in a workplace. But it's not clear that for combatting society-wide inequality it's the best or most appropriate instrument in South Africa. One has to take a broader approach and locate the inequality and poverty cycle within all of these contexts."

Academic freedom: Where does Flemming Rose fit in?

In July 2016 UCT management rescinded an invitation to controversial Danish journalist Flemming Rose, who had been invited by the Academic Freedom Committee (AFC) to deliver the 2016 TB Davie Memorial Lecture. The annual lecture serves as a platform for critically analysing academic freedom.

Rose was cultural editor of *Jyllands Posten* when the magazine solicited and published cartoons of the Prophet Muhammad in 2005, which caused an international controversy. The publication of these cartoons was accompanied by public protest, riots and loss of life.

Vice-Chancellor Dr Max Price outlined the key reasons for rescinding the invitation: the high likelihood that Rose's lecture would provoke conflict on campus, the practical security risks of presenting the lecture in a charged campus environment, and the real possibility of the lecture being disrupted, which would have made it impossible for Rose to speak (this in light of the university's previous experiences with disruptions to public lectures). Price said that if the invitation had been sent two years earlier or later, it may have been possible for the lecture to take place.

This decision ignited widespread debate on and off campus, with some in support of the disinvitation and some decrying it as an attack on academic freedom.

A debate on the issue, and broader issues of academic freedom, was organised at the university in September 2016. These are some of the opinions expressed by the panellists in that forum.

Prof Imraan Coovadia (Department of English Literature)

The AFC showed "extremely poor judgment" in inviting Flemming Rose to deliver the TB Davie Memorial Lecture, said Coovadia, "in part because this is not a speaker who's going to enlighten us intellectually".

For Coovadia, the biggest threat to academic freedom at UCT was not from such "spectacular" events, but came from within. "Large parts of the university ... are not operating in an academic way.

"If we look at how conflicts tend to get resolved, with a single exception maybe of our constitutional order, they tend to be resolved by whichever side maybe ends up having the most power and closing down the other side in one form or another. That's happened in this institution many times."

Jacques Rousseau (School of Management Studies)

Rousseau was chair of the AFC when the invitation was extended to Rose.

"There are at least two important issues raised by the recent disinvitation of Flemming Rose," said Rousseau. "One is whether he should have been invited in the first place, in other words whether the Academic Freedom Committee made an error of judgment."

The second was a matter of procedure. He asked when and why Senate and Council could have a decision of the AFC overturned.

"In this case, Council was consulted, but Senate never was. So, there are governance issues to be interrogated, as an entirely separate issue to the question of whether the motivation for disinviting Mr Rose was sound."

Assoc Prof Adam Haupt (Centre for Film and Media Studies)

Haupt noted that no legal right in South Africa's Constitution was absolute.

"Your individual interests have got to be balanced with the common good," he said.

"It seems like we're rearranging deck chairs on the Titanic," Haupt continued. "We're arguing about ... someone we already know is racist and is a provocateur in the worst possible way ...

"Shouldn't we just deal with the racism we already have on our books and address that? Why would we want to invite that into our space?"

Prof John Higgins (Department of English Literature)

Higgins said that there were a number of challenges to academic freedom and that challenges to freedom of speech were global.

One was the "capture" of higher education institutions across the globe by "neo-liberal policies and politics which are working to redefine aims and purposes of higher education away from serving the public good to servicing the economy, and to do this by providing applied but not critical knowledge and expertise".

He also disagreed with the idea that academic freedom be cast alongside individual rights to freedom of speech and expression, saying it was better understood as a "very particular" practice that could only take place at a university. So there needed to be more thinking about the place of academic freedom in South Africa's Constitution "before we can get very far".

"It's not an individual right," he said. "It's the way the state and other funding mechanisms make intellectual work possible or don't allow it to be possible."

Prof Sandra Klopper (Deputy Vice-Chancellor: Teaching and Learning)

Klopper said she was not speaking on behalf of the executive.

Respect and tolerance for cultural, religious, political and other differences and acknowledgment of the values of diversity in society were part of the UCT statement of values, according to Klopper.

"Freedom of expression, including academic freedom, is relational rather than absolute," she said. "It is, and must always be, framed by context and by changing understandings of the notions of human indignity. Espousing an idea that is intolerant, that causes harm through the advocacy of views that are demonstrably offensive, is, in my view, not consistent with the idea of academic freedom."

Klopper said that the university would come to view this episode as a "watershed moment in which a deeper understanding of tolerance and respect triumphed despite widespread protestation to the contrary".



In 1997 UCT SRC Environment and Gender Officer Joanna Taylor re-lit the Torch of Academic Freedom to the delight of watching fellow students. Photo: UCT Monday Paper

COUNTING THE COSTS

Ashley Francis, executive director of Finance, presents his take on the challenges facing South African tertiary institutions.

World economic growth is projected to slow fractionally from 3.2% in 2015 to 3.1% in 2016 before recovering modestly to 3.4% in 2017. Since the global financial market crisis in 2009, the rate of economic growth in South Africa has averaged a mere 1.6% whereas 2017 is forecasted to average 1%. The official rate of unemployment has moved to its highest level in at least 13 years at 27.1% in the third quarter of 2016.

The high rate of unemployment explains most of the social tension and anguish experienced in South Africa daily, especially among the youth. Sluggish global economic growth is undermining exports, while national debt has climbed. While we have an excellent fiscal policy in South Africa, the same can't be said for our fiscal discipline. A key risk to South Africa's ongoing fiscal stability is the increase in state debt cost.

Protests rocked the higher education sector in 2015 and 2016 as university students demanded free, quality, decolonised education, while also prioritising campus-specific concerns. The protests caused many universities to suspend academic activities, caused hundreds of millions of rand in damage, and led to violent confrontations between students, police and private security guards, as well as to many student arrests.

Government has intervened extensively in higher education in recent years – covering fee increases, a commission of inquiry into higher education, budgetary increases and a new pilot funding model being tested. There is thus hope that 2017 will be the year that the sector finds stability. However, the Department of Higher Education and Training is being forced to compete with other government departments for increasingly scarce resources.

The University of Cape Town (UCT), like other educational institutions, faces a very difficult situation: the state subsidy has been increasing at rates lower than inflation for the past few years, yet university costs are increasing beyond inflation.

UCT relies on government for 46% of our council-controlled unrestricted revenue stream. Another 44% comes from tuition fees and 10% from other sources, excluding investment income. This very delicate balance has been further strained by the 0% fee increase announced for 2016 despite a part contribution by government following the countrywide protests on university campuses last year.

Over the past five years, it has become clearer that UCT's state revenue stream has been declining. In order to offset this, the university increased student fees at a double-digit rate. In effect, the reduced government subsidy was being paid for by our students and their families. But students stepped in – rightfully so – and said, "No more."

The 0% fee increase in 2016 meant that the university received R158 million less income to cover costs. Having made the decision to not increase fees, the government did step in and paid UCT 85% towards that loss. But it still left us with a shortfall. The reality is that we are left

with a situation where our costs are increasing, but our revenue is declining.*

We also have to deal with the reality that we cannot grow the university much beyond our current 27 000 students. We choose not to influence any reductions in UCT's financial-aid budget – we have the best financial-aid system in the country, and it's vital to support students who want to come to the university but can't afford to do so.

We are also fully committed to insourcing because, from a social-justice perspective, it's the right thing to do. From July 2016 UCT employed, as permanent staff, in excess of 1 000 additional employees who had been contract workers for the university. This insourcing will cost the university an estimated additional R70 million a year. An additional amount will also have to be spent on once-off capital expenditure items such as plant and catering equipment, which were not previously required by UCT.

It's clear that going forward we need to do things differently.

Only three variables can change this situation: our subsidy from the state, student fees and staffing costs. At UCT we have little influence on the state subsidy, while student fee increase options are limited.

We must find more creative and innovative ways of funding the university. We need to increase our third-stream income so that we become less dependent on the state and at the same time relieve the pressure on student fees.

In order to do so, we've formed a new commercial development team in the UCT finance department with the specific aim of growing this third revenue stream as fast as possible. It's a process that will take some time, but we believe we're moving in the right direction.

We are also committed to growing our cash reserves. As a policy, the university aims to achieve 3% of total revenue as surplus. This cash reserve allows us to grow investment income, which is used to pay for capital expenditure, such as building new lecture halls and residences as well as to fund strategic initiatives.

The other major way we addressed the financial situation we find ourselves in was through the implementation of austerity measures in 2016. UCT spends 65% of its cost base on salaries, which have been increasing in both volume and rate. UCT has accordingly set a goal of cutting R120 million from its budget by 2018, primarily by reducing staffing costs. R93 million of this target has already been identified of which R75 million will be achieved in 2017 and the balance thereafter.

The balance of R27 million continues to receive much-needed attention as we attempt to address business models and university-wide policies. We have accordingly offered employees the option of non-guaranteed incentivised early retirement and voluntary separation packages. This measured potential reduction in staff resulted in cost savings without compromising operational requirements.

We have also considered other options for cost saving, from simple things such as printing less and doing more online to improving the way we use UCT vehicles. We're looking to shift the corporate culture by working more efficiently, questioning the way we spend and finding opportunities to make more money. A number of interventions in the past two years have been successful in reducing operational costs while at the same time also creating additional revenue streams, but we need to entrench sustainable change.

I want to make it very clear that UCT is not in a financial crisis right now. We could be facing a financial challenge in the near future if all else remains the same, but we see the glass as half full and not half empty. Despite the tight squeeze that all South African universities are clearly in, at UCT we are a talented and professional team of people and we can find a way to rise above the challenges facing us.

** The findings of the presidential commission which was set up partly to discuss the feasibility of "making higher education and training fee-free in South Africa" were scheduled for release in November 2016. However, we have now heard that the outcome may only be available around mid-2017.*



Students continued the campaign for free decolonised education in 2016. But with a 0% fee increase in both 2015 and 2016, and a declining state subsidy, universities are having to take a long, hard look at their budgets.



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