



ANNUAL REPORT 2012





ON THE COVER:

Durban University of Technology's (DUT) vision is to be a student-centred university that is focused on academic research and excellence. At DUT, our goal is to ensure that every student reaches his or her full potential.

DUT recently researched the top graduates out in industry and found that our alumni are making great strides in their respective professions.

In December 2012, DUT ran a campaign entitled 'Imagine your child as a DUT Alumnus'. Children at play were featured in a print and television campaign, asking the viewer to imagine their own child as the next big name in a chosen field, as many DUT alumni are. Stills from this campaign grace the cover of this Annual Report.

Top row, left: Will Sarah Jane Reddy (8 years old, Grade 2, Penzance Primary School) be the next Deena Naidoo, winner of Masterchef SA 2012?

Top row, middle: Perhaps Nasser Khan (14 years old, Grade 8, Clifton College) will be the next Sean Wisedale, World-famous Mountain Climber.

Top row, right: Could Tiaan du Toit (7 years old, Amanzimtoti Primary School) be the next Benny Masekwameng, Chef and Judge of Masterchef SA?

Middle row, left: Will Nandi Mncwango (6 years old, Grade 1, Izotsha Primary School) be the next Dion Chang, one of South Africa's top Fashion Designers?

Middle row, right: Sophia Brink (9 years old, Grade 4, Manor Gardens Primary School) could be the next Zakes Bantwini, popular local musician.

Bottom row: Will Mpiwenhle Snethemba Ndlovu (2 years old) be the next Gordon Murray, Formula One race car designer?





CONTENTS

Message From the Chancellor	2
Report of the Chair of Council	4
Report of the Vice-Chancellor and Principal	10
Statement on Internal Administration/ Operational Structural Controls	14
Report on Risk Exposure Assessment and the Management Thereof	17
Council's Statement on Corporate Governance	18
Report of the Senate to Council	22
2012 Statistics	26
Composition of Senate in Terms of the University Statute	27
Financial Aid to Students 2012	28
Centre for Excellence in Learning and Teaching (CELT)	29
Centre for Quality Promotion and Assurance	32
Library Report	36
Technology, Innovation and Partnerships (TIP)	42
Institutional Forum	52
Faculty Reports	54
Faculty of Accounting and Informatics	54
Faculty of Applied Sciences	60
Faculty of Arts & Design	66
Faculty of Engineering & the Built Environment	74
Faculty of Health Sciences	86
Faculty of Management Sciences	92
Report of the Chief Financial Officer and the Chairperson of the Financial Committee	102
Consolidated Annual Financial Statements	106



MESSAGE FROM THE CHANCELLOR



It gives me great pleasure to contribute to this 2012 Annual Report of the Durban University of Technology (DUT) to which I have been reattached as Chancellor since March 2012. This is a singular honour for me to be associated with a university that has such a long history of contributing to the wellbeing of our society. I was last connected to the institution as a member of the Council in the former Technikon Natal during the years 2000 to 2001 and when I was approached to rejoin the family of DUT in 2012, it came as a very pleasant surprise.

It is also an honour for me to have been appointed after the illustrious term of Ms Ela Gandhi as Chancellor who embodies so many of the attributes that a chancellor should have. She has laid a firm foundation for me.

One of my functions as Chancellor is to constitute the graduation ceremonies of the University and there are 18 or 19 such ceremonies every year. It has been exhilarating to preside over these ceremonies that give formal recognition to these outstanding young people as they graduate. These are also occasions for families and guardians to celebrate the success of their children. For many, this is the culmination of a long period of support and financial contribution. For others it is a halfway stop as students may continue on their educational journeys to proceed on to studies leading to Bachelors, Master's and Doctoral degrees. It is also a time for the academic system at the University, and especially the

lecturers and professors, to celebrate with their students – to reflect on the nature on their profession and their engagement with their student wards. At the dinner after the graduation ceremony at which he was awarded an honorary degree, Vice-Admiral JR Mudimu, Chief of Staff of the South African Navy, described the graduation ceremony as 'an avalanche of hope'. This is very apt and it gives one a sense of the power of education.

It was also a pleasure to attend other functions of the University, especially those that bring it into close connection and proximity with communities and non-governmental organisations. There is a strong emphasis on this kind of activity at DUT. This allows it to be a university that is responsive to its context.

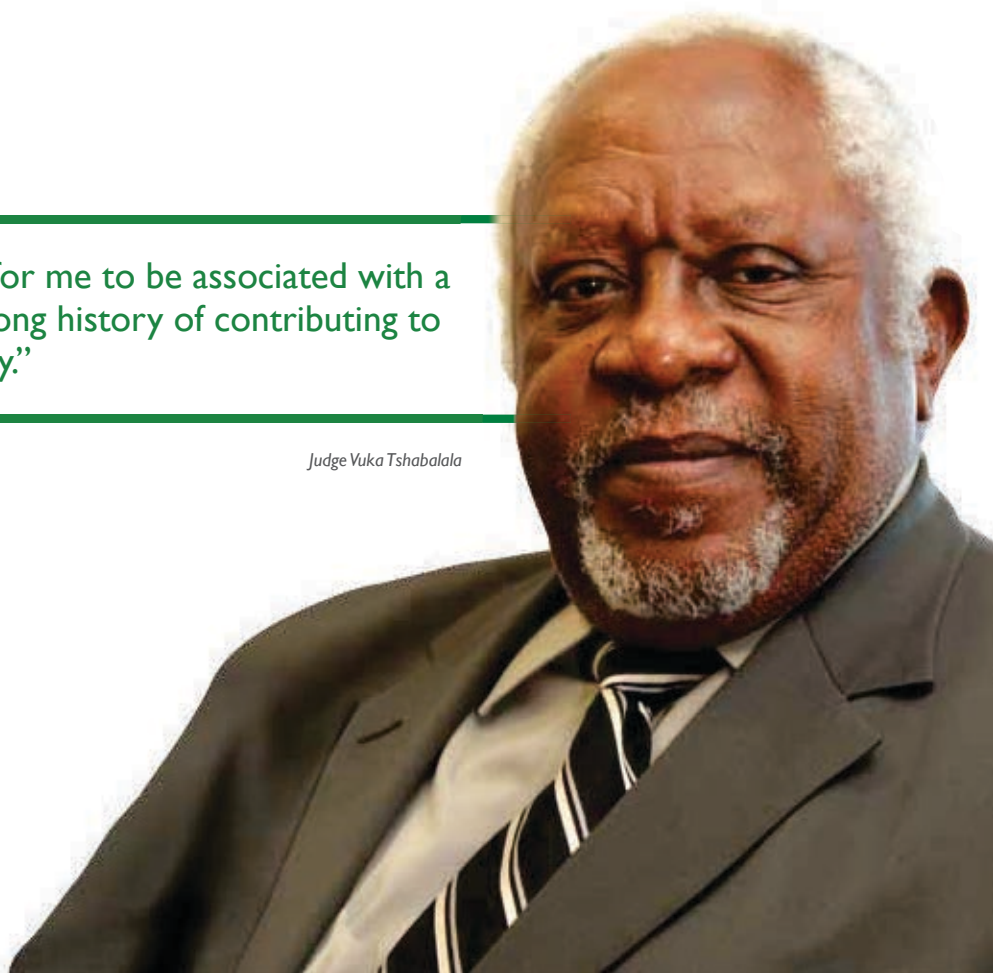
As Chancellor I felt honoured to welcome into the DUT family Vice-Admiral Mudimu, the late Lewis Nkosi, Professor Njabulo Ndebele, Wendy Luhabe and Sizwe Nxasana – all five outstanding citizens. They each received an honorary doctorate from the University in 2012.

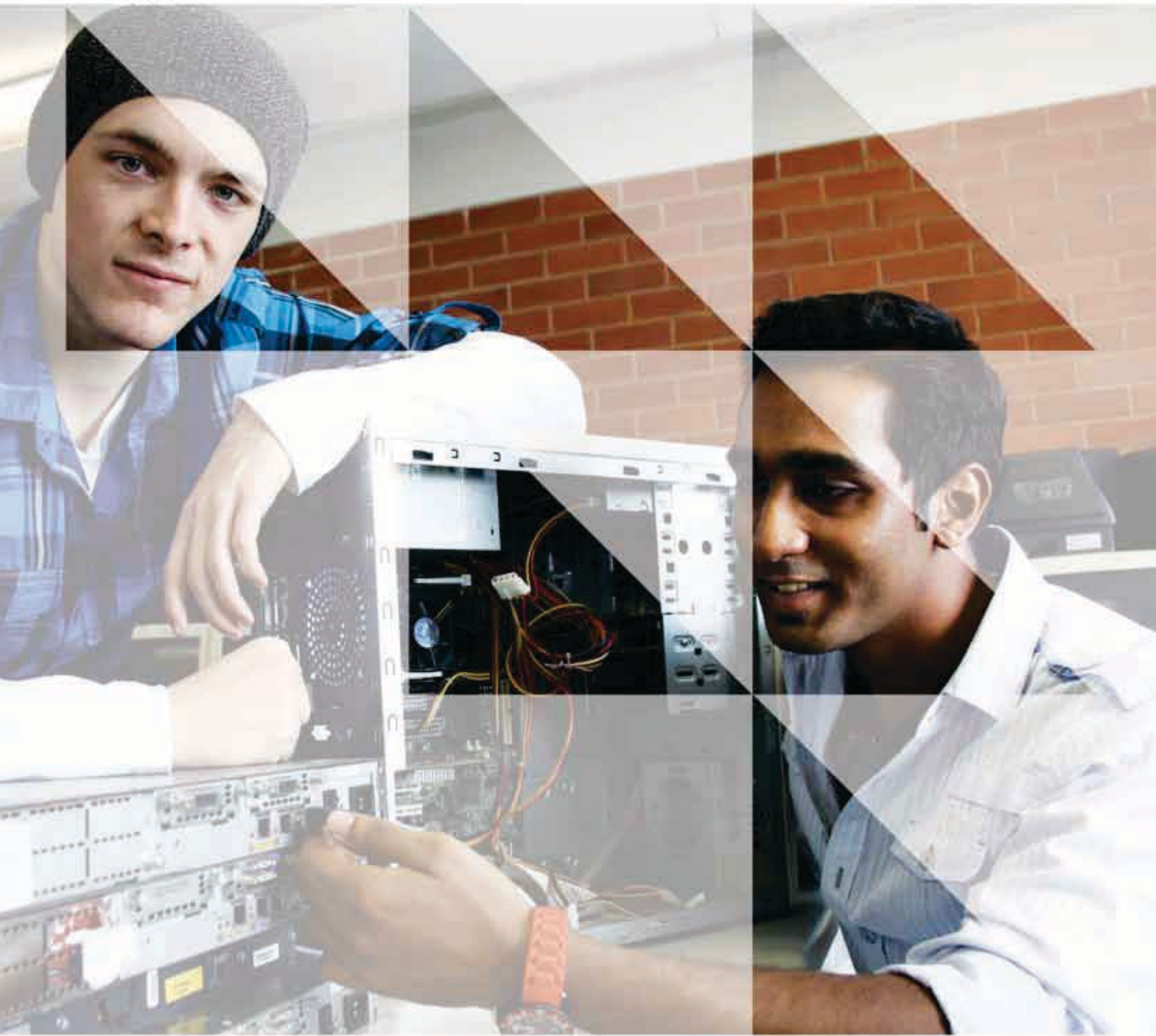
I wish to take this opportunity to thank the staff of the University for making this important task easy for me and I look forward with great anticipation to four more years as Chancellor at DUT.

Judge Vuka Tshabalala
Chancellor

“This is a singular honour for me to be associated with a university that has such a long history of contributing to the wellbeing of our society.”

Judge Vuka Tshabalala





REPORT OF THE CHAIR OF COUNCIL



INTRODUCTION

The University's achievements in 2012 are evidence that the seeds sown towards positioning DUT as an important role player in the South African higher education landscape are beginning to bear fruit.

COUNCIL MATTERS

Council continued the practice of hosting a dinner for its members and invited staff of the University on the evening prior to each scheduled Council meeting, at which an address is given by an invited external expert on a topic relevant to higher education in general and DUT in particular. In 2012 these were "The Green Paper for Post-School Education and Training" by Mr John Pampallis, DHET Ministerial Special Advisor; "South Africa's Science and Technology Policy Terrain" by Dr Phil Mjwara, Director General of the Department of Science and Technology; "The Research and Innovation Needs of the Sugar Milling Industry" by Dr Janice Dewar, Chief Executive Officer of the Sugar Milling Research Institute; and "The Msunduzi Innovation and Development Institute" by its Director, Professor Robert Fincham.

The following internal stakeholder presentations were made, in turn, at the four scheduled Council meetings in 2012, namely, "DUT's Rebranding Project" by Mr Alan Khan, Senior Director: Corporate Affairs at DUT; "DUT's Curriculum Renewal Project" by Professor Thandi Gwele, Deputy Vice Chancellor: Academic at DUT; "DUT's Growth Plan for its Pietermaritzburg Campuses" by Mr Tom McKune, Senior Director: Civil Engineering: DUT Midlands Campus; and "DUT Libraries: 2013 and Beyond" by Ms Lucille Webster, Manager: DUT Library Sites.

Council bid farewell to its outgoing Chancellor Ela Gandhi and welcomed the new incumbent, Judge Vuka Tshabalala. Ela

Gandhi served the University with distinction and presided at every one of the seventy-five graduation ceremonies during her tenure.

Dr J Reddy was re-elected unopposed as Chairperson of Council for a further period of two years. Towards the end of the year; Mr AS Ngidi, the 2013 SRC President, Mr A Mjajubana, the 2013 SRC Secretary General, together with Mr N Chonco, from Convocation, were welcomed as new Council members.

Council's bi-annual self-evaluation was conducted by the Centre for Quality Promotion and Assurance (CPQA). The process involved the administration of a self-evaluation questionnaire. Overall the results were positive, with a few suggested areas for improvement.

Council members undertook informative tours of DUT's Indumiso and Riverside campuses in Pietermaritzburg, and expressed high praise for their operations.

FINANCIAL MATTERS

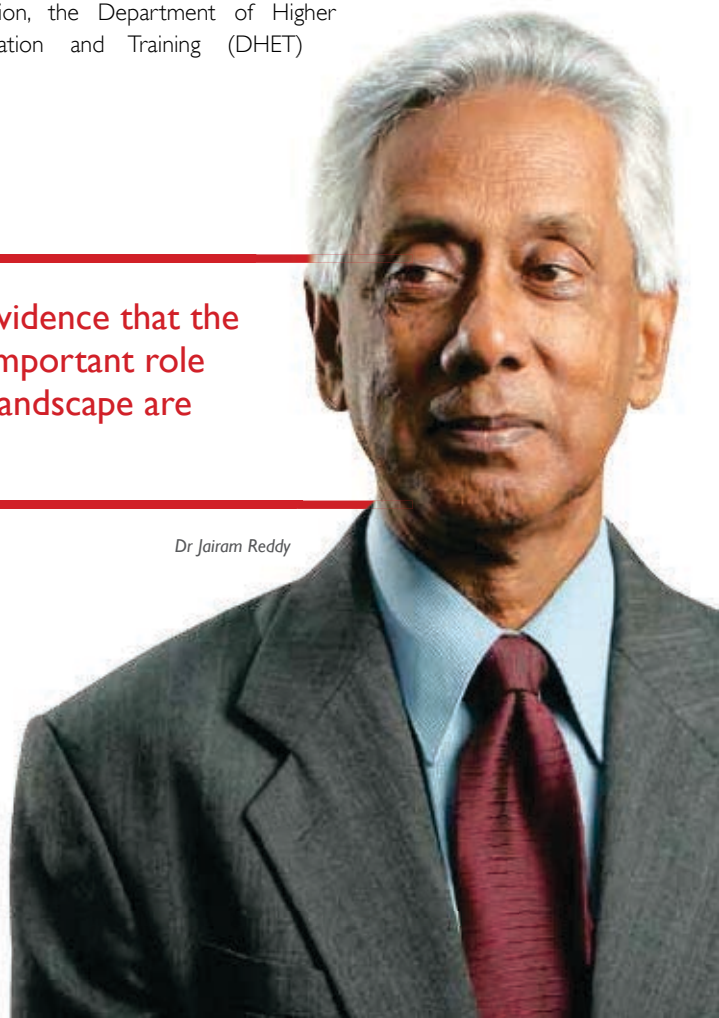
The budget process is underpinned by the principles of a balanced budget, financial sustainability, supporting infrastructure projects and ensuring alignment to the strategic plan of the University. For 2012, the University budgeted for a surplus of R2,3 million.

DUT was bequeathed a generous R36 168m from the estate of the Late Elias Bertrand Levenstein, for investment, with the derived income to be used as bursaries for post graduate students.

The Kresge Foundation awarded DUT a grant of \$660 000, payable over five years, for the establishment of an Advancement Office to build capacity and sustain the fundraising activities of the University. In addition, the Department of Higher Education and Training (DHET)

"The University's achievements in 2012 are evidence that the seeds sown towards positioning DUT as an important role player in the South African higher education landscape are beginning to bear fruit."

Dr Jairam Reddy





allocated infrastructural funding of R361 525m for the period 2013 to 2015.

Third stream income continues to be a strategic imperative and it is therefore encouraging to witness a growth in the activities of both the Business Studies Unit (BSU) and the Enterprise Development Unit (EDU).

STUDENT AFFAIRS

The University welcomed the formation of two new student organisations, namely, Flowers on the Concrete, an environmental society, and Shadows in the Rainbow, a gay/lesbian society.

Plans for the construction of a student village to accommodate 800 students on the Steve Biko Campus were approved and this project will be financed jointly by the University and Ministry of Higher Education and Training.

Council continues to show concern at the continuing student debt and the heavy dependency on NSFAS funding.

ACADEMIC AND RESEARCH MATTERS

Honorary doctorates were conferred at the April graduation ceremonies on the late Professor L Nkosi, Ms WYN Luhabe, Vice-Admiral JR Mudimu and Professor NS Ndebele. Recipients at the September graduation ceremonies were Mr S Nxasana and Ms Ela Gandhi.

The University's research performance is improving steadily, and the increase in research outputs bears testimony to this, as do the awards of its first South African Research Chair (which will be situated in the Institute for Water and Wastewater Technology) and of a second Technology Station for energy efficiency training, consultation and prototype development services. These are two growing areas of excellence. Research performance enhancements can be attributed in some measure to the research capacity development initiatives undertaken primarily with emerging researchers, to improve their research and supervision capacity. Expanding the stable of postgraduate study possibilities, a new offering has been introduced which allows students to register for the Master's and Doctoral programme in Peace Studies.

Staff from the Co-operative Education Unit have represented the University at numerous high level national and international engagements. A record number of companies participated in the Unit's main student/external stakeholder's event, the World of Work.

The University's IT Strategic Plan is being implemented to ensure a strong platform for seamless access by students and staff to critical functions and information. This has entailed network and infrastructure upgrades which will be continued into 2013.

INTERNATIONAL MATTERS

The internationalisation agenda of the University has seen a number of engagements which have benefitted both the University and the community. As part of exchange programmes, students from Germany and the United Kingdom spent time in various faculties relevant to their studies. The University continues to be successful in the Fulbright USA College Programme, with five students being placed in community colleges in the US. A partnership with the University of Michigan was strengthened through a communities empowering seminar, whereby communities located close to the University were involved. Finally, the DUT Confucius Institute was established, with the approval of its Beijing parent body, in the Department of Language and Translation.

CONCLUSION

The year 2012 has been a year of steady progress and solid achievement for the Durban University of Technology. The Council will continue to exercise its fiduciary responsibility in the interests of good governance and professionalism. Council wishes to place on record its gratitude to senior management, the staff and students for their achievements and looks forward to another successful year in 2013.

Dr Jairam Reddy

Chairperson: DUT Council



Free

Challenging Isolation
The role of housing in
Challenging Isolation - The

COUNCIL AND COMMITTEES OF COUNCIL

Meetings and Attendance: 2012

NAME OF COUNCIL MEMBER	COUNCIL COMMITTEES						REMUNERATION
	COUNCIL	AUDIT	JOINT AUDIT & FINANCE	FINANCE	EXCO	HUMAN RESOURCES	
	NO. OF MEETINGS IN 2012						
	4	4	1	4	3	4	3
	NO. OF MEETINGS ATTENDED BY INDIVIDUAL COUNCIL MEMBERS IN 2012						
Mr B Barry	3		1	4			2
Prof AC Bawa	4	Advisory	1	3	2	4	Non-voting
Ms M Buchler	4					2	3
Mr M Estrice	4					4	
Mr N Chonco	0 [1 mtg held since appt to Council]						
Mr M Gambu	2 [3 mtgs held before end of term on Council]						
Prof N Gawe	1	Advisory	Advisory	Advisory		Non-voting	
Prof N Gwele	3	Advisory	Advisory	Advisory			
Mr R Harichunder	4	4	1	4	3		3
Mr S Johaar	4		1	4			2
Mr MZ Khanyile	3 [3 mtgs held before end of term on Council]			2	0		
Ms G Lincoln	4					Non-voting	
Ms T Louw	4	4	1			4	3
Mr N Luthuli	3	3	1	3	3	3	2
Mr WZ Madinane	4						
Mr A Mjajubana	1 [1 mtg held since appt to Council]						
Cllr WL Mapena	4						
Mr LKT Mehta	3	2	1				
Ms M Mogodi-Dikgetsi	3						
Mr O Mooki	2						
Ms A Moonasar	3						



NAME OF COUNCIL MEMBER	COUNCIL COMMITTEES						REMUNERATION
	COUNCIL	AUDIT	JOINT AUDIT & FINANCE	FINANCE	EXCO	HUMAN RESOURCES	
	NO. OF MEETINGS IN 2012						
	4	4	1	4	3	4	3
	NO. OF MEETINGS ATTENDED BY INDIVIDUAL COUNCIL MEMBERS IN 2012						
Ms M Motumi	2 [3 mtgs held before end of term on Council]				2		
Mr NG Munsamy	3		1	3			
Mr PM Naidoo	4						
Mr AS Ngidi	1 [1 mtg held since appt to Council]						
Ms P Nkonyeni	0 [2 mtgs held before resigned from Council]						
Dr J Reddy	4		1	3	3	3	2
Dr V Reddy	4						
Dr L Samuels	4				2	Non-voting	
Ms ZK Seedat	3				3	4	3
Mr B Singh	4	4	1	4			2
Mr SH Vezi	4						
Dr J Volmink	3						
Average Percentage of Attendance	81%	85%	100%	83%	72%	86%	82%

Key: : Not applicable



REPORT OF THE VICE-CHANCELLOR AND PRINCIPAL



It gives me great pleasure to report on the highlights of the 2012 academic year – another year of successful education and research development on the seven campuses of the Durban University of Technology. The year 2012 at DUT has been a year of new adventures and consolidation.

This year saw the publishing of the Green Paper on Post-Secondary Education and Training providing the sector, and in particular the universities of technology, a new framework within which to think about their role in post-school and higher education. A number of other national policy and operational frameworks were published for discussion and this made for an interesting year of re-thinking and re-imagining. Perhaps of most influence is the National Development Plan that provides an important new framework within which to think about the purpose and role of the University in society. DUT has deliberately aligned its teaching and research programmes with the needs of the context in which it finds itself and this helps enormously to ensure that the programmes are up-to-date, reflective of the challenges of development and so on.

In 2012, the University enrolled 24 789 students. Of these, the number of students who were first-time entry students was 5 540. The institutional enrolment plan that has been negotiated with the Department of Higher Education and Training required the University to enroll 23 756 in 2012. This class of 2015 was selected from an applications pool of more than 70 000 students. This represents a real challenge as we head into the next decade of higher education provision with increasing pressure for access. Approximately 47% of the students registered for study at DUT are engaged in the broad areas of science, engineering and technology. The institutional enrolment planning strategy is to hold this percentage at about this level. The gender split in the student body is about 51% male and 49% female. The representation is slightly less for women than the overall representation of women in the national system. The primary reason for this is the under-representation of women in the Faculty of Engineering and the Built Environment. Eighty percent (80%) of the student body in 2012 is drawn from the African community.

However, DUT under-enrolled first-year students in 2012 compared to what was agreed in the Enrolment Plan. The Enrolment Plan indicates a first-level recruitment of 6 344 students. On analysis, several reasons come to the fore. The first is the fact that the number of students in the application pool with a suitable level of pass in Mathematics decreased. The second is the fact that in 2012, the University for the first time used a much more controlled route to manage walk-in students. This resulted in some of these students going off to other institutions, including the further education and training colleges. The third is that the Department of Higher Education and Training announced the provision of financial aid to students who chose to study at the further education and training colleges.

On the whole, the University achieved its academic goals in 2012. The number of students that graduated in 2012 was 5 900 and of these 3 997 completed National Certificates and National Diplomas, 1 835 completed Bachelor degrees and 68 completed Master's and doctoral degrees. Greater detail of the graduation profile and the statistics related to the throughput and graduation rates are provided in the Senate Report in this annual report and demonstrate in clear terms the impact of specific interventions being put in place in the academic sector to improve these.

While significant progress has been made in addressing the key strategic objectives that were identified in 2011 a particular challenge was to develop alignment within the institution around the five-year short-term strategic plan. I believe that the seeds have been sown for the emergence of DUT as an important university of technology in the South African higher education landscape.

As was reported in last year's Annual Report (2012), a five-year short-term strategic plan that was submitted to the Council in 2011 and approved contained five key elements that will allow the institution to make progress in its programme of transformation.

“DUT has deliberately aligned its teaching and research programmes with the needs of the context in which it finds itself and this helps enormously to ensure that the programmes are up-to-date and reflective of the challenges of development.”

Professor Ahmed C Bawa





These are:

- **The Construction of a Student-Centred University.** In 2011 many projects were initiated to address this key strategic initiative including the reconfiguration of the student administration and student service systems to facilitate better service to students. This will continue as a key programme of activity for the foreseeable future.

One example of this is the following:

The University established a large project in 2011-2012 under the leadership of the Deputy Registrar to build a coherent system of admission, registration, student accommodation and financial aid to address three key issues. The first of these was to develop a system that would address the issue of walk-ins in a more systematic way and to establish a new tradition at DUT of ensuring that all students wishing to take courses would apply for admission through the Central Applications Office. The second is to ensure that students that are admitted to study on programmes at DUT would be informed before their arrival at DUT whether they qualify for financial aid, whether they have been successful in their application for student housing and so on. This was meant to decrease uncertainties faced by students before the term began and to allow them to focus on their orientation to university life, and their preparation for the start of the academic year. The third was to ensure that first-level students who arrived in the city early in the year were provided with as much support to settle into their new environments as possible. In 2012, financial aid remained outside the ambit of this complex project. Much progress has been made with the project and there was important learning for the future.

- **Getting Back to Basics.** This strategic initiative is aimed at building a better, stronger, more responsive administration to bolster the academic enterprise. The key focuses of this will be to review the functioning, staffing and efficiencies of each of the administrative divisions, to improve the quality of service at DUT to students and staff, and to create a more conducive learning environment.

Many steps have been taken to address this strategic objective but one example relates to the quality of the University's maintenance system. The University has been deeply concerned about the quality of its facilities management – the quality of its maintenance operations, the management of the allocation of its facilities and so on. This is a rather daunting task when one understands that the University has seven very diverse campuses – some originating as primary schools, high schools and so on with little if any suitability for a higher education facility. The University embarked on a rigorous analysis of the functioning of these divisions and we are hoping to finalise the report early in 2013 and to act on it. This exercise will also lead to a costing of the ongoing maintenance of the seven campuses.

- **Building a Sustainable University.** This strategic initiative is aimed at identifying the developmental challenges facing DUT to ensure its financial sustainability over the next 20 years. The key issues to be addressed are strategic growth in student numbers, the creation of new income streams

and the development of a long-term green infrastructure growth and maintenance plan.

In this regard, DUT has made some progress though there is still much that must be achieved. One example is that initial steps have been taken towards the establishment of a Centre for Continuing and Professional Education with the objective of developing a platform for the offering of short courses, professional development courses, flexible learning programmes and courses for fun. But much still needs to be achieved.

- **The Curriculum Renewal Strategy.** This defining project for DUT is now in full gear and will be ready for offering in 2014. It interrogates existing curricula and designs new ones as it shifts the emphasis from teaching to learning, as it enhances the curriculum to include general education elements and the development of theoretical elements and as it moves towards a much more effective use of technology in learning and teaching. The report of the DVC: Academic will provide details.
- **Building DUT's Research and Innovation.** This is also a defining project for DUT as it navigates towards the building of a research enterprise. The institution begins on a very small base and its challenge is to understand how to do this in a sustainable, bottom-up fashion. There are two broad programmes of activities: building a research culture and building the research capacity at DUT. The latter includes getting academic staff to graduate with doctoral qualifications.

Perhaps the most important development in 2012 was a doubling of DUT's research output on 2011. The growth is off a very small base but it is an important step and points out the direction in which the research output heads. It will be important to maintain this growth through 2013 and 2014. On the research front, there have been other major developments. For instance, DUT has been awarded a South African Research Chair in the area of Water and Wastewater Technologies. This is the University's first chair. The University has purchased and deployed a very substantial and up-to-date scanning electron microscope located in the Department of Mechanical Engineering. It will no doubt provide important analytical capacity to many research groups and departments at DUT. The report on Research in this Annual Report will give many more details about the research system. Of most concern is our difficulty in speeding up the attainment of suitable qualifications by academic staff and the attraction of academics with doctoral degrees.

Perhaps the most important development in 2012 was the fact that not a single day of academic time was lost to student actions and strikes. There are a number of reasons for this but the most important is the courage, the commitment and the creativity of the SRC of 2012, guided by a number of outstanding young leaders.

Research pointed, however, to the fact that the image of the University amongst potential students and their parents had taken a severe battering in previous years. Under the leadership of the new Senior Director of our Corporate Affairs Division, the University underwent a rigorous approach

to developing a new brand and this was implemented during 2012 and this process will continue in 2013. The exercise produced wide recognition of DUT and six awards were made to the University during its annual awards evening. Most impressive is that the Corporate Affairs Division achieved this without any extra budget.

DUT had a number of meetings with the Department of Labour in 2012 to discuss the many challenges it faces in addressing the equity profile of its staffing structures. At the gross level, the demographic representation amongst academic staff is 26% African, 43% Indian, 26% White and 3% Coloured. The University's Equity Policy has an elaborate scheme to "Grow Our Own Timber"— an existing institutional strategy now referred to as the Siyazakhela Programme. The success of this programme is wholly dependent on the development of a funding mechanism that the University is unable to address at present. One way around this is to make strategic appointments in the key areas through attracting talented and qualified scholars from the targeted race, gender and other designated categories when vacancies arise.

The Centre for Quality Promotion and Assurance (CQPA) gives effect to its role in quality promotion and assurance through the development, implementation and monitoring of relevant systems and processes across the University. In this regard the CQPA has a key role as the interface between DUT and relevant national agencies. It has continued with its annual programme of reviews of departments, programmes, graduate employment surveys and so on. It conducts on average 12 programme and departmental reviews per year.

DUT has a growing sports legacy. In 2012, six students represented national squads and much progress has been made in developing a sports culture at DUT as well.

The committed support of our external partners – industry, government at all levels, the not-for-profit sector and so on – are critically important for the success of the University. DUT sees itself as an embedded institution – one that has a specific focus and to achieve this it has developed a large number of strategic partnerships in 2012.

It gives me pleasure to present this report. I wish to thank the academic and support staff of the University for their unwavering commitment to the students and in taking up the challenges that we face – and there are many. DUT is often not an easy environment to work in but I am daily grateful for the effort and commitment and dedication of the staff.



Prof Ahmed C Bawa
Vice-Chancellor and Principal





STATEMENT ON INTERNAL ADMINISTRATION/OPERATIONAL STRUCTURAL CONTROLS

The Durban University of Technology maintains systems of internal control over financial reporting and safeguarding of assets against unauthorised acquisition, use or disposition of such assets. Such systems are designed to provide reasonable assurance to the University and Council regarding the operational environment that promotes the safe guarding of the University's assets and the preparation and communication of reliable financial and other information.

This includes a well documented organisational structure and division of responsibilities, established policies and procedures, including a code of ethics that is communicated throughout the organisation to foster a strong ethical climate and the careful selection, training and development of people.

Information systems utilising modern information technology are in use throughout the organisation. All have been developed and implemented according to defined and documented standards to achieve efficiency, effectiveness, reliability and security. Accepted standards are applied to protect privacy and ensure control over all data, including disaster recovery and "back-up" procedures. Systems are designed to promote ease of access for all users. The development, maintenance and operation of all systems are under the control of competently trained staff.

In utilising electronic technology to conduct transactions with staff and with third parties, control aspects receive close scrutiny and procedures are designed and implemented to minimise the risk of fraud or error.

Internal Auditors monitor the operation of the internal control systems and report findings and recommendations to executive management and the Audit Committee of Council. Corrective actions are taken to address control deficiencies

and other opportunities for improving the system when identified. The Council, operating through its Finance and Audit Committee, provides oversight of the financial reporting process.

There are inherent limitations in the effectiveness of any systems of internal control, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even an effective internal control system can provide only reasonable assurance with respect to financial statement preparation and the safeguarding of assets. Furthermore, the effectiveness of an internal control system can change with circumstances

The Durban University of Technology assessed its internal control as at 31 December 2012 in relation to the criteria for effective internal control over financial reporting described in its internal Control Manual. Based on its assessment, the University believes that as at 31 December 2012, its system of internal control over its operational environment, information reporting and safeguarding of assets against unauthorised acquisition, use or disposition met these criteria.

Mr Bishen Singh

Chairperson: Audit Committee

Prof Ahmed C Bawa

Vice-Chancellor and Principal







REPORT ON RISK EXPOSURE ASSESSMENT AND THE MANAGEMENT THEREOF

The Risk Committee is constituted as a Sub-committee of the Audit Committee of Council. It advises and reports to the Audit Committee on risk related matters.

The Committee's purpose is to assist the Council in fulfilling its oversight responsibilities with regard to the identification and management of risks, both upside and downside, likely to affect the University's ability to achieve its strategic goals and objectives.

The Risk Committee consists of the Vice-Chancellor; two members of the Audit Committee, one external member of Council who is not a member of the Audit Committee and two members of the Vice-Chancellor's Risk Committee as non-voting advisory members.

The Vice-Chancellor's Risk Committee is a committee of executive management and is chaired by the Vice-Chancellor. The objective of this Committee is to assist the Council Risk Committee to fulfill its Risk management oversight responsibilities.

The Vice-Chancellor's Risk Committee is responsible for developing and updating the risk register. The risk register is the outcome of an annual risk assessment workshop. Members of the Senior Executive Team of the University, some of whom are members of the Vice-Chancellor's Risk Committee, participated in the workshop.

The University recognises that identifying and managing risks are critical to ensuring that its strategic and operational objectives are met. In this regard, the University has identified its top financial and non-financial risks as follows:

FINANCIAL RISKS

- Collection of student fees;
- Third stream income;
- Fraud, bribery and corruption; and
- Enrollment targets.

OTHER FINANCIAL RISKS

The University is adequately covered in terms of its insurance policy against fire and allied perils, business disruption, theft, money, fidelity, public liability, accidental damage and employer's liability.

A detailed breakdown of the University's financial risk exposure is reflected in the notes to the Consolidated Financial Statements.

NON-FINANCIAL RISKS

Non-financial risks have been identified as risks relating to:

- Facilities;
- Public image;
- Research output;
- Student accommodation;
- Quality of student leadership; and
- Safety and security.

The University is satisfied there are appropriate control measures and other interventions in place to mitigate both the financial and non-financial risks to tolerable levels. In addition, the risk register has been used to inform both the University's annual and rolling three-year internal audit plans.

Mr Harichunder

Chairperson of the Risk Committee

Prof Ahmed C Bawa

Vice-Chancellor and Principal



COUNCIL'S STATEMENT ON CORPORATE GOVERNANCE

COUNCIL

The composition, powers and responsibilities of the Council are in accordance with the Higher Education Act No. 101 of 1997 (as amended), the Durban University of Technology's Statute, Code of Ethics and Code of Conduct for Council members. Their responsibilities include the ongoing strategic direction of the University, approval of the budget, major developments and policies and the receipt of regular reports from Executive Management on the day-to-day operations of the University. Council comprises 30 members, 19 of whom (63%) are external members, who are neither employees nor students. The role of the Chairperson of the Council is clearly separated from that of the University's Chief Executive, the Vice-Chancellor. The Council met four times in 2012, the third of which was held at the Riverside Campus in Pietermaritzburg. This was preceded the day before the meeting by a tour undertaken by Council members of the Indumiso and Riverside Campuses when they were also apprised of the Durban University of Technology's growth plans for Pietermaritzburg.

A self-evaluation of Council was administered during the course of 2012 by the Centre for Quality Promotion and Assurance (CQPA) as an important contribution to the monitoring of quality at the University, in general and of governance, in particular. The outcomes, together with those from Council's Quality Improvement Plan arising from their previous external evaluation in 2010, will inform

the next external review and evaluation of Council scheduled for 2013. Council has appointed Professor B Gourley, former Vice-Chancellor of the then University of Natal and retired Vice-Chancellor of the Open University (United Kingdom) as the external expert to conduct next year's external evaluation of Council.

Dr J Reddy was re-elected unopposed as Chairperson of Council for a further period of two years, up to and including the date of the third scheduled Council meeting of 2014. This is Dr Reddy's third successive term of office as Chairperson.

Mr B Singh was elected unopposed as Chairperson of the Audit Committee for a period of three years, to the date of the third Council meeting of 2015. He succeeds Mr Mehta who has served as Chairperson for the past five years.

Council bid farewell to Ms Ela Gandhi, the University's outgoing Chancellor who had served for five years. In paying her tribute, the Chairperson of Council, Dr J Reddy highlighted that Ela Gandhi had officiated at every one of the graduation ceremonies held during her tenure, a truly remarkable record and a fine example of her dedicated commitment to her role as titular head of the University. Judge Vuka Tshabalala was elected as the University's new Chancellor for the next five years.

The revised DUT Statute was published on 20 January 2012 by Proclamation No. 43 in Government Gazette No 34953.

Council Committees

All Council Committees are formally constituted with terms of reference and comprise mainly external members of Council. In addition, one external Council member serves on each of the University's Student Services Board, the Vice-Chancellor's Risk Management Committee; two external Council members serve on the Senate, Institutional Forum and Professorial Appeals Committee, respectively; and the Chairperson of Council and four other external Council members serve on the Electoral College for Chancellor.

Details of the Council Committees are as follows:

Executive Committee

The committee, *inter alia*:

- Acts on behalf of the Council in urgent matters with subsequent reporting to Council;
- Considers and makes recommendations to the Council



“Council bid farewell to Ms Ela Gandhi, the University's outgoing Chancellor who had served for five years. Dr J Reddy highlighted that Ela Gandhi had officiated at every one of the graduation ceremonies held during her tenure, a truly remarkable record and a fine example of her dedicated commitment to her role as titular head of the University.”

on matters referred to the Council by committees of the Council, the Senate and its committees, Executive Management, and joint committees of the Council and the Senate, thus serving as a 'clearing house' for the Council;

- Makes recommendations on appeals by staff members who have been found guilty of misconduct;
- Investigates and finalises any matters delegated by the Council;
- Makes recommendations to the Council on policy issues;
- Refers any matter which it deems necessary in the interest of the University to the Senate or any committee;
- Acts on behalf of the Council with full powers during the University's vacation period; and
- Considers nominations for vacancies on Council for recommendation to Council.

Audit Committee

It provides assistance to Council with regard to *inter alia*:

- Ensuring compliance with applicable legislation, the requirements of regulatory authorities and matters relating to financial management and internal control, accounting policies, reporting and disclosure;
- Reviewing and recommending to Council all external audit plans, findings, problems, reports and fees;
- Reviewing and recommending to Council all internal audit plans, findings, problems, reports and fees;
- Reviewing the annual financial statements for fair presentation and conformity with international financial reporting standards and assessing whether they reflect appropriate accounting practices and principles;
- Reviewing accounting policies;
- Recommending to Council the appointment of the internal and external auditors;
- Ensuring compliance with all areas of risk and the management thereof. The Council Risk Committee reports to the Audit Committee; and
- Ensuring adherence to the Internal Audit Charter.

Both the internal and external auditors have unrestricted access to the Audit Committee, which ensures unimpaired independence. They attend Audit Committee meetings and are also afforded separate opportunities to meet with the Committee. The Chairperson of Council is not a member of the Audit Committee.

The following is a **Committee of the Audit Committee** and is chaired by an elected external member of the Audit Committee:

Council Risk Committee

This committee:

- Recommends to the Audit Committee the risk philosophy, strategy, and policy and ensures compliance with such policy;
- Recommends to the Audit Committee concerning the levels of risk tolerance and risk appetite and ensures that risks are managed within the levels of tolerance and appetite;

- Reviews and assesses the integrity of the risk management systems and ensures that the risk policies and strategies result in a thorough understanding of risks faced by the University in the pursuance of its objectives, together with the methods employed to mitigate the impact of those risks;
- Monitors the reporting of risk by management with particular emphasis on significant risks or exposures and the appropriateness of the steps management has taken to reduce the risk to a tolerable level;
- Monitors external developments relating to risk management including emerging risks and their potential impact;
- Ensures that management also has a focus on "upside risk" i.e. making sure that the University takes advantage of opportunities;
- Ensures that a formal risk register is maintained with an indication of how the risk is managed and mitigated;
- Oversees that the risk management plan is widely disseminated throughout the University and integrated in the day-to-day activities of the University;
- Ensures that risk management assessments are performed on a continuous basis;
- Reviews reporting concerning risk management, that is to be included in the integrated report, for it being timely, comprehensive and relevant;
- Considers the result of work performed and the conclusions of the internal Audit Function in relation to the risk management; and
- Liaises closely with the Audit Committee to exchange information relevant to risk.

To fulfil its responsibilities and duties in respect of IT Governance, the Committee:

- Reviews the adequacy and effectiveness of the control framework and governance structures implemented within the IT environment;
- Satisfies itself that the risk management process sufficiently covers the IT environment and provides appropriate oversight of the risks identified within that environment;
- Reviews the arrangements management has implemented for disaster recovery and business continuity;
- Considers and reviews the reliance of the University on IT systems and obtains assurance that:
 - Risk assessments were conducted to understand the risks; and controls are in place to govern the IT risks within the environments that are highly dependent on systems; and
- Considers the adequacy of controls around the management of information and the protection of personal information processed by the University.

Finance Committee

This committee:

- Recommends to Council the University's annual revenue and capital budgets which includes students' residences; and
- Monitors performance, in relation to the approved budgets for Council.



The Finance Committee must, *inter alia*:

- Formulate, develop, maintain and recommend to Council all policies in respect of all matters pertaining to the financial management and administration of the University;
- Recommend to Council all matters of a financial nature;
- Appoint and mandate signatories to all documents, cheques and agreements of approved transactions of a financial nature;
- Recommend to the Audit Committee any amendments to the financial rules with a view to enhancing financial control and administrative efficiency; and
- Ratify all tenders approved by the Tender Committee.

The following are **Committees of the Finance Committee** and are chaired by the **Chairperson of the Finance Committee**:

Tender Committee which is responsible, *inter alia*, for:

- Approving and awarding tenders over R1 million, excluding VAT, per purchase; and
- Setting the criteria for evaluating tenders from time to time.

Investment Committee which is responsible, for:

- Recommending an Investment Strategy to the Finance Committee;
- Setting benchmarks for the Portfolio Managers;
- Ensuring that the long-term investments will adequately cover appropriate long-term liabilities and capital commitments;
- Providing guidance to the Portfolio Managers; and
- Making decisions on the Investment Portfolio based on recommendations made by the Portfolio Managers.

Joint Audit and Finance Committee which:

- Recommends the Annual Financial Statements for the preceding year to Council for approval; and
- Such other matters stipulated by Council from time to time or as stipulated by the Finance or Audit Committee from time to time.

Human Resources Committee which, *inter alia*:

- Formulates the conditions of service of employees of the University in accordance with the Higher Education Act (Act No. 101 of 1997) for approval by the Council;
- Recommends to Council to amend the conditions of service in accordance with the Basic Condition of Employment Act, the Labour Relations Act and related legislation;
- Ensures compliance with all labour related legislation;
- Develops, creates, reviews and amends all policy relating to conditions of employment at the University for approval by Council;
- Ensures that there is a mechanism developed to allow for all statistics and data to do with human resources which reflect the current situation and remuneration matters, and that a report on these is submitted at each meeting;
- Ensures that the best practice, as appropriate for the University, is established and operating efficiently within the University, including job grading systems and performance management systems;

- Develops and submits to Council a remuneration policy appropriate for the University; and
- Considers and recommends to Council matters relating to, *inter alia*, a remuneration policy, actual and benchmarked remuneration for the higher education sector; remuneration of members of Council, performance management incentives and bonuses, executive remuneration and general staff remuneration.

Remuneration Committee which determines the salary mandate to enable Executive Management to proceed with negotiations with labour:

Code of Conduct Committee which has the power to exercise the following functions in relation to a particular investigation:

- Make written recommendations to Council proposing amendments to the Council Code of Conduct;
- Require from a member of Council, in respect of whom a complaint of misconduct has been lodged, to appear before the Code of Conduct Committee, to answer such questions as may be put to him/her by the Committee and to make representations to the Committee. Any other person can be called to give evidence or provide information to the Committee.
- Make a finding after the conclusion of an investigation and to submit such finding to Council, either with or without a recommendation as to what action, if any, should be taken in pursuance of such finding.
- If the Committee is convinced that continued participation by the member, against whom a complaint has been lodged, will compromise its investigation, the Committee must recommend to Council that the member be suspended from the activities of Council and its committees until the timely finalisation of its investigation and finding. Such recommendation to suspend will be taken by EXCO of Council. If it is against **Selection Committee for Senior Management** which is constituted on an ad hoc basis whenever it is necessary to fill the position of Vice-Chancellor and Principal or that of any Deputy Vice-Chancellor:

STAFF AND STUDENT PARTICIPATION

The Durban University of Technology uses a variety of participating structures for issues which affect employees and students directly and materially.

Insofar as staff members are concerned, three trade unions enjoy organisational rights, namely the National Tertiary Education Union (NTEU), the National Educational Health and Allied Workers Union (NEHAWU) and the Tertiary Education National Union of South Africa (TENUSA).

Each trade union elects one academic staff member to sit on Senate, one staff member to sit on the Safety/Health and Environmental Committee, Employment Equity Committee and the Skills and Professional Development Committee, two staff members to sit on the Institutional Forum and five staff



members to sit on the Labour Management Consultative Forum respectively. The Unions also have observer status on the Selection Committees for all staff and have membership of the Selection Committee for Senior Management and on the Professorial Committee.

In addition, three seats on Council, one on each of the Finance Committee and the Human Resources Committee of Council and four on the Institutional Forum, are reserved for elected staff members.

The participation by students in decision-making is ensured by the membership afforded to the Student Representative Council (SRC) of various formal and working committees.

In terms of the highest decision-making bodies, the SRC appoints two members on the Council, three members on the Senate, four members on the Institutional Forum, one member on each of the Executive Committees of Council and Senate, one member on the Finance Committee of Council, one member on the Safety/Health and Environmental Committee and four members on the Student Services Board. In addition, one student representative from each Faculty and two student members on the Central Housing Council from the Durban and Midlands campuses respectively sit on the Student Services Board.

Furthermore, one SRC member sits on each of the Tender Committee, the Library Committee, the Selection Committees

for Executive Managers, the Student Disciplinary Tribunal and the Vice-Chancellor's Student Appeals Tribunal. They also serve on the HIV/Aids, Financial Aid, Fees and House Committees. Students also have representation on all Faculty Boards.

STATEMENT ON ETHICS

The University's Code of Ethics, as approved by Council, is a statement of the ethical principles, values and behaviours expected of the staff and individuals associated with the University. Such persons are required to be careful, honest, responsible and efficient and to avoid impropriety or the appearance of impropriety in order to preserve the resources and assets of the University for the public good. The Code also seeks to promote the highest standards of scientific and professional integrity and to give due consideration to the ethical issues arising from the activities of the University.

D Hellinger
Secretary to Council

Approved by Council on 9 March 2013



REPORT OF THE SENATE TO COUNCIL



VISION

A preferred University for developing leadership in technology and productive citizenship

MISSION STATEMENT

The University's mission is to excel through:

- A teaching and learning environment that values and supports the University community;
- Promoting excellence in learning and teaching, technology transfer and applied research; and
- External engagement that promotes innovation and entrepreneurship through collaboration and partnership.

THE ACADEMIC AMBIT

The academic ambit at DUT consists of six faculties; namely Accounting and Informatics, Applied Sciences, Arts and Design, Engineering and the Built Environment, Health Sciences and Management Sciences; as well as the Centre for Excellence in Learning and Teaching (CELT), the Directorate of International Education and Partnerships and the Library. Individual reports from each of these academic and support units appear separately in this report.

A number of academic support units located outside the academic ambit, including the Centre for Quality Promotion and Assurance, Co-operative Learning, Research Management and Development and Postgraduate Development and Support, form an integral part of the work of the academic ambit.

THE CURRICULUM RENEWAL PROJECT AT DUT

The Curriculum Renewal Project was launched in 2011. From the onset, emphasis has been on inclusion, ensuring that both the academic and academic support divisions are integral players in this all important initiative at DUT. Work on the Curriculum Renewal Project at DUT gained momentum in 2012.

The Curriculum Renewal Champions, located within faculties, continued to drive the process within their sectors. DUT sees itself as a student-centred and locally embedded institution within a global context. For this reason, discussions surrounding the nature of a DUT graduate became central to the work on the

Curriculum Renewal Project. We believe that DUT graduates should evidence proficiency in basic skills and competencies, innovation, social responsibility, personal development and a broad understanding of their chosen discipline and/or profession's approach to knowledge production. These attributes helped shape the work on the guiding principles for curriculum renewal, especially as this relates to the general education component of the academic programmes offered at DUT.

Consequently, a general education task team (GETT) was established. The activities of GETT are co-ordinated from the Office of the DVC: Academic by the Advisor: Special Projects. GETT comprises representatives from each of the faculties, from Student Counselling and HIV/AIDS Department, International Education and Partnerships office, International Centre on Non-violence (ICON), Library and Co-operative Education Unit. The team met at least once a month from August 2012 until December 2012.

Some faculty representatives on GETT facilitated workshops and seminars in the faculties around General Education. A series of two-hour scholarly conversations were facilitated during November 2012, by CELT staff to engage academics in issues such as student-centredness and diversity.

ENROLMENT

Headcount enrolment increased by 5% from 24 660 in 2011 to 24 789 in 2012. These figures indicate a slight improvement compared to the downward trend experienced between the years 2010 and 2011, where headcount enrolment had decreased by 2.3%. Only 557 (2%) of the 24 789 students enrolled at DUT in 2012, were enrolled in postgraduate programmes. Gender representation continues to be split at 51% and 49% between males and females respectively. Breakdown in headcount enrolment by race appears in the pie graph on the next page.

Perusal of Figure 1 reveals that DUT has achieved and exceeded national targets on African student enrolment.

“We believe that DUT graduates should evidence proficiency in basic skills and competencies, innovation, social responsibility, personal development and a broad understanding of their chosen discipline and/or profession's approach to knowledge production.”

Professor NS Gwele



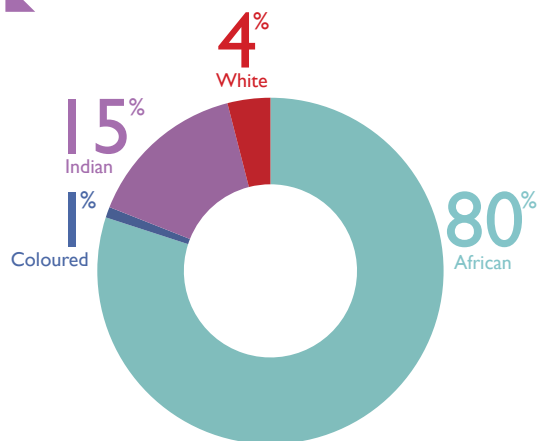


Figure 1: Head Count Enrolment by Race

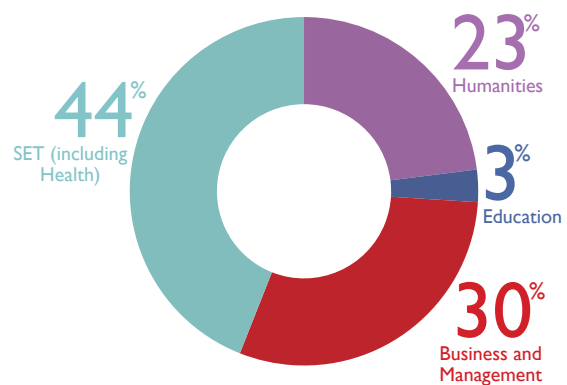


Figure 2: 2012 Enrolment by FTE

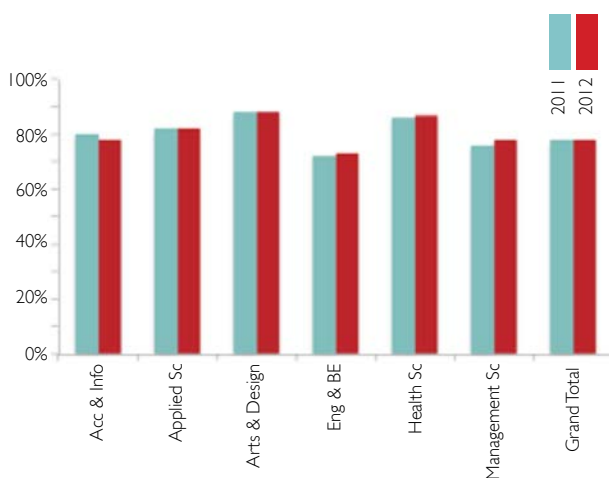


Figure 3: Percent Pass Rates

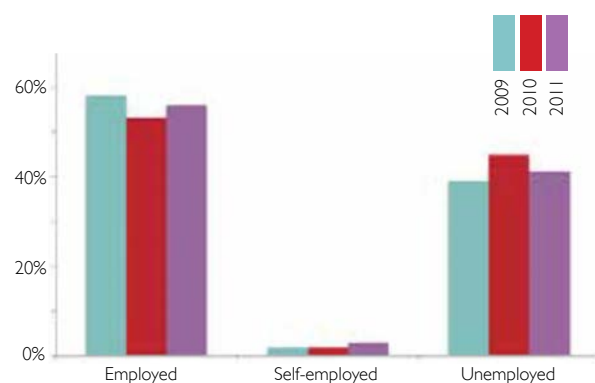


Figure 4: Trends in Graduate Employment 2009-2011

Whereas the national target for African student enrolment is 60% of the overall institutional headcount enrolment, DUT is at 80%.

A much more detailed picture on headcount enrolment is presented in Faculty reports which are included in this report.

SHAPE BY MAJOR FIELD OF STUDY

There was no change in FTE enrolments by major field of study in 2012. SET enrolment remained at 44%, Business and Management at 30%, Humanities at 23% and Education at 3%. Figure 2 depicts the Institution's shape by full-time equivalent enrolment.

STUDENT PERFORMANCE

The targeted pass rate for 2012 at DUT was set at 77%. Data on pass rates per Faculty appear in Figure 3. These data remained at 78% on the average for the years 2011 and 2012.

GRADUATE EMPLOYMENT

The graduate survey carried out by the Centre for Quality Promotion and Assurance reported a positive turn for DUT graduates employment, showing that 56% of those who attended the 2011 graduation ceremonies indicated that they were employed. This figure was at 53% in 2010. Importantly however,

only 12.7% of those who graduated in 2011 were considering a career change, most of whom were in Management Sciences and Applied Sciences (18.4% and 18.2% respectively).

Reports on self-employment improved slightly from 2.3% in 2010 to 2.5% in 2011. See Figure 4 above. For the most part however, 55% of those who reported that they were unemployed were enrolled for further studies; 37% at DUT and 18% elsewhere (CQPA, 2011).

CONCLUSION

As can be gleaned from this report, 2012 was indeed a time to redefine our work as a higher education institution. Work on the Curriculum Renewal Project, general education, writing centres and community engagement can only augur well for DUT as we continue to work towards fulfilling our mission as a student-centred and locally embedded institution

Prof NS Gwele
DVC: Academic





REPORT OF THE SENATE TO COUNCIL

2012 STATISTICS

ACADEMIC PROGRESS IN 2012

Graduates by Level of Study per Faculty for 2012

LEVEL	ACCOUNTING AND INFORMATICS	APPLIED SCIENCES	ARTS AND DESIGN	ENGINEERING AND THE BUILT ENVIRONMENT	HEALTH SCIENCES	MANAGEMENT SCIENCES	TOTAL
National Certificate					63		63
National Diploma	1 041	260	333	917	278	1 105	3 934
Bachelor of Technology	219	81	92	409	199	669	1 669
Bachelor of Education			166				166
Master of Technology	8	6	1	3	24	20	62
Doctor of Technology	1	1	1		1	2	6
Grand Total	1 269	348	593	1 329	565	1 796	5 900

Graduates by Faculty per Race and Gender for 2012

FACULTY	FEMALE					FEMALE TOTAL	MALE					MALE TOTAL	GRAND TOTAL
	AFRICAN	COLOURED	INDIAN	WHITE	OTHER		AFRICAN	COLOURED	INDIAN	WHITE	OTHER		
Accounting and Informatics	635	8	75	3		721	434	6	105	2	1	548	1 269
Applied Sciences	125	3	77	8		213	91	3	30	11		135	348
Arts and Design	267	9	24	65		365	172	6	14	36		228	593
Engineering and the Built Environment	265	2	89	7		363	575	19	283	89		966	1 329
Health Sciences	229	10	120	50	2	411	77	6	41	30		154	565
Management Sciences	913	17	118	12	3	1 063	560	8	126	34	5	733	1 796
Grand Total	2 434	49	503	145	5	3 136	1 909	48	599	202	6	2 764	5 900

NB: As at 2nd Hemis submission – 17 April 2013



REPORT OF THE SENATE TO COUNCIL

COMPOSITION OF SENATE IN TERMS OF THE UNIVERSITY STATUTE

VOTING

1. Vice-Chancellor (Chairperson of Senate)
2. Deputy Vice-Chancellors
3. Executive Deans of faculties
4. Deputy Deans of faculties
5. Heads of Academic Departments or Schools
6. Senior Academic Staff (that is, all above Senior Lecturer)
7. Staff membership in accordance with the Institutional Rules as approved by Senate and Council, namely:
 - 7.1 Executive Directors
 - 7.2 Senior Directors
 - 7.3 Director: Research Capacity Development
 - 7.4 Director: Postgraduate Development and Support
 - 7.5 Director: Technology Transfer and Innovation
 - 7.6 Director: Library Services
 - 7.7 Director: Centre for Equity, Change & Diversity Management
 - 7.8 Director: Centre for Excellence in Learning and Teaching
 - 7.9 Director: International Education & Partnerships
 - 7.10 Director: Co-operative Education
 - 7.11 Director: Centre for Quality Promotion and Assurance
 - 7.12 Director: Enterprise Development Unit
8. One academic staff member of each trade union elected respectively by each trade union
9. Three students appointed by the SRC, at least one of whom must be a postgraduate student, and at least one of whom must be a member of the SRC
10. Two members of Council elected by Council who are neither staff nor students.

NON-VOTING

11. Special Assistant to the Vice-Chancellor
12. Registrar (Secretary to Senate).





REPORT OF THE SENATE TO COUNCIL

FINANCIAL AID TO STUDENTS 2012

The Department of Financial Aid and Scholarships administers financial aid in terms of donor criteria in respect of the National Student Financial Aid Scheme (NSFAS), NSFAS Loans and Bursaries, NGO bursaries as well as DUT bursaries and scholarships.

Table 1: Breakdown of Financial Aid Applicants (Excluding DUT-administered bursaries and scholarships)

Successful NSFAS applicants (loans and bursaries)	10 261
Successful applicants for NGO financial aid	71
Sub-total: Successful applicants	10 332
Unsuccessful NSFAS	1 034
Total applicants (successful and unsuccessful)	11 366

Table 2: Breakdown of Allocation of Financial Aid Funds

NSFAS, LOANS, BURSARIES AND NGO BURSARIES	
Total amount allocated	R259 652 992
Total number of students funded	10 332
DUT ADMINISTERED BURSARIES	
Total amount allocated	R2 219 201
Total number of students funded	404
DUT SCHOLARSHIPS (UNDERGRADUATES)	
Total amount allocated	R10 786 856
Total number of students funded	1 268
Grand total of funds allocated	R272 659 049
Grand total of students funded	12 004



REPORT OF THE SENATE TO COUNCIL

CENTRE FOR EXCELLENCE IN LEARNING AND TEACHING (CELT)

ACADEMIC DEVELOPMENT AT DUT

The vision of CELT is to unleash the full potential of students and academics of the Durban University of Technology through academic development strategies. This vision can only be realised through strategic collaboration with faculties and other support units of the University.

The Centre subscribes to the HEQC's conception of Academic Development (AD), which is defined as:

"A field of research and practice that aims to enhance the quality and effectiveness of teaching and learning in higher education, and to enable institutions and the higher education system to meet key educational goals, particularly in relation to equity of access and outcomes. Academic development encompasses four interlinked areas of work: student development (particularly foundational and skills-oriented provision), staff development, curriculum development and institutional development" (*HEQC Institutional Audits Manual*. Pretoria: Council on Higher Education, p.74).

ORGANISATIONAL STRUCTURE

The Centre for Excellence in Learning and Teaching has four relatively distinct but interrelated sub-units, namely the:

- Learning, Teaching and Assessment sub-unit;
- e-Learning sub-unit;
- Student Access and Support sub-unit; and the
- Multimedia sub-unit.

LEARNING, TEACHING AND ASSESSMENT (LTA) SUB-UNIT

This sub-unit is primarily responsible for facilitating and promoting the development of innovative and transformative learning, teaching and assessment strategies at DUT. Apart from providing ongoing professional development opportunities for all academic staff, the sub-unit seeks to engage academics in debates about the scholarship of teaching and learning. The sub-unit offers a series of workshops on a variety of topics relating to learning, teaching and assessment to new and experienced academic staff. The workshops are aimed at engaging staff in scholarly conversations around their classroom practices.

During the 2012 academic year, workshops facilitated by this sub-unit focused mainly on curriculum design in response to the institution-wide Curriculum Renewal Project and to the requirements of the *Higher Education Qualifications Framework (2007)* as amended. This is an on-going project which will culminate in the submission of new qualifications and learning programmes to the Council on Higher Education (CHE) for approval in 2014.

The induction programme, offered by the LTA sub-unit during the first and second semesters, serves to introduce academic staff to key aspects of learning, teaching and assessment policies, approaches and practices in higher education. During the 2012 academic year, a total of 17 new academics participated in the workshops organised by the LTA sub-unit of CELT. New staff attended the week-long workshops in January and July respectively. In both instances, the workshops were followed by fortnightly sessions which lasted for the duration of the semester. The induction programme was structured as follows:

- A three-day block session of learning, teaching and assessment (LTA) workshops, which was run from 9am to approximately 4pm.
- Weekly (LTA) workshops for the remainder of the six months. The weekly workshops took place on Thursdays from 1-4pm.
- Developing the framework for an action research project, with the emphasis on "how do I improve my practice" (Whitehead, 2009). This was presented during the Induction Sharing Day on 7 June and 4 December respectively.
- Compilation of a reflective paper – participants share their reflections of the programme and provide suggestions for improvement of the programme.

The LTA sub-unit also organised and facilitated workshops for academic staff on the compilation of teaching portfolios. This was done in compliance with the requirements of the *Academic Staff Promotions Policy* and the Vice-Chancellor's Teaching Excellence Awards.

The LTA unit of CELT organised and hosted a successful symposium on learning,

"The vision of CELT is to unleash the full potential of students and academics of the Durban University of Technology through academic development strategies. This vision can only be realised through strategic collaboration with faculties and other support units of the University."





teaching and assessment in June. The keynote speaker was Dr Allan Cliff from the UCT Centre for Higher Education Development (CHED) who spoke on academic literacies in higher education and facilitated a workshop for DUT Executive Deans and Heads of Department on the *National Benchmarking Tests* (NBTs).

THE E-LEARNING SUB-UNIT

The e-Learning sub-unit of CELT has established itself as a key player in the teaching and learning innovations at DUT. Through its short courses and projects, the sub-unit promotes and implements e-learning in the various academic programmes offered by the University.

Pioneers e-Learning Project

The online learning and teaching short-course (dubbed Pioneers) is structured to take volunteer staff members through the process of learning to facilitate online learning through experiencing themselves as:

- Online Learners: experiencing the challenges and triumphs of using online learning tools and collaborating in a non-face-to-face environment (asynchronous learning) as well as face-to-face (synchronous learning).
- Online Designers of learning: Designing their learning spaces to encourage student engagement.
- Online Assessors: designing assessment tools to facilitate student learning.
- Online Researchers: Inquiring into their practice as educators using aspects of online course delivery in a blended learning environment.

Achievements

- A total of 12 DUT academics and professional support staff successfully completed the Pioneers short course on e-Learning in 2012.
- The e-Learning sub-unit hosted an e-learning festival (5-7 December 2012) featuring colleagues from academic and support departments at DUT. The two keynote presentations were made by the Vice-Chancellor, Prof Bawa and Tony Carr from the University of Cape Town.
- The DUT e-learning team continued its active participation in the activities of the SATN Teaching, Learning and Technology Committee where experts from the five universities of technology share expertise and resources.
- The e-Learning team also played a pivotal role in the university-wide consultations led by Mr Patrick Dark from **Blackboard** which culminated in the compilation of a 65-page report titled "e-Learning Strategic Planning and Deployment Report for DUT". The recommendations contained in this comprehensive report will inform the University's planning for the roll-out of e-learning across faculties and programmes from 2013 onwards.
- The University successfully migrated from Blackboard CE 8 to Blackboard 9.1 and this necessitated the re-training of staff who had completed the Pioneers course in the previous years. In total, 38 academics based in Durban and the Midlands were trained in the use of the new Learning

Management System (LMS) in a short training course called "Pioneers Plus".

- Gita Mistri and Thengani Ngwenya attended a three-day seminar (21-23 August 2012) on e-Learning authoring tools titled "Rapid e-Learning Development" at the University of Mauritius.

STUDENT ACCESS AND SUPPORT (SAS) SUB-UNIT

The projects in the SAS sub-unit range from student testing (for placement and other academic purposes) to the training of senior students who play the roles of tutors, mentors and advisors to first and second-year students. The main projects of the SAS sub-unit in 2012 included:

Extended Curriculum Programmes (ECP)

CELT is responsible for the central co-ordination of ECPs, providing support to staff and students in ECPs, and overall monitoring of this crucial student development initiative. It is also responsible for compiling and submitting a consolidated report to the Department of Higher Education and Training on ECPs at DUT. For the 2012 academic year, DUT received R2. 996 million for its 16 extended curriculum programmes. The University also received R120 000 for foundation staff training and development. This funding was used for:

- Curriculum Design and Development (Management Accounting monthly meetings);
- Ongoing meetings for developing the self-reflective practitioner to assist ECP staff in developing and incorporating research into their practice; and
- ECP Models and Materials Development facilitated by Ms Maxine Shandler and Ms Nadine Dharsey (University of Johannesburg) on 7-8 August 2012; and conference attendance: Foundations Colloquium (25-26 June 2012).

Access Testing in 2012

The following activities were undertaken by the CELT Access Testing team:

- Administered 4 913 SATAP tests to approximately 2 100 students for 11 programmes. This was primarily for the 2013 intake.
- Diagnostic reports completed for departments that requested these. These included both SATAP diagnostics.
- NBT reports were completed for all faculties.
- Meetings with departments using the tests to inform their placement of ECP students were held in Applied Sciences.
- Meetings were held with departments that have their own entrance tests for feedback on these tests.
- A meeting was held with MUT to discuss and provide feedback on their planned testing process.
- Ms Rathilal attended the Access Special Interest Group (SIG) at the HELTASA conference where activities for next year were discussed. These included workshops on the use of test results to inform LTA, further discussions on selection into higher education and the possibility of a joint initiative among institutions.

Residence Educational Programme (REP)

The programme is designed to assist first-year students in residences to deal with various factors of the university environment that may impede their academic success. The main aim of the project is to provide psycho-social support and subject-specific academic support to first-year students in order to help them cope with the adaptation to the university environment. The programme is managed jointly by the Housing Department and CELT. In a planning workshop last year it was agreed to extend the programme to second-year students in all DUT residences. The programme is truly educational in that it does not focus

solely on subject content but also addresses generic academic skills. In 2012, the REP was successfully implemented in residences at the Durban campus with a total of 317 students registering for this all-inclusive student development programme. The Midlands campus identified subjects in which students required tutorial support and started making preparations for the implementation of the programme in residences in 2013.

The table below provides a snapshot of the Residence Educational Programme at the Durban campus during the second semester of 2012. All the subjects included in the table were also offered during the first semester:

TUTORS X 6	SUBJECTS X 5	RESIDENCE	VENUE	NUMBER OF STUDENTS	TIME & DAY
Cyprian Ramathathani	Strength of Materials 2 – Engineering	Berea Combined	LC026; LC026	11 9	6-8 Mon 6-8 Thursday
Sanele Maphumulo	Maths S2	Berea Combined	LC024; LC024	14 13	6-8 Tuesday 6-8 Thursday
Kapele Mutachi	Economics I Module 2	Walsingham Berea combined	Walsingham; LC107	20 30	6-8 Tuesday 6-8 Thursday
Siphiwe Magubane	Financial Accounting I Module 2	Walsingham Essenwood	Walsingham; Essenwood	10 10	6-8 Monday 6-8 Tuesday
Phumzile MKhize	Financial Accounting I Module 2	Berea Combined	LC028	20	6-8 Wed
Mbongeni Ndlovu	Elec Power Engineering	Berea Combined	LC028; LC028	21 25	6-8 Tuesday 6-8 Wed
6	5			183	TOTALS

Tutor Training for Academic Departments

CELT trained 24 tutors across the six faculties in 2012. Tutorials offered in academic departments seek to combine generic academic skills and subject-specific content.

Recognition of Prior Learning (RPL)

As outlined in the institutional RPL Policy, CELT is responsible for the administration of the RPL process as well as advising applicants and academic departments on RPL procedures. The SAS sub-unit also assists applicants with the compilation of portfolios of evidence required by faculty-based academics who evaluate applications.

THE MULTIMEDIA SUB-UNIT

At the recommendation of the Vice-Chancellor and Executive Management, the Multimedia Unit (formerly known as the Audio-Visual Unit) merged with CELT in 2011. In line with the philosophy of CELT as an Academic Development unit, the Multimedia staff provide technical support to teaching and learning in various ways. The main responsibilities of Multimedia staff are the following:

- Ensuring that teaching equipment is made available to lecturing staff and that academics are trained to use the equipment correctly and appropriately.
- Recording academic functions such as lectures by visiting academics, workshops, symposia, graduation ceremonies and conferences.
- Participation in the current CELT projects including capacity building workshops for the Curriculum Renewal Project.
- Providing support to and collaborating with Educational

Technologists currently based in the e-Learning.

- Training staff in the use of technical equipment that is currently being installed in lecture venues.

RESEARCH PUBLICATIONS

Chitanand, N. 2012. 'Sowing the Seeds of Transformative educational practice in an Academic Induction Programme at the Durban University of Technology' in *Transformation: Looking back in History and Forward to Change*.

Lungu, B and Harrison, L. 2012. 'Iconic Imagination and Epistemological Access'. *Higher Education that Matters Conference. HELTASA 2012 28-30 November 2012*.

Harrison, L Pithouse-Morgan, K, Conolly, J & Meyiwa, T 2012. *Learning from the first-year of the Transformative Educational Studies (TES) Project. 5th Teaching and Learning Conference. Alternation* (Special Issue).

Harrison, L. 2012. *PaperHeads: Living Doctoral Study; Developing Doctoral Identity*. Oxford: Peter Lang.

Ngwenya, T. 2012 'Black Consciousness Poetry: Writing Against Apartheid in *The Cambridge History of South African Literature*. Cambridge: 'Cambridge University Press. Edited by David Attwell and Derek Attridge. pp. 500 – 522.

Pete, M 2012. *Poems published in Carapace* edited by Gus Ferguson. "Warwick Junction" poem shortlisted for the Sol Plaatje European Union

Prof TH Ngwenya

20 February 2013



REPORT OF THE SENATE TO COUNCIL

CENTRE FOR QUALITY PROMOTION AND ASSURANCE

CENTRE FOR QUALITY PROMOTION AND ASSURANCE

The Centre for Quality Promotion and Assurance (CQPA) gives effect to its role in quality promotion and assurance through the development, implementation and monitoring of relevant systems and processes across the University. Whilst the role of the CQPA remains constant, its staff strive to ensure that the operational functions of the centre align both with the strategic goals and objectives of the University and with the prevailing national context. To support University staff with the implementation of the Quality Assurance Policy, the *Handbook of guidelines and procedures*, developed by the CQPA, is updated annually.

STAFF PROFILE

At the beginning of 2012, the CQPA staff complement comprised seven permanent staff in the central office, one permanent Quality Promotion Officer (QPO) providing support to the Faculty of Arts & Design, and one academic who was seconded to the position of a QPO to provide support in the faculties of Health Sciences and Applied Sciences. Towards the latter part of 2012, two QPOs were recruited and their appointments will take effect from the beginning of 2013. The Faculty of Engineering and the Built Environment has taken a decision to consolidate into one post the roles of the QPO and the academic development practitioner. The provision of support at faculty level is a challenge as there are six faculties and only four QPO posts.

COMMUNICATION WITH THE DUT COMMUNITY

The CQPA produced three newsletters during 2012 on issues that have a bearing on quality in Higher Education in general and on DUT in particular.

STAFF DEVELOPMENT

The CQPA facilitated a session in each of the two DUT Academic Induction programmes offered by CELT. These sessions included discussions on how quality and the quality cycle could be integrated with the lecturers' work, and on evaluations by students (SEQs and LEQs). Two CQPA staff are registered for postgraduate studies at Master's and doctoral level respectively.

REVIEWS AND ACCREDITATION

Two programmes were subjected to external accreditation processes: Construction Management and Maritime Studies. The final reports have not yet been received from the relevant professional bodies. The Chiropractic programme was evaluated by the European Council for Chiropractic Education (ECCE) and the preliminary report is indicative of a favourable outcome.

Thirteen programme/department reviews and a review of Student Housing were conducted by the CQPA. The key issues that emerged from the programme reviews were reported to relevant committees for action and also to Senate. The various departments have developed or are in the process of developing improvement plans; the faculty QPO will monitor the implementation. The Vice-Chancellor, DVC: Academic, and the Director: CQPA met with the relevant HoDs and Executive Deans to discuss the review reports and associated



“The CQPA is supporting an initiative driven by the Vice-Chancellor to develop Postgraduate Diplomas and coursework Masters degrees. The aspiration is for these Masters degrees to be developed in innovative areas with a great potential for cross-faculty initiatives.”

Mrs K Sattar



quality improvement plans for: Communication (Durban and Pietermaritzburg), Journalism, Human Resources Management (Pietermaritzburg), Chiropractic and Postgraduate Nursing. These meetings will continue in the new year.

Highlights that were identified through the reviews include the:

- Excellent orientation programme for first-year students provided by the library; the postgraduate facilities in the library are commendable;
- Innovative teaching methods in the Radiography programme;
- Exemplary academic leadership in the Departments of Applied Law, Radiography, and Biotechnology & Food Technology;
- Workbook for Economics which includes intensive core and supplementary reading materials;
- Identification, in the Food Technology programmes, of at-risk students through comprehensive test analysis;
- Educare community engagement project in the Warwick Triangle, an initiative of the staff from the Child and Youth programme;
- Faculty of Health Sciences' support structures for improving the academic literacy skills of students; and
- Faculty-based writing centre located at City campus that provides support for students in the Faculty of Arts and Design.

ACADEMIC (PROGRAMME) PLANNING

The Director and one specialist were nominated as members of the CHE Category A Working Group. The Working Group supports the CHE with the evaluation of programmes as part of the implementation of the Higher Education Qualification Framework (HEQF). Category A programmes are those deemed to require minimal change to be aligned. The second major phase of alignment to the HEQF (2012-2014) is for Category B programmes where changes constitute less than 50% of the programme. The CQPA is supporting academic departments with the process to ensure that DUT programmes that fall into this category are accredited.

A total of 39 applications for PQM clearance of new qualifications were submitted to the DHET during 2012. The following programmes were submitted to the CHE for accreditation: Bachelor of Health Sciences in Medical Orthotics and Prosthetics; PhD in Emergency Medical Care and PhD in Health Sciences. The PhD: Emergency Medical Care was accredited subject to providing the CHE with information on the staff who will supervise students. A decision on the PhD in Health Sciences is pending and the CHE will finalise their decision at the end of February 2013. The BHSc: Medical Orthotics and Prosthetics was submitted for accreditation at the end of November 2012 and the outcome will only be available by June 2013.

With regard to the Curriculum Renewal Project, the CQPA has continued to support activities throughout the year. A variety of types of assistance has been offered at different levels ranging from one-on-one consultation with staff and meetings with a small number of staff in a department proposing to

offer a new programme, to faculty-level workshops. During the second semester, Heads of Department and Curriculum Champions reported on progress to date during Faculty-based workshops.

The CQPA is supporting an initiative driven by the Vice-Chancellor to develop Postgraduate Diplomas and coursework Masters degrees. The aspiration is for these Masters degrees to be developed in innovative areas with a great potential for cross-faculty initiatives.

ELECTRONIC PROGRAMME MANAGEMENT SYSTEM

Utilisation of the CQPA PeTALS portal continued to increase in response to the implementation of the Curriculum Renewal Project. Several workshops and meetings were held to support academic departments across all faculties in utilising the system to facilitate the development of new programmes and amendments to existing programmes.

The CQPA hosted colleagues from the University of Stellenbosch, University of Johannesburg and Nelson Mandela Metropolitan University with regard to sharing information on the design and development of the PeTALS system. The CQPA has also considered measures to protect the intellectual property of the DUT contained in the system and possible commercialisation of the system.

Development of the next generation of the PeTALS system, a fully web-based version with greater integration with the EvaSys system, is work-in-progress. Integrated views and multiple level dashboards are being developed to provide a holistic picture of programmes thus facilitating timeous action and improvement. The framework is being piloted in the Faculty of Arts and Design prior to full-scale development and implementation. It is envisaged that usability testing and related field tests for the pilot will be undertaken during March-April 2013.

Preliminary discussions with the ITSS Department to integrate the PeTALS system with the ITSS and other reporting systems have been initiated. In September 2012, the CQPA also started discussions with EvaSys representatives with regard to possible integration of the PeTALS system with the EvaSys survey system.

USER SURVEYS

The CQPA continued to implement a range of user surveys at the University. By the end of 2012, 844 subject evaluations had been conducted and a total of 25 033 student responses had been analysed. With regard to lecturer evaluations, 869 evaluations were conducted with 520 individual lecturers evaluated. A total of 25 972 lecturer evaluation responses were analysed. Of the subject and lecturer evaluations, 11 943, or 23%, of all student responses were completed online. The number of online responses doubled from 2011.

The 2012 DUT composites for both subject and lecturer evaluation outcomes per item are positive overall. However, evaluation data are most useful when carefully considered at subject and departmental level. Subject and lecturer



evaluations are important tools in annual quality monitoring processes in departments and faculties. Furthermore, the qualitative data from the open-ended questions in the survey questionnaires need to be explicitly considered in reflection at subject and departmental level.

A survey of graduate experiences was conducted at both graduation ceremonies. The overall response rate for the April graduation ceremonies was 81%, slightly lower than for 2011 and 2010. The outcomes of the analyses for the spring graduation ceremony were similar to those for the April/autumn graduation ceremonies – generally positive. Responses to two items on the graduate survey explicitly indicate the value that graduates attach to their learning experience and its quality, and DUT as a preferred university of technology. For these items:

- 83% and 81% of the April and spring graduation respondents respectively agreed that: *"If I had my time again, I would still choose this institution"* (item 3.16); and
- 84% and 83% of the April and spring graduation respondents respectively agreed that: *"If I had my time again, I would still choose this programme"* (item 3.17).

For both the April and spring graduate surveys, the only institutional item to be coded "yellow" was the item 3.9: *"The academic department helped me to find work placement for in-service training/WIL/co-operative education"*. Placement for WIL should be regarded as an area of risk as it has been identified as being inadequate for at least the last three graduations. The Faculty of Health Sciences means for the April graduation survey showed a consistently lower risk to quality than the institutional means across all the evaluative items.

For the institution as a whole, there was a small decrease in the number of students at the April graduation who responded that they were employed, from 56.1% in 2011 to 53.1% in 2012. Of those graduates reporting as unemployed, 51.4% indicated that they were studying further, either at DUT or at another institution. This figure shows a small decrease from the previous two years (58.1% in 2011 and 58.8% in 2010). Faculties and departments should further explore employment and related issues at programme level.

The My DUT Student Experience Survey was launched on 2 May 2012. This online student experience survey asked undergraduate students about their experience at DUT and how this could be improved. This was the first time that this survey was available online to students. The total number of responses was 622, giving a low response rate of 2.6%. Possible factors influencing the response rate included the low number of students, including international students, using DUT4life email, and a database problem which meant the email with the survey link was initially not sent out to about 5 000 students. This problem was resolved and the online survey was closed on 7 September 2012.

Despite the low response rate, the survey can contribute to evidence on students' perceptions of their DUT experience. Overall, the responses are positive. Items where there is notable disagreement indicating some risk to quality pertain to: maintenance of residences; variability of workload across modules; access to a working computer in open access labs

and support available in the labs; study space in libraries; service from the Financial Aid, Student Housing and SRC offices; the fairness and transparency of programme levies; sport facilities; toilet facilities; food on campus; and campus transport.

In 2012, the My DUT Staff Experience Survey was administered online for the first time, and was open from 20 August to 19 September. The survey asked staff about their experience at DUT and how they thought it could be improved. The total number of responses was 443. The total number of staff was 2 503, giving a fairly low response rate of 18%. Issues showing notable dissatisfaction included: staff morale, salary, recruitment and retention of good staff, workload distribution and adequate number of departmental staff, time for professional development, transparency in financial resources, equitable distribution of resources and adequate departmental budget, after-hours security and safety when moving between Durban campuses, cleanliness of campuses, facilities for visitors, lifts, toilet facilities and provision for differently-abled staff. Notable issues specifically for teaching staff included maintenance of and facilities in teaching venues, the venue booking system, specialised equipment for teaching and research, and time for research.

QUALITY ASSURANCE OF GENERAL EDUCATION

The Director and one Quality Specialist undertook a study visit to selected universities in the USA as well as the American Association of Colleges and Universities with regard to the quality assurance of general education. The universities were identified through consultation with the Vice-Chancellor as well as Professor George Kuh, a renowned expert in student engagement and high impact learning. The CQPA team met with Prof Kuh in Bloomington, Indiana, and also had discussions with leading academics at: University of Charleston, West Virginia; Hendrix College, Arkansas; Miami University, Ohio; Indiana University-Purdue University, Indianapolis, Indiana; and City University New York, New York.

PARTICIPATION IN WORKSHOPS/REFERENCE GROUPS/NATIONAL MEETINGS

- HESA: QA Managers Forum (Chairperson), 31 July 2012, Birchwood Hotel, Johannesburg.
- HESA: Workshop, 19 November 2012, Southern Sun Hotel, OR Tambo.
- HESA: QA Task team meeting 14 December 2012, Southern Sun Hotel, OR Tambo.
- SATN Programme and Qualifications Committee meetings (face-to-face and on-line).
- The South African Association for Institutional Research (SAAIR) Strategic Discussion Forum (SDF), 19 March 2012, UNISA, Pretoria.
- National Skills Authority Consultative Workshop for KZN, 8-9 November 2012, ICC, Durban.



- CHE Quality Assurance Managers Forum, 21 February 2012 and 28 August 2012, Pretoria.
- CHE working group: HEQF alignment, 13-17 February 2012, Pretoria.
- South African Maritime Safety Authority and DHET: Workshop on Qualifications for the Maritime sector, 18 April 2012, Pretoria.
- DUT General Education Workshop, 16-17 May 2012, Protea Hotel, Karridene.
- Quality Council for Trades and Occupations (QCTO): Qualification Committee meetings: 29 May, 11 October 2012, Midrand.
- CHE Reference Group Meeting: Institutional Review, 7 June 2012, Pretoria.
- Engineering Curriculum Development Workshop, 7-8 June 2012, Blue Waters Hotel, Durban.
- DUT Workshop: Student Centeredness, 22-23 August and 28 September 2012, eMakhosini, Durban.
- SATN: Programme and Qualifications Committee Workshop, 8-9 October 2012, CPUT, Belville, Cape Town.
- CHE: Workshop: Quality Assurance of Work Integrated Learning, 24 February 2012, Pretoria.

- DUT Workshop facilitated by Prof D Grayson: Improving the performance of Engineering students, 8 November 2012, DUT.
- Seminar facilitated by Prof M Schofield: Does assessment matter in Teaching and Learning? 26 November 2012, UKZN.

CONFERENCES ATTENDED

2nd QS-MAPLE Conference and Exhibition: Meeting the Global Challenges in Higher Education. 3-4 May 2012, Elangeni Hotel, Durban.

PUBLICATIONS

Sattar, K and Cooke, LA. 2012. A conceptual framework for the quality assurance of programme design at the Durban University of Technology. *South African Journal of Higher Education*, 26 (2): 372-390.

Mrs K Sattar

Director: Centre for Quality Promotion and Assurance



REPORT OF THE SENATE TO COUNCIL

LIBRARY REPORT

INTRODUCTION

The focus for the Library in 2012 was on developing relationships with Faculty and creating a more customer-orientated environment which supports the student-centred vision of the institution.

Summon, the web-scale discovery tool from Serials Solutions, was launched in February. This was an exciting event in the Library as Summon will impact the way information is searched, retrieved, catalogued and evaluated. Academics and students alike have embraced this new Google-like tool and an increase in use of electronic resources is evident.

The fact that Summon is mobile accessible is an added benefit and makes information available 24/7.

MEASURING QUALITY

The DUT Library strategic direction was revised, providing a new vision, mission, values and goals for 2012-2014. The vision is driven by a number of imperatives including student centeredness, the dynamic nature of academic librarianship, the impact of information technology and space. Sites' action plans for 2012 were developed alongside these strategic guidelines. The annual Quality Monitoring Report was completed timeously and submitted to CQPA.

Quality Surveys

A short Summon survey was conducted in the latter part of 2012.

- Using SurveyMonkey, Library users were asked about their experiences using Summon. Questions

focused on ease of use, source of access (laptop, mobile or tablet, Library computers) and purpose in using Summon.

- The survey results revealed that 90% of the respondents found Summon easy to use. Sixty percent (60%) of the respondents accessed Summon from the Library computers, while 32% used Summon from the laptops and 22% from their smartphones.
- As part of the review of Summon in 2013, a more detailed survey will be undertaken to measure the quality of searches and the impact of Summon on the end user.

Performance Measurement

Library staff updated their job profiles and these were submitted to HR.

- Performance management reviews will be scheduled once the amended profiles have been accepted and approved by HR.
- The Library formalised the Library Innovation Committee and Development – a 'Think Tank Forum' to reposition the Library at the cutting edge of technology and service provision at the University.
- The Library engaged staff in a general discussion on the Student Centeredness Workshop to ensure uptake by all staff at all Library sites.

TEACHING AND LEARNING

A student centered ethos prevailed in the function and role of the Library in 2012. Library services were re-engineered to become student-centred, accessible and innovative in achieving the following goals:

- Enhancing teaching, learning and research;
- Promoting life-long learning;



“Summon, the web-scale discovery tool from Serials Solutions, was launched in February. This was an exciting event in the Library as Summon will impact the way information is searched, retrieved, catalogued and evaluated. Academics and students alike have embraced this new Google-like tool and an increase in use of electronic resources is evident.”

- Becoming a strategic driver in promoting e-learning; and
- Advocating for open scholarship and research.

Information Literacy

One of the key outcomes of Information Literacy (IL) is that it promotes lifelong learning. The Library IL programme has gained momentum at the University and is well on its way to becoming an integrated and embedded programme in the DUT curriculum.

- A generic IL tutorial was developed and uploaded on the Library website. The tutorial covers basic concepts in IL and is intended to create further learning opportunities for students to become lifelong learners.
- Blended learning materials have been designed and all DUT subject librarians have been trained on the Blackboard e-learning platform.
- The IL module was previewed for Blackboard compliance in 2012.
- This initiative is strengthened by the integrated adoption of IL into the General Education curriculum. The Library has representation on the GETT task team.
- Subject librarians contributed to the compilation of the General Education Module Glossary for the Faculty of Art and Design.

Academic Integrity

The Library promoted academic integrity at the University in the following ways:

- The **Academic Road Show** is a collaborative and interactive approach by the Library to showcase the various Library resources, to enhance teaching and learning, and to expose academics to tools needed for research and development in academia.
- The Library encouraged the use of **Turnitin** by offering introductory training during the road shows.
- A Library brochure was designed and complemented these sessions.
- The **Reference Guide** was updated to assist students in referencing according to the Harvard Method. The guide is used widely by both undergraduates and postgraduates.
- The **online Referencing Guide** is a learning initiative that incorporates an open and self-paced approach to learning. The guide has a built-in quiz.
- **DUT Referencing Style for EndNote** was completed in 2012. Although there were initial teething problems especially in terms of the customisation of the style, they were overcome and the programme was successfully uploaded. Towards the latter part of 2012 EndNote version 6 was launched and uploaded.
- **Plagiarism Dropbox Tutorial** – the Library is currently investigating this software with a view to purchasing it for use at DUT. The tutorial educates users on various forms of plagiarism and how to correct common mistakes. Discussions are underway with developers regarding customisation of content to suit the needs of DUT.

Research and Scholarship

During the course of the year, the Library together with

Research Support, CELT and faculties hosted several workshops to support research and scholarship at the institution. Below are examples of the sessions:

Research Capacity Building Workshops

These were run on Fridays from 8:30 to 13:00 in the Library and facilitated by Prof D Pratt and the Research and Postgraduate Support.

Turnitin Workshop

Turnitin training was offered at the Library during June 2012. The facilitator was Ms Rene van der Merwe of Eiffel Corp as organised by CELT. Subsequent to the training, the Library offered several training sessions on Turnitin on request.

Workshop on Postgraduate Supervision

The presenter of the workshop was Prof Johann Mouton from Stellenbosch University. This workshop was held over three days, the last day being held in the Research Commons of the BM Patel Library and comprised literature reviewing, criteria of a good literature study and techniques for searching literature.

Faculty of Accounting and Informatics

The Library hosted a lively postgraduate research session for the Faculty of Accounting and Informatics, coordinated by Prof P Singh. The library seminar was interactive and collaborated by the Postgraduate, Training and the Subject Librarians.

Student Residences' Workshop

The Subject Librarian: Engineering was invited to a Research Workshop organised by Corlo Court and Student Village student residences to do a presentation on how to conduct a literature review and referencing techniques.

Web of Science

Web of Science (WoS) is essentially an online academic citation index. During 2012 the Library upgraded the subscription with access to the Web of Knowledge platform from 1994 to present. It is designed to search over 12 000 journals and 120 000 conference proceedings across the sciences, social sciences, and arts and humanities in order to find high quality research articles. One is able to link between relevant research using the cited references and explore the subject connections between articles that are established by the expert researchers working in a particular field. In this way, current trends, patterns and emerging fields of research can be assessed. *Web of Science* is available via the library webpage. A marketing blurb for WoS mobile access was compiled and provided to library users. An electronic version is available on the website.

Updated Library Website

The Library website was updated to include blended learning tutorials, hypertext information with subject guides, online full text at the click of a button, interactive reference guides, online tours of the various campus libraries and other useful research links. <http://library.dut.ac.za/>

BUILDING THE COLLECTION

Building and maintaining appropriate collections necessitates innovation in these challenging times as libraries create a greater digital footprint and discover different channels of scholarly communication and information delivery.

- DUT Library took a decisive step in 2010 to expand its e-collection in order to meet library users' demands for new models of communication and instant access to diverse cutting-edge information resources.
- The Library gained access to 79 310 e-books. Most of these are part of the *ebrary* package which the Library subscribes to, but there are other packages as well as individual titles purchased over the past two years.

New E-Book Packages Purchased

- *Elsevier Science Direct* – Four collections totalling 194 titles: Biochemistry, genetics and molecular biology; Clinical Dentistry; Computer Science; Environmental Science.
- *Papermaking Science and Technology* from the Finnish Paper Engineers Association.
- *Royal Society of Chemistry* – Six collections consisting of 375 titles.

New Databases and Upgrades

The Library now subscribes to 36 databases/packages. New to our collection and starting in 2013 are:

- *IEEE/IET Electronic Library (IEL)*
- *Library PressDisplay*
- *SAGE Research Methods*
- *Art Full Text* upgraded to *Art Source*
- *Medline database* will be upgraded to *Medline with Full Text*.

Cancellation

Compendex, an abstracting database, was cancelled due to low usage.

E-Resource Usage

- There was an increase of 93.6% in the number of full text items viewed in 2012 compared to the previous year: 461 944 full text items were accessed compared to 238 599 in 2011.
- There was an increase of 106% in the number of searches performed in the abstracting/indexing databases in 2012: an increase from 12 243 in 2011 to 25 235 in 2012.
- Summon searches totalled 300 005. Many of these would have linked users to full texts in the subscription databases.
- Unfortunately Summon is not searching all databases (e.g. aggregators such as *EBSCO* and *SA ePublications*) – these have to be searched from the library website and this has caused a decrease in the usage of these databases.

The following databases have a significantly high cost per search:

- *SA ePublications* cost per full text viewed is R88.25.
- *Hospitality & Tourism Complete* cost per full text viewed is R127.47
- *SPORTDiscus* cost per full text viewed is R76.52.

- *Compendex* (now cancelled) cost per search is R614.51.
- *Web of Science* citation index database cost per search is R101.16.
- *ScienceDirect* is currently the most popular journal database with 123 079 full text items viewed this year at a cost of R3.20 per full text viewed. *ebrary* has the lowest cost per search at R0.85.

Periodicals

The DUT Library is currently receiving 1 093 titles. Of these, 84 are print only, 119 electronic only and 890 titles have print and electronic access.

During the annual renewal exercise 23 titles were cancelled and all other paying titles were renewed.

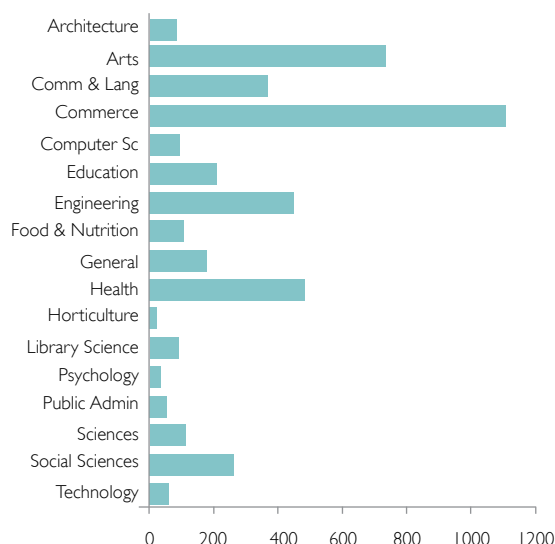
New subscriptions negotiated for 2013:

- *Administratio Publica*
- *Elle South Africa*
- *Interdisciplinary Journal of Economics and Business Law*
- *Journal of Interior Design*
- *Meditari Accountancy Research*
- *One Small Seed*
- *Qualitative Inquiry*
- *South African Journal of Accountancy Research*
- *The South African Artists*.

Books and Media

- DUT Library now has a collection of printed books totalling 159 810 and a collection of 9 733 media items across the six site libraries.
- 4 401 new items were purchased during 2012. Below is a subject breakdown of these purchases:

New purchases for 2012



SUMMON® GOES LIVE 2012!

The implementation of Summon has revolutionised the way users access the Library.

- Library content can be accessed via Summon on campus, at home or from mobile devices – these include smartphones, tablets and laptops.

Reporting by numbers ...

159 810 number of print books

79 310 number of e-books

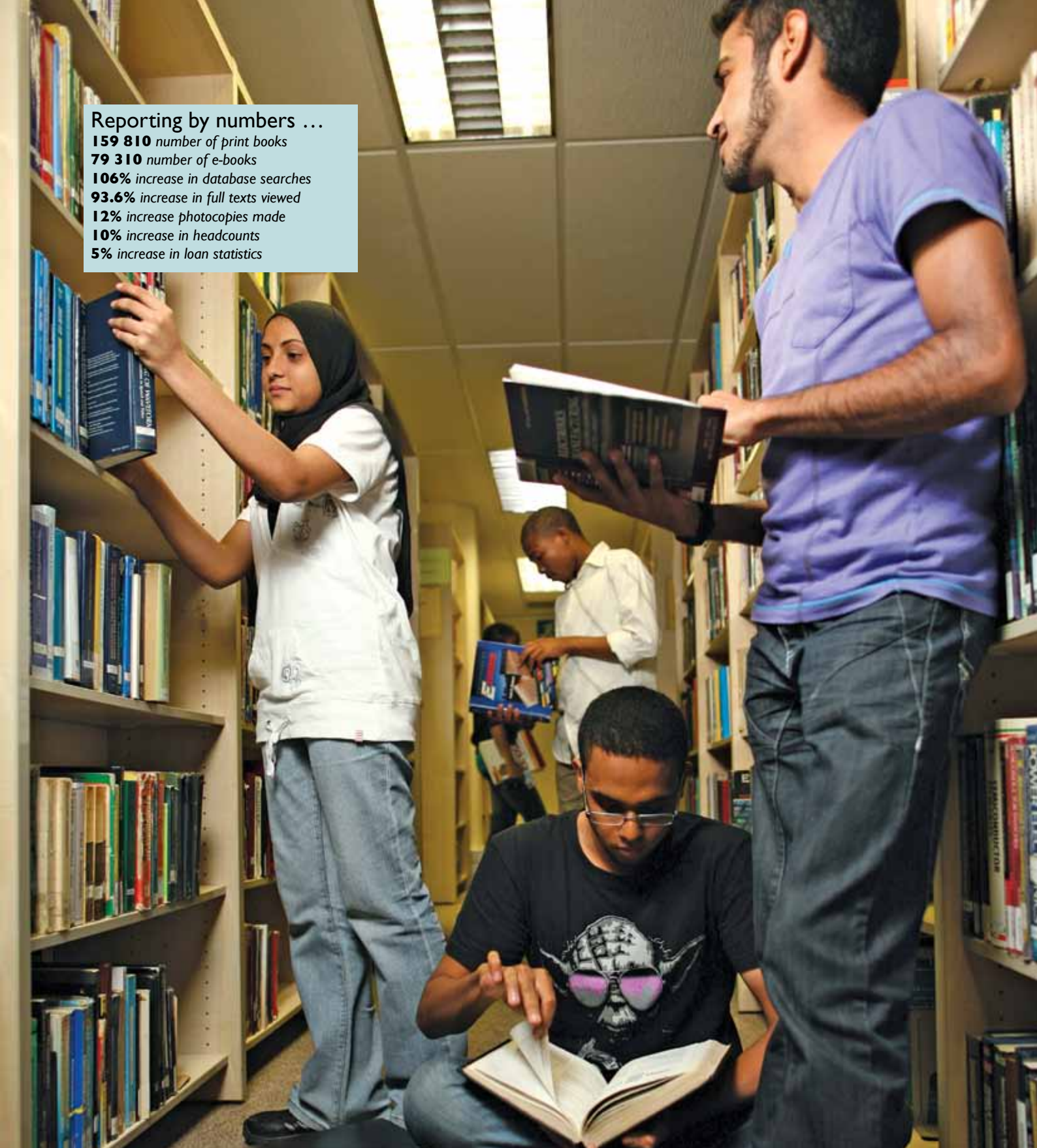
106% increase in database searches

93.6% increase in full texts viewed

12% increase photocopies made

10% increase in headcounts

5% increase in loan statistics



- Search Summon via the library website: <http://library.dut.ac.za> or via smartphone: <http://www.tinyurl.com/dutlib>

DUT WITHDRAWS FROM ESAL

DUT Library painstakingly considered and debated the issue of withdrawing from esAL for many months.

- The decision to withdraw was a carefully considered

one with the best intentions for DUT financial and other resource management and sustainability.

- This had several ramifications, the most important being the withdrawal of DUT holdings from the shared library catalogue.
- As a result of DUT's withdrawal, University Knowledge Systems (UKS) were appointed to create a 'DUT only'



library catalogue.

- This project was complex; new servers were purchased and DUT Library content had to be carefully migrated to the new servers with minimum disruption to library services. This project is expected to be completed in February 2013.

RESPONDING TO STUDENT IT NEEDS

The Library entered into a partnership with the Department of ITSS to provide IT support and technical assistance to students.

- There is growing demand for help with mobile devices, especially laptops.
- A pilot project was implemented that would provide dedicated support to students needing assistance with access to DUT4Life, student portal and help with mobile devices. The two new 'walk-in' Student IT Support Centres are located in the libraries on the ML Sultan and Steve Biko campuses, and are staffed by DUT third year IT students.
- This service will hopefully be extended to other sites during 2013.

SRC DONATES LAPTOPS TO LIBRARY

The SRC has recognised the need for additional computers for students to access library resources.

- In an unprecedented move, the SRC donated 80 laptops to the Library for loan to students.
- These laptops will be loaned from the two Student IT Support Centres initially, so that they can be carefully monitored.

SPACE FOR WRITING CENTRES

Dr Gift Mheta, the Writing Centre coordinator, was appointed in December 2012 and is based in the Alan Pittendrigh Library on the Steve Biko campus.

- All site libraries have been working on finalising space for Writing Centres.
- The Library is working around the constraints of space, furniture and fittings in order to accommodate the writing centres.
- It is expected that the first Writing Centres will be operational in early 2013.

LIBRARY POLICIES UNDER REVIEW

A number of Library policies were reviewed in 2012. The status of the review processes is as follows:

- *Information Resources Policy*: to serve at Senate for ratification.
- *Institutional Repository Policy*: the Faculty review process is complete, amendments to be tabled at first Library Committee meeting in 2013.
- *Information Services Policy*: in process.
- *Plagiarism Policy*: in process.

STAFF TRAINING AND DEVELOPMENT

Training interventions held during 2012 included both in-house training and training provided by external service providers. These included:

- *Mentoring and coaching*: Managers, Subject Librarians and Library Co-ordinators.
- *Building Effective Teams*: All library staff.
- *Preservation and Binding*: Designated staff from Library Central Services.
- *Teaching information literacy*: Subject Librarians.
- *EndNote Workshop*: Designated staff.
- *Blackboard training*: Subject Librarians.
- *Subject analysis using LCSH*: Cataloguer Librarians.

Conference and workshop attendance and professional contributions during the year included:

- Library Manager Shirlene Neerpuh presented a paper entitled "*Academic integration of information literacy at the Durban University of Technology in preparing for lifelong learners*" at the International Federation of Library Association (IFLA) Satellite Conference in Tampere, Finland. The proceedings were published in 2012 as *The Road to Information Literacy*.
- Library Manager Lucille Webster presented a paper at the LIASA 14th Annual Conference in Durban, titled: "*NCLIS: dealing with the challenges faced by the LIS sector*", and also served at a conference workshop as a panellist on the issue of *Librarianship as a Scarce Skill*.
- Avenal Finlayson and Sara Mitha, Postgraduate Librarians, submitted a paper "*Research support for academic excellence: a case study of the Durban University of Technology library*" for inclusion in a publication titled *Enabling academic excellence in African universities* published by the VCs, ACI and INASP for distribution to University leadership.
- Subject Librarian Bongekile Mngadi presented a paper entitled: "*Communities of Practice as a Means to Advancing Curriculum Renewal in Higher Education Institutions: Faculty of Management Sciences in Durban University of Technology, a Case Study*" at an online conference: International Management and Engineering Conference 2012.
- Cataloguer Librarian Trish Gierke participated in an American Library Association Digital Reference Webinar online entitled: *RDA Toolkit Essentials*.
- Library Manager Lucille Webster attended the HERS Conference in Cape Town.
- Three library staff had the opportunity of attending pre-conference workshops on Emotional intelligence, Librarianship as a scarce skill, and Digitising library collections.
- Lucille Webster represented the Library at the Student Centred Workshop which was held off campus in Morningside. She is also a member of the Task Group looking at eLearning and an e-enabled infrastructure at DUT.
- Eight Subject Librarians attended a LIASA HELIG

workshop: Teaching pedagogies for information literacy librarians.

- Siza Radebe, Avenal Finlayson and Sarah Khan attended the Southern African Online Information Meeting (SAOIM) Conference at the Sandton Convention Centre: 5-8 June 2012.
- As part of the Carnegie sponsored Masters in Information Technology at University of Pretoria, Training Librarian David Thomas and Library Manager Sagren Moodley went on a study tour to the Universities of Illinois and Wisconsin, in the USA in October 2012.
- Shirlene Neerpath and David Thomas presented "*Dimensions of the Digital Library at DUT*" at the eLearning Festival, 5-7 December 2012 at DUT.
- Training Librarian David Thomas and Librarian Cataloguer Trish Gierke were invited to participate as panellists in a KZN Media Teachers Association panel discussion "Librarians as Change Agents." They were asked to make their contributions on the changing landscape of academic libraries available for publication in the KZNMTA's newsletter and have also been approached to write an article for *Intermedia Magazine* produced by the Association.
- In October the Library hosted two librarians from CUT who were here to attend a workshop co-ordinated by Shirlene Neerpath. The focus of the workshop was information literacy training and the strides that DUT has made in integrating it into the curriculum.

Other Staff Achievements

The following staff attained Honours degrees in Library and Information Studies at UKZN during 2012:

- Phumelele Mhlongo
- Lungile Magoso
- Nomusa Maphumulo.

Kusturie Moodley left in June to begin her two-year Fulbright Scholarship programme at the University of Syracuse in New York.

Shirlene Neerpath has been nominated to serve on the SABINET Advisory Panel for the period 2012-2015.

Trish Gierke was selected to form part of the South African RDA Steering Committee and will be involved in the task team who will oversee the rollout of RDA training in South Africa.

Karin Herbert completed the Pioneers Blackboard online course offered via CELT.

Library staff continue to play a leadership role in the Library and Information Association of South Africa (LIASA).

The following staff hold portfolios after the elections in September 2012:

- Library Manager Siza Radebe has been elected Vice-Chair of LIASA KZN.
- Subject Librarian Claire Spershott was elected to serve on the LIASA RETIG KZN as Secretary.
- Library Manager Lucille Webster was nominated to serve on the national structure of the same interest group.
- Librarian Cataloguer Trish Gierke was re-elected as Secretary of LIASA IGBIS KZN.
- Circulation Co-ordinator Nomonde Mqgalelo has been re-elected to serve as Treasurer for RETIG KZN.

STAFF MOVEMENTS

Retirement

The Director: Library Services, Roy Raju retired in December:

Existing Staff

- Indraloshni Naidoo was promoted as the Assistant Librarian: Acquisitions.
- Lungile Magoso was promoted as the Library Assistant: Acquisitions.
- Ntokozo Nxumalo was transferred from Afterhours Library Assistant at Riverside Library to the same post at BM Patel Library.
- Dawn Moses transferred from Library Assistant Afterhours to Library Assistant at BM Patel Library.
- Ziningi Sithole – Library Assistant: Circulation at Indumiso Library resigned in September.

New Appointments

- Lungile Rathepe – Assistant Librarian: Acquisitions in January.
- Sibusiso Gumede – Assistant Librarian: Circulation (City Campus Library) in January.
- Nontuthuzelo Sogoni – Subject Librarian: Applied Sciences in January.
- Avenal Finlayson – Postgraduate Librarian at Alan Pittendrigh in February.
- Phumla Luhabe – Librarian: After-hours at Alan Pittendrigh Library in May.
- Kareeshma Gayaparsad – Administrative Assistant at Alan Pittendrigh in July.
- Sean Carte – eRepository Administrator in July.

Lucille Webster

Director (Acting): Library



REPORT OF THE SENATE TO COUNCIL

TECHNOLOGY, INNOVATION AND PARTNERSHIPS (TIP)

INTRODUCTION

Professor FAO Otieno, DVC

The year 2012 was a busy and eventful one for the Technology, Innovation and Partnerships (TIP) ambit and the University in general. Following from 2011, we continued to make progress in many areas of our work resulting in tangible results as reflected in the reports from the various TIP directorates contained below.

We continued to strengthen the research base at the University, particularly among new and emerging researchers by offering courses aimed at deepening their ability to conduct both research and postgraduate supervision. This is evidenced by the enhanced outputs in papers and postgraduate graduations, reflected in the statistics contained further in this report.

The Research Institutes continue to grow and attract students and funding both nationally and internationally. They have been recognised internationally as evidenced by their various collaborations, and continue to contribute to our outputs in terms of postgraduate training, journal publications and conference papers. The Institute for Water and Wastewater Technology (IWWT) applied for and received the National Research Foundation (NRF) SARCHI Chair (tier

1) and funding to the tune of R40 million from the Department of Higher Education and Training (DHET) for a new building for its research activities. This is expected to start in 2013. The Institute of Systems Science also applied for and was successful in obtaining an R11 million African Union Funding grant. Their efforts are commendable.

The University applied for a number of other Chairs at the NRF and elsewhere and although we did not succeed in these due to limited funds, we were highly commended for our excellent applications. This clearly demonstrates our improved position in research.

Information Technology requirements are critical for good functioning of the University and towards this, we continued to provide an excellent base for our clients. As requirements and the need for excellent service to our staff and students increases, resources will be required to maintain and even better the level of service and the kinds of technology support we are offering.

Third stream income activities from both the Business Studies Unit (BSU) and the Enterprise Development Unit (EDU) have grown significantly, despite staff challenges that are a considerable constraint for further growth. We continually strive to address this. We are critically aware that an enhanced third stream income can bring about financial stability at the University, as the two main sources of income – fees and Government subsidy – are static, given the capping of expansion and our enrolment figures as set by DHET. We thus continuously work on increasing our third stream income and departments and faculties are encouraged to come on board these initiatives.

Our efforts to bring about technology transfer and commercialisation are starting to bear fruit; this is indeed an area that we will sharpen in 2013 and beyond as it remains one in which our staff involvement needs to be improved.

Co-operative Education continued to play a critical role in placing our students for Work Integrated Learning (WIL). Given the few industries in the province and the state of the economy generally, this has not been an easy undertaking. Every effort has been made to succeed in this area given that without this, many of our students cannot graduate. This

“The Research Institutes continue to grow and attract students and funding, both nationally and internationally. They have been recognised internationally as evidenced by their various collaborations, and continue to contribute to our outputs in terms of postgraduate training, journal publications and conference papers.”

Professor FAO Otieno



is not only bad for them but denies the University income and the country qualified manpower. Staffing in Co-operative Education remains a major challenge.

While we acknowledge the achievements and strides forward, the year ended on a sad note, with the untimely death of the Acting Director of Information Technology and Support Services (ITSS), Mr Vijay Singh. May his soul rest in peace.

Finally, as in 2011, general funding for the activities of the ambit, particularly Research, remains a major challenge; however, we continue to explore ways to work around this. Without adequate funding, various excellent initiatives, all aimed at increasing the visibility and positioning of the University and its revenue base, continue to be undermined and must be attended to. It is a form of investment that we must make.

RESEARCH AND POSTGRADUATE SUPPORT (RPS)

(Professor S Moyo, Acting Director)

Most of 2012 was focused on systems development and implementation. This ranged from policy development, putting procedures in place for reporting, grant acquisitions and monitoring, consolidation and reorganisation of the Directorate. To this end, three of the Research and Postgraduate staff were allocated to serve two faculties each. Additional training for the administrative staff members was also provided through the Southern African Research Innovation Management Association (SARIMA). Clusters of committees were established to assist with the implementation and alignment of the University's Research Strategy, and the Scholarships and Institutional Research Ethics (IREC) Committees were formed. The IREC will be reconstituted in 2013 in alignment with the Senate approved terms of reference. There is continual monitoring and evaluation of procedures and systems as part of the total quality improvement process. As a baseline to all the activities was the endeavour to build capacity and a research culture at the University. It is pleasing to report that the University has steadily increased its research and has positioned itself to host its first South African Research Chair; due to the work done by the Institute for Water and Wastewater Technology, led by Professor Faizal Bux.

Researchers

In February 2012, the National Research Foundation (NRF) awarded 60 new Research Chairs to 19 universities under the South African Research Chairs Initiative (SARChI). DUT was the recipient of one Research Chair in 'Development and Optimisation of Waste Water Treatment Technology for Developing Economies'. A Phase 2 proposal, for evaluation and approval by the NRF of the nominated candidate was also approved in 2012. The SARChI Research Chair will be based within the Institute for Water and Wastewater Technology. Professor Thor-Axel Stenström was approved as the SARChI candidate for DUT and he will commence duty in 2013.

Professor REG Upshur was appointed as an Honorary Research Professor in the Faculty of Health Sciences. Two Research Fellows were appointed, both in the Faculty

of Health Sciences: Mr RC Owen and Mr NR Castle. Our congratulations are extended to professors who received new or re-evaluated NRF ratings. Professor FAO Otieno, DVC: Technology, Innovation and Partnerships, and Professor K Kanny, Mechanical Engineering, were re-evaluated to C1 and C2 ratings respectively, while Professor R Mason, Department of Marketing, Retail and Public Relations, was a newly rated researcher (C3).

Postgraduate Students

In 2012, there were 557 enrolments recorded in comparison to the 381 reported in 2011. This is still 2% based on 24 232 undergraduate enrolments. The enrolment per faculty is as follows:



A total of 557 students registered for postgraduate study in 2012, 461 for MTech and 96 for DTech qualifications. In 2011, 85 Master's and 14 DTechs graduated. The 2012 figures are not yet available.

Staff Qualifications

Out of a total of 565, 13.4% (71) of the University's academic staff now have Doctorates. This is a small increase from 13% reported in 2011; 47% (264) have a Master's qualification. This marks an increase from 44% reported in 2011. This essentially means that 59.4% of our staff has a postgraduate qualification. The number of Doctoral qualifications needs to be improved over the next few years.

Growing the Research Base

In growing its research base, the University sees its Postdoctoral Fellowship, Research Associates and Research Fellows programmes playing an integral role. Postdoctoral fellows are involved mainly in research and student co-supervision amongst other academic and scholarly research activities. Research Associates and Research Fellows are considered if they completed their doctoral studies outside of the five years and have a good research track record.

Postdoctoral Fellows (PDF), Research Associates (RA) and Research Fellows (RF) play an increasingly important role in furthering the research of the University. We are privileged to have Postdoctoral Fellows from abroad and neighbouring countries. The Postdoctoral scholars contribute to the

research objectives of the University by contributing towards publication outputs, postgraduate supervision and assisting in creating a research culture at the University. Fourteen PDFs are currently placed in three faculties and two research institutes. We would like to place on record our appreciation to the National Research Foundation (NRF) for assisting in funding our Postdoctoral Fellows over the years. This has definitely impacted on DUT being able to acquire PDFs. In 2012, four PDFs are being supported by the NRF. Internal funding from DUT was also secured for the funding of PDFs/RAs and RFs. This plays a part in the strategic shift for DUT to increase outputs and work toward meeting the DHET benchmark.

A Postdoctoral Forum was established during the year to provide a platform for the PDFs, RAs and RFs to share on their experiences at DUT and form a support network amongst themselves. It is also a forum which provides an opportunity for interaction thus enhancing their total experience at the University as they act as role models for our postgraduate students.

The Postgraduate Student Forum played a vital role at the DUT Open Week, by promoting the postgraduate study opportunities at the University. A congratulatory note goes to the PGF for their efforts in contributing towards postgraduate recruitment.

Developing capacity and a research culture

The Directorate hosted 35 different capacity building initiatives facilitated by various staff from within DUT, UKZN and Stellenbosch as part of the capacity building programme. In particular, an intensive four-day workshop on Postgraduate Supervision was facilitated by Professor Johann Mouton for 30 participants. Future plans include having a structured six-week course for all first time enrolled postgraduate students.

The activities of the directorate expanded beyond training and development. The University hosted a DUT Science Day, with guest of honour Professor Roseanne Diab, CEO of the Academy of Science of South Africa (ASSAf) and presentations by DUT lecturers. The annual Institutional Research Day provided a platform for student and emerging researchers to present their research.

Various funding entities such as the NRF, DAAD and others presented on their opportunities to staff and students, thus assisting in disseminating an understanding of what is available nationally and internationally in respect of funding and mobility opportunities.

The RPS Director, Professor Moyo was actively involved in training opportunities nationally. She facilitated two workshops on behalf of the Southern African Research and Innovation Managers' Association (SARIMA), on grant applications, and the grants support. Four RPS staff attended training sessions organised by SARIMA.

Research Outputs 2011

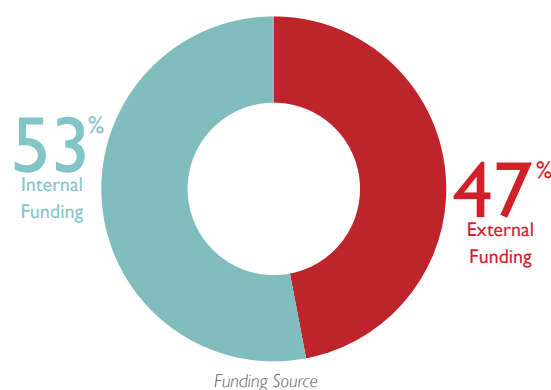
(Note: 2012 data is not yet available)

It is pleasing to note that the University's Research Outputs increased substantially in the 2012 reporting year (on 2011 performance) as per the figures below. This represents a 45% increase from 2010 for research publications.

RESEARCH OUTPUT	NO. OF UNITS	AMOUNT (R'000)
Master's graduations	48	5 540
Doctoral graduations	42	4 848
Publications	88.88	10 259
Total	178.88	20 647

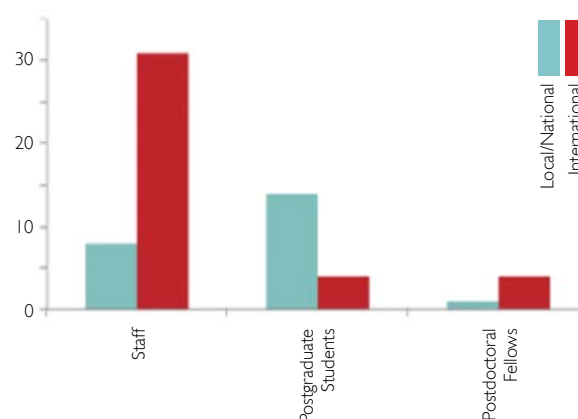
Student funding 2012

A total of R5 390 898.00 was awarded to BTech, MTech and DTech students, including an amount of R928 898.00 in the Thuthuka category for the PhD and post PhD tracks for staff.



Internal Funding – Conference attendance

A total of R1 211 936.57 was awarded to staff and students to attend conferences:



Research Information Management System

As reported in 2011, the University is implementing a research information management system, and is part of the RIMS consortium. Despite a critical lack of capacity, the significant effort of 2012 was configuring and adapting the Grants and Contracts module of the InfoEd platform, for developing postgraduate research proposals, and tracking the progress thereof. Pilot departments in faculties were identified, who tested business process against the system configurations. The full rollout will occur in 2013, and it is anticipated that reports generated from the system will provide good data from which analysis of progress can be made.

Research outputs are recorded on the system, using the Research Outputs module, and annual subsidy reporting to the Department of Higher Education and Training is done through the system. The strong reporting capabilities of the system will provide significant improvement in generation and completeness of research related information.

RESEARCH INSTITUTES

Institute of Systems Science (Professor Kevin Duffy, Director)

The Institute of Systems Science (ISS) was ratified by Council in 2012. Despite insufficient budget and funding allocations, there was consolidation of the members of staff doing research in the ISS. More than ten peer-reviewed publications were published and a number of conference papers have been written by the ISS group members.

Applications were put together for funding from the African Union for a food security research project. The first application has been approved, a Memorandum of Understanding signed, and funding of approximately R11 million will commence in 2013 and run to 2015.

Institute membership includes researchers from a range of disciplines. Professor Wayne Getz, from the Department of Environmental Science, Policy and Management at the University of California, Berkeley holds an honorary professorship. Affiliated DUT staff are Professor R Mason and Dr R Rampersad (Department of Marketing, Retail and Public Relations), Professor P Tabakov (Department of Mechanical Engineering), Professor S Moyo (Research and Postgraduate Support Directorate), Professor C Napier (Department of Food and Nutrition), Professor N Dorasamy (Department of Public Management and Economics), Professor B Pearce (Department of Drama), Dr S Singh (Department of Operations and Quality Management), Dr M de Beer (Faculty of Management Sciences Research Fellow), Ms A Vahed (Department of Dental Technology) and Mr C Hemson (ICON).

There is a total of 22 students attached to the Institute (six doctoral and 16 Master's); one doctoral and five Master's students graduated in the reporting year.

Institute for Water and Wastewater Technology (IWWT)

A highlight of the year for the Institute for Water and Wastewater Technology (IWWT), and for the University, was of a SARCHI Chair for Wastewater Treatment, one of 62 chairs awarded nationally. This was the only Chair awarded to DUT (from four applications) and one of three awarded in water technology nationally. This is worth R2.5 million over a five-year period.

A further achievement was the award of R45 million as part of the DHET infrastructure grant, which will be used to provide the Institute with a state-of-the-art building and facilities.

The Institute continues to generate income for its research activities through various funding partners, totalling R2 858 600, with a DUT top up of R245 175. This excludes the SARCHI Chair award and the infrastructure grant.

Since water and wastewater technology requires a multi-disciplinary approach, expertise is sourced from the Engineering, Chemistry, Microbiology, Biotechnology and Health Sciences disciplines. The following experts from DUT are team members within the Institute for Water and Wastewater Technology: From the Chemistry Department, Professors V Bisetty and KG Moodley, and Dr Krish Ramluckan; J Bux from Chemical Engineering; Drs J Adeyemo and B Dzwauro from Civil Engineering; Prof B Odhav and Dr F Swalaha from Biotechnology; and Dr P Reddy from Community Health Studies.

There are 14 DTech and nine MTech students currently registered, and the anticipated graduation for 2013 is three DTech and five MTech graduands. IWWT has produced seven publications (published and In Press 2012), three book chapters and eleven conference presentations during 2012.

The IWWT is engaged in two bilateral agreements, viz. the NRF-India bilateral focusing on Chloroplast genome sequencing of biodiesel producing microalgae strains (R115 650.00), and the NRF-Egypt bilateral which researches the enhancement effect of magnetic nanoparticles on bio-hydrogen production from organic wastes via pilot-scale anaerobic baffled reactor (R150 000.00).

In addition to the bilaterals activity and the engagement around the SARCHI Chair, there has been an increase in the number of international collaborators, including in the USA, an MoU signed with the University of Bologna, Italy, on algal technology, and an MoU with Presidency College, India.

External funding

FUNDERS	AMOUNT (R)
eThekwini	1 017 616.44
WRC Database	400 000.00
WRC Constructed Wetlands	300 000.00
WRC Rainwater Harvesting	160 000.00
CSIR	150 000.00
ESKOM TESP	150 000.00
NRF IRDP	191 000.00
RISP (NEP)	490 000.00
DUT (Contribution to NEP)	245 175.62
DOE Infrastructure	45 000 000.00
NRF Chair	2 500 000.00

Technology Transfer and Innovation (Professor G Prinsloo, Director)

The Technology Transfer and Innovation (TTI) directorate has been the key driver of the Kresge Inyathelo Advancement Grant Application for DUT. DUT was selected out of 14 applications to receive this prestigious grant and international collaboration with the Kresge Foundation, with a grant of R1 449 972.05. The project will commence in 2013, and focuses on strengthening fundraising capabilities at the University.

DUT had been awarded a second Technology Innovation Agency (TIA) Technology Station for energy efficiency training, consultation and prototype development services. TIA has committed funds over the first three-year cycle for staff and



operational costs. The Technology Station will be promoting the development of SMMEs in the region, developing the skills base in the energy sector in Durban, promoting linkages with the ICT sector and creating an Energy Office space that is accessible and visible to the public.

The Directorate manages the Eskom Energy Board Savings Project, which aims to identify areas of energy and electricity that can be saved on the University's campuses and residences. It will also identify and support research initiatives and projects in this field. This ongoing project should result in considerable fiscal savings for the University. A project presentation was made to the DUT Council Finance Committee and a decision on the budget and installation route will soon be decided. An additional energy improvement is that the business sites of all legal vendors on DUT campuses have been installed with prepaid meters and the University sells electricity prepaid vouchers to them which is another form of financial disbursement/dividend to the institution.

A delay in the legal process was experienced with the roll out of the Department of Science and Technology (DST)

project for the design and manufacture of hybrid renewable energy systems for rural communities. The R10 million grant is still pending with the DST, awaiting final signature of the agreement for the release of the funds. Still on the energy theme, the TTI directorate submitted a number of proposals for funding, including the Greenride project to TIA and EWSETA, the Agulhas Current project (TIA), as well as tenders for professorial chairs (RandWater) and research panels (Presidency, Department of Monitoring and Evaluation).

DUT elected to become a member of the DST Regional Technology Transfer Office in KwaZulu-Natal. This Office co-ordinates Intellectual Property (IP) commercialisation of the four universities in the province and hosts quarterly meetings in order to discuss collaborative projects, joint ventures and government funding initiatives for IP projects in the province.

TTI facilitated the signing of an agreement with a consortium of universities to collaborate on energy research projects. These universities include University of Lesotho, Namibia Polytechnic, University of Zambia and Pretoria University. The aim is to pursue collaboration with universities in Japan through the



JICA Foundation. Another facilitation process resulted in the signing of an agreement with the company HEEL in Germany, whereby staff from the Faculty of Health Sciences will perform proving experiments on homoeopathic formulations used in the treatment of patients. This project will commence in 2013. The TTI office also compiled and finalised the Development Bank of South Africa (DBSA) Grant Agreement which was signed between DUT and the DBSA for a project for the Institute of Water and Wastewater Technology, to develop a new technology around rainwater harvesting.

TTI engaged in revising the Intellectual Property and Copyright Policy and the Third Stream Income Policy of DUT. Revisions of the policies have been scrutinised by the University's commercial attorney and submissions made to the National Intellectual Property Management Office (NIPMO). Following NIPMO's approval the revised policies will be circulated amongst the DUT community for inputs and comments. TTI continued to provide customer service in alignment with the objectives of the Intellectual Property and Copyright Acts which also feeds into the University's long-term strategy providing for the management and commercialisation of DUT's IP. This includes establishing working relationships with the academic community and researchers to ensure they are fully aware of opportunities related to the protection and management of IP by holding awareness workshops.

The Copyright office continues normal operations through its engagements with DALRO on the copies approved and made on DUT campuses. The office facilitates payments to authors for material copied by staff and students in terms of the policies and procedures of the University.

Business Studies Unit (Dr Kavita Beemsen, Director)

The Business Studies Unit (BSU) Durban office continues to operate from 10 Botanic Avenue, with the 'franchisee' operating from offices in Polokwane and Pretoria. Extending its footprint, the BSU commenced training in Kenya and Ethiopia in 2012 for SAB as its academic training partner.

The BSU staffing levels in 2012 was a serious cause for concern with slow recruitment and filling of vacancies in the Unit, exacerbated by study and maternity leave of two other staff. Difficulty in recruiting a second-in-charge individual and the resignation of three staff in December 2012 have once again sent the BSU staffing situation into a spiral. The type of contract and conditions of service currently on offer at the BSU need to be urgently reviewed to ensure that suitably qualified and experienced staff can be attracted and retained.

One of the foremost achievements of BSU this year is that the Unit has not only been able to self-sustain itself but has demonstrated positive returns for DUT in terms of FTEs and retained earnings. The Unit's financials remain comprehensive and will be reported on in the DUT financial reports.

The BSU operating systems required regularisation and to this end, the following achievements were realised in 2012: the BSU server and academic record keeping system which was developed in 2011 was implemented in 2012. Various implementation issues were experienced and had to be handled as these arose. The issues

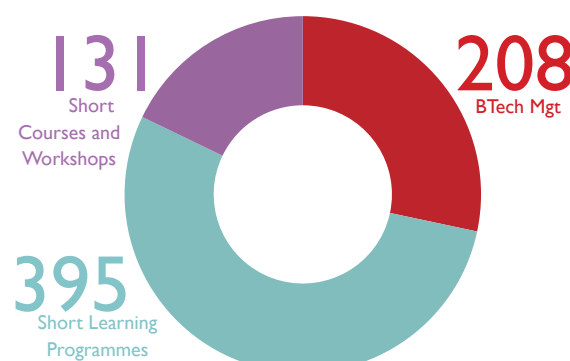
stemmed in the main from the modus operandi for BSU which requires a flexible offering and responsive offering format.

Notwithstanding the dire staffing levels of the BSU, two other significant challenges had to be addressed. Following the disengagement of the business relationship in 2011 with a previous franchisee, a series of issues associated with the administration of pipeline students had to be managed in 2012. This included the issue of brand ownership of the BSU name and devise, and outstanding franchise fees. Discussions commenced in late 2012 for a structured disengagement between the Gauteng franchise holder and the University.

Dr Kavita Beemsen had a paper accepted for presentation at an international conference but had to withdraw the paper due to the staffing issues at the BSU Academic Office.

BSU Student Graduation Statistics 2012

The following chart reflects the number of students who graduated from the BSU in 2012:



Number of students who graduated from the BSU in 2012

The BSU continued to demonstrate its potential and inherent goodwill in 2012 and the intention to harness and leverage the BSU potential as evidenced in a Council Communiqué of 2011 must, of needs, be implemented in 2013 and beyond in order to fully realise the vision of third stream income generation via this Unit for DUT.

Enterprise Development Unit (Mr Surendra Thakur, Director)

The Enterprise Development Unit (EDU) was established to increase the reach of the University by thinking creatively beyond the physical constraints of the University. EDU delivers on this mandate by ensuring the rigour and quality principles and image of the University are maintained and also builds the profile of the institution locally, nationally and internationally. This Unit has gone beyond its mandate and has profiled the University internationally at conferences, delivering on commissioned research and involvement in ensuring peace as an observer during elections. The Unit's Head, Colin Thakur, has taken his personal area of research and networks and infused the value proposition by profiling the University and getting the Unit to become one of the leading authorities on electronic voting and e-Government.



The Unit, although multi-faceted and engaged in multidisciplinary work, has built on the four pillars of delivery which are lifelong learning, community engagement, research and partnership development. The Enterprise Development Unit works for the purpose of engaging the DUT community and externals to collaborate with the University and deliver on activities that will improve the University facilities, expand partnerships and create opportunities for staff and students and in so doing generate third stream income.

The business of the EDU is conducted in three main spheres, viz. Professional Body Programmes, Learnerships and Skills, and Special Projects. Invo Tech, the business incubator, forms the fourth vital component of EDU business.

The Professional Body Programme provides opportunities for students not meeting the University entry requirements to enrol in one of three NQF accredited programmes. A total of 424 students are registered for the Institute of Marketing Management (IMM) Diploma in Marketing (in Durban and Pietermaritzburg), the Institute of Certified Bookkeepers (ICB) National Diploma in Technical Financial Accounting, and ICB, which graduated its first group of learners in 2012. EDU has also received accreditation from FASSET SETA for an additional programme, AAT, a highly sought after qualification by financial accounting practitioners.

Regarding Learnerships and Skills, EDU successfully graduated 100 learners on the OTETD NQF 6 Qualification, a project funded by the Local Government SETA. Learners were senior training and development managers from 32 municipalities and trained across four nodes in KwaZulu-Natal. EDU also successfully completed a number of skills programmes in IT, with incumbents having completed NQF certificates in Excel, Word and PowerPoint allowing for articulation to full qualifications that are both Microsoft Vendor certified and MICT SETA accredited.

In the first year of establishing the IT Academy, EDU provided a dual mode of delivery which included training to University staff as well as onsite corporate training. The Academy also trained CISCO networking learners. EDU also partnered with the Technical Centre for Agriculture and Rural Co-operation (CTA), a Dutch-based organisation, in training 125 academics and community leaders on the use of social media and Web 2.0. This project was funded by the CTA and the UNDP.

Special projects included the Taxi Project, an innovative training initiative piloted by EDU and funded by the eThekweni Municipality for the taxi industry. The Chamilo Learner Management System was selected, after considerable research, to be used for various learning programmes and learnerships.

Partnerships with Microsoft are likely to yield benefit on a number of initiatives, including an Android mobile application competition, and Invo Tech's registration as a Microsoft Bizpark partner which will see all clients in the IT development space receive support, software and cloud space from Microsoft at no cost. Another partnership was consolidated in late 2012 between DUT and the Enterprise Development Institute of India, to develop entrepreneurship and engage in technology transfer between the Institute and DUT.

EDU continues to be involved in Community Outreach

projects. The flagship project, in existence for over five years, continues to be the *RedCap Foundation/CompStart project*, by which the Mr Price RedCap Foundation and the Dell South Africa Development Fund, together with DUT, address the digital divide in South Africa. This incorporates annual sponsorship of computers to schools, as well as IT skills transfer to the educators, and an applications competition for the learners. This computer based competition is aimed at stimulating creative thinking and encourages research and reading. A Community Empowerment Initiative project has been designed to provide basic computer literacy skills in needy communities. The Connected Schools Project, the Metropolitan Momentum Institute partnership, and the Community Empowerment Initiative, together with other specialised interventions, are all projects operating under the EDU umbrella which bring advantage to IT deprived or challenged communities and individuals.

Invo Tech

The 2012 financial year was a defining period for Invo Tech and has seen the incubator advance to the next level of the business processes development, moving the incubator closer to international benchmarks and operations. The incubator continues to build on its profile and entrench the work of SEDA and DUT. The Minister of Higher Education and Training, the Honourable Minister Blade Nzimande, visited Invo Tech twice in the last quarter of 2012. Invo Tech also won the prestigious and coveted award of Best Brand at MACE 2012. Invo Tech currently services more than 100 clients, from which five patents were registered in 2012, with more than 15 new businesses being established and a number of existing firms expanding operations and increasing jobs. Invo Tech clients generate more than R1 million revenue per year. This translates into the creation of new sustainable businesses and an increase in the number of people that are employed. Invo Tech has also assisted one client to secure funding to develop a full quality management system. One Invo Tech client will be representing the organisation in Switzerland in 2013, as she was one of the top achievers of the Bio Entrepreneurship week. Mrs Amelia Rampersad will be flying the flag for Invo Tech and will proudly proclaim to the world business community that DUT has the capacity to create world class businesses.

e-Skills Institute KZN CoLab e-Government Centre of Excellence

This Centre is located under the auspices of the EDU in conjunction with the Department of Communication, and was launched as the KZN e-Skills CoLab in 2012. Representatives from over 61 KZN municipalities attended the launch to learn the specific aims of e-enskillling 10 million South Africans by 2020, and of the e-Government focus, a draft curriculum to train middle and upper management government employees.

The operational activities of the centre encompass Research and Capacity Development, ICT Innovation, E-skills Advocacy, e-Government Curriculum Development, Skills Development and Enterprise Development in e-Government.

The e-Enablement course for junior and middle management for government was piloted in October 2012,



and 16 students completed Module 1. Modifications have been made to the programme which will be launched in 2013.

Information Technology Support Services (Mr Dilip Jeena, Acting Director)

The University was shocked at the untimely passing of Mr Vijay Singh (Acting Director) in December 2012, and due recognition is made for the sterling contribution he made to the University over 30 years.

The ITSS Department consists of three divisions, viz. Networking, Information Systems and Client Services.

Networking

The major focus of the Networking Section was on upgrades and new technology implementation, resulting in increased efficiency, effectiveness and reliability.

The Brickfield Road Campus and the City Campus connectivity was upgraded from a 2mb DIGINET LINE to a 1 Gigabyte Link via the SANREN network back to the ML Sultan Campus Computer

Room in July. This increased the connectivity speed and will allow for growth at these sites. The Riverside and Indumiso campuses were connected to the DUT network via a 150mb wireless radio link. With a partnership with NEOTEL, both the Riverside and Indumiso campuses had 100mb fibre connectivity directly into the ML Sultan computer room and the DUT network.

The Microsoft Forefront Identity Manager 2010 (FIM 2010) was installed, replacing the Lifecycle Manager 2007. The upgrade to FIM 2010 eased administration and helped with security group automation, which is required by the SharePoint Technology. A new version of the Exchange product set, namely Exchange 2010, was installed during 2012. The benefits of Exchange 2010 are more evident on the back end (server) side. Some advantages of Exchange 2010 include less I/O to the storage sub system, improved role based access control, better e-mail archiving on mailboxes and the introduction of the Data Availability Group, allowing for greater redundancy.

A major networking project, which could not be completed in 2012 due to the late delivery of specialised hardware equipment, is the upgrading and securing of the network, and





installing wireless access across all DUT campuses. This will be undertaken in the first quarter of 2013.

Information Systems

This section implemented a number of technologies and access mechanisms to improve the functionality of DUT business process, whilst also considering green imperatives.

In keeping abreast with technology and striving to decrease our carbon footprint, the ITSS Department implemented Infoslips, an interactive electronic pay slip for staff. Phase two of Infoslips will include sending exam results to students.

The use of the iEnabler systems saw implementation of numerous procedural applications:

Web registration was rolled out to two more faculties, as well as the Midlands Riverside Campus. The Student iEnabler e-Payments module was rolled out. This enables electronic payments by students using credit cards and allows students to register immediately as the payments are approved online in real time mode. From a Finance consideration, the new version of the finance iEnabler approvals component was implemented on Integrator version 2. The system now controls restrictions up to nine levels of authorisation.

A new system was developed for residence students to register via the web. Training was provided for user departments late in 2012. The users decided that implementation would take place in July 2013. The contract with KidsAfrica, who had provided a database for Alumni, was not renewed, and this section saw the data migration from KidsDevMan system to ITS. Users will now use the ITS Alumni system as well as the Alumni iEnabler system to keep in touch with our graduates.

Client Services

Client Services provides technical support for hardware, software, network and installations and is the first and central point of contact between the DUT community and the ITSS Department. The objective of Client Services is to provide efficient, effective and high-quality Information Technology support, ensuring our users receive information of developments within the Information Technology world and within the DUT Community.

A new initiative in July 2012 was to set up a student help desk facility. This project, in conjunction with the Library, was rolled out as a pilot project at the Steve Biko and ML Sultan libraries. This service provides assistance to students in hardware, software, ITS and DUT4Life support.

The ITSS Department hosted the 2012 conference for ASAUDIT (Association of South African Universities Directors of Information Technology). This was the first time that the ITSS Department hosted a major conference at DUT, and by all accounts was most successful.

Co-operative Education Unit (Mr Shakeel Ori, Director)

Despite the ongoing resources challenges (staffing and accommodation in particular), the Co-operative Education Unit has had a busy year with numerous high level national and international engagements. Mr Shakeel Ori undertook a JICA funded study to Japan and Malaysia. By virtue of his various positions of office for the World Association for Co-operative Education (WACE) (he has been appointed to the WACE ISO Advisory Board) he has travelled extensively, including attending the WACE Summit in Istanbul and the Board of Directors' meeting and Symposium in Atlanta. Mr Themba Msukwini represented the University's interests at the WACE Partners meeting in Amsterdam; he also presented a paper at the ACEN Conference in Australia. Messrs Ori and Msukwini attended the Thailand Industry meetings.

On a national level, both Mr Ori and Mr Msukwini have been active, with high level presentations to provincial government and national institutes. Mr Ori was inaugurated as the South African Society for Co-operative Education (SASCE) President, and will officiate at the annual SASCE conference being hosted by the University in Durban in 2013. Mr Msukwini is a member of the IPM Durban executive committee and the SACI executive committee.

The World of Work is an annual event organised by the Co-operative Unit, whereby companies and industry partners are invited to market themselves and engage with students as potential employers/employees. This year a record 88 companies were involved in this successful event.

Successful proposals for funding were granted from SETAs as follows:

- Chemistry Research in Pollution by BTech Students: CHIETA R490 000.
- Retail & Marketing student stipends :W&R SETA R442 500.
- Payment of stipends for Engineering students: ETDP SETA R1.5 million.

Convocation

Annual General Meetings were held at the Gauteng, Pietermaritzburg and Western Cape branches, and arising out of this was a successful nomination for the new Chancellor of the University. The Convocation Office also nominated Mr Sizwe Nxasa for an honorary doctorate, which was awarded in 2012.

The Billy Nair Memorial Lecture programme was launched to much fanfare, and was graced by the Minister of Health, Dr Aaron Motsoaledi, who presented the inaugural lecture.

Prof FAO Otieno

DVC: Technology, Innovation and Partnerships



REPORT OF INSTITUTIONAL FORUM (IF) TO THE COUNCIL

INSTITUTIONAL FORUM

The IF was once again able to fulfill its statutory governance role during the year 2012. During this period, all scheduled meetings were held as well as special meetings that were needed for urgent matters. The Forum was able to advise the Council on Policies including the finalisation of the Policy on Smoking and the Policy on Injury on Duty. The Forum also provided input to Council on the matter of post-retirement medical aid benefits as well as the Council Code of Conduct.

The Forum also provided significant input on the DUT Employment Plan for 1 January 2013 to 31 December 2017.

A significant development during 2012 was the establishment of a Transformation Committee. The Transformation Committee will function as a sub-committee of the Institutional Forum and have an oversight and advisory role in terms of the transformation plan of DUT. Over the years, there have been many transformation committees and sub-committees at DUT, however, the establishment of this Transformation Committee sees a consolidation of the various committees into a single cohesive committee.

The Institutional Forum also provided comment on the DUT corporate governance review. Comprehensive

discussions were held within the Forum on the review and evaluation of all level of staff in the Administrative and Academic sectors of DUT. This matter is still being dealt with by DUT and the IF will engage fully on this matter and will provide comprehensive advice to Council. During 2012, the Forum also reviewed and finalised the institutional rules for the IF. The ongoing role of the IF to assist the Vice-Chancellor by inviting a constituency of the University to make a presentation at each Council meeting to give Council greater insights into the activities of DUT continued successfully in 2012.

The Institutional Forum also continued its tradition of holding an Annual Dinner Dance as a team building exercise to bring the DUT team together socially. The activities of the Institutional Forum in 2012 augurs well for the Forum to continue playing a significant role in the governance of DUT.

Dr Lavern Samuels

Chairperson: Institutional Forum



“The activities of the Institutional Forum in 2012 augurs well for the Forum to continue playing a significant role in the governance of DUT.”

Dr Lavern Samuels



COMPOSITION OF THE INSTITUTIONAL FORUM

NAME	REPRESENTING/ADDRESS
Professor AC Bawa	Vice-Chancellor & Principal, Representative: Management
Professor N Gawe	Deputy Vice-Chancellor: Institutional Support Services, Representative: Management
Ms ZK Seedat	Representative: Council
Cllr WL Mapena	Representative: Council
Dr L Samuels	(Chairperson) Representative: Senate
Mrs N Naidoo	Representative: Senate
Mr KS Moodley	Representative: Academic Employees
Mr P Moodley	Representative: Academic Employees
Mr U Ramsundar	Representative: Professional, Administrative, Support & Service Employees
Mr TBT Nhassengo	Representative: Professional, Administrative, Support & Service Employees
Mr F van Zyl	Representative: Employee Organisation (Nteu)
Mr A Naidoo	Representative: Employee Organisation (Nteu)
Mr BM Mbatha	Representative: Employee Organisation (Nehawu)
Mr M Estrice	Representative: Employee Organisation (Nehawu)
Mr GP Sam	Representative: Employee Organisation (Tenusa)
Mr N Patchiappen	Representative: Employee Organisation (Tenusa)
Dr L Mhlane	Executive Officer: IF
Mr R Xulu	Representative: SRC (DBN)
Mr SW Magwanyana	Representative: SRC (PMB)
Mr SI Mnculwane	Representative: SRC (PMB)
Mr N Phoswa	Representative: Postgraduate Students (DBN)
Mr PM Naidoo	Representative: Gender Forum
Mr LL Ngcobo	Representative: Convocation
Mr BK Zwane	Representative: Convocation





FACULTY OF ACCOUNTING AND INFORMATICS

FACULTY REPORT

INTRODUCTION

The Faculty of Accounting and Informatics provides career focused education. In keeping with the mission of DUT, the Faculty is committed to promoting student-centred teaching, encouraging ongoing research and engaging with relevant stakeholders.

ENROLMENT

Total student enrolment reached 5 528 in 2012 (5 839:2011) but was still above the total planned enrolments for 2012 of 5 061. However, the decrease in the number of first time entering students in 2012 was a concern to the Faculty. This was attributed in the main to the poor Maths results in the National Senior Certificate examinations.

The demand for BTech qualifications remains high. At 578 students, this represents 10.5% of the Faculty enrolment. The number of postgraduate enrolments has improved to 1% (0.5%) of total enrolment with 40 students registered for Master's qualifications and 12 students registered for doctorate qualifications. This despite the fact that the accounting disciplines only offer Master's degrees in Cost and Management Accounting and Taxation.

The ratio of female to male students has remained over 50% and in 2012 was 53%. This ratio is reflected in the BTech qualification, but is not reflected in the higher qualifications. For Master's qualifications, the ratio of female to male students is 47.5 to 52.5 whilst for the Doctorate qualifications the ratio is 33:67 respectively.

African representation stood at 87.4% in 2012 with the second largest representation from Indians at 11.2%. The under-representation of the other population groups remains a concern in the Faculty.

STUDENT PERFORMANCE

The graduation rate for undergraduate qualifications (ND and BTech) was 25% in 2011 while the postgraduate graduation rate was 10%. It is expected that the postgraduate graduation

rate will remain the same in 2012 but will improve in 2013. The overall graduation rate in 2011 remained at 24%. Of concern to the Faculty is the 19% graduation rate in the National Diploma, despite an improvement from 2010's 17%. The Faculty has several interventions in place to address this and it is expected that there will be an improvement in 2012.

Cohort studies indicate that throughput rate in minimum time has improved to 27% for the 2009 intake which is an improvement on the 2008 intake. Drop-out rates, however, remain high and the Faculty is continuing to address this challenge.

The overall success rate has been maintained over the past two years at 79%. Success rates are, however, affected by the overall drop-out rates. The comparative rates for the Faculty over the years are as follows:

COMPARATIVE SUCCESS RATES 2010-2012	
2010	75%
2011	79%
2012	79%

The success rates within individual departments range from 72% to 88%. Most departments have maintained their average success rates over the two years.

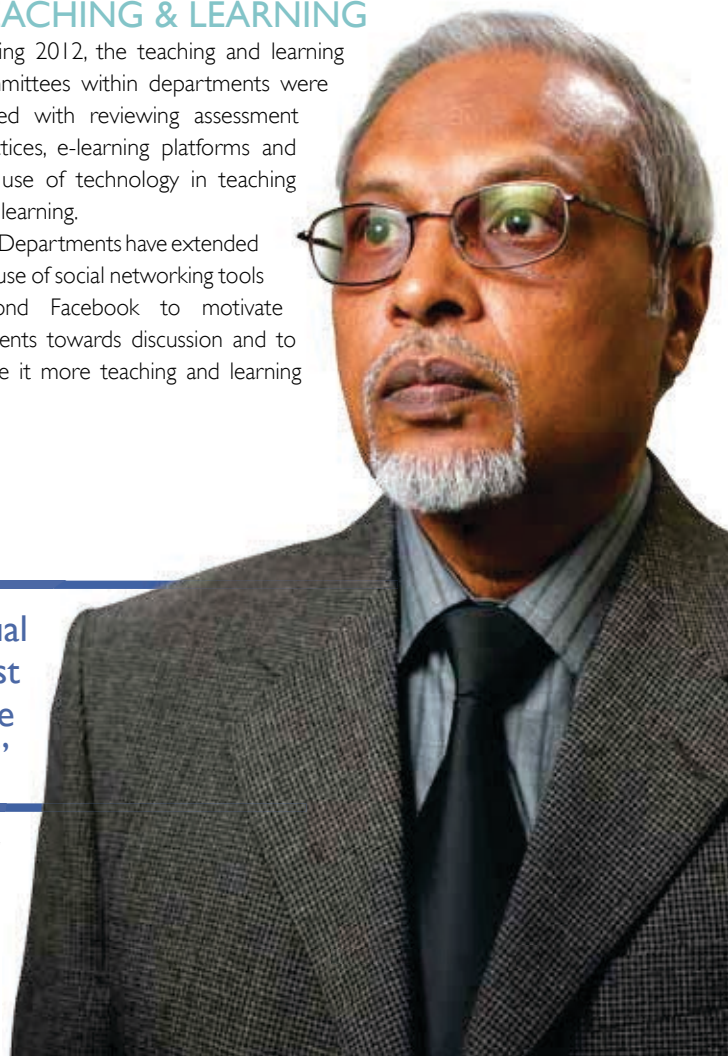
TEACHING & LEARNING

During 2012, the teaching and learning committees within departments were tasked with reviewing assessment practices, e-learning platforms and the use of technology in teaching and learning.

Departments have extended the use of social networking tools beyond Facebook to motivate students towards discussion and to make it more teaching and learning

“The success rates within individual departments range from 72% to 88%. Most departments have maintained their average success rates over the two years.”

Professor Thiruthlall Nepal



student centred and technologically advanced. Reports from lecturers indicate that there has been an increase in discussions between lecturers and students and amongst students themselves regarding the subject matter. This has contributed to a deeper appreciation of subject matter.

There has been a marked increase in the number of subjects that are offered on the e-learning platform. In addition, a number of subjects are earmarked for e-learning in 2013. Where e-learning is used as a platform, HoDs have reported that it has had a positive impact on teaching and learning.

Two departments offered ECP programmes in 2012. The benefit of offering these extended programmes was the main contributing factor in the decision to develop the ECP programme in Financial Accounting and Auditing in 2013. Students in the ECP programme are motivated and are given additional support which appears to have had a positive impact on the performance and pass rate in these programmes. An important feature of the ECP programmes is that the class sizes are limited to 30 students per programme.

Teaching and Learning Committees continued to provide oversight in departments in the areas of teaching and learning, curriculum and assessment. One of the major tasks undertaken in 2012 was to review and revise the assessment practices within the Faculty. This entailed engaging with professional bodies and industry stakeholders and assessment experts from CELT for their input. One of the positive results has been the designing of integrated assessment projects across subjects in a programme.

Towards the latter part of 2012, the Faculty obtained approval from the University to pilot a Work Integrated Learning program for the Accounting cluster. The intention of the programme is to ensure that graduates in the Accounting cluster are work-ready at exit level by providing an opportunity for the students to work in a financial services entity in order to gain practical experience and a consolidated understanding of the principles and practices involved in commerce and industry. The programme, will assist the student in obtaining a more comprehensive understanding of the academic content of the chosen field of study. As a result of the uniqueness of the program the graduate will have a competitive edge in practical application and knowledge in comparison to other UoTs and universities. The programme is expected to be piloted at the BTech level towards the latter part of 2013, depending on the level of funding that is available to drive the programme.

The Department of Information Technology devised and implemented a well-structured mentorship programme for its staff in subjects where it lacked industry expertise. The mentoring process included workshops, coaching sessions and consultation sessions to facilitate knowledge transfer. The programme has been very successful and it is intended to extend this to other subjects in 2013. A Quality Promotions Officer was appointed in December 2012. With this appointment, departments will now be able to obtain the necessary support on quality matters.

STAFF PROFILE

There are 66 female and 57 male staff in the Faculty's staff

complement of 123. Academic staff comprise 104 members. There has been a steady improvement in the qualification of academic staff with 40 staff members (38.5%) now having postgraduate qualifications; 34 have Master's qualifications whilst seven have Doctorates. The staff profile has continued to improve despite the challenge of attracting IT and Accounting staff in a highly competitive environment.

External Engagement

The departments continue to engage and collaborate with professional bodies. Professional bodies have called upon the Faculty to provide examiners and lecturers for their professional examinations. Professional bodies also provide their staff members to sit on advisory boards within departments in the Faculty.

In June 2012, the Information Technology (IT) Department was instrumental in securing an institutional MoU with Microsoft. The signing of the Microsoft MoU followed Microsoft's Windows Phone platform hackathon in which 49 DUT Information Technology students participated in a competition to develop mobile phone applications for Microsoft's Windows Phone. A third-year IT student, Mzolo Nkosi, won first prize and as part of this, his application will be featured on Microsoft's Windows Marketplace, giving him the opportunity to profit from his winning application.

The IT Department was registered as a Microsoft IT Academy Partner allowing the Department to offer Microsoft certified short courses. In addition, the Department also signed an academic partnership with IBM. This partnership has assisted the Department in obtaining a plethora of software development tools and teaching resources at no cost. IBM has also offered 20 staff members and 23 top performing students free DBII (Database II) training.

Students from the IT Department took part in the Vodacom Developer Programme national competition. Two students were placed second in the Postgraduate category, with each of them winning R15 000.

Multichoice's long outstanding relationship with the department of IT has resulted in bursaries being offered for second year, third year and BTech studies.

The Faculty hosts German students in conjunction with the International Office on an annual basis. In 2012, one of the third-year IT students was accepted into the US CCIP (Cisco Certified Internetworking Professional) Scholarship Programme.

RESEARCH ACTIVITIES

In order to encourage research and build research capacity, the Faculty hosted Professor RC Millham from the University of Bahamas, Nassau. His visit resulted in three new Master's students as well as the examination of dissertations for the Faculty. Professor Millham also presented a series of seminars and workshops to postgraduate students.

The Faculty also has a forum for Master's and doctoral students. This forum is conducted by Professor P Singh. Feedback from students indicates that this has been a huge success. In addition, an online forum was launched to provide wider access to postgraduate students for the purposes of networking and collaboration.



During the year, the postgraduate computer laboratory was also completed. The laboratory provides 24-hour access to all postgraduate students.

Workshops on proposal writing, research methodology, requirements for ethics clearance and referencing were also held in addition to those held by Professor Millham. Training has also been provided by the library for "Turnitin", online databases and "Endnote"

Apart from the successful Institutional Research Day held, the Faculty also has quarterly research in progress presentations. At these presentations, postgraduate students are given the opportunity to present their work and obtain advice from professors at the University.

The Faculty, as host to the local chapter of the South African Accounting Association (SAAA), was the convener and main sponsor of a regional research conference in accounting held at Coastlands in November and was well attended by local academics and practitioners. One of our academics won the runner-up prize for best paper presented. The Head of the Financial Accounting Department also sits on the national committee of the SAAA and is currently involved in the planning for the national conference which will be held in Cape Town in 2013. It is hoped that there will be a healthy representation of delegates from our province and University at this conference.

Professor Olugbara has been invited to submit his biographical profile for inclusion in the new 30th Pearl Anniversary edition of *Who's Who in the World* (US publication). This edition features biographies of the most accomplished men and women from around the world and across all fields.

Refereed Journal Articles

- Millham, R., Dogbe, E. and Singh, P. 2012. Role and data-based constraints of data access control in a Legacy System Migration to a service-oriented environment. *IPSCIT*, 29: 55-61.
- Oberholzer, H.J.G., Ojo, S.O. & Olugbara, O.O. (2012). A Hippocratic Privacy Protection Framework for Relational Databases. *IEEE African Journal of Computing and ICT*, 5(5), 132-149.
- Obono S.E., Basak S.K. "Examining the Perceived Impact of ICT Adoption on Academic Workload and on Academic Productivity", *International Journal of Information and Education Technology*, Vol. 3, No. 1, February 2013, Pages 36-43.
- Obono S.E., Neves M. "On the Perceived Usefulness of the Localization of Compilers in African Indigenous Languages", *International Journal of Information and Education Technology*, Vol. 3, No. 1, February 2013, Pages 105-109.
- Singh, P. and Niranjani, I. 2012. Designing and playing board games in Occupational Health and Safety. *Groupwork* [in press].
- Singh, P. 2012. Environmental education: Enhancing learning and awareness through assessment. *Systemic Practice and Action Research* [in press].
- Zuva, T., Olugbara, O. O., Ojo, S.O. & Ngwira, S.M. (2012). Kernel Density Feature Points Estimator for Content-Based Image

Retrieval. *The International Journal of Multimedia & Its Applications*. (IJMA) 4(1), 103-111.

- Zuva, T., Olugbara, O. O., Ojo, S.O. & Ngwira, S.M. (2012). Image Content in Location-Based Shopping Recommender Systems for Mobile Users. *Advanced Computing: An International Journal (ACIJ)* 3(4), 1-8.
- Zuva, T., Olugbara, O.O. Ojo, S.O. & Ngwira, S.M. (2012), Introducing an Adaptive Kernel Density Feature Points Estimator for Image Representation. *IISRC Journal: Issue: May/June 2012: Computer Science, Engineering & Technology*. IISRC Journals, ISSN: 2091-1610.
- Zuva, T., Olugbara, O.O. Ojo, S.O. & Ngwira, S.M. (2012). Review of Image Shape Representation Methods, Challenges and Future Directions. *Canadian Journal of Image Processing and Computer Vision*. A.M Publishers, Canada, 3(1), 32-37.

Refereed Conference Paper Proceedings

- Abe, B.T., Olugbara, O.O. & Marwala, T. (2012). Hyperspectral Image Classification using Random Forests and Neural Networks. The World Congress on Engineering and Computer Science (WCESC 2012). 24-26, October, San Francisco, USA.
- Adegbenro B.J., Mwakapenda, W. & Olugbara, O.O. (2012). Development and Validation of an Assessment Instrument for Office Data Processing Teachers Technology Knowledge. Proceedings of the 23rd International Conference of Society for Information Technology and Teacher Education. 4191 – 4198, Sheraton Austin Capitol, Austin, TX USA.
- Joshi, M., Olugbara, O.O., Bhavsar, V.C., Lall, M. & Modiba, M.M. (2012). Automated Matchmaking of Student Skills and Academic Course Requisites. ACM DL CUBE International Information Technology Conference 3-5 September, Pune, India, 514-519.
- Kalema, B. M., Olugbara, O.O. & Kekwaletswe, R.M. (2012). Identifying Key Strategic Issues influencing Effective Use of ICT in Higher Institutions of Learning; a case of ERP Systems. International Conference on ICT for Africa, 21-24 March, Kampala, Uganda.
- Kalema, B. M., Olugbara, O.O. & Kekwaletswe, R.M. (2012). Factors influencing the use of Web 2.0 and Free Open Source Software to optimize eLearning. Proceedings of the 11th European Conference on e-Learning, 26-27 October, University of Groningen, Groningen, The Netherlands. 265-273.
- Modupe, A., Olugbara, O.O. & Ojo, S.O. (2012). Comparing Supervised Learning Classifiers to Detect Advanced Fee Fraud Activities on Internet. Proceedings of 2nd International Conference on Computer Science and Information Technology (CCSIT-2012), Springer Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (LNICST), January 2-4, Bangalore, India, 87-100.
- Obono S.E., Adegbehingbe O.D. "A Framework for Designing Information Technology Programmes using ACM/IEEE Curriculum Guidelines", Proceedings of the World Congress on Engineering and Computer Science 2012 Vol

- I, WCECS 2012, October 24-26, 2012, San Francisco, USA, Pages 309-314.
- Obono S.E., Cassim K. "Experimenting on the Added Value of M-Learning for the Teaching of Word Problems", Proceedings of the World Congress on Engineering and Computer Science 2012 Vol I, WCECS 2012, October 24-26, 2012, San Francisco, USA, Pages 243-248.
- Obono S.E., Gosebo N. "Revisiting the Theory of Planned Behaviour for the Preparation of the Adoption of Municipal E-Services in Less Developed Countries", A paper presented at the 2009 annual conference of the South African Institute of Computer Scientist and Information Technologists, SAICSIT'2012, 1-3 October 2012, Vanderbilt Park, South Africa, Pp. 159-166, Available from the ACM digital library: <http://www.acm.org.za>.
- Obono S.E., Ngcobo K.M. "Modelling ICT adoption factors for the preservation of Indigenous knowledge", accepted by WASET 2013 International Conference, January 30-31, 2013 Crowne Plaza Dubai—Deira, Salahuddin Road, Deira, P.O. Box 8668 Dubai, UAE, Pages 1242-1247.
- Anniroot, J. A study of Alice: A visual environment for teaching object-oriented programming. IADIS International Conference Information Systems 2012. 10-12 March 2012, Berlin Germany.
- Obono S.E., Ntshakala N. "A Framework of the Factors Affecting the Adoption of ICT for Physical Education", Published by WASET 2013 International Conference, January 30-31, 2013 Crowne Plaza Dubai – Deira, Salahuddin Road, Deira, P.O. Box 8668 Dubai, UAE, Pages 1062-1067.
- Obono S.E., Tsephe N. "A Theoretical Framework for Rural Tourism Motivation", Proceedings of WASET 2013 International Conference, January 30-31, 2013 Crowne Plaza Dubai—Deira, Salahuddin Road, Deira, P.O. Box 8668 Dubai, UAE, Pages 1161-1166.
- Odunaike, S.A., Olugbara, O.O. & Ojo, S.O. (2012). Using Cloud Computing to Mitigate Rural E-Learning Sustainability and Challenges. The World Congress on Engineering and Computer Science (WCESC 2012). 24-26, October; San Francisco, USA. 265-270.
- Odunaike S.A., Olugbara, O.O. & Ojo, S.O. (2012). Improving E-Learning Practice Using Living Theory Methodology. Information Systems Educators Conference, New Orleans Louisiana, USA. 29(1939), 1-8.
- Olugbara, O.O. & Nepal, T. (2012). Exploring TOPSIS Based Algorithm for Non-Homogeneous Alternatives in Group Decision Making. The World Congress on Engineering and Computer Science (WCESC 2012). 24-26, October; San Francisco, USA.
- Parbanath, S. (2012) Estimating productivity of academic departments using interval type 2 fuzzy TOPSIS. Durban University of Technology Research Day, 15 November 2012.
- Phihela, T.R., Odunaike S.A., & Olugbara, O.O. (2012). A Measurement Framework to Assess SME Performance. Information Systems Educators Conference, New Orleans Louisiana, USA. 29(1982), 1-9.
- Randle, O.A., Olugbara, O.O. and Lall, M. (2012). Investigating the performance of Minimax Search and Aggregate Mahalanobis Distance Function in Evolving an Ayo/Awale Player. World Academy of Science, Engineering and Technology, 66, 194-197.
- Shongwe, N.S.M. & Olugbara, O.O. (2012). Exploring Consumer Core Theory to Predict Youth Adoption of Technology Based HIV/AIDS Preventive Actions. International Association for Development of the Information Society (IADIS) International Conference of e-Society, Berlin, Germany, 10-13 March, 115-125.
- Zuva, T., Olugbara, O.O. Ojo, S.O. & Ngwira, S.M. (2012), Enhanced Density Histogram of Feature Points Representation Method, IEEE International Conference on Information Retrieval & Knowledge Management (CAMP 12), Kuala Lumpur, India, 13-15.

Prof Thiruthlall Nepal

Executive Dean: Faculty of Accounting and Informatics





**FACULTY OF
APPLIED SCIENCES**

FACULTY REPORT

MISSION STATEMENT

The Faculty of Applied Sciences (FAS) remains committed to developing within a values driven ethos, quality technicians and technologists that are practice oriented and responsive to the needs of the people of South Africa and Africa as a whole by providing the highest standards of teaching, learning and community engagement underpinned by a commitment to empowering staff and students to succeed.

OVERVIEW STAFFING

The total permanent and contract staffing complement of the Faculty of Applied Sciences (FAS) in 2012 was 122, of which 53.3% (n=65) was female. The race profile of the staff in FAS reflects the difficulty in recruiting, attracting and retaining suitably qualified staff from the designated groups. Of the total complement in the Faculty in 2012 only 28.7% (n = 35) were African and only 3.2% (n = 4) were Coloured, with the remaining 49.2% (n = 60), 17.2% (n = 21) and 1.6% (n = 2) being Indians, Whites and non-South Africans respectively.

Of the 71 academic staff, 73.2% (n = 52) held postgraduate degrees with 23.9% (n = 17) holding doctoral degrees. Fifteen (15) members of the academic staff are presently registered for Doctorates. In addition, a number of non-teaching staff are in possession of postgraduate qualifications (two Doctorates and five Master's degrees).

ENROLMENT TRENDS

Student enrolment declined from 1 685 in 2011 to 1 650 in 2012 and failed to reach the enrolment planning targets for FAS. The most significant contributor to the declining enrolment is the decreasing pool of applicants meeting the Mathematics and Physical Science requirements of many programmes in the Faculty. Of the students registered in the Faculty in 2012, 5.6% (n = 92) were registered for postgraduate qualifications. The proportion of students registered for the undergraduate

degree (BTech) was 8.7% (n = 143). This figure needs to grow in order to supply future postgraduate students.

Data on student enrolment by gender and race shows that the Faculty student population remains predominantly female, with male students constituting 46.2% (n = 763) of the student population in 2012. While the participation rate of males is not a cause for concern, the situation needs to be monitored. At the postgraduate level however, the participation rate by females is significantly higher at 71.7% (n = 66) in 2012.

The overall student participation by race is as follows: Africans 1 260 (76.4%), Coloureds 31 (1.9%), Indians 312 (18.9%) and Whites 45 (2.7%), and non-South Africans two. Under-representation of Coloured, White and African students at the postgraduate level continues although the postgraduate participation rate of African students is steadily increasing. However in 2012, African and Coloured students respectively comprised 43.8% and 0% of the 64 students registered for MTech degrees and they comprised 46.4% and 3.6% of the 28 students registered for DTech degrees.

TEACHING AND LEARNING

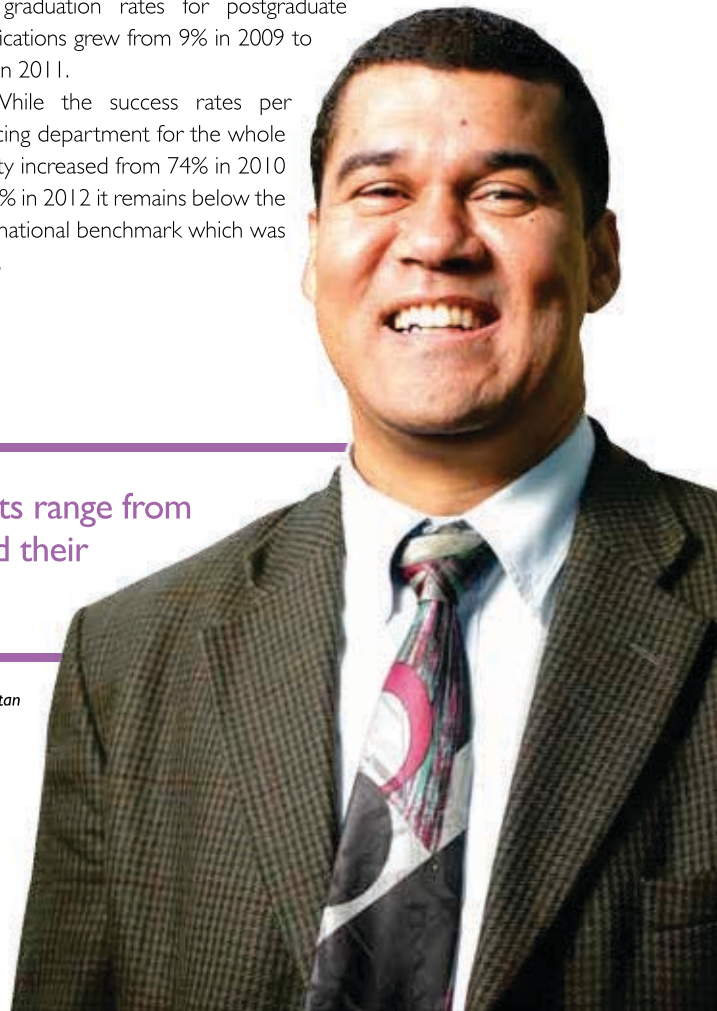
Graduation rates for undergraduate qualifications in the Faculty for the period 2009-2011 have decreased from 21% in 2009 to 20% in 2011. The Faculty performance on the whole with regard to the National Diploma graduation rates is in line with national benchmarks for similar programmes.

The graduation rates for postgraduate qualifications grew from 9% in 2009 to 21% in 2011.

While the success rates per servicing department for the whole Faculty increased from 74% in 2010 to 79% in 2012 it remains below the 80% national benchmark which was 2008.

“The success rates within individual departments range from 72% to 88%. Most departments have maintained their average success rates over the two years.”

Professor Darren Lortan



Over the cohort study for the period 2006-2008, the throughput rate of the Faculty (peaking at 36% in minimum time) has remained impressive and the decline in the dropout rate (reaching a low of 38%) over the same period has been equally impressive. The throughput rate for minimum time + 1 has remained steady at 44% peaking at 38% in 2008. The dropout rate of 46% remains a concern for the Faculty.

HIGHLIGHTS

The following highlights were the most notable for the reporting year:

- Dr R Gengan was promoted to the rank of Associate Professor (Department of Chemistry).
- Mr N Ally (Department of Mathematics, Statistics & Physics) was awarded a MEd from the University of KwaZulu-Natal.

RESEARCH

Conference Papers/Proceedings

International Conferences

- Singh, S. Fungal and Bacterial Enzymes as Potential Key Catalysts for Industrial Applications. ICIB Conference, Department of Biotechnology, Punjabi University, Patiala. November 21-23, 2012
- Permaul, K. 2012 American Society for Cell Biology Annual Meeting, San Francisco, California, United States. 15 – 19 December 2012
- Reddy, L. Conference on Blurring Boundaries, 10-12 April 2012 at the Westin Peachtree Plaza Hotel hosted by Georgia State University and the UN, Atlanta, USA
- Reddy, L. Conference on Education in Human Values Collaborative Project 2012, 7-9 June 2012 at the College of Education, Georgia State University, Atlanta, USA
- Reddy, L. Conference on Institute on General Education and Assessment 2012, 2-6 June 2012 at the Westin Peachtree Plaza Hotel hosted by Association of American Colleges and Universities, Maryland, USA
- Ramphal, U., Kumar, A., Kuttan-Pillai, S.K., Singh, S., Permaul, K. 2012 Bioconversion of crustacean shell waste using a novel Chitinase. 2012 World Congress – Biotechnology Industry Organization, April 29 – May 2, 2012, Gaylord Palms Resort & Convention Center, Orlando, Florida.
- Maduray, K. Efficacy of gallium phthalocyanine as a photosensitizing agent in photodynamic therapy for the treatment of cancer. Photonics Asia Conference on 5-7 November 2012 at Beijing China
- Rawat, I and Bux, F. (2012) Invited Plenary presentation. Cultivation of Algae for biofuels using wastewater. International Bioenergy Summit, 5-6 November New Delhi, India
- Nishani Ramdhani, S.K. Sheena Kumari, Faizal Bux. (2012) Nitrification performance evaluation and quantification of dominant nitrifying bacterial communities at two full-scale domestic wastewater treatment plants in KwaZulu-Natal, South Africa 16-21 September Busan, Korea
- Nashia Deepnarain, S.K. Sheena Kumari, Faizal Bux. 2012. Profiling of dominant filamentous bacteria in a full-scale wastewater treatment plant IWA Biennial World Water Congress and Exhibition, 16-21 September Busan, Korea
- K. Ramluckan, K.G. Moodley, F. Bux. (2012) An evaluation of the automated soxhlet method for the extraction of lipids from algal biomass 2nd International Conference on Algal Biomass Biofuels and Bioproducts, 10-13 June San Diego, California, USA
- Mutanda T, Rawat I and Bux F. (2012) Application of municipal wastewater for microalgal biomass propagation for biofuels production 20th European Biomass Conference and Exhibition, 18-22 June Milano Convention Centre-MiCo-Italy
- Rawat, I and Bux, F. (2012) Scale up of microalgal cultivation: Essential knowledge prior to inoculation 2nd International Conference on Algal Biomass Biofuels and Bioproducts, 10-13 June San Diego, California, USA
- Mutanda T and Bux F. (2012) Sustainable utilization of wastewater streams for microalgal biomass propagation for biofuels production. 2nd International Conference on Algal Biomass Biofuels and Bioproducts, 10-13 June San Diego, California, USA
- Krishna Bisetty**, Parul Sharma, Parvesh Singh and Juan J Perez. Peptide Folding Studies Using MD and REMD Simulations. International Interdisciplinary Science Conference (I-ISC) 2012 On "Protein Folding and Diseases, held in New Delhi from 8-10 December 2012.
- M.I. Sabela, P. Singh, N.J. Gumede, **K. Bisetty** and S. Sagrado, Evaluation of enantioresolution of catechin using electrokinetic chromatography and molecular docking. Separation Science 2012, held in Malaysia from 22-27 June 2012.
- Gengan, R. M.**, Krishnan, A., Phulakdaree, A and Chuturgoon, AA, A Facile one-Pot Synthesis Of Ellipticine Derivatives and their Effect on A549 lung cell lines, ICPAC 2012, Hilton Hotel, Mauritius, 0-7, Oral, 2012
- Gengan, R. M.**, Krishnan A, Phulakdaree, A and Chuturgoon, AA, 3-Amino-9-Ethylcarbazole-Functionalized Gold Nanoparticles: Synthesis and Bioassay of Gold Clusters, ICNANO 2011, Conference Centre, University of Delhi, India, Oral, 2011
- 22nd ICCT and 67th Calcon, 5-10 August 2012, Buzios, Rio d Janeiro, Brazil. Solid-Liquid Equilibria of (Butyric Acid + Propionic or Pentanoic Acid) and (Heptanoic Acid + Propionic or Pentanoic Acid) Binary Systems, I. Bahadur, **N. Deenadayalu**, P. Naidoo and D. Ramjugernath
- 22nd ICCT and 67th Calcon, 5-10 August 2012, Buzios, Rio d Janeiro, Brazil. Density, Speed of Sound, and Refractive Index Measurements for the Binary Systems (Butyric Acid + Propanoic Acid or Isobutyric Acid) at T = (293.15 to 313.15) K, I. Bahadur, **N. Deenadayalu**, P. Naidoo and D. Ramjugernath
- 22nd ICCT and 67th Calcon, 5-10 August 2012, Buzios, Rio d Janeiro, Brazil. Virial Based Mixing Rule Correlation of Binary Excess Molar Volumes for Ionic Liquid Mixtures, **N. Deenadayalu** and S. Sen
- 22nd ICCT and 67th Calcon, 5-10 August 2012, Buzios, Rio



- d Janeiro, Brazil. Correlation or prediction of the physical and excess properties of the ionic liquid 1-butyl-3-methylimidazolium methyl sulphate ionic liquid with several alcohols at $T = (298.15, 303.15, 308.15, \text{ and } 313.15) \text{ K}$, Singh S., **Deenadayalu N.**, Aznar M. and Letcher T.M
- K G Moodley**, D K Chetty and C Marume, Singapore International Water Week, 1-5 July 2012. Poster: Phthalates in bottled water.
- K G Moodley**, D K Chetty, S R Chetty, C Marume and G Gerike Paper: Monitoring of endocrine disruptors in drinking water; Vth World Aqua Congress, 28-30 Nov, 2012; India Habitat Centre, New Delhi.
- Third International conference on Natural Polymers and Biomaterials, ICNP 2012, 26-28 October 2012, Kottayam, Kerala, India, Mechanical and Thermal Properties of a Bio-Composite made from Non-Woven Banana Fibres and Banana-sap based Resin, **V Paul**, K Kanny, GG Redhi
- Leon Govender. General Education in Maritime Studies at the July 2012 Conference of the International Maritime Lecturer's Association, hosted by Maritime Institute Willem Barentsz, in West Terschelling, Netherlands.
- CT Duba 18-23 June 2012-Poster presentation: Propagation Properties of Rossby waves for latitudinal beta-plane variations of Conference: International Union of Geodesy and Geophysics (IUGG) Conference on Mathematical Geophysics, Place: Edinburgh, Scotland
- National Conferences**
- Mohanlall, V. 4th Biennial Conference CSIR. 9-10 October 2012 at the CSIR ICC
- Moodley, N Antibacterial activity of Ciprofloxacin coated gold nanoparticles on Selected pathogens. Microscopy Society of Southern Africa Annual Conference 4-7 December 2012, Cape Town.
- Patel, N. Biosynthesis of Gold and Silver nanoparticles from leaf extracts of three plants. Microscopy Society of Southern Africa Annual Conference 4-7 December 2012, Cape Town.
- Kriveshin Pillay, Feroz Mahomed Swalaha, Faizal Bux. (2012) Factors affecting competition between polyphosphate and glycogen accumulating organisms in enhanced biological phosphorus removal. WISA 2012 – "water footprints" 6-10 May Cape Town, South Africa
- Nishani Ramdhani, Sheena Kumari Santhosh Kumar, Faizal Bux. (2012) Application of FISH vs. QPCR techniques for in situ detection and quantification of Ammonia-Oxidizing Bacteria (AOB) from two full-scale wastewater treatment plants. WISA 2012 – "water footprints" 6-10 May Cape Town, South Africa
- Mutanda T and Bux F. (2012) Environmental and technical evaluation of the dual use of microalgae for municipal wastewater bioremediation and sustainable biofuel production. Inaugural eThekweni University Research Symposium, 19 September UKZN Howard College, Durban, South Africa
- Mutanda T, Robinson H. and Bux F. (2012) An argument for the use of rain water harvesting as a national resource saving strategy. Inaugural eThekweni University Research Symposium, 19 September UKZN Howard College, Durban, South Africa
- Recent Advances in Chemistry and their Impact on the Environment (NCRACE-2012), 4-5 February 2012, Arya PG. College, Panipat Haryana, India. Excess molar volumes of methyltriethylammonium bis (trifluoromethylsulfonyl) imide {[MOA][Tf2N]} + 1-butanol + ethyl acetate at three temperatures, N Deenadayalu.
- The 2nd International Conference on Algal Biomass, Biofuels and Bioproducts Westin Hotel, San Diego, USA 10th – 13th June 2012, K Ramluckan.
- 5th Walter Sisulu University International Research conference, 22-24 August 2012, ICC, East London, The use of banana sap in the formulation of a novel bio-resin, **V Paul**, K Kanny, GG Redhi
- CT Duba: 30 October-2 November 2012 Oral presentation: Linearized Equations of Motion for Rossby-Poincare Waves in a Zonal Wind shear Conference: 5th Annual Congress of the South African Mathematics Society (SAMS2012) Place: University of Stellenbosch, Stellenbosch
- CT Duba: 26-27 September 2012 Poster Presentation: Linearized Equations of Motion for Rossby-Poincare Waves in a Zonal Wind shear Conference: Bridging the Gap Organising Body: South African Society of Atmospheric Sciences (SASAS2012) Place: Breakwater Lodge, V & A Waterfront, Cape Town
- Publications**
- Kumar, A., Singh, S. 2012. Directed evolution: tailoring biocatalysts for industrial applications. *Critical Review in Biotechnology*. (IF 6.472) ISSN 0738-8551. <http://informahealthcare.com/doi/abs/10.3109/07388551.2012.716810>
- Edward, V.A., Egonunle, M., Huch, M., Van Zyl, P.J., Singh, S., Nesengani, N.D., Haakuria, V.M., and Franz, C.M.A.P. 2012 Isolation and screening of microorganisms from a gari fermentation process for starter culture development. *African Journal of Biotechnology*, ISSN 1684-5315 <http://www.academicjournals.org/AJB>
- Ngwenya, T.T., Shukla, P., Baboolal, N., Permaul, K., and Singh, S. 2012 An industrial perspective of factors affecting molasses fermentation by *Saccharomyces cerevisia*. *Journal of Brewing and Distilling* Vol. 3(2), pp. 23-28. DOI: 10.5897/JBD12.002.
- Nofemele, Z., Shukla, P., Trussler, A., Permaul, K., and Singh, S. 2012 Improvement of ethanol production from sugarcane molasses through enhanced nutrient supplementation using *Saccharomyces cerevisiae*. *Journal of Brewing and Distilling* Vol. 3(2), pp. 29-35. DOI: 10.5897/JBD12.003
- Zhou, L., Zuo, Z.R., Chen XZ, Niu DD, Tian KM, Prior BA, Shen W, Shi GY, Singh S, Wang ZX. 2012.
- Improvement of D-lactate productivity in recombinant *Escherichia coli* by coupling production with growth. *Current Microbiology*. 62:981-9. Current IF: 1.51. <http://www.springerlink.com/content/b62rtj01651vm771/>
- Raju K. Chalannavar, Venugopala K. Narayanaswamy, Himansu Bajinath and Bharti Odhav. Chemical composition of

- essential oil of *Psidium cattleianum* var. *lucidum* (Myrtaceae). *African Journal of Biotechnology* 2012;11(33): 8341-8347.
- John J. Mellem, Himansu Baijnath and Bharti Odhav. Bioaccumulation of Cr, Hg, As, Pb, Cu and Ni with the ability for hyperaccumulation by *Amaranthus dubius*. *African Journal of Agricultural Research* 2012;7(4):591-596.
- K. N. Venugopala, Susanta K. Nayak and Bharti Odhav. Methyl 2,6-diphenyl-1-p-tolyl-4-(p-tolylamino)-1,2,5,6-tetrahydropyridine-3-carboxylate. *Acta Cryst.* (2012). E68, o2392–o2393.
- K. N. Venugopala, Susanta K. Nayak and Bharti Odhav. Methyl (E)-2-[(3-chloro-4-cyanophenyl)imino]-4-(4-chloro-phenyl)-6-methyl-1,2,3,4-tetrahydropyrimidine-5-carboxylate. *Acta Cryst.* (2012). E68, o2977–o2978.
- Jamila K Adam, Bharti Odhav and K Suresh Babu Naidu. Probiotics: Recent Understandings and Biomedical Applications. *Current Trends in Biotechnology and Pharmacy* 2012; 6(1):1-14.
- K. Maduray, B. Odhav, T. Nyokong. *In vitro* photodynamic effect of aluminum tetrasulfophthalocyanines on melanoma skin cancer and healthy normal skin cells. *Photodiagnosis and Photodynamic Therapy* 2012;9:32-39.
- B. Mbambo, B. Odhav and V. Mohanlall. Antifungal activity of stigmasterol, sitosterol and ergosterol from *Bulbine natalensis* Baker (Asphodelaceae). *Journal of Medicinal Plants Research* 2012; 6(38):5135-5141.
- Venugopala K. Narayanaswamy, Susanta K. Nayak, Melendhran Pillay, Renuka Prasanna, Yacoob M. Coovadia and Bharti Odhav. Synthesis and antitubercular activity of 2-(substituted phenylbenzyl-amino)-6-(4-chlorophenyl)-5-(methoxycarbonyl)-4-methyl-3,6-dihydropyrimidin-1-ium chlorides. *Chemical Biology & Drug Design Article* (First published online: 14 NOV 2012. DOI: 10.1111/cbdd.12065) 2013;81: 219-227.
- Govender, T. Ramanna, L. Rawat, I. and Bux, F. (2012) Bodipy, an alternative to Nile Red staining technique for the intracellular lipid evaluation. *Bioresource Technology*. 114: 507-511
- Oluyemi Olatunji Awolusi, SK Sheena Kumari, Faizal Bux. (2012) Eco-physiology of nitrifying bacterial communities in membrane bioreactors. (IJMB-D-12-00542) *Journal of Industrial Microbiology and Biotechnology*
- Rawat I, Mutanda T, Ranjith Kumar R, Anandraj A, Bux F. (2012) Biodiesel from Microalgae: A Critical Evaluation from Laboratory to Large Scale Production. *Applied Energy*. DOI: 10.1016/j.apenergy.2012.10.004
- Sabela, M.I., Gumede, N. J., Escuder-Gilabert, L., Martín-Biosca, Y., **Bisetty, K.**, Medina-Hernández, M. and Sagrado, S. Connecting simulated, bioanalytical, and molecular docking data on the stereoselective binding of (±)-catechin to human serum albumin, *Anal. BioAnalytical Chemistry*, 402 (2012): 1899-1909
- Singh, P., Singh, P., Kumar, M., Gutt, J., Rosenthal, P.J., Kumar, K., Kumar, V., Mahajan, M. P and **Bisetty, K.** Synthesis, docking and in vitro antimalarial evaluation of triazole based beta-lactam-7-chloroquinoline bifunctional hybrids, *Bioorganic and Medicinal Chemistry Letters*, 22 (2012) 57-61.
- Sabela, M.I., Singh, P., Gumede, N. J., **Bisetty, K** and Sagrado, S. Evaluation of enantioseparation of (±)-catechin using electrokinetic chromatography and molecular docking, *Journal of Scientific Research in Pharmacy*, 2 (2012): 1-
- Singh, P and **Bisetty, K.**, A molecular dynamics study of Lunasin, *South African Journal of Chemistry*, 65 (2012): 115-124.
- Sabela, M. I., Gumede, N. J., Singh, P and **Bisetty, K.**, Evaluation of antioxidants in herbal tea with a laccase biosensor; *International Journal of Electrochemical Science*, 7 (2012): 4918-4928.
- Singh, T., Kruger, H. G., **Bisetty, K.**, Power, T.D., Theoretical study on the formation of a pentacyclo-undecane cage lactam, *Computational and Theoretical Chemistry*, 986 (2012): 63-70.
- Singh, P. and **Bisetty, K.**, Cycloaddition reactions of cross-conjugated azatrienes with sulfene, *International journal of organic chemistry*, 2 (2012): 121-125.
- Singh, P., Singh, P., Kumar, K., Kumar, V., Mahajan, M. P and **Bisetty, K.** Synthetic studies on the role of substituents at C-3 position on C3-C4 bond cleavage of β -lactam ring: convenient route for diastereoselective synthesis of pyridin-2-ones, *Heterocycles*, 2012 (Accepted for publication).
- Bahadur, I.; **Deenadayalu, N.**; Tywabi, Z.; Sen, S.; Hofman, T., Volumetric Properties of Ternary {IL + 2- Propanol or 1-Butanol or 2-Butanol + Ethyl acetate} Systems and Binary {IL + 2-Propanol or 1-butanol or 2-Butanol} and {1-Butanol or 2-Butanol + Ethyl acetate} Systems, *J Chemical Thermodynamics* 49, (2012): 24-38.
- Pitchai, P., Ulagi, R., Mohan, P. S., **Gengan R. M.**; A novel alkaloid, four alkaloid precursors and a coumarin from *Feronialimonia*, *Indian Journal of Chemistry*, 51 (B), (2012), 1771-1775.
- M H Mabaso, G G Redhi, **K G Moodley**. Utilization of ionic liquids for the separation of organic liquids from industrial effluents, *S. Afr. J Chem*; 2012, 65, 145-14912.
- V Paul**, K Kanny, GG Redhi. Formulation of a novel bio-resin from banana sap, *J Industrial Crops and Products*, 43 (2013), 496-505
- CT Duba Journal article: Propagation Properties of Rossby waves for latitudinal beta-plane variations of f and zonal variations of the shallow water speed, Authors: CT Duba and J F McKenzie, *Annales Geophysicae* Volume 30, pages 1-6, 2012 doi: 10.5194/angeo-30-1-2012
- Thirukkanesh, S Rajah, SS, Maharaj, SD. Shearing radiative collapse with expansion and acceleration. *Journal of Mathematical Physics*, 53 (3):10.1063/1.3698286 MAR 2012
- McKenzie, J. F., Doyle, T. B., Rajah, S. S. Nonlinear, stationary electrostatic cyclotron waves: Exact solutions for solitons, periodic waves, and wedge shaped waveforms. *Physics of Plasmas*, 19 (11):10.1063/1.4769031 NOV 2012
- I J Lazarus**, R Bharuthram, SV Singh, S R Pillay and G S Iakhina]. Linear electrostatic waves in two-temperature electron-positron plasmas *Plasma Physics* (2012), vol 78, p 621-628
- I J Lazarus**, R Bharuthram, SV Singh and G S Iakhina]. Arbitrary amplitude Langmuir Solitons in a relativistic electron-positron plasma. *Plasma Physics* (2012), p 175-180
- "Nonlinear low-frequency structures in an electron-positron-ion plasma" S Moolla, **I J Lazarus** and R Bharuthram]. *Plasma Physics* (2012)



Chapter in a book

Parul Sharma, Parvesh Singh, **Krishna Bisetty*** and Juan J Perez (**in press**). An assessment of the conformational profile of Neuromedin B using different computational procedures-in *Molecular dynamics*, 2012, In-Tech Open Access Publisher, Croatia. ("Molecular Dynamics/Book 2", ISBN 979-953-307-865-5)

EXTERNAL ENGAGEMENT

Within the Faculty, Community Engagement has found a variety of manifestations. These include free and/or subsidised services to others, both within and outside of the DUT community, Staff and

students implement services and activities either on a voluntary or compulsory basis, and such involvement is perceived to have benefits for students, departments, staff, DUT and the wider community. Activities undertaken include community service, where students are introduced to the work environment as an opportunity to implement theory, practise skills and provide a service. In some activities students were not involved at all.

Prof Darren Lortan

Executive Dean: Faculty of Applied Sciences



**FACULTY OF
ARTS & DESIGN**

FACULTY REPORT

STRATEGIC DIRECTION

The Faculty Strategic Planning workshop was held in March. Key goals identified in the 2014-2016 Faculty of Arts and Design Strategic Plan are student centredness, curriculum and research development. A milestone for student engagement in the Faculty was the formation of the Faculty of Arts and Design Student Organisation in July. A tangible outcome of the new organisation was the My Campus project, led by students of the Interior Design programme to transform the City Campus courtyard and outdoor student spaces.

In October, Dr Netshiombo was elected to the Management Committee of the KwaZulu-Natal Provincial Teacher Education and Development Committee aimed at collaboration regarding planning for teacher education and development in KZN. With the recent completion of the new Technology block, Education Open Access and Physics laboratories, the School of Education is well positioned to deliver additional trained teachers to address urgent needs for teacher provision in the province.

The funding of replacement staff to release Curriculum Renewal Champions greatly advanced the development of new programme design and revision. In addition to departmentally-based activities, 10 Faculty workshops ranging from 'Theoretical and Philosophical Issues' to 'Writing Outcomes' drew participants from all campuses. An important contribution to the year's activities was the production of a video programme on issues and debates around General Education entitled *Curriculum Renewal Project: General Education is not just a FAD* produced by Faculty Academic Practitioner Haj Vahed-Greer, O Swift, T Seedat and A Matyila. The video was used to prompt discussion at the institutional Curriculum Renewal Workshop in May, and at a Faculty-based workshop in October.

FACULTY STRUCTURE

In 2012, the Faculty comprised seven departments and fourteen distinct programme clusters (various levels including National Diploma, BTech, BEd, MTech and DTech).

DEPARTMENT OF DRAMA STUDIES	DEPARTMENT OF FINE ART & JEWELLERY DESIGN	DEPARTMENT OF MEDIA, LANGUAGE AND COMMUNICATION	DEPARTMENT OF VISUAL COMMUNICATION DESIGN
ND Drama ND Performing Arts Technology	ND Fine Art BTech Fine Art MTech Fine Art ND Jewellery Design & Manufacture BTech Jewellery Design & Manufacture	ND Journalism BTech Journalism MTech Journalism ND Language Practice BTech Language Practice MTech Language Practice DTech Language Practice ND Translation And Interpreting Practice BTech Translation And Interpreting Practice Servicing: English and Communication	ND Graphic Design BTech Graphic Design MTech Graphic Design ND Photography BTech Photography MTech Photography ND Interior Design BTech Interior Design MTech Interior Design

“A milestone for student engagement in the Faculty was the formation of the Faculty of Arts and Design Student Organisation.”

Dr Kenneth F Netshiombo



SCHOOL OF EDUCATION	DEPARTMENT OF FASHION AND TEXTILES	DEPARTMENT OF VIDEO TECHNOLOGY
BEd FET Economic and Management Science BEd FET Natural Science BEd FET Technology	ND Fashion BTech Fashion MTech Fashion	ND Video Technology BTech Video Technology

OVERVIEW

Drama highlights of the year included a production of Soyinka's *Lion and the Jewell* (June) and Siza Mthembu's production of Lindinkosi Mbatha's classic *Nawe Mbopha KaSithayi* (May). The Faculty hosted the prestigious annual English Academy of Southern Africa Commemorative Lecture on Lewis Nkosi by Prof Michael Chapman in August. Jewellery Design BTech student Songezo Baleni capped his Cape Town Design Indaba prize as Emerging Creative by winning the Faculty's top award, the 2012 Emma Smith Scholarship. The 2011 Award, announced in February, went to BTech Fine Art student Nicol   Maurel.

Top English and Communication Student in 2011, Ms P Mutsvaigwa, a student in the Human Resources Management programme, received the Sharon Wilson Award at a ceremony in September 2012.

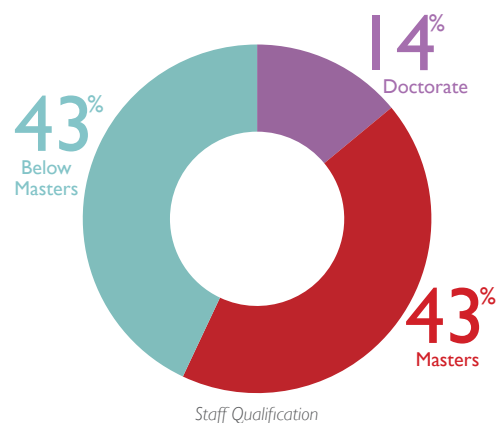
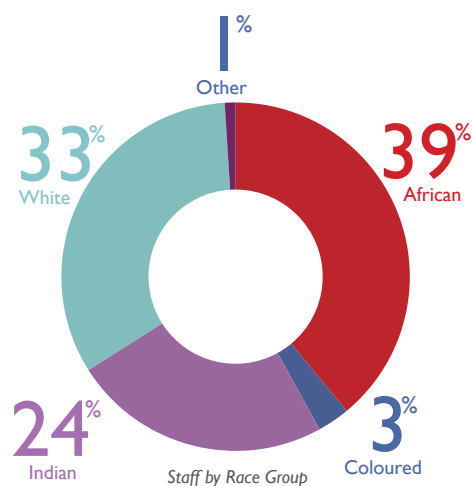
Workspace WIL and Graphic Design Research Unit completed and rolled out the new Visual Identity for the DUT, which won six awards at the MACE ceremony in Cape Town, in competition against established agencies. In February, the proposed PhD in Visual and Performing Arts was cleared by the DHET for submission to the CHE for accreditation. Continuing development of the new programme reflects a corresponding increase in emphasis on research and higher qualifications in the Faculty.

The annual Fashion Show is a high point in the calendar for the Faculty and the local fashion industry. The 2012 Show "Fibres of my Avatar" was judged by a panel of established designers from the local fashion industry and included Francois Vedemme, Greg Wallis, Kirsty Stoltz and Bella Cebekhulu. At the end of the show, tributes to retiring Head of Department, George Vorster, came from luminaries such as Deon Chang.

Second-year Fashion Design student Ashley Mathiesen won the SA Fashion Week Student Competition. Six of the 10 finalists were from DUT. Tammy Sturrock won the Young Designer award at the Vodacom Durban July event.

STAFF PROFILE

Faculty staff consisted of Africans (39%), Indians (24%) and Whites (33%) with a very small proportion of Coloured staff (3%) and 1% "other". The gender ratio amongst staff is 48% male and 52% female which meets the national target of "50% of permanent professional staff to be female".



Academic staff who improved their postgraduate qualifications in 2012: Dr RL Makhubu (DTech: Language Practice); Dr R Hondy (PhD); Dr RA Smith (PhD); Ms NMA Houston (MTech: Graphic Design); Ms SC Vincent (MTech: Fine Art), Mr MBM Khubisa (MTech: Photography) and Ms O Swift (MA: Linguistics). Technician M Gumede completed his BTech: Photography.

TEACHING AND LEARNING: PROGRAMME EVALUATION AND REVIEW

The School of Education (BEd: EMS, NS and Technology) was internally reviewed in April 2012. The review focused on quality, coherence and academic rigour issues. Although there are still issues of infrastructure inconsistencies in the requirements for quality and frequency of assessments, the panel was impressed by the standard of work produced in the School. According to the Panel report, "the key building blocks have been laid".

Language Practice programmes in the Department of



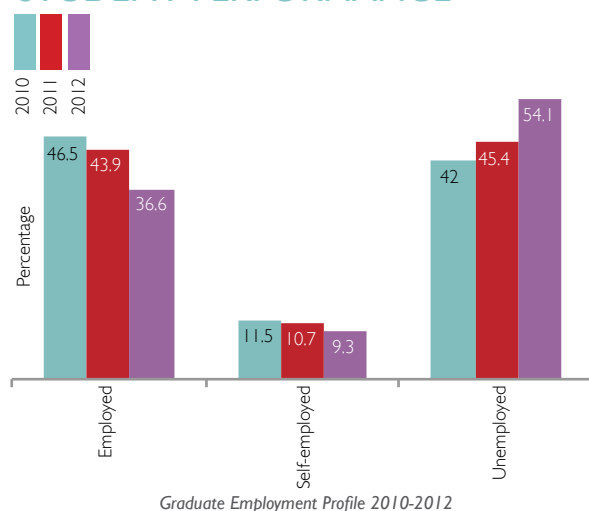
Media, Languages and Communication were reviewed in May. The panel commended the programme for its community engagement projects but warned of serious challenges for managing the programme within the present combined departmental structure. Separate panel reviews of all four programmes in the Department have made the same recommendation: to separate ("unbundle") the programmes.

E-learning innovation has been evident across the programmes offered by the Faculty. Examples of excellent practice in programmes as diverse as Art History and Sign Language are testimony to the dedication and enthusiasm of staff to this form of delivery. A total of 27 lecturing staff took advantage of training courses to upgrade to the Blackboard 9 application. The Faculty e-Learning Interest Group was formed at the beginning of the year in response to the growing number of staff with an interest e-learning and blended learning. Meetings included presentations sharing good practice and discussions around infrastructure, equipment and technical support needs. In August, the group participated in the institutional e-Learning Strategic Planning Consultation Sessions and co-ordinated faculty Smartboard requirements. A student mobile device usage survey was also conducted.

The School of Education held three Work Integrated Learning workshops in districts where students were deployed for student teaching practice. These workshops served to enhance community engagement and to confirm the partnerships with schools established by the Education programme. Fine Art BTech students spent a very valuable two days at the Johannesburg Art Fair; meeting artists and gallery owners from across the country. In Graphic Design, third-year students worked on projects for the Wildlands Trust, Amnesty International and design agencies Paton Tupper, Hardy Boys, Disturbance Design and Garth Walker. The range of these projects, plus working for external clients, was extremely beneficial and educational for the students. Fashion Design students Shelley Botha and Kyra-Moon Halfpenny were winners in the 2011 AFI Fast-track competition. They were awarded a R10 000 cash prize and an eight-week internship with Foschini.

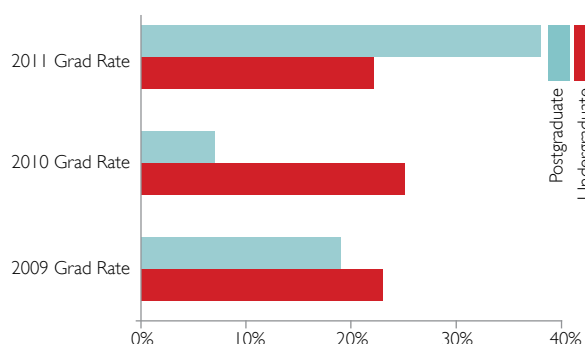
Drama Studies continued with its distinctive conservatory styled programme with 38 productions and presentations with two of those works presented in other provinces, and the isiZulu production being invited to re-mount Lindinkosi B Mbatha's *Nawe Mbopha ka Sithayi* at the Stable Theatre in Durban.

STUDENT PERFORMANCE



Employment rates for students in Arts and Design as reflected in the DUT Graduate Survey have continued to decline. Respondents who reported being employed dropped from 43.9% in 2011 to 36.6% in 2012, and those who reported being self-employed from 10.7% down to 9.3%. By contrast the average employment rate reported for the University as a whole was 53.1% for 2012. However, the School of Education reports that all BEd graduates are absorbed by the school system in South Africa, while the Department of Media, Languages and Communication reports that most of the students in the three programmes offered in the department find employment in both the public and private sector. Some work for the newspaper companies, in the country's parliament, in the various legislatures and hold senior positions either at management or directorate level.

Graduation Rate (%) 2009 to 2011



The Faculty Graduation Rate average for 2011 was 22%, 0.5% below the national target. Postgraduate percentages, however, tend to be exaggerated by the relatively small numbers involved with a total of four students in 2010 compared to 17 in 2011. The Department of Visual Communication Design notes that a decline in the Photography graduation rate is at least partly due to more rigorous standards being applied in response to their programme review in 2010. In the case of both Photography and Interior Design, understaffing and the consequent strain on lecturers is also seen as a contributory factor, at the BTech level in particular.

Success Rate

The Faculty success rate declined in 2012, but student performance continued to exceed the national target of 80%.

SUCCESS RATE PER SERVICING DEPARTMENT FOR 2010 TO 2012			
Servicing Department	2010	2011	2012
Drama And Prod Studies			90%
Fashion & Textiles	78%	84%	89%
Fine Art & Jewellery Design	86%	84%	84%
Media, Lang & Communication	78%	84%	78%
School Of Education	81%	86%	88%
TV, Drama & Production Studies	87%	90%	
Video Technology			79%
Visual Communication Design	85%	81%	84%
Total	81%	85%	83%

The relatively constant success rates reflected for the Department of Visual Communication Design conceal a trend showing a decline in the success rate of first-year Graphic Design students that the Department attributes to a general deterioration in the preparedness and motivation of students entering the system. Measures taken by programme staff to stem this problem have yet to show their effect. Video Technology have put interventions in place to address low success rates in certain of their subject offerings. The Faculty Writing Centre continues to play an important role in improving student performance.

Cohort Studies

Cohort studies indicate that the Faculty dropout rate for first-time entering students in 2009 is 44%, with 19% still in progress. The figures for the 2008 first-time entering cohort are dropout rate: 38% with 8% still in progress, and 33% and 4% respectively for the 2007 cohort. Student financial problems remain a significant contributory factor in student dropout rates. Tracking at-risk students is a Faculty strategic priority, and interventions to address identified student problems include referrals to Counselling Services and to the Faculty Writing Centre.

RESEARCH

There was wide participation by Faculty staff and students at the DUT Institutional Research Day. A particularly encouraging feature was the number of papers presented jointly by postgraduate students and their supervisors. A combined Faculty presentation at the University e-Learning Festival in December featured papers on teaching and learning innovation by Andrea Alcock (FAD Writing Centre), Chris de Beer (Jewellery Design), Ben Tarr and Ray Holmes (Education), and Dr René Smith and Ayesha Mall (Journalism).

Articles in Accredited Journals

- Ms A. Hiralal "Students' Experiences of blended Learning in Accounting Education at the Durban University of Technology". *South African Journal of Higher Education*, Volume 26(2) 2012.
- Dr D. Mzindle [Njozela] "Mental models that students possess about Work Integrated Learning [WIL] with reference to the New Curriculum Framework". *South African Journal of Higher Education*, Volume 26(2) 2012.
- Ms M. Blose. "Pornographic objectification of women through Kwaito lyrics". *Agenda*. Volume 26 (3) 2012.
- Prof G.D.J. Stewart "The challenge of designing a collaborative reference source for Southern African Literature". *English Academy Review*, 29 (2) 2012.
- Dr K.F. Netshiombo and T.M. Mashamba. "Social Dynamics of Suicide in South Africa, a Theoretical Perspective". *Journal for Physical Health, Education, Recreation and Dance*, September (Supplement 2) 2012.

Books and Chapters in Books

- Prof P.D. Siyakwazi: co-authored *A History of the New Approach to Infant Education of the 1990's in Zimbabwe*, Gwenu: Book Love Publishers, 2012
- Mr P. Carey. "From the Outside In: A place for Indigenous

Graphic Traditions in Contemporary Graphic Design". In De Smet, C. (ed) *Graphic Design: History in the Writing 1983-2011*. London: Occasional Papers. 2012.

- Ms M. de Beer: "Personal adornment and creative process as micro-resistance". In Moletsane et al (eds) *Was it something I wore? Dress • Identity • Materiality*. Pretoria: HSRC Press, 2012.
- A Starkey: "A history of ceramics at the Durban University of Technology". In Stretton, J. (ed) *All Fired Up; conversations between kiln and collection*. Durban Art Gallery, 2012.

Papers in Peer-reviewed Conference Proceedings

- Prof I.G. Sutherland "The White Album: ideology, tourism, travel, music and album cover design in South Africa 1958 – 1985", International Conference "Soundtracks: Music, Tourism and Travel," Liverpool, UK, 2012.
- Prof G.D.J. Stewart "Repurposing an LMS – Using Blackboard in Academic Management, in Lam, P. (ed) Proceedings: 7th International Conference on e-Learning ICEL-2012. The Chinese University of Hong Kong, 21-22 June 2012.

Staff Exhibitions and Performances

- J Jordaan exhibited selected works from *Art for Humanity Portfolios* at Real Stories Gallery, New York, the New Orleans Museum of Art, the Art for Humanity *Dialogue among Civilisations* portfolio at the FADA Gallery, University of Johannesburg and the Sandton Gallery (Africa Celebrations Exhibition).
- H Stroebel and N Khanyile exhibited work on the exhibition titled *All Fired Up; conversations between kiln and collection*, curated by Jenny Stretton at the Durban Art Gallery.
- J Roome exhibited on the Science | Art | Art | Science Project 3 and the group exhibition titled Inspiration 2 Group Exhibition at artSPACE.
- G Streak exhibited in the exhibition titled Group Show at the Commune gallery, Cape Town.
- J Roome exhibited on the exhibition titled 'DRAWING KNOWLEDGE and the illusory', at the Drawing Research Network Conference 2012, School of the Arts/ Loughborough design School, Loughborough University, United Kingdom.
- H Stroebel held a one person show titled "Reconnect" at the KZNSA Gallery at which a catalogue to be published for a Dubai exhibition in 2013 was launched.
- N Ziegler exhibited on the exhibition titled Science | Art | Art | Science Project 3 and on Inspiration 2 a group exhibition at art Space.

Papers Presented at Conferences

- Rowan Gatfield presented "Walking with Dignity: The Durban Rickshaw Renovation Project" at the eThekweni – University Research Symposium at UKZN in September.
- Prof Kate Wells presented the first ever Keynote speech given by a member of staff of the department at the international Arts in Healthcare Conference, in Detroit, USA, May 2012.
- Michelle Hankinson co-wrote a paper with Amanda



Breytenbach of UJ for the Cumulus Helsinki Conference. Her paper on "Barriers that impact on the implementation of sustainable design" won the Cumulus Green Award for the best paper in the field of Sustainability.

Dr M Peppas presented a paper at the International Association for Media and Communication Research (IAMCR), in July 2012 in Durban.

Dr R Smith presented a paper at the International Association for Media and Communication Research (IAMCR), in July 2012 in Durban.

During the DUT Institutional Research Day, the supervisors: Dr R Hondy, Dr SP Zulu and Dr RL Makhubu, prepared joint research papers with their Masters students: Mr N Luthuli, Ms S Dlamini, Ms N Nxumalo, Ms NL Mnyandu, and Ms TN Mngomezulu

Ms OB Swift and Ms CN Ngwane presented individual research papers at Research Day

During the eThekweni-University Research Symposium which was held at the University of KwaZulu-Natal, Dr RL Makhubu did joint poster presentation with Ms CN Ngwane and Masters students, Ms TN Mngomezulu.

Paper presentations were done with Masters students Mr TR Khumalo and Ms NL Mnyandu.

Ms BA Mall also presented a paper during the DUT Institutional Research Day.

Dr Makhubu was invited to deliver a paper at the African

Indigenous Languages Conference which was hosted by ASM Communications at the Sibaya Casino in Durban.

Ms W Rawlinson co-presented a paper at the Annual Meeting of the American Educational Research Association (AERA) in Vancouver, Canada in April, 2012. She also presented a paper at the Sixth Annual University Teaching and Learning Conference in September 2012 at which was hosted by the University of KwaZulu-Natal in Durban.

Ms V Partab presented a paper during the 3rd International Conference on Education and Educational Psychology in October 2012 at Istanbul, Turkey.

Ms D Sooben also presented a paper at the ICCMTD Conference, in Istanbul.

Dr. P. Tancsik delivered a paper entitled "Puppet theatre as a mediator between past and present; crossing the borders between reality and metaphysics" at the IFTR (International Federation for Theatre Research) Annual Conference in Santiago de Chile.

Prof B. Pearce presented a paper "Directing Twelfth Night and The Tempest in Durban" at a Shakespeare Retrospective organised by the English Academy of Southern Africa and the Indian Cultural Centre,

Consulate General of India in Durban.

Dr D Mzindle presented a paper at the Fourth World Curriculum Studies Conference on "Multidiscipline and trans-disciplinary approaches to teaching and learning:

An Innovative Curriculum Strategy". Rio de Janeiro, Brazil and a paper on "Dramatizing the Role of an Educator: Community Outreach", South African Basic Education Conference at the ICC, Durban.

Dr D Mkhize presented a paper on "Implications of Curriculum Development at the Universities of South Africa" at the SASE Conference whose theme was "Access, Quality and Equity in Education for sustainable development in Southern Africa", Great Zimbabwe University.

At a symposium on International Higher Education Curriculum Design – "Reclaiming Quality in Education and Academic Leadership – Unlocking your capacity to influence", held in Hamilton, New Zealand, the following School of Education staff made presentations:

Mrs A. Hiralaal: "Reclaiming Quality in Education or not: General Education across the curriculum at the Durban University of Technology"

Mr E. Conradie: "Designing a syllabus for the Bachelor of Education [Engineering Graphics and Design] degree – To adapt, adopt or develop".

Prof P.D. Siyakwazi: "Academic Leadership: Unlocking my capacity to influence".

COMMUNITY ENGAGEMENT

The partnership between the Department of Fine Art and the African Art Centre in running the Saturday morning Velobala Art Classes continued in 2012. This programme has been running for 17 years. In 2012, five students from the 2011 Velobala programme were chosen to be in a mentoring programme under the guidance of staff member Themba Shibase. The outcome of the programme was an exhibition of their work at the African Art Centre and the DUT gallery. The Art for Humanity Unit continued to expand its impressive array of national and international academic, NGO and donor partnerships in the pursuit of the promotion of human rights through the visual arts. A memorandum of understanding was signed with DUT. Art for Humanity conducted workshops in selected Schools in KZN to promote human rights.

- Dr Makhubu co-ordinated and facilitated isiZulu Basic Communicative Short Course (Siyakhuluma) for DUT staff members.
- Third-year Graphic Design students participated in projects for the benefit of Amnesty International for Poverty Awareness, and most notably for the Wildlands

Trust, resulting in substantial media coverage of their "Celebrity Rhinos".

- Abdul Bhorat is a member of TUT's Photography Programme Advisory Board.
- Fashion Design received the "Most Outstanding Stand" award at the Sustainable Living Exhibition that brought together government, individuals, schools, nonprofit organisations and businesses that are engaging in carbon reducing practices. First year students exhibited the designs at the exhibition under the co-ordination of Lee Scott.
- On the professional front, Professor Debbie Lutge continues to serve as a Mercury Durban Theatre Awards Regional Judge for professional theatre productions and as a Board Member of the Dutch South African initiative the Twist Theatre Development Project while Dr Pamela Tancsik continues to sing with the Durban Chamber Choir which specialises in Baroque and period music.
- Theatre in Education Projects workshopped and directed by Dr Pamela Tancsik included *The Girl who Married A Snake* adapted from *Stories from Panchatantra*, (published by Children's Book Trust, New Delhi) and performed at Mother Goose Pre-School as well as the Children's Theatre Festival. A further research based outreach performance on teenage pregnancy *Qwabel O'Sugar Daddy* was performed at Sastri College in conjunction with the Durban Department of Health.
- Prof D Lutge was invited to present the annual workshop for the Dutch South African Twist Theatre Development project. Additionally she conducted the third annual DUT/ Twist Theatre Development Project workshop this year presenting the "Laban, Stage Combat, Triggers and Angles Performance" Workshop.

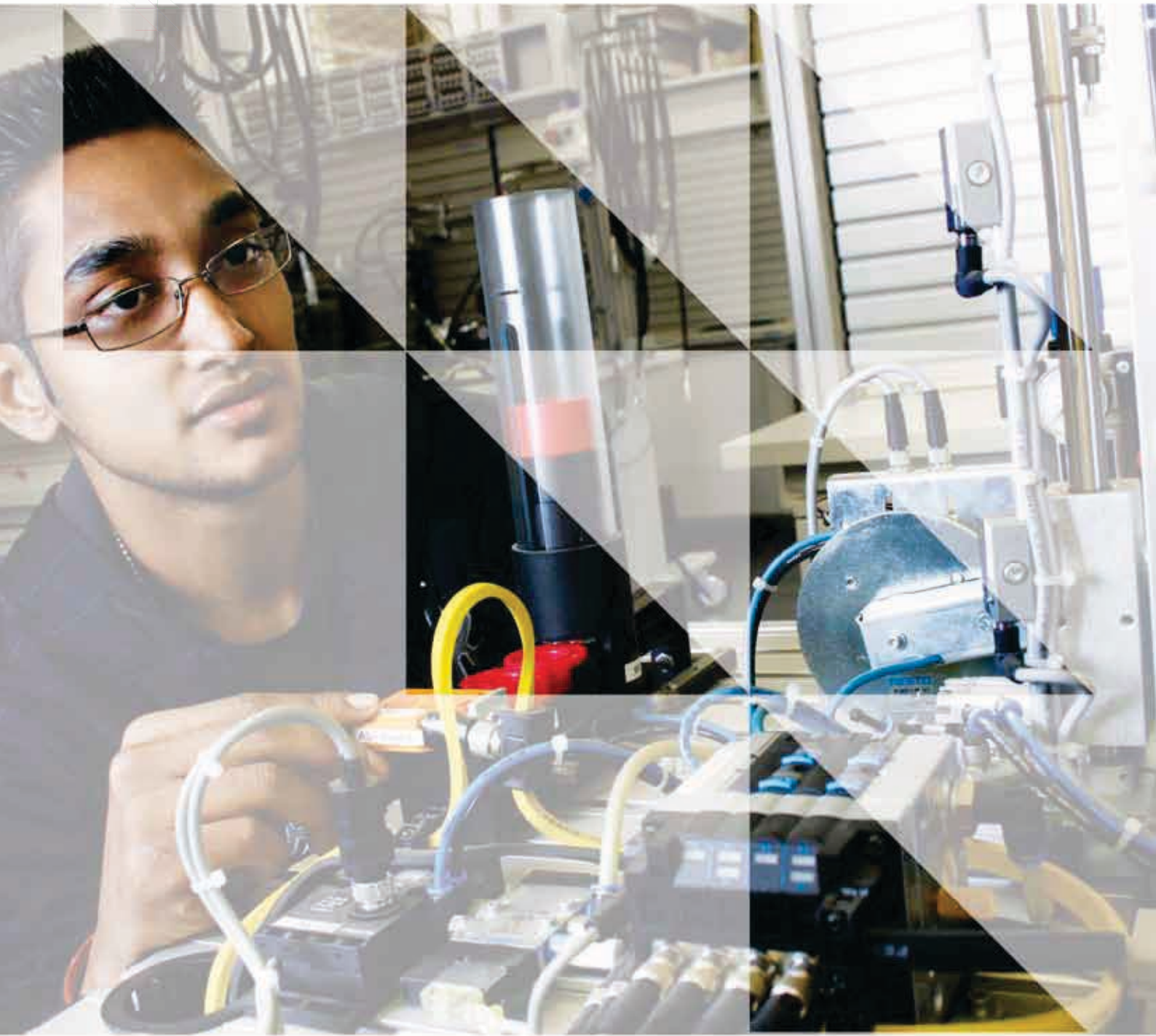
ACKNOWLEDGEMENTS

- Department of Management Information for statistical reports.
- Report: April Graduate Survey 2012. Centre for Quality Promotion and Assurance.
- Heads of individual departments for their input.

Dr KF Netshiombo

Executive Dean: Faculty of Arts and Design





FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT

FACULTY REPORT

The Faculty of Engineering and the Built Environment (FEBE) comprises nine departments on the Steve Biko Campus, namely Chemical Engineering, Civil Engineering and Survey, Construction Management and Quantity Surveying, Electrical Power Engineering, Electronic Engineering, Industrial Engineering, Mechanical Engineering, Town and Regional Planning, Architectural Technology, and the Department of Civil Engineering on the Indumiso Campus in Pietermaritzburg. Architectural Technology joined the Faculty at the beginning of 2011. Every department offers professional programmes that are accredited by a professional council. This implies that the qualifications offered are recognised for professional registration. In terms of headcount enrolments, FEBE is the largest faculty at DUT and makes a significant financial surplus for the University.

During 2012, the Faculty embarked on a strategic expansion proposal in response to a call by the DHET for infrastructure funding in the SET disciplines. The proposal is to offer the programmes in electrical and mechanical engineering, and construction management and quantity surveying, in addition to the civil engineering programme that is currently offered on the Pietermaritzburg Campus. In response to the proposal, a meeting of strategic stakeholders was convened by the Minister's office on the Indumiso Campus, where Minister Nzimande shared his thoughts and commitment to the expansion with the stakeholders. An initial amount of R80.75 million for the engineering expansion was approved by the Minister.

ENROLMENT TRENDS

FEBE is pleased to report that all its programmes either comply with or exceed the enrolment plan of DUT with a total student population of 6 687 compared with the target of 6 364. While the major business of the Faculty is the national diploma programmes, which accounts for approximately 76.49% of the total headcount, the Faculty is enjoying a sustained increase in the BTech applications with a 2012 headcount of 22.33%.

Unfortunately, due mainly to staff resource constraints and the enrolment plan cap, many eligible applications cannot be accommodated. This is expected to contribute to improving the postgraduate headcount, which comprised 66 MTech, from 35 in 2011, and 13 DTech, from eight in 2011 registrations.

The percentage headcount per race remained relatively stable over the last three years with 1.63% Coloured, 3.96% White, 23.90% Indian, and 70.39% African. Female students account for 25.65% of the student population and this has increased marginally over the last three years.

TEACHING AND LEARNING

Teaching facilities within the control of the Faculty, such as laboratories and specialist ICT facilities have now been upgraded with funds received from the infrastructure grant and the roll-over levies allocated to the various departments. These facilities compare well with other wealthier universities in South Africa. However, the general state of the campus and general facilities, together with the incompetence in managing and optimising the infrastructure resources, hinders the progress and dampens our spirit to the point of desperation and sometimes depression. While one can understand the insufficiency of resources, one cannot understand why it is so difficult to get the fundamentals right. The Faculty has a dedicated and responsible Health and Safety Committee that oversees the S-Block and advises other faculties at DUT.

Together with the improved internal facilities in the faculty, teaching and learning innovation founded on rigorous data analysis is gaining momentum. Student centeredness permeates every aspect of our systems and we are beginning to witness the impact of this cultural shift in our teaching and learning; we still have a long road ahead of us. One such example of effective teaching

“Together with the improved internal facilities in the Faculty, teaching and learning innovation founded on rigorous data analysis is gaining momentum. Student centeredness permeates every aspect of our systems and we are beginning to witness the impact of this cultural shift in our teaching and learning; we still have a long road ahead of us.”

Professor Theo Andrew



and learning are some of the initiatives in the Department of Town and Regional Planning.

- Student Centered Learning was introduced in third-year in 2012. Some students were unable to make the connection of taking responsibility for their own learning. This was reflected in general in the academically weak third-year class. The use of reflective journals in the Department, where students identified areas of learning, and through intensive facilitation, their progress and development was monitored;
- The use of a subject facilitator during tutor times to assist students with theory readings; and
- In second year, the introduction of more readings into the four projects continues as a strategy to bridge the theoretical divide between first and second years.

FEBE hosted two important events in 2012. In collaboration with the South African Society of Engineering Education, FEBE planned and hosted a national two-day workshop on the HEQF Alignment and Curriculum Design. Approximately 70 delegates from around the country attended. The other event was a one-day workshop on Improving Student Performance in Engineering, facilitated by Prof Diane Grayson, who is a scholar in Science education, and successfully ran foundation programmes in engineering. Approximately 60 staff members attended. We are following through with this series of seminars in 2013.

The Curriculum Renewal Project at DUT reached a milestone in 2012 with the submission of new programs to Senate for approval. FEBE has designed a new suite of professional programmes in accordance with the HEQSF and professional council requirements. All departments except Civil Engineering at Pietermaritzburg and the Pulp and Paper Technology Unit within Chemical Engineering intend offering a 420 credit three-year degree. The Bachelor of Engineering Technology and the Bachelor of the Built Environment was approved by Senate for submission to DHET.

Student Performance

While success rates, throughput rates and drop-out rates remain a challenge for the Faculty, there is sustained improvement. While performance figures are lower in engineering programmes throughout the country for example, the average time taken to complete a four-year BEng programme is 5.5 years and a three-year diploma five years, the Faculty does not accept this as the norm. Instead, student performance is highest on the agenda of the Faculty's strategic initiatives. Interventions over the past two years, some of which are mentioned above, are beginning to show amelioration. The graduation rate has increased from 16% in 2010/2011 to 17% in 2011/2012. This is despite the slight increase in headcount during this period. The average success rate for the Faculty remains at 72%.

Highlights

- Department of Architectural Technology student, Mthunzi Dumakude, won a poster competition for admission/attendance of the 2012 SAFAL KZNiA Conference, titled "New Paradigms".
- Indrasen Govender, who graduated *cum laude*, received a

silver medal from the South African Institution of Chemical Engineers (SAChE).

- Wandile Mthiyane, a first-year Town Planning student, was awarded a five-year scholarship at Andrews University in Berrien Springs, Michigan, after successfully completing his first year at DUT.
- Cedrick Nzuzi, from the Department of Civil Engineering and Surveying, won the 2011 South African Geomatics Institute's (SAGI) Optron Award. This award is given to the best diploma student (S1 – S4) across the four South Africa universities of technology offering a national diploma on surveying. Nzuzi achieved 15 distinctions with a total aggregate of 78%.
- Graduate Justin Victor attained the highest mark ever in the history of the SA Council for Quantity Surveying's national registration exams.
- Sanera Maharaj, an in-service trainee student placed at Behr South Africa (Pty) Ltd, was one of the members featured on a SABC 1 TV show titled "Isipani". This was a youth development show aimed at creating awareness, understanding and a real view of the world of work. Central to the episode was the role of industrial engineering at Behr.
- SAPI in 2012 has awarded the best overall DUT BTECH: Town and Regional student for 2011 to Nokwazi Maphumulo, and the best overall third-year student for DUT National Diploma: Town and Regional Planning to Nomusa Sibiyi.
- SACPLAN LG-SETA Bursary was advertised and nine students in the Department of Town Planning were awarded a bursary based on financial need and academic merit.
- 276 planning students from six planning schools attended the Planning Student Congress 2012 on Friday, 14 September and Saturday, 15 September 2012 at DUT. The student congress theme was related to the SAPI Planning Africa 2012 Conference themes and focused on "Developing Planning Advocacy and Re-conceptualising the Built Environment, in order to promote, guide and manage growth, achieve equitable outcomes and, encourage participative and inclusive planning practices".
- Oliver Rowe, a lecturer in the Department of Civil Engineering at Pietermaritzburg, was awarded the SAICE Technician/Technologist achiever of the year award by the South African Institution of Civil Engineering.
- The Department of Civil Engineering in Pietermaritzburg continues to use the EXCEED teaching model to enhance student enjoyment of academic instruction. Tom Mckune and Oliver Rowe have now been tasked with evolving a South African version of the training, E3 (Excellence in Engineering Education) which will be run throughout the country to improve teaching skills of engineering academics.
- SACPCMP accreditation was granted until the end of 2014 for NDip (Building) and BTech (Construction Management). Awaiting final report.
- Students from the Department of Mechanical Engineering participated in three inter-tertiary competitions aimed at bringing industry and education closer together:



- Cyberjunkyard – sponsored by Siemens, Lappkabel and Festo.
- Mobile Robotics – sponsored by Festo.
- Flexibly manufacturing/mechatronics – sponsored by Festo.
- In total, nine students participated in the three competitions and the teams were placed fifth, third and second in the respective competitions.
- Suresh Ramsuroop from the Department of Chemical Engineering has been appointed as an ECSA representative on the CHE Project on Extended Curriculum.
- In 2012, the Chemical Engineering Department continued to participate in the international Chemical Engineering education forums. Through active participation in the European Union Chemepass Project, the Department has been included in the new Thematic Network project entitled: EUROPEAN CHEMISTRY AND CHEMICAL ENGINEERING NETWORK (EC2E2N). The network, funded by the European Commission, is established to facilitate the transition of chemistry and chemical engineering qualifications to the new higher education framework adopted in Europe. Whilst the primary objective of the project is to benefit higher education in Europe, there are several benefits and opportunities that arise from DUT's participation in the project. Suresh Ramsuroop has also been elected to serve on the Working Party of Education (WPE) of the European Federation of Chemical Engineering (EFCE).

STAFF PROFILE

FEBE has a total staff complement of 162, of which 110 are academic (full-time and contract). Expected qualifications of academic staff are below the benchmark and this is the most challenging area for development. The percentage of academic staff that have a highest qualification of a Master's degree or equivalent is 45%, and 10% have doctoral degrees. However, the pending appointments and the number of staff that are completing their doctoral degrees indicate that we can expect an additional eight staff with Doctorates by the end of 2013.

Females make up for approximately 22.22% of the total staff. Of the 126 male staff, the demographic profile is approximately 3.17% Coloured, 15.08% African, 23.81% White, and 51.59% Indian. While FEBE has made much progress in working towards a diverse student population, the progress with respect to staff equity is slow. There are a number of factors that contribute to this slow progress, but the Faculty remains committed to keeping this high on its agenda. After the 2012 departmental research road show, departments submitted development plans for every academic staff. The reality is that there are a significant number of academic staff who are nearing retirement and do not see the need to engage in higher qualifications.

RESEARCH AND SCHOLARSHIP

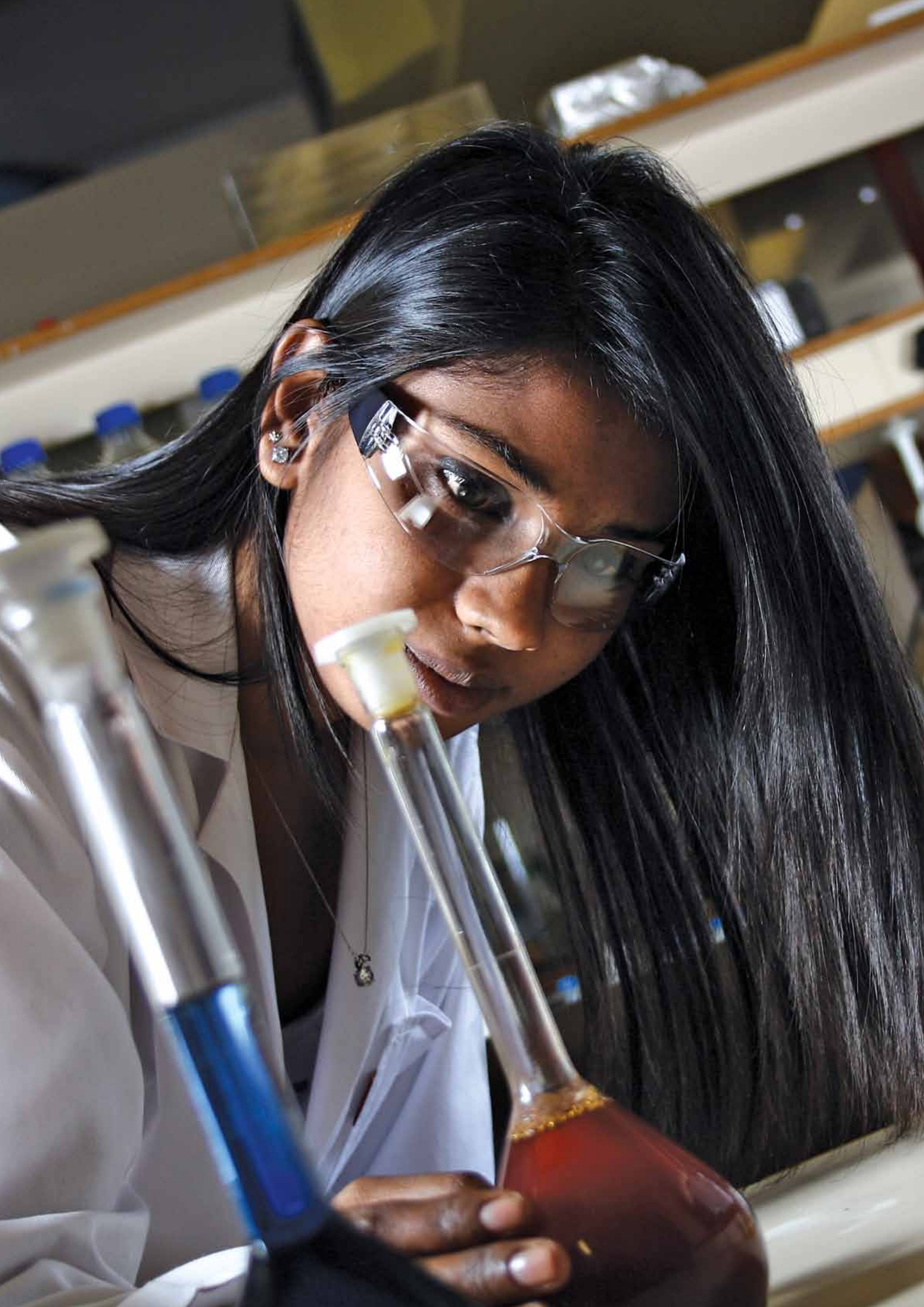
The Faculty is encouraged by the progress made with respect to scholarship development. There are 12 research activity areas in FEBE at varying stages of maturity. In addition to the

interventions mentioned in our previous annual reports, each department committed to producing at least 0.5 units of research output per staff member after the departmental road show on research development. At this developmental stage, the idea is to develop a culture of scholarship and therefore we are not expecting all of the units to be accredited.

The following research outputs and highlights are an indication that the interventions are leading to improvement. There has been a significant increase over the last four years. Between 2011 and 2012, the postgraduate registrations almost doubled to 79; the conference proceedings/presentations and technical reports increased from 29 to 71; and the journal/book chapter articles increased from 18 to 21.

Conference Papers/Proceedings

- Achisa, M.C., Ndinisa, V.N., and Pillay, V.L. (2012). Disinfection performance of nanosilver impregnated membranes. The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Adams, F.V., Mbuli, B.S., Krause, R.W., Pillay, V.L., Oren, Y., Linder, B.B. and Mamba, B.B. (2012). Preparation and characterisation of thin film composite membranes using functionalised cyclodextrins for the purification of water; The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Adeyemo, J.A. and Olofintoye, O. (2012). Application of hybrid models in water resources management, Proceedings of EVOLVE 2012, 07-09 August, Mexico City, ISBN 978-2-87971-112-6.
- Alfa, D., Pikwa, K., and Pillay, V.L. (2012). Development and Evaluation of small-scale water disinfection system, The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Andrew, T., Petkov, D. and Petkova, O. (2012). Boundary Judgements in Engineering Curriculum Design using Critical Systems Heuristics, Engineering Education for sustainable Development and Social Inclusion, WEEF 2012, 15-18 October, Buenos Aires, Argentina, ISBN 978-987-1896-05-9.
- Baraka, J. M., Naicker, A. K. and Singh, R. (2012). Discrete Event Simulation modeling to improve productivity on an automotive production line, 42nd International Conference on Computers and Industrial Engineering, 16 – 18 July, Cape Town.
- Cele, M.X., and Pillay, V.L. (2012). A membrane bioreactor package plant for sanitation in developing economies. The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Chaithoo, D. B. and Allopi, D. (2012). A software tool approach to re-evaluating superelevation in relation to drainage requirements and vehicle dynamics: A case study, Proceedings of the 31st Annual Southern African Transport Conference (SATC 2012), Pretoria, ISBN 978-1-920017-53-8.
- Chaithoo B. D. and Allopi, D. (2012). Re-evaluating superelevation in relation to drainage requirements and vehicle dynamics, Proceedings of the 18th International





- Conference on Urban Transport and the Environment, May 2012, Spain, ISSN 1743-3509.
- Chetty, M. and Soobramney, R. (2012). Hydrodynamic study of airlift reactors. The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- De Kock, D. (2012). Investigating barriers to and initiatives for agency participation in addressing the cumulative environmental effects of development for the Pietermaritzburg area of KwaZulu-Natal, Annual Research Conference, 15 November; DUT, Durban.
- De Villiers, L. (2012). The Effect of the Numberwise program on first year students' academic performances at the Department of Civil Engineering, DUT, Annual Research Conference, 15 November; DUT, Durban.
- Dewa, M., Chidzuu, L. (2012). Bottleneck management through discrete event simulation for manual automobile assembly systems, 42nd International Conference on Computers and Industrial Engineering, 16 – 18 July, Cape Town.
- Enitan A.M., Swalaha F.M. and Adeyemo J.A. (2012). Incidence of High-Level Antimicrobial Resistance in Bacterial of Animal, Human and Water Origin, Proceedings of Water Institute of Southern Africa Biennial Conference and Exhibition 05 – 09 May, Cape Town, ISBN: 978-0-9802623-8-4.
- Gordon, T. (2012). The art of place-making in the urban realm in eThekweni Municipality, South Africa, Proceedings of International Planning Africa Conference, 18-21 September; Durban.
- Gordon, T. (2012). Good intentions: the production of urban public space in eThekweni Municipality, South Africa Proceedings of the Cities to be Tamed Conference, 15-17 November; Milan.
- Govender, P., Pillay, N. and Moorgas, K.E. (2012). ANN's vs SVM's for image classification, Proceedings of the International Conference on Electronic and Computer Systems, 22-24 August, Ottawa, Canada, ISBN 978-0-9867183-5-9.
- Hay, S. (2012). Trenchless Technology Research: Socio-economic inconvenience "costs" borne by the public during Municipal Pipe Rehabilitation/ Replacement Projects, Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Hansmann, R.J., Kitching, J. and Cooke, H. (2012). Land Use Surveys Methodology: Case of Greater Warwick, Ethekweni, Proceedings of International Planning Africa Conference, 18-21 September; Durban.
- Kanny, K. and Mohan, T.P. (2012). Fatigue studies of untreated and NaOH-clay treated sisal fiber polypropylene and epoxy composites, Proceedings of 15th European Conference on Composite Materials – ECCM15, 24-28 June, Venice.
- Khan, S.J., Ali, S., Visvanathan, C., and Pillay, V.L. (2012) Membrane biofouling characterisation in a membrane based septic tank, International Workshop on Membrane Fouling and Monitoring, 20-21 September; University of Oxford.
- Kunene, O. and Allopi, D. (2012). Maintenance of paved areas and roads within the Port of Durban, Proceedings of the International Conference on Chemical, Civil and Environmental Engineering (ICCEE'2012), March 2012, Planetary Scientific Research Centre, Dubai, ISBN 978-81-922428-1-1.
- Kunene, O. and Allopi, D. (2012). A survey on road users with regard to road maintenance, safety and traffic within the Port of Durban, Proceedings of the 31st Annual Southern African Transport Conference (SATC 2012), July 2012, Pretoria, ISBN 978-1-920017-53-8.
- Luckan, Y. (2012). A new paradigm may emerge from a place between theory and practice, KZNIA, 26-27 October; Durban.
- Loji, K. (2012). Toward Teaching Methods that Develop Learning and Enhance Problem Solving Skills in Engineering Students, South African Journal of Higher Education, Vol. 26(1), ISSN 1011-3487.
- McKune, T.W. and Hay, S. (2012). University of Technology Based Experiential Learning for Civil Engineering – an Alternative Approach, Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Metcalfe, G., Murutu, C., and Pillay, V.L. (2012). Reclamation of wastewater to potable standards: The Darville Project. The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Mhlongo, T.N. (2012). Determination of New Lecturing Techniques for Water Engineering in the Civil Engineering Department at Durban University of Technology (Midlands Campus), Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Mithil Kumar, N. and Kanny, K. (2012). Poly(aspartic acid(ASP)-citric acid (CT) [p(ASP-CT)] copolymer as a green inhibitor for calcium carbonate scales, Proceedings of International Conference on Chemistry and Materials: Prospects and Perspectives, 14-16 December; Lucknow.
- Mncube, B.T., and Pillay, V.L. (2012). Developing and evaluate membranes for effluent treatment in underdeveloped and developing countries, The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Murutu, C. and Pillay, V.L. (2012) Organic micro-pollutants: a challenge to wastewater reclamation for potable use The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Mwaipungu, R. R. and Allopi, D. (2012). Review of sub-Saharan Africa gravel roads management system: Tanzanian case study, Proceedings of the 18th International Conference on Urban Transport and the Environment, May 2012, Spain, ISSN 1743-3509.
- Mwaipungu, R. R. and Allopi, D. (2012). The use of gravel loss predicting models for effective management of gravel roads, Proceedings of the 31st Annual Southern African Transport Conference (SATC 2012), July 2012, Pretoria, ISBN 978-1-920017-53-8.
- Mwaipungu, R.R. and Allopi, D. (2012). The appropriate material specifications and manual are key for effective gravel roads design, construction and maintenance practice, Proceedings of the 1st National Conference on Intermodal Transportation: Problems, Practices, and Policies, October 2012, Hampton, Virginia,
- Mwaipungu, R.R. and Allopi, D. (2012). Environment and climatic challenges associated with gravel roads: Tanzania case



- study, Proceedings of the 8th International Conference on Mitigation and Adoption to Climate Change; Social Economic and Engineering Perspectives, The Institution of Engineers Tanzania, December 2012, Arusha.
- Naidoo, P., Carsky, M. and Rathilal, S. (2012). Investigation of the effects of the process and equipment parameters on the separation efficiency of a vibrating plate extractor; SAChE Conference, 16-19 September; Champagne Sports Resort: Drakensberg.
- Olofintoye, O.O. and Adeyemo, J.A. (2012). Impact of regional climate change on the rainfall and inflow of the Vanderkloof dam in South Africa, Proceedings of Water Institute of Southern Africa Biennial Conference and Exhibition, 05 – 09 May, 2012, Cape Town, ISBN: 978-0-9802623-8-4.
- Olofintoye, O.O. and Adeyemo, J.A. (2012). Development and Assessment of a Fourier Model for the Prediction of Maximum Daily Rainfall in Ilorin, Nigeria, Proceedings of Water Institute of Southern Africa Biennial Conference and Exhibition, 05 – 09 May, 2012, Cape Town, ISBN: 978-0-9802623-8-4.
- Olofintoye, O.O., Adeyemo, J.A. and Otieno, F.A.O. (2012). Artificial neural networks for precipitation-runoff process modeling, Proceedings of Water Institute of Southern Africa Biennial Conference and Exhibition, 05 – 09 May, 2012, Cape Town, ISBN: 978-0-9802623-8-4.
- Otieno, F.A.O. and Adeyemo, J.A. (2012). Accessibility of pupils to drinking water in Kwazulu-Natal rural schools. Proceedings of Water Institute of Southern Africa Biennial Conference and Exhibition 05 – 09 May, 2012, Cape Town, ISBN: 978-0-9802623-8-4.
- Padayachee, N. (2012). The Water Loss Investigation at Mbazwana Water Supply Scheme, Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Pancha, U. (2012). Operating room scheduling for private hospitals, 42nd International Conference on Computers and Industrial Engineering, 16 – 18 July, Cape Town.
- Patrick, M. (2012). Introducing Drawing I, skills and concepts, Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Paul, V., Kanny, K. and Redhi, G.G. (2012). Mechanical and thermal properties of bio-composites made from non-woven banana fibers and banana-sap based resin, Proceedings of 3rd International Conference on Natural Polymers, Bio-polymers, Bio-materials, their Composites, Blends, IPNs, Polyelectrolytes and Gels: Macro to Nano Scales (ICNP-2012), 26-28 October; Kerala.
- Pienaar, S.F.E. (2012). Using pH, measuring the requirements, and the success of, using hydrated lime or cement in chemical stabilization, Annual Research Conference, 15 November; DUT, Durban.
- Pillay, A. (2012). Development of the Indlebe Radio Telescope, Radio and Antenna Days of the Indian Ocean Conference, Flic-en-Flac, Mauritius.
- Pillay, V.L. and Maipato, T. (2012). Evaluation of a biological ultrafiltration membrane for the production of potable water. The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Pillay, V.L., Visvanathan, C., Jacobs, E.P. and Kalu, A. (2012). Fabric Membranes: A promising alternative for developing countries. The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Rowe, O.A. (2012). Examination of Survey Records within the Surveyor-General's office, a necessity or a hindrance – Perception Survey, Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Sankqela, S. and Utting, P.L. (2012). Managing resources to avoid project failure, 2nd NMMU CM Conference, November 2012, Port Elizabeth.
- Saroop S and Allopi D. (2012). Establishing a green rating system on civil engineering infrastructure projects, Proceedings of the 31st Annual Southern African Transport Conference (SATC 2012), Pretoria, South Africa, July 2012, ISBN 978-1-920017- 53-8.
- Shitemi, K.K., Ndinisa, N.V. and Pillay, V.L. (2012). Optimisation of the anti-fouling mechanisms for the submerged woven fibre microfiltration (WFMF) membrane bio-reactor; The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Singh, R. and Naicker, A. (2012). Quantitative decision making in a manufacturing environment through the use of discrete event simulation – A rapid response tool for managers at the MANCOSA colloquium, 31 May, Durban.
- Stuart, D. (2012). The use of animated 3D models created with Sketchup software to teach surveying equipment operation and the related field operation, Department of Civil Engineering PMB Research Colloquium, 5 September; DUT, Pietermaritzburg.
- Tabakov, P.Y. and Walker, M.A. (2012). Computational methodology to select the optimal material combination in laminated composite pressure vessels, Proceedings of the 8th WSEAS International Conference on Applied and Theoretical Mechanics (MECHANICS'12), 29-31 December; Montreux.
- Utting, P.L. (2012). Towards more effective management of house construction projects, 2nd NMMU CM Conference, November 2012, Port Elizabeth.
- Vallabh, S., Munnik, V., Rietveld, L. and Pillay, V.L. (2012). POU Water Treatment Units: Social Acceptability Aspects, The Water Institute of South Africa Biennial Conference and Exhibition, 7-9 May, Cape Town.
- Whelan, D. (2012). New rules for a new game: re-introducing relevance into architectural education for multicultural societies at the Durban University of Technology, KZNiA, 26-27 October; Durban.
- Whelan, D. (2012). Museums in a Changing World – New Challenges, New Inspirations, South African Museums Association, 16- 18 April. The Msunduzi Museum, Pietermaritzburg.
- Whelan, D. (2012). The abandoned éclair: Post-modern spaces:- the Marie Celeste Effect – Re-conceptualising an approach to relevant museum display, SAPCON Libraries, Archives and Museums Conference, Montrose House Conservation and repair, 14-16 March, ICC Durban.



Whelan, D. (2012). Keynote Speaker: Trading Lives- trade in Zululand, Annual Conference Federation of Women's Institute's, 4 September; Durban.

Journal Articles and Chapters in Books

- Adeyemo, J.A., Olofinloye, O. and Otieno, F.A.O. (2012). Impact of regional climate change on freshwater resources and operation of Vanderkloof dam in South Africa, in *Global Warming*, ISBN 979-953-307-820-4.
- Allopi, D. and Saroop, S. (2012). Towards greener infrastructure, *Journal of the Institution of Municipal Engineering of Southern Africa*, Vol. 37 (4), 3-25, ISSN 0257 1978.
- Luckan, Y. (2012). Towards a sustainable architectural profession in Post-Apartheid South Africa: questions of segregation and disconnection, in A. Adebayo (ed.) *Architecture and the City: Mega Events, Spatial Interventions & Housing Policies*, Durban, Fishwicks.
- Carsky, M., Rathilal, S., Heyberger, A. and Rousková, M. (2012). Difference of hydrodynamics for a VPE with and without mass transfer and effect of agitation level on extent of mass transfer, *SA Journal of Chemical Engineering*.
- Mwaipungu, R. R. and Allopi, D. (2012). The use of longitudinal roughness data as a tool for effective maintenance management of gravel roads, *Journal of the Institution of Engineers Tanzania*, Vol. 12 (1), 76-83, ISSN 0856-0196.
- Kunene, O. and Allopi, D. (2012). An investigation on road safety within the Port of Durban, *International Journal of Engineering, Science and Innovate Technology*, IJESIT1909201210_243, Vol.1 (2), 199-206, ISSN 2319-5967.
- Li, Z. and Govender, P. (2012). Development of an intelligent vision and sorting system, *South African Journal of Industrial Engineering* Vol. 23(1), 226-236, ISSN 1012-277X.
- Mohan, T. P. and Kanny, K. (XX). Reuse of cured epoxy as a reinforcement in an epoxy composites, *Polymer Engineering and Science*, article in press.
- Mohan, T.P. and K. Kanny (2012). Effect of nanoclay in HDPE-Glass fiber composites on processing, structure and properties, *Advanced Composite Materials*, vol. 21(4), 315-31.
- Mithil Kumar, N. and Kanny, K. (XX). A novel biodegradable poly(poly hydrobutanedioic acid-co-2-hydroxypropane-1,2,3-tricarboxylic acid)] copolymer for water treatment applications, *Open Journal of Organic Polymer Materials*, article in press.
- Mohan, T.P. and Kanny, K. (2012). Chemical treatment of sisal fiber using alkali and clay method, *Composites Part A: Applied Science and Manufacturing*, vol. 43(11), 1989-98.
- Olofinloye, O., Adeyemo, J.A. and Otieno, F.A.O. (2012). Evolutionary algorithms for water resources management, in *Advances in Intelligent and Soft Computing*, 491-504, Springer-Verlag Berlin Heidelberg.
- Parrot, G. (2012). *Structural Steel Design to SANS:10162:1-2005* ISBN 1-919858-13-X which incorporates the latest loading code based on the Eurocode.
- Pauck, W. J., Venditti, R., Pocock, J. and Andrew, J. (2012). Using statistical experimental design techniques to determine the most effective variables for the control of the flotation deinking of mixed recycled paper grades. *TAPPSA Journal*. 2.

Paul, V., Kanny, K. and Redhi, G.G. (2013). Formulation of a novel bio-resin from banana sap, *Industrial Crops and Products*, vol. 43, 496-505.

- Petkov, D., Alter, S., Wing, J., Singh, A., Petkova, O., Andrew, T. and Sewchurran, K., (2012). Project Contexts and the Possibilities for Mixing Software Development and Systems Approaches, in *Research Methodologies in Systems/Software Engineering and Information Systems: Philosophies, Methods and Innovations*, Mora, M., Gelman, O., Steenkamp, A., and Raisinghani, M., (eds.), IGI Publishing, Hershey, PA. ISBN 978-1-4666-0179-6.
- Radebe, I.S. and Adali, S. (XX). Minimum weight design of beams against failure under uncertain loading by convex analysis, *Journal of Mechanical Science and Technology* (paper has been accepted)
- Singh, N., Denissen, E., McKune, A.J. and Peters, E.M. (2012). Intestinal temperature, heart rate, and hydration status in multiday trail runners. *Clin J Sport Med*, vol. 22(4), 311-318.
- Tabakov, P.Y., Latkina, L.P. and Sulejmenova, L.R. (2012). *Expert and intelligent systems*, Textbook published by Ministry of Education and Science, Republic of Kazakhstan, Ust-Kamenogorsk.
- Whelan, D. (2012). Whose Colony and whose legacy: Layers of power and Hybrid Identities in Edendale, Pietermaritzburg, South Africa, in F. Demissie, *Colonial Architecture and Urbanism: intertwined contested histories*. London, Ashgate.
- Whelan, D. (2012). (Guest Editor) Re(a)dressing the Old Dames, *KZNIA Journal 2/2012*, 6-7.

Technical Reports

- Jonson, D., Finite Element Analysis of Clarifier Roof Structure for Schematic Pty Ltd
- Jonson, D., Manufacture of radar absorbent future Ingwe RCS model for Denel Aerospace Systems
- Jonson, D., Finite Element Analysis of a Wind Tunnel Model of the Future Ingwe Missile for Denel Aerospace Systems
- Jonson, D., Analysis of fan blade ELF 8 Size 34- Effect of Stiffener Failures for Howden Pty Ltd
- Jonson, D., Analysis of interconnecting piping for 150 foot burner boom to ASME B31.3-2006 for Aloga Oil Pty Ltd
- Kitching, J., Greater Warwick Precinct Land use – Multi-level land use survey and analysis, Land Use Surveys for eThekweni Municipality
- Walker, M. and Hamilton, R., Laminar design of wind turbine blade for Walter Sisulu University
- Whelan, D., Expert Report, Nhlanhleni Community Land claim for State Attorney's Office, November 2012
- Whelan, D., Heritage Impact Assessment, Clairwood Turf Club for Back of Port Development, September 2012
- Whelan, D., Heritage Impact Assessment and Statement of Significance for Umzimkulu Memorial Hall, November 2012

Highlights

- The Aerotropolis Seminar was hosted by the Department of Town and Regional Planning, Dube TradePort and Tongaat Hullet Development at DUT on 30 May 2012 and Dr John Kasarda, author; international consultant and academic, was the keynote speaker.

- Dr Josiah Adeyemo from the Department of Civil Engineering and Survey in Durban was selected as the Top University Junior Researcher at Durban University of Technology Annual Research award function held at the Durban Country Club.
- Professor Mervyn Kanny from the Department of Mechanical Engineering received the "Top Researcher in the Faculty Award" at Durban University of Technology Annual Research award function held at the Durban Country Club.
- Dr Bruce Rigby, who assists with the DUT Real-Time Digital Simulation Centre, has been appointed to the honorary position of Professor Extraordinaire in the Department of Electrical Power Engineering.
- The Department of Mechanical Engineering is the custodian of the DHET funded Carl Zeiss Scanning Electron Microscope, which will prove invaluable in further research in the Faculty and the University as a whole.
- A seminar on Advanced Traffic Management Systems (ATMS) was co-ordinated and hosted by the Faculty of Engineering and the Built Environment at DUT on 4 December 2012. Participants from USA, UK, Netherlands, Portugal, Spain, Norway and South Africa discussed technologies and solutions surrounding Intelligent Transportation Systems (ITS) and the advanced management of these systems. Presenters spoke about the need for Open Standards as well as solutions to Modern Traffic Congestion Challenges. Major topics included Traffic Flow, Congestion, Highway, and City Infrastructure Management, Logistic Solutions, as well as Advances in Video Analytics, Journey Time, Weight in Motion and Detection. In addition, collaborative research initiatives between DUT, Q-FREEAFRICA and Q-FREE ASA were highlighted. The seminar follows the recent signing of a Memorandum of Understanding (MoU) between DUT and Q-FREEAFRICA, with one of the key outcomes being the establishment of a Centre of Excellence in Intelligent Transportation Systems (ITS) at DUT. As per the MoU, Q-FREEAFRICA have also began to provide funding to the value of R240 000 over a period of 24 months; this will be used primarily to fund postgraduate research and expand the Department of Electronic Engineering's Intelligent Systems research group by incorporating ITS and Logistics research. In addition, Q-FREEAFRICA sponsored a knowledge sharing expedition during September 2012 to Norway and Netherlands for one of our staff members, Seren Reddy, from the Department of Electronic Engineering.
- The RAT centre now has four radio telescopes at various stages of completion. The group comprises three academic staff, one of whom is now focusing on outreach. There are six Master's students and 14 undergraduates, including 5 from the SKA African partner countries.
- A one-day workshop was presented by Stuart MacPherson and Gary van Vuuren at DUT in December 2012 for a group of Physics undergraduate students from UKZN and UNISA. The title of the workshop was "An Introduction to Radio Astronomy Technology (RAT)". Other workshops include: SKA HCD Workshop, Cape Town; UKZN Astrophysics and Cosmology Research Unit (ACRU) Workshop, Margate; and SKA/UKZN Radio Astronomy Workshop, UKZN, Durban. Stuart also responded to the

KZN SAIEE Chair's invitation to make a presentation to its members on the RAT centre at DUT.

- Staff and students from the Department of Town and Regional Planning participated in the MILE Chance 2 Change Seminar on the Production of Knowledge EU funded research programme between the University of Amsterdam and University of KwaZulu-Natal on 17 May 2012 at Botanical Gardens Conference Centre. Staff and students also participated in the MILE Sustainability of Rail Seminar developed by DUT and hosted by UKZN on 23 May 2012 at Botanical Gardens Conference Centre.

STAKEHOLDER/EXTERNAL ENGAGEMENT

In keeping with our vision and mission, staff in FEBE are encouraged to engage with the relevant agents in society. These agents range across professional bodies, learned societies, government agencies, rural communities and business/industry. The activities are numerous and therefore only a selected list of activities is provided below, sufficient to indicate the level and depth of our engagement with key stakeholders.

- Siemens Pty (Ltd) partnered with DUT in the Siemens Junior Cyber Junkyard Challenge 2012. The purpose of the competition is to foster ongoing relationships between industry and education in Southern Africa. The aim of the Junior Cyber Junkyard Challenge is to extend the technical relationships to include high schools and FET colleges. DUT was responsible for the management of the Project in the KwaZulu-Natal region. Two technical high schools and one FET college, namely, Phoenix Technical High School, George Campbell School of Technology and Coastal KZN FET College (As-Salaam) were selected to participate in the challenge. The objective of the project was for the learners to design, build and programme a fully functional water tank system which involved the understanding of the principles of flow rate, volume calculation, basic logic control and plant safety. The project was a resounding success. George Campbell School of Technology was declared the winner of the competition at a function held at DUT on 25 October 2012.
- The Durban University of Technology, National University of Lesotho (NUL), Polytechnic of Namibia (PON), University of Pretoria (UP) and the University of Botswana (UB) entered into a regional partnership agreement to stimulate and facilitate the intellectual life and cultural development of institutions in the countries in the areas of renewal energy and energy efficiencies, forming the Regional Energy Forum (REF).
- The Technology Station in Moulded and Reinforced Plastics in the Department of Mechanical Engineering continue to provide cutting edge technological solutions to industry partners and SMEs. The Station at DUT engaged in 74 projects with a total monetary worth of R787 000, of which 62 were short-term and have thus been completed. The remainder are ongoing. Seventy-two (72) of these projects were/are carried out for SMEs and some large companies, whilst two were





internal (manufacturing components for the major project). In total, 32 SMEs, nine large companies and three DUT departments were assisted (in some cases more than once).

- The Singakwenza Ndawonye Student Empowerment Scheme continues to provide a valuable vehicle to undertake community projects and to engage with the community immediately surrounding the Indumiso Campus and the province at large. Through this scheme, 287 students have managed to secure and complete their WIL component, thereby improving the programme throughput rate.
- The Department of Civil Engineering in Pietermaritzburg has completed the construction of a replacement bulk water supply system for the Indumiso Campus. The project was completed well within budget at a saving of more than R1,4 million to the University.
- A number of visiting lecturers from Industry have undertaken guest lectures in the Department of Town and Regional Planning. Karen Petersen from Tongaat-Hulett, Kiran Pathrab of eThekweni Municipality, and Ravesh Govender delivered a lecture on the Integrated Development Plan of eThekweni Municipality.
- Dr Wale Alade of the Department of Urban and Regional Planning at the University of Lagos lectured the third-year students on Informality and Planning in Lagos.
- Dr Maggie Chetty, HoD, and Suresh Ramsuroop from the Department of Chemical Engineering are members of the SAICHE KZN council. Suresh Ramsuroop continues to play a prominent role in the Engineering Council of South Africa's (ECSA) Engineering Standard Generating Body (ESGB) and accreditation panels.
- Prof D Allopi and Yunus Vawda, from the Department of Civil Engineering and Survey, were involved in ECSA accreditation visits to various universities.
- Greg Parrott, from the Department of Civil Engineering and Survey, serves on the committees of the South African Institute of Steel Construction (SAISC) and the Concrete Society of Southern Africa (CSSA).
- Terry Hunter, from the Department of Civil Engineering and Survey, serves on the South African Council for Professional and Technical Surveyors (PLATO) vetting committee.
- Batsetswe Saane, from the Department of Civil Engineering and Survey, serves on the Educational Advisory committee (EAC) which is a sub-committee of the South African Council for Professional and Technical surveyors (PLATO).
- Tom McKune, HoD of Civil Engineering, Pietermaritzburg has been appointed to serve a further four-year term on the ECSA Technology Programme Accreditation Committee (TPAC) as a HESA representative.
- Greg Parrott and Tom McKune present CPD courses around the country to professional engineers in industry on behalf of the South African Institute of Civil Engineering (SAICE).
- Yashaen Luckan, HoD: Department of Architecture serves on the SACAP Validation Board, and also evaluates new architectural and related qualifications for the CHE. He also served on the scientific committee of the KZNiA "New Paradigms" Conference, 2012.
- Dr Debbie Whelan from the Department of Architecture

is the Chairperson: Macrorie House Museum Board of Trustees, Chairperson: Midlands Built Environment Committee, Amafa aKwaZulu-Natali, Committee member: Friends of the Tatham Art Gallery (resigned December 2012), and is involved with ongoing work on the Montrose Hose Eco-Museum project in Mpophomeni.

- Paulo Da Costa and Tseliso Moahloli from the Department of Architecture are involved with a community engagement project as part of the third-year integrated studio – The Hambanathi Agri-Hub Challenge, Newlands Mashu Community Development Centre (the client), a Section 21 company established in 2001. The project aims to build sustainable communities by supporting agriculture-based initiatives
- Rodney Stops, from the Department of Power Engineering, who continues to serve on the committee of the South African Institute of Electrical Engineers, has now been elected to the position of Vice-Chairman of the KZN branch.
- Andrew Naicker, HoD: Department of Industrial Engineering was involved in ECSA accreditation visits to various universities.
- Ranil Singh from the Department of Industrial Engineering was elected as a council member of the SAIE (2012-2013).
- Andrew Naicker and Cor Lourens served as adjudicators for the Productivity SA – NPI Productivity Regional Awards (2012).
- Siva Reddy, HoD: Construction Management and Quantity Surveying, partnered with the Master Builders Association (MBA) in school visits to promote the profession.
- Earl la Vita, from the Department of Construction Management and Quantity Surveying, is project manager rendering in-house technical expertise in classroom renovations at DUT. He is also the project manager rendering technical expertise and installing dry wall partitioning at the Sa Zakha Fund (SANZAF).
- Siva Reddy is an evaluator for new Construction, Quantity Surveying and related qualifications for the CHE/HEQC. He also serves as a national external moderator for the SA Council for Quantity Surveying Professionals, and evaluator and moderator for CETA accredited construction industry programmes. He is the project manager and principal agent for new class and specialist rooms at Ridge Park College.
- Dr Peter Utting, Construction Management and Quantity Surveying, is a member of the Regional Council of the Chartered Institute of Building (Africa) and member of the KZN CIOB committee (ex-Chair). He also served as an SACPCMP accreditation panel member.
- George Ramphal, Construction Management and Quantity Surveying, is a member of the KwaDukuza valuations appeals board.
- Gill Lincoln represents the Department on the International Planning Africa Conference Scientific Review Committee.
- Professor Theo Andrew is a board member of the HEQC, SASEE, and council member of the KZN SAIEE.

Prof Theo Andrew

Executive Dean: Faculty of Engineering & the Built Environment





**FACULTY
OF HEALTH
SCIENCES**

FACULTY REPORT

MISSION

In 2012, the Faculty of Health Sciences acknowledged the need to continue to strengthen its commitment to improve success and throughput rates, research and postgraduate output and credentialing of staff. We strive to graduate quality health professionals that are practice orientated and mindful of the healthcare needs of South Africa and Africa.

ACHIEVEMENTS IN 2012

Once again a staff member in the Faculty, Mrs R Sunder, was successful in securing the prestigious HELTASA Excellence in Teaching award.

ENROLMENT

Table 1: Headcount by Qualification Type by Gender: 2012

QUALIFICATION TYPE	2010		2010 TOTAL	2011		2011 TOTAL	2012		2012 TOTAL
	Female	Male		Female	Male		Female	Male	
Undergraduate	1 351	607	1 958	1 381	633	2 014	1 375	653	2 028
National Certificate	59	13	72	47	15	62	47	26	73
National Diploma	876	438	1 314	883	426	1 309	804	395	1 199
BT – 4 year	72	34	106	128	65	193	195	100	295
BHSc				12	15	27	22	33	55
BTech	344	122	466	311	112	423	307	99	406
Postgraduate	81	48	129	84	47	131	123	60	183
MTech	78	45	123	81	44	125	115	58	173
DTech	3	3	6	3	3	6	8	2	10
Total	1 432	655	2 087	1 465	680	2 145	1 498	713	2 211

As shown in the table above, total enrolment increased marginally by 3% in 2012 compared to 2011. Female students made up 68% of the enrolment. In 2012, enrolments were affected by poor matriculation performance in mathematics.

Undergraduate enrolments made up almost 92% of total enrolments, with a very small increase in actual postgraduate

numbers. The main challenge affecting postgraduate enrolment remains the supervision capacity with the Faculty.

“Once again a staff member in the Faculty was successful in securing the prestigious HELTASA Excellence in Teaching award.”

Professor T Puckree



Table 2: Headcount by race: comparisons 2011 to 2012

QUALIFICATION TYPE	2011						2012					
	African	Coloured	Indian	White	Other	Total	African	Coloured	Indian	White	Other	Total
Undergraduate	1 277	57	504	174	2	2 014	1 371	50	434	168	5	2 028
National Certificate	56	1	5			62	73					73
National Diploma	790	42	379	96	2	1 309	753	32	323	88	3	1 199
BT – 4 year	191	1	1			193	292	1	1		1	295
BHSc	17		1	9		27	30	1	5	19		55
BTech	223	13	118	69		423	223	16	105	61	1	406
Postgraduate	25	3	39	63	1	131	57	4	54	67	1	183
MTech	23	3	37	61	1	125	51	4	52	65	1	173
DTech	2		2	2		6	6		2	2		10
Total	1 302	60	543	237	3	2 145	1 428	54	488	235	6	2 211
%	61	3	25	11	<0,5		65	2	22	11	<0,5	

The table above shows a 10% increase in the enrolment of Black African students with a concomitant drop in Coloured and Indian students. The majority of the increase is noted in undergraduate enrolment and especially in the four-year nursing degree offered at Indumiso Campus.

SUCCESS RATES

Table 3: Success rates per Department and overall

DEPARTMENT	2010	2011	2012
Basic Medical Sciences	79%	87%	91%
Biomedical and Clinical Technology	79%	85%	87%
Chiropractic and Somatology	78%	80%	92%
Community health Studies	85%	90%	93%
Dental Sciences	91%	91%	87%
Emergency Medical Care and Rescue	90%	89%	92%
Homeopathy	71%	71%	94%
Nursing		91%	88%
Radiography	95%	98%	90%
Total	84%	88%	90%

The Faculty saw overall success rates increase by 2% from a mean of 88% in 2011 to 90% in 2012 with a range of 87-94% across the departments in the Faculty (Table 3). It is indeed gratifying to see such success rates. In 2012 the Faculty formalised its academic development structure with the Academic Development practitioner supported by 2.5 Academic Development Assistants. The "Unit" has a clear strategic vision which is in line with the Faculty's vision to increase success rates amongst other parameters.



GRADUATION RATES

Table 4: Graduation rates: 2010-2011

QUALIFICATION TYPE	2010		2010 GRAD RATE	2011		2011 GRAD RATE
	Total no. of Students	Completed End 2010		Total no. of Students	Completed End 2011	
Undergraduate	1 958	584	30%	2 014	571	28%
National Certificate	72	67	93%	62	56	90%
National Diploma	1 314	276	21%	1 309	306	23%
BT – 4 year	106			193		
BHSc				27		
BTech	466	241	52%	423	209	49%
Postgraduate	129	36	28%	131	40	31%
MTech	123	36	29%	125	38	30%
DTech	6			6	2	33%
Grand Total	2 087	620	30%	2 145	611	28%

While the 2012 graduation rates are not available, the 2011 statistics show a drop of 2% from that in 2010. The postgraduate proportion increased by 3%.

COHORT PERFORMANCE

Table 5: Cohort performance: 2006-2009

Performance variable	2006	2007	2008	2009
No. First entry	313	311	337	370
Dropout rate %	27	28	28	24
Throughput- min time %	40	39	39	39
Still in progress %	3	3	11	38

Dropout rates decreased by about 3% from 2006 to 2009. Throughput rates remained almost static. The Faculty has strategised to change these performance statistics.

FACULTY STAFF

Table 6: Headcount of Permanent and Contract Staff by Department per Race and Gender for 2012

DEPARTMENT	FEMALE				TOTAL FEMALE	TOTAL MALE AND FEMALE
	African	Coloured	Indian	White		
Basic Medical Sciences	2		7	2	11	16
Biomedical and Clinical Technology	5		5		10	16
Chiropractic and Somatology	5	1	2	6	14	17
Community Health Studies	12		7	1	20	23
Dental Sciences	3	1	3	1	8	13
Emergency Medical Care and Rescue				2	2	6
Faculty Office	3	2	5		10	14
Homeopathy	1		1	5	7	10
Nursing	5		2	1	8	8
Radiography	2		2	1	5	7
Grand Total	38	4	34	19	95	130

In 2012, 73% of permanent and contract staff servicing the Faculty were female while 29% were Black female (Table 6). The Nursing department had 100% female staff while the Department of Emergency Medical Care and Rescue had

a preponderance of male staff. Blacks and Indians made up 33.8% and 35.4% each of the staff compliment respectively in the Faculty. The Faculty is in the process of developing its own equity plan to improve its equity profile.

Table 7: Headcount of Permanent and Contract Academic Staff by Qualification for 2012

QUALIFICATION	DOCTORATE	MASTERS	BELOW MASTERS	LESS THAN MATRIC	NO QUAL.	TOTAL
Number of staff (%)	5 (6%)	47 (58%)	28 (35%)	3	1 (1%)	81

The table above shows that only about 6% of staff possessed doctoral degrees and 58% had Master's degrees. It is critical for the Faculty to address staff credentialing in order to achieve research and postgraduate outputs which are shown below. Several staff members have enrolled for postgraduate degrees and are nearing completion of the same.

TEACHING AND LEARNING

The Faculty has made significant progress in the curriculum renewal process with only two programmes realigning to the new HEQF. With the exception for two programmes already offering four-year bachelor's degrees, all remaining programmes have recirculated to degree programmes and submissions have been made to DHET for approval. A new programme in Medical Orthotics and Prosthetics was developed, approved by DHET and was submitted to the Council for Higher Education for accreditation.

The new Health Sciences clinic was completed in October 2012. The renovation of the Health Sciences clinic provides improved support for student training and community engagement for the Chiropractic, Homeopathy, Dental

Sciences, Radiography and Somatology programmes.

The need for student support to improve success and throughput rates and decrease dropout rates saw the strengthening of the academic development sector of the Faculty. The commendable work of this unit is appreciated by Faculty management, staff and students. This work is complimented by the Faculty Quality Promotions officer, who ensures that the necessary programme, subject and lecturer reviews occur timeously and are reported. The continuous liaison with management, staff and students is supported by Faculty structures such as the Faculty Teaching, Learning, Access and Undergraduate Committee and overseen by the Faculty Management and Quality Committee. These structures facilitate the capacity building of staff and allow for transparency in Faculty processes and decisions. The teaching and learning is also supported by a very efficient and effective Faculty office.

The Faculty tested a general education game programme "Gimme Five" in 2012. This has added a new dimension to learning as students were exposed to information outside the core curriculum content.

RESEARCH

Table 8: Research Output by Department (SAPSE) approved articles and chapters in books

DEPARTMENT	NO. JOURNAL ARTICLE /CHAPTER
Basic Medical Sciences	2
Biomedical and Clinical Technology	6
Chiropractic and somatology	3
Community Health Studies	5
Dental Sciences	1
Emergency Medical Care and Rescue	3
Faculty Office	3
Homeopathy	1
Nursing	2
Radiography	2
Total	28

As shown in the table above, all departments in the Faculty have produced research output reflecting a total of 28 articles. Staff also participated in several national and international conferences. Staff registered for doctoral studies spent time at institutions abroad to further their research studies.

COMMUNITY ENGAGEMENT:

Faculty staff and students participate in a variety of community projects. Some of the notable projects include the Homeopathy and Child and Youth Care clinic in the Warwick Triangle; the Red Hill Clinic run by the Chiropractic programme; participation in the Kenneth



Gardens project by Homeopathy; as well as the construction of prosthetic devices for facial abnormalities and trauma by Mr Peter Furber from the Dental Technology Department. Projects initiated in 2012 include the signing of an MoU between the government of India and DUT to place a Chair in Ayurveda in the Faculty, and an MoU for a partnership between the "Healing Hills" group and DUT to promote student training. A "Greening the Community project" at DUT was also developed and implemented by the Department of Community Health Studies.

LIMITATIONS

The limitations in actual space as well as planning for the effective utilisation of space are affecting the modes of delivery in the teaching and learning ambit. The need to develop a culture of research within the Faculty is also hampered by the lack of space for research laboratories and postgraduate students. Other factors affecting the outputs of the Faculty include the leave policy for staff. The image of the Faculty and the clinics it runs are at the mercy of the maintenance and cleaning sections. The functioning of the clinics is affected by a variety of factors including student unrest.

ACKNOWLEDGEMENTS

The Faculty wishes to place on record the support received from Senior Management, CQPA, Management Information Systems Office, Office for International Education and Partnerships, Registrar's Office, Library, IT, and Finance Departments. The Faculty has not utilised the services of the Research Office optimally.

CONCLUSION

The Faculty has exceeded its self-imposed benchmark success rate of 84%. Ongoing monitoring and discussions to decrease dropout rates and improve throughput rates form part of the commitment of the Faculty to the University and its stakeholders. Efforts are in place to increase staff credentials and research output.

Prof T Puckree

Executive Dean: Faculty of Health Sciences



**FACULTY OF
MANAGEMENT
SCIENCES**

FACULTY REPORT

VISION AND MISSION

The Faculty of Management Sciences strives to be the Faculty of choice for management education, leadership and technology advancement. The Faculty sees the accomplishment of this through:

- Providing dynamic lifelong education and learning opportunities by adopting best practices;
- Promoting excellence in technology transfer and innovation;
- Promoting excellence in relevant, applied and interdisciplinary research;
- Creating sustainable partnerships with key stakeholders; and
- Nurturing respect for human dignity, ethical values and principles, professionalism and accountability.

STUDENT CENTREDNESS

In line with the Institution's commitment towards student centredness, the Faculty has placed emphasis on its approach towards service delivery. The following areas were focused on:

- **Registration of Students:** A "one stop shop approach" – the Faculty has introduced a separate venue for registration of students as a means to pilot web registration. This process was our first experience and we have identified a number of areas that required improvement. Our focus in this process was directed more towards the web-systems as opposed to the student. Several such glitches were identified in the Riverside Campus. I am happy to note that interventions are being discussed in order to make the registrations process more student centred.
- **Policy Review:** The Faculty Board has reviewed several of the Institution's policies and the relevant changes were recommended to Senate. These policies included the Employment Equity Policy and Library Information

Resources Policy. Much of the Faculty discussions included matters regarding the Curriculum Renewal Project and the procedural issues concerned with this.

- **Curriculum Renewal:** Several departmental, Faculty, institutional and national workshops were held with a quest for developing cutting edge qualifications that meet local, national and global needs. Departments have worked hard in producing ideas around new programmes at undergraduate and postgraduate levels. Applications were made for programme qualification mix clearance to the DHET and confirmations were received for the Higher Certificate and Diploma in Public Administration and the Diploma in Tourism and Hospitality. The Faculty is currently working with the HECQ online applications and are preparing themselves for delivery for 2014. The Curriculum Renewal Project is challenged by limited resources for 2013 and it is hoped that this situation will improve.
- **General Education:** The Faculty has embarked on developing general education modules to facilitate the delivery of new programmes for 2014. Several general education modules were developed in line with the institution's policy and the general education task team.
- **Annual Quality Monitoring:** A composite Faculty report was presented to Senate. This report was compiled with the assistance of the departments and their quality representatives. Various gaps between the Faculty's plans and performance were identified together with recommendations.
- **E-Learning:** The Faculty has trained 50% of its staff on the relevant platforms. The intention is to ensure that all

"In line with the Institution's commitment towards student centredness, the Faculty has placed emphasis on its approach towards service delivery."

Dr Rishi Balkaran



staff are trained at the basic level using Blackboard 9.1 as a platform. The Faculty is serious about incorporating its programmes through online learning. It has been made compulsory for all the remaining staff to attend the training sessions in 2013.

- **Work Integrated Learning (WIL) and Community Engagement:** Ongoing discussions with industry stakeholders, including government at all levels, is pegged at securing placements for student learning. The Co-operative Education Unit has been successful in initiating several Industry contacts for the Faculty. Departments schedule regular Advisory Board meetings in which WIL is a standing item. Several projects have been planned for 2013 and one such is with the eThekweni Municipality called the Green Corridor.

FACULTY HEADCOUNT

The overall headcount in 2012 remained the same as 2011. Black students constitute 88% of the total student population within the Faculty. There was a 2% reduction in Indian students at the Faculty.

The headcount for the undergraduates for 2012 decreased by 0.4 % from 2011. This may be as a result of a higher intake of first time entering students. There are 16% more female students than male in 2012. This gap has generally decreased from the previous year. The overall headcount by race in 2012 shows that 88% are African (1% increase from 2011), 1% Coloured (unchanged from 2011), 9% Indian (2% reduction from 2011), 1% White (an increase by 0.4% from 2011) and 1% other race groups (an increase 0.4 % from 2011).

POSTGRADUATE ENROLMENTS

The Faculty Research Committee has approved a number of postgraduate proposals in 2012. Whilst there may be a great demand for postgraduate studies, the Faculty is limited by its capacity to deal with a larger enrolment. A comprehensive plan was submitted to management on the Faculty's research plans.

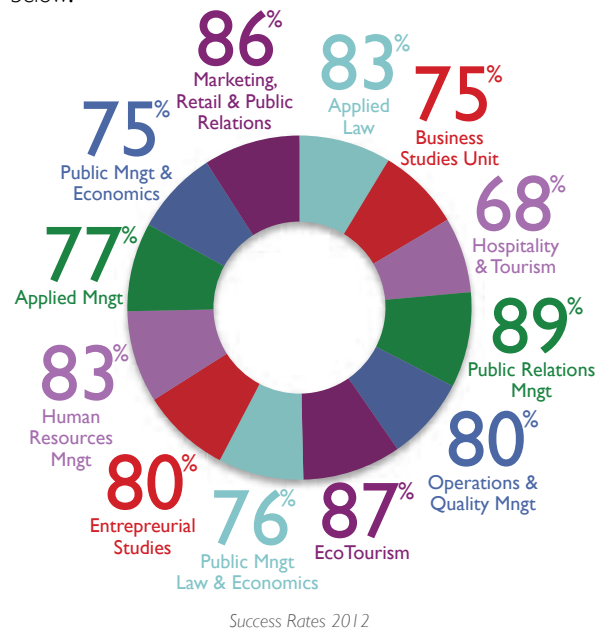
TEACHING AND LEARNING

The Curriculum Renewal Process within the Faculty has developed cluster-based qualifications that provide for articulation into course-work Master's and doctoral programmes. These programmes are designed to accommodate a larger number of students and the graduation rates are more efficient than the traditional Master's and doctoral programmes. The Faculty intends to offer the MBA at level nine, which provides for students to articulate from programmes beyond the Faculty eg. Engineering, Accounting and Informatics and Health Sciences. The format and delivery of this programme must emulate that of a Business School. This is intended to be the flagship of the postgraduate qualifications offered by the Faculty. This should be housed as a separate entity from the University as a Business School. The enrolment potential from the BSU pool offers tremendous promise.

STUDENT PERFORMANCE

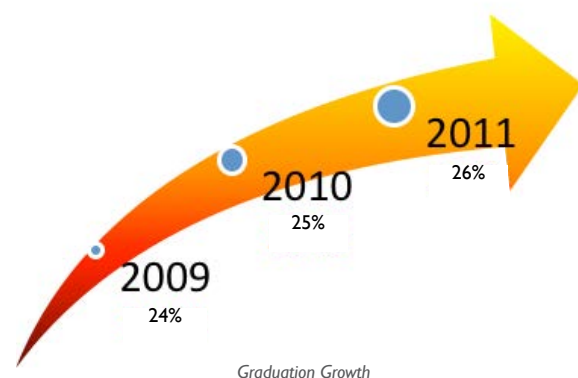
The success rate for the Faculty averages 79% in 2012, which increased by 3% percent from 2011. Whilst it may be noted that this figure is below the DHET benchmark of 80%, the

Faculty acknowledges its challenges and strives towards better solutions. The success rates per department may be viewed below.



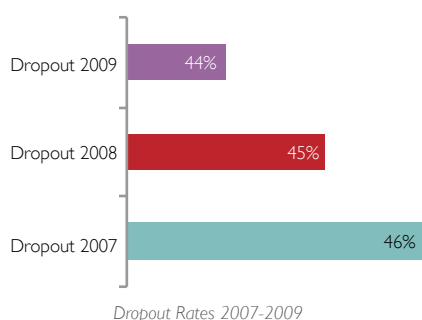
STUDENT GRADUATION RATE

The figure below highlights the growth pattern of the graduation rates of the Faculty for the periods 2009-2011 which indicates a growth over the last measurable period. The increase in graduation rates depends on a number of critical factors. Some are: pass rates of individual subjects, drop-out rates, students not graduating as a result of outstanding fees and enrolment rates.



STUDENT DROPOUT

The student dropout rate (cohort study of first time diploma students for 2007, 2008 & 2009) within the entire Faculty decreased from its previous measurable periods. The following figure highlights the drop out rates for the latest measurable period 2007-2009. The reasons for student dropout may be attributed to financial problems, personal problems, poor academic performance, death, employment, programme change and relocation. The term 'dropout' within the context of the Faculty, may also refer to students who may return to their studies a few years later. This figure therefore may change from time to time.



STUDENT THROUGHPUT RATE

The total cohort for first time entering Diploma students for 2009 was 1 691 across the Faculty of Management Sciences.

The total number of graduates in 2011 in respect of the 2009 cohort of students was 434. The throughput rate for the Faculty averaged at 26%. Whilst this is well above the national norm, the Faculty sees need for improvement as this has a direct bearing on its subsidy income.

EXAMINATION BOARD REVIEW OF PASS RATES 2012

The initiatives taken by the Faculty to improve pass rates have shown some success. There has been an overall 3% increase in the pass rates from 2011.

The following table outlines various reasons for good and poor academic performance. This is a presentation of individual comments from various lecturers across the Faculty spectrum.

REASONS FOR GOOD ACADEMIC PERFORMANCE	REASONS FOR POOR ACADEMIC PERFORMANCE
Small tutorial groups.	Students did not make much effort or make much use of the revision available in the online classroom for tests 1 and 2. Some did not write the Information Literacy test that counted towards the year mark and generally speaking, not enough effort was put into the assignments.
Very small class.	
Better alignment of the question paper to the students acquired level of learning in this subject.	
Students do well because they are not a big class; therefore it is easy to interact with them concerning their individual needs. In addition, the style of learning requires them to apply themselves, so they seem to learn better in an interactive format.	
The overall pass rate was the best it's been compared to previous years. The standard of the paper was about the same as in previous years, so this result is an improvement, but there was still evidence of the same problems from previous years i.e. poor quality of student – lacking basic language skills, low motivation for the subject, and an inability to grasp the terminology and concepts associated with the subject. Although the questions were very basic, many students struggled with answering them and many answers made no sense at all. Quite a few answers were not related to what the question was asking for. This was also the highest number of students that sat for the exam. An improvement nonetheless.	Poor attendance in third term. Students did not appear to make much use of the exam revision in the self-test tool in the online classroom.
The pass rate was an improvement on previous years. Students performance overall was fair. Not too many problems. All questions were of a reasonable standard, so students should not have had any problems with the paper. Although the pass rate was good, marks were not that high with most between 50-69%.	
The students were at ease with and able to answer essay type questions. They were able to provide proof of own understanding in their discussions and examples provided were appropriate.	
Students provided with additional examples to work through. Facilitation of the subject is consistent throughout year and is done well.	Some students do not take attendance to lectures seriously.
Group is focused and the lectures are well facilitated. Timely feedback given to students.	Students struggle to balance their WIL and the subject; they focus more on WIL than the subject. Class attendance is normally poor during lecture weeks.
A considerable amount of effort is applied by both students and staff to ensure success.	The pass rate was the lowest in at least six years. This was mainly due to the exam questions, which were of a very high standard and in some cases not well worded. This led to confusion over how to answer the questions and as a result many students did not answer what the question was asking for.

REASONS FOR GOOD ACADEMIC PERFORMANCE	REASONS FOR POOR ACADEMIC PERFORMANCE
High pass rate due to class presentations and peer group learning assessments.	Students got supplementary exams but didn't write. Paper 2 was well executed but Paper 1 was dismal.
Mixed assessment method is used.	The students seemed ill-prepared for the exam. It could be because this was the last paper written at first year level. Secondly, poor lecture attendance had an effect because the students battled to discuss and explain the key concepts.
The assignment and control test, gave students an opportunity to boost their DP results. Students were also encouraged to do group learning. Group learning had a progressive impact on performance.	Students could have performed better in the exam. Students experienced difficulties with application-type questions.
Different lecturing techniques were introduced.	Students who failed generally did not attend lectures.
Tutorial and cases studies were used.	The low pass rate can be attributed to mainly part time learners.
The practical nature of second semester work was well received by the learners and encouraged them to work hard for the examination.	The number of students without DPs was very high. Amongst other reasons, it was caused by the high dropout rate of first year students and none attendance of class by repeating students. The total number of students registered was 179 but only 124 wrote the exam.
Increase in the number assessments to monitor progress.	Possible reasons for poor performance include: <ol style="list-style-type: none"> 1. General non-attendance of lectures by accounting programme students. This may be because Economics lectures generally occurred after 3pm in 2012. 2. Most (57%) who qualified to write the examination are repeat students who generally do not attend classes because of lecture clashes. 3. It is possible that students require additional tutorial assistance to cope i.e. one-on-one help. We simply do not have the manpower to offer this. 4. It is possible that many students are simply not at the right academic level to succeed in the subject. They require maturity to spend a significant amount of time outside of formal classes (online) consolidating their learning. They need to spend a lot of time doing tasks, exercises, workbook questions, past tests and examinations and then marking this themselves using supplied marking guides (online).
Introduced tutorials for each chapter to assist in theory.	Poor attendance, in particular repeat students. Inadequate preparation for all assessments. Those learners that performed well tend to be those that are very interactive during lectures. They consult regularly with the lecturer on the various outcomes as well as with regards to their projects.
Students were given an opportunity to resubmit their assignments at the beginning of the course in order to correct their shortcomings. This was hopefully treated as a positive learning experience.	No textbooks.
Students performed well throughout the year, going into the exam with (generally) a strong DP.	Students are not attending due to time-table clashes.
Notes and worksheets issued made subject practical and easy to understand.	
Our department added new content to the syllabus and students found it interesting.	
Meetings are held every term to monitor students' progress.	
Practicals enhance understanding.	
Most students purchased the recommended book.	
Variety of Assessments.	



REASONS FOR GOOD ACADEMIC PERFORMANCE	REASONS FOR POOR ACADEMIC PERFORMANCE
<p>Students were extremely interactive.</p> <p>The use of presentations by their peers increased their interest in this particular module.</p> <p>Regular consultation demonstrated the students interest and commitment.</p> <p>The use of peer as study groups proved to be most beneficial, especially those living in residence.</p> <p>However some students were very passive and chose to be complacent in their approach to this module.</p>	
<p>Students found this module to be very interesting, as it gave them a glimpse of their life as an employee. Hence this sustained a positive attitude.</p> <p>Students were given opportunities to debate on critical issues</p> <ul style="list-style-type: none"> • regular attendance • student consultation • peer work. 	

STAFF PROFILE

The total staff within the Faculty (permanent and contract) comprised 122, of which 84% are academics. Female staff (academics) comprised 55% in 2011. The racial and gender breakdown may be viewed in the table below.

Racial and Gender Composition of Academic Staff only: 2011

	AFRICAN	COLOURED	INDIAN	WHITE
Female	18%	1%	24%	12%
Male	15%	1%	21%	8%

Coloured staff members are underrepresented by a significant margin. The Faculty does analyse the equity profile of departments before employment of staff, however the pressure in respect of the need for suitably qualified and experienced staff often overrides any other needs.

Black male staff have increased by 1% from 2011. Indian female staff have increased by 2% and the males decreased by

1%. White staff have decreased by 1% from 2011.

Staff Qualifications

The table below highlights the staff qualifications between 2012 and 2016. Staff have indicated their completion times of their relevant Master's or doctoral qualifications.

Progress Chart on Staff Qualifications

QUALIFICATION	2012 COMPLETION	2013 COMPLETION	2014 COMPLETION	2015 COMPLETION	2016 COMPLETION
Masters	57	9	5	1	
PhDs	23	8	4	9	5
Total	79	15	9	10	5

Seventy-one (71%) of the Faculty have postgraduate qualifications. Staff with doctoral qualifications comprise 21% and should go up to 30% by the end of this year.

This by no means implies that staff may achieve the relevant targets. The recommendation here is to develop a process and policy whereby staff are compelled to improve their qualifications as this now is an inherent requirement of the job. There have been several engagements with staff at a Faculty board level on this matter as well as institutionally. There should be an Institutional pronouncement on this requirement. The Faculty nevertheless will engage with staff and provide, if

possible, opportunities for them to accelerate their progress.

The employment of staff at Senior Lecturer, Associate and Full Professor levels are showing promise as the Faculty's first advert has attracted applicants from these ranks.

RESEARCH

The Research activity within the Faculty has accelerated at great pace. The 2012 research outputs, accredited and non-accredited and articles in peer reviewed journals for the Faculty appears over the page.

CONTRIBUTORS' FULL NAMES	SUMMARY-OUTPUT TITLE	PUB CAT	OUTPUT UNITS
	Books/Chapters/Monographs		
Reddy K & Rampersad R	<i>Black Economic Empowerment, ICT and Preferential Public Procurement in South Africa.</i>	B	5
Dobbelstein, T. & Pflaum, M	<i>Generation 45+, eine lebensgefühlbasierte Marktsegmentierung für den Gesundheitsmarkt</i>	B	2.5
Dobbelstein, T. & Peters J	<i>Online Lebensmittelhandel in Deutschland, Analyse und Konzeption auf Basis von Testkäufen, Konsumentenbefragungen und Best Practice Analysen führender Anbieter</i>	B	2.5
Dobbelstein, T & Bernauer, J	<i>Relevanz und Glaubwürdigkeit als Erfolgsfaktoren des Weblog-Marketings - Eine empirische Analyse am Beispiel des Automobilzulieferers ZF Friedrichshafen AG,</i>	B	2.5
Wallis M	<i>Local Economic Development in the Commonwealth' in Democracy Development Programme</i>	M	
		12.5	
	Conference Presentations		
Mason, R.B.	<i>Product tactics in a Complex and Turbulent Environment Viewed Through a Complexity Lens</i>	C	0.5
Dobbelstein, T	<i>Zielgruppenanalyse für Ulm – Ergebnisse einer Zielgruppenanalyse für den Ulmer Handel</i>	C	0
Sharma D & Dobbelstein, T	<i>Examining the Influence of Need for Achievement on Job Satisfaction and Commitment: The Moderating Influence of Role Clarity.</i>	C	0.25
Dobbelstein, T & Brehm C	<i>The Importance of Human Resource and Cost Management as Critical Success Factors in Hotels; an Empirical Analysis</i>	C	0.25
Dobbelstein, T	<i>Market Potential of Community produced Textiles on Regional German Retail Markets – an Educational Student Project to Support Communities</i>	C	0.5
Pillay, S., Dorasamy, N., Ramphul, N. and Meyer, D.	<i>Exploring barriers, organisational support and demographics as predictors of whistle blowing intentions – An analysis of multi level variables</i>	C	0.25
Dorasamy, N.	<i>Whistleblowing: Fact or fallacy for performance management</i>	C	0.5
Thompson S, Loughman J, Ramson P, Bilotto L, Harris G & Naidoo K	<i>A Cost Benefit Analysis of a optometric higher education in Mozambique</i>	C	0.1
Harris G & Shandu N	<i>Learning from the experience of restorative justice in the Zululand prisons</i>	C	0.25
Harris G	<i>The nature of the developmental state</i>	C	0.5
Dorasamy, N. and Balkaran, R.	<i>Nature of student ratings of lecturers in higher education institutions: A case study of Durban University of Technology</i>	C	0.5
Dorasamy, N. and Balkaran, R	<i>Inculcating a service culture among hospitality management students</i>	C	0.5
Rawjee VP, Reddy K & Maharaj, M	<i>Exchange Students Communication Challenges: A Case Study of a University in South Africa</i>	C	0.5
Rampersad R	<i>Communicating a Corporate Responsibility to HIV/AIDS Beyond the South African Business Sector</i>	C	0.5
Van der Merwe A	<i>The Durban University of Technology's experiences of open educational resources</i>	C	0.5
Balkaran R, & Mngadi B	<i>Communities of Practice as a means to advancing curriculum renewal in Higher Education Institutions: Faculty of Management Sciences in Durban University of Technology, a case study</i>	C	0.5
Wallis M & Bhengu L	<i>Good Governance and Poverty Reduction: Exploring the 'Black Hole</i>	C	0.5
Wallis M & Brauns M	<i>Performance Management and Public Policy: the case of the health sector</i>	C	0.5
		7.1	
	Journal Articles		
Nundulall, R. & Reddy, K	<i>Mentorship as a strategy to improve research output at tertiary institutions: A case study of University of Johannesburg</i>	DoE	1



CONTRIBUTORS' FULL NAMES	SUMMARY-OUTPUT TITLE	PUB CAT	OUTPUT UNITS
Reddy K	<i>Students as consumers: The implications of the Consumer Protection Act for Higher Education Institutions in South Africa</i>	DoE	1
Reddy K & Rampersad R	<i>Ethical business practices: The consumer protection act and socio-economic transformation in South Africa</i>	ISI	1
Govender JP, Veerasamy D & Noel DT	<i>International students' expectations and perceptions of service quality: The case of a higher education institution in South Africa</i>	IBSS	1
Veerasamy, D and Robertson, N	<i>An Evaluation of the Emerging Teen Market in Durban, South Africa: Some Marketing Implications</i>	IBSS	1
Dobbelstein, T. & Krumm, R	<i>9 Levels for Value systems, Development of a Scale for Level-Measurement</i>	Non accr	0
Maharaj, M	<i>Customer perceptions of South African cellular network operators</i>	Non accr	0
Dobbelstein, T. & Brehm, C	<i>Perception of Cost, Cost Drivers, HRM, Long and Short Term Critical Success Factors in the Hotel Industry, Recommendations for Hotel Management</i>	ISI	0.5
Dobbelstein, T. & Renzing, O	<i>Regional Anchoring as a Selection Criterion for Compulsory Health Insurance</i>	Non accr	0
Dorasamy, N.	<i>Institutionalising a whistleblowing culture within higher education institutions: Policy and procedure underpinning good governance at DUT</i>	IBSS	1
Dorasamy, N.	<i>Reflections on work integrated learning</i>	Non accr	0
Parker K	<i>Government and the economy: Student perspectives from South Africa</i>	IBSS	1
Nundulali, R. and Dorasamy, N.	<i>Challenges facing higher education institutions in maintaining mentorship for sustainable research output: A case study of the University of Johannesburg</i>	IBSS	1
Abdel-Baki, M. and Dorasamy, N	<i>The role of personal income tax in the transition to a democratic and egalitarian Egypt.</i>	IBSS	1
Pillay, S., Dorasamy, N. and Vedran, V.	<i>Exploring whistleblowing intentions in South Africa: A quantitative study</i>	ISI	1
K Simwaka, S Ferrer & G Harris	<i>Technical efficiency differentials among AIDS-affected and non-affected farm households in Malawi: evidence from time varying and time invariant efficiency models</i>	Non accr	0.33
Dorasamy, N. and Balkaran, R	<i>Student perceptions of teaching at higher education institutions: A case study of the Durban University of Technology</i>	ISI	1
Dorasamy, N. and Balkaran, R.	<i>Inclusivity for ethical public sector governance in South Africa</i>	IBSS	1
Harris G & Van der Merwe A	<i>The scope for mobilising public opinion against corruption: The attitudes of Kwa-Zulu Natal university students</i>	DoE	1
Van der Merwe A & G Harris	<i>Attitudes towards public sector corruption: A study of university students in KwaZulu-Natal.</i>	IBSS	1
Rugbeer H. Rug-beer Y. & Naidoo P.	<i>Relationship in Crisis: Sex, Love & Intimacy in Wisdom</i>	DoE	0.33
Rampersad R	<i>HIV/AIDS in South Africa: A social and moral responsibility in shaping organisational action.</i>	ISI	1
Rampersad R	<i>The digitisation of e-learning in the South African Public Relations Environment</i>	ISI	1
Naidoo P	<i>Blended and authentic learning with the net generation: A work related learning perspective.</i>	Non accr	0
Rampersad R and Juggernath S	<i>Communicating Transformation, Black Economic Empowerment, and Social interventions amongst South African Business</i>	IBSS	1
Moonsamy V & Singh S	<i>A 21st Century Framework for Quality Management. Journal African Journal of Business Management</i>	ISI	1
Rawjee V, Veerasamy D & Gqamane Z	<i>The practice of public relations within selected organisations in Durban, South Africa</i>	ISI	1
Moonsamy V & Singh S	<i>Using factor analysis to explore principal components for quality management implementation</i>	IBSS	1

CONTRIBUTORS' FULL NAMES	SUMMARY-OUTPUT TITLE	PUB CAT	OUTPUT UNITS
Umumyeyi B & Harris G	<i>Promoting non-violent parenting among refugee mothers in Durban</i>	DoE	0.5
K Simwaka, S Ferrer, G Harris	<i>Technical efficiency differentials among HIV/AIDS affected farm households in Malawi: Evidence from time variant and invariant inefficiency models</i>	?	
Moonsamy V & S Singh	<i>Using factor analysis to explore principal components for quality management implementation</i>	SSI	1
	DUT Student Graduations		
Myers GT	DTech: Business Administration		3
Zheng J	DTech: Quality		3
Naidoo KM	DTech: Quality		3
Bansi R	MTech: Business Administration		1
Dladla AM	MTech: Business Administration		1
Scheming O	MTech: Business Administration		1
Goose DE	MTech: Business Administration		1
Perumal M	MTech: Human Resource Management		1
Mabaso MC	MTech: Human Resource Management		1
Hellinger WL	MTech: Marketing		1
Ngobese N	MTech: Marketing		1
Schnalke MM	MTech: Marketing		1
Ngidi TL	MTech: Public Management		1
Sosibo DP	MTech: Public Management		1
Francis R	MTech: Public Management		1
Maharaj M	MTech: Public Relations Management		1
Ngobeni U	MTech: Public Relations Management		1
Yegambaram P	MTech: Quality		1
Gabula ZH	MTech: Quality		1
Naidoo U	MTech: Quality		1
Nogaya N	MTech: Quality		1
Sepeng TD	MTech: Quality		1
		28	
	Staff Post Grad Qualifications Improvements		
Naidoo KM	DTech: Quality		
Nogaya N	MTech: Quality		
	Non-Qual Research Projects (Complete And In Process)		
Wallis M & Bengu L	Governance and Development Planning		
Wallis M	Local Economic Development: Theory and Experience		
Mason RB & Dobbelsstein T	Business environment, marketing tactics and their influence of business success		
Giampiccoli A	Community based tourism		
			70.26

CONCLUDING REMARKS

The income generated by the Faculty is a significant component of the overall Institution's budget. A reduced top slice would go a long way in developing the Faculty's infrastructure towards growth on various fronts.

ACKNOWLEDGEMENTS

Heads Of Department Faculty of Management Sciences
 Prof Roger Mason, Faculty Research Co-ordinator
 Mr Rajan Naicker and P Kisten: Management Information

Dr R Balkaran

Executive Dean (Acting): Faculty of Management Sciences





REPORT OF THE CHIEF FINANCIAL OFFICER AND THE CHAIRPERSON OF THE FINANCIAL COMMITTEE

This report provides an overview of the University's budget process, allocation of resources according to strategic objectives, control mechanisms in place to maintain financial discipline, as well as an overview of the financial results for 2012.

Despite continued pressure on its financial resources, the University had a good financial year. The University realised a surplus from operations. This may be attributed to cost containment, fiscal discipline and the ongoing vacancies in certain budgeted staff positions.

OVERVIEW OF THE BUDGET PROCESS

The budgets are prepared generally on zero based principles and each operating division gives input into the budget preparation. The process followed is set out below.

- The income for the University is projected;
- Funds are allocated for strategic priorities;
- The staffing costs for all permanent posts within the University establishment is calculated;
- The Institutional costs i.e. costs not directly associated with departments, e.g. electricity, rates, insurance, advertising, audit fees, etc. is calculated;
- An inflationary adjustment is awarded to the respective

Sectors for their operating budgets; departments

in turn are required to align their budgets in terms of their strategic plans using zero based principles;

- Meetings are held with the Vice-Chancellor, Deputy Vice-Chancellor; Academic, members

of the Senior Executive Team (SET);

- The SRC is consulted on the tuition and the residence fee adjustments;
- The final draft budget is discussed with SET and recommended to the Finance Committee; and
- The Finance Committee in turn interrogates the Budget and recommends it to the University's Council for approval.

Principles that Underpin the Budget Process

- The Ministerial Statement on funding;
- Ensuring that the budgets are aligned to the strategic plans of the University;
- Balanced budget; and
- Financial sustainability.

ALLOCATION OF RESOURCES

Academic and Research

Fifty-six percent (56%) of the University's total budget was allocated to the Research and Academic sector. These two sectors, however, accounted for 74% of the University's staff costs.

Institutional Costs

These include, amongst other costs, electricity, rates, insurance, audit fees, bank charges, internet connectivity and costs of implementing strategic imperatives identified by the Vice-Chancellor. The Institutional cost allocation accounted for 24% of the University's total budget.



“Despite continued pressure on its financial resources, the University had a good financial year. The University realised a surplus from operations.”

Dheo A Kumar

Deputy Vice-Chancellor (DVC) Institutional Support Sector

The allocation in this area accounted for 14% of the University's total budget and 16% of the University's staff costs.

Vice-Chancellor (VC) Sector

This sector's cost allocation accounted for 6% of the University's total budget and 8% of the University staff costs.

BUDGETARY CONTROL

Financial resources are allocated to the respective management portfolios and distributed to the respective cost centres within their ambits.

The University adopts a zero tolerance on unauthorised expenditure and strict fiscal discipline and budgetary controls are exercised. Expenditure is authorised in terms of the Council approved delegation of authority.

COMMENTS ON THE FINANCIAL RESULTS

The consolidated financial statements of the Durban University of Technology (DUT) includes the results of the University, Durban University of Technology (Pty) Ltd, Melrose Properties (Pty) Ltd, Maxelect Investments (Pty) Ltd, DUT Guesthouse (Pty) Ltd and the Business Studies Unit, a division of the Durban University of Technology.

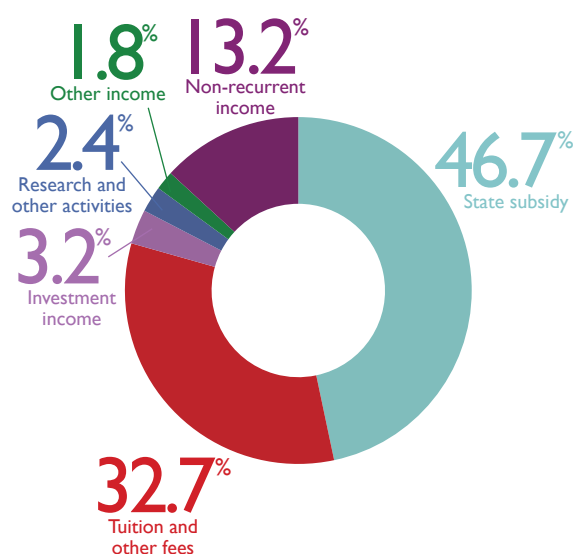
Unqualified Audit Opinion

The auditors have issued an unqualified opinion on the consolidated financial statements.

Income vs Expenditure

The net surplus from operations was R17,149m and the surplus for the year before transfers was R156 080m.

Income



The main sources of Income were State Subsidy (46.7%) and Tuition fees (32.7%), which make up 79.4% of the University's revenue. Non re-current income includes an amount of R81.2m received from the State in the form of Infrastructure grants and R36,169m received from the Levenstein Estate.

State Subsidy Income

Subsidy Income increased from R565m to R593m – an increase of 4.96%. The subsidy income is analysed as follows:

Teaching inputs

The University's actual teaching input was 41 929 FTEs, but we were funded for only 36 692 FTEs.

Teaching outputs

It is important to recognise that the University exceeded the normed output by 514 outputs, which converts to R9,712m.

Research outputs

The University's actual output was 117 against the normed output of 324.

Development grants

The University received R9, 806m in Research Development Grants and R5 753m in Teaching Development Grants.

Tuition and other fee income

Tuition fee and other fee income increased by 8.35% from R383m to R415m. The head count enrolment of students was 24 789 (24 840:2011) which reflects no significant change. Tuition and other fees were adjusted by 8% for the year under review.

Cash flow and liquidity

The University's Cash flow continues to be positive. Cash and cash equivalents as at year end increased from R479 853m to R609 516m.

The current ratio is 3.4:1 which exceeds the accepted norm of 2:1.

Investments

Non-current investments

The University's Investment Portfolio increased by R89 844m from R237 101m to R326 945m. The main reason for the growth is due to the increase in the market value of the portfolio and the donation received from the Levenstein Estate.

The cash component of these investments is R42 093m.

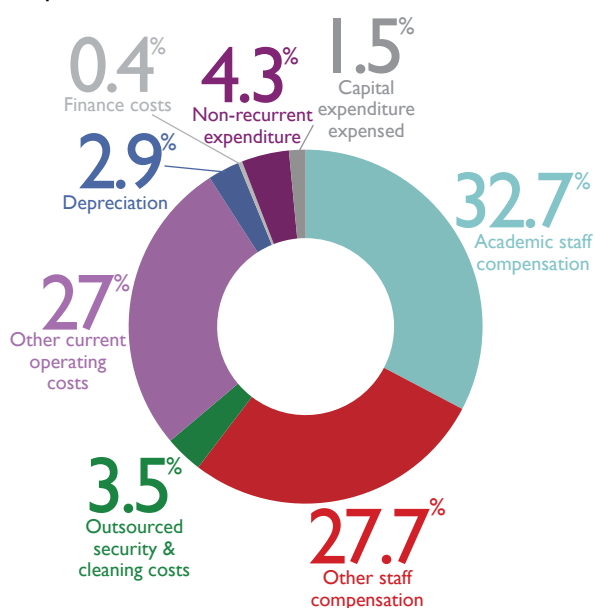
Investment Income

Investment income includes interest received from short-term deposits, call accounts, interest and dividends from non-current investments.

Debt Equity Ratio

The debt equity ratio is 5.2% which is well below the 50% borrowing limit, as per the University's policy.

Expenditure



Academic and Other Staff Compensation

The above costs increased by R83,740m from R588,596m to R672,336m. This includes the net increase in the provision for post-retirement benefits and other staff compensation of R54m (2011: R18,5m) and an across the board salary adjustment of 7%. The effective increase in personnel compensation costs is 14%.

Ratio of Staff Costs to Re-current Income

The ratio for the year under review was 72% (2011: 66%).

The main contribution to the increase in the ratio is the large increase in the provision for post-retirement benefits (9%).

In striving towards reaching DHET's benchmark of 58-62%, Executive Management (EM) has the following interventions in place:

- The University did not create any new posts for the 2012 year and only a few academic posts were created in the 2011 academic year.
- All vacant administrative posts are reviewed by Executive Management before they are filled.

Executive Management continues to look for ways to reduce the ratio, including increasing the income – which means increasing student numbers. To meet this challenge, the University has increased its projections for student numbers in its enrolment plan for the academic years 2014 to 2019.

Post-retirement Benefits

Pension: DUT employees on the NTRF pension fund are entitled to a defined contribution pension benefit. Members who transferred from AIPF (Government fund) to NTRF in 1994 are entitled to a minimum defined benefit guaranteed upon retirement at the normal retirement age (60 years).

The University's obligation in terms of the above as at 31 December 2012 was R82,5m (R56,6m in 2011).

This is a closed scheme.

Medical Aid

The Post-Retirement Medical Aid (PRMA) Scheme of the University apply to eligible members who are former Technikon Natal staff who entered the medical aid scheme before 1 January 2000. No benefit is payable upon withdrawal.

This Scheme currently has 192 employed members and 163 retired members.

In terms of the Actuarial Valuation, the post-retirement benefit obligation at 31 December 2012 was R141,3m (2011: R113m).

This is a closed scheme.

Accumulative Leave Pay

Accumulative leave at 31 December 2012 was R20,6m (2011: R34,2m). The University continues to make inroads into reducing this liability.

This is a closed scheme.

The above liabilities have been provided in the Annual Financial Statements. However the unfunded liabilities in relation to these two post-retirement benefits at the date of the last actuarial valuation amount to R223 800m. (2011: R169 600m).

The major contribution to the total liabilities in the Statement of Financial Position is post-retirement benefit obligations and employee benefit liabilities, which together amount to R263m or 56%.

Other Operating Costs

Other recurrent operating expenditure increased from R262 269m in 2011 to R301 081m in 2012. Other Operating Costs for the University operations increased by 6% and the other operating costs for student accommodation increased by 48,4%, this was due to the increase in leased accommodation costs and the huge increase in provision for bad debts to R12,7m.

Outsourced Costs

Security and cleaning increased from R35 220m (2011) to R38 560m (2012), resulting in an increase of 9,48%.

Receivables and Pre-payments

A cumulative provision of R197m (2011: R167m) for tuition and residence fee student debtors has been provided at 31 December 2012. Student debt after the above provision is R21m. Included in other receivables is an amount of R32 904m due by NSFAS, which was received subsequent to year end. The other major component of receivables is Interest accrual (R10m).

Student Loans

The University has advanced loans to students to the value of R47,403m over the years. These loans are administered by NSFAS. The terms and conditions of these loans are identical to the loans granted by NSFAS, except that these loans do not attract interest and have no bursary element.

The value of student loans after fair value adjustment and provision for impairment is R20 749m (2011: R22 428m).



Business Studies Unit (BSU)

The Business Studies Unit realised a profit of R3,6m on revenue of R8,5m, returning a profit margin of 42%. This reflects an excellent set of results and is indicative of the great potential that the BSU has. Considering that it is still in its re-building phase, in time it will certainly be one of our flagships in terms of generating third stream income.

Student Housing

The Student Housing Department incurred a deficit of R9,9m (R4,9m surplus in 2011). The main contribution to this deficit was the increase in the provision for Bad Debts, which amounts to R12,7m.

CONCLUSION

Although the financial results for 2012 are pleasing, increasing our third stream income, donor funding and improving research outputs must remain the University's strategic priorities. The unqualified Audit Report bears testimony to the fact that the financial affairs of the University are well managed.

DA KUMAR
Chief Finance Officer

R HARICHUNDER
Chairperson of
Finance Committee of Council



CONSOLIDATED ANNUAL FINANCIAL STATEMENTS



NATURE OF BUSINESS

Public higher education institution

AUDITORS

Ernst & Young Inc.
Nexia SAB&T

BANKERS

Standard Bank of South Africa Limited
First National Bank of South Africa Limited

**DOMICILE AND COUNTRY OF
INCORPORATION**

Republic of South Africa

CONTENTS

Council's statement of responsibility for the consolidated annual financial statements	108
Independent auditors' report to the council of the Durban University of Technology	109
Consolidated statement of financial position	111
Consolidated income statement	112
Consolidated statement of comprehensive income	114
Consolidated statement of changes in funds for the year ended December 31, 2011	115
Consolidated statement of cash flows for the year ended December 31, 2012	117
Notes to the consolidated annual financial statement for the year ended December 31, 2012	118



COUNCIL'S STATEMENT OF RESPONSIBILITY FOR THE CONSOLIDATED ANNUAL FINANCIAL STATEMENTS

Council is responsible for the preparation, integrity, and fair presentation of the consolidated annual financial statements of the Durban University of Technology. The consolidated financial statements presented on pages 111 to 163 have been prepared in accordance with South African Statements of Generally Accepted Accounting Practice (SA GAAP), as prescribed by the Minister of Higher Education and Training in the regulations in terms of the Higher Education Act, 1997 (Act No. 101 of 1997), as amended, and include amounts based on the judgments and estimates made by management.

Council considers that in preparing the consolidated financial statements they have used the most appropriate accounting policies, consistently applied and supported by reasonable and prudent judgments and estimates, and that all Statements of GAAP that they consider to be applicable have been followed. Council is satisfied that the information contained in the financial statements fairly presents the results of operations for the year and the financial position of the University at year-end.

Council has the responsibility for ensuring that accounting records are kept. The accounting records should disclose with reasonable accuracy the financial position of the University to enable the Council to ensure that the financial statements comply with relevant legislation.

Durban University of Technology and its subsidiaries operated in a well-established control environment, which is well documented and regularly reviewed. This incorporates risk management and internal control procedures, which are designed to provide reasonable, but not absolute, assurance that the assets are safeguarded and the risks facing the business are being controlled.

The 'going-concern' basis has been adopted in preparing the consolidated financial statements. Council has no reason to believe that the University will not be a going concern in the foreseeable future, based on the forecasts and available cash resources. These financial statements support the viability of the University.

The University's external auditors, Ernst & Young Inc. and Nexia SAB&T audited the consolidated financial statements, and their report is presented on pages 109 to 110. Council believes that all representations made to the independent auditors during their audit were valid and appropriate.

APPROVAL OF THE CONSOLIDATED ANNUAL FINANCIAL STATEMENTS

The consolidated annual financial statements set out on pages 111 to 163 were approved by the Council on June 8, 2013 and are signed on its behalf by:

Prof Ahmed C. Bawa
VICE-CHANCELLOR AND PRINCIPAL

Dr Jairam Reddy
CHAIRPERSON OF COUNCIL

DA Kumar
CHIEF FINANCIAL OFFICER



INDEPENDENT AUDITORS' REPORT TO THE COUNCIL OF THE DURBAN UNIVERSITY OF TECHNOLOGY

REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

Introduction

We have audited the consolidated financial statements of the Durban University of Technology and its subsidiaries, which comprise the consolidated statement of financial position as at 31 December 2012, and the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in funds and the consolidated statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information, as set out on pages 111 to 163.

Council's responsibility for the consolidated financial statements

The University's Council is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with South African Statements of Generally Accepted Accounting Practice and in the manner required by the Minister of Higher Education and Training in terms of Section 41 of the Higher Education Act, 1997 (Act No. 101 of 1997), as amended, and for such internal control as the Council determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with the Public Audit Act of South Africa, the General Notice issued in terms thereof and International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the University and its subsidiaries as at 31 December 2012, and their financial performance and cash flows for the year then ended in accordance with South African Statements of Generally Accepted Accounting Practice and in the manner required by the Minister of Higher Education and Training in terms of Section 41 of the Higher Education Act, 1997 (Act No. 101 of 1997), as amended.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

In accordance with the Public Audit Act of South Africa and the General Notice issued in terms thereof, we report the following findings relevant to performance against predetermined objectives, compliance with laws and regulations and internal control, but not for the purpose of expressing an opinion.

Predetermined objectives

We performed procedures to obtain evidence about the reliability of the information in the Report of the Vice-Chancellor as set out on pages 10 to 17 of the annual report. The reported performance against predetermined objectives was evaluated against the overall criterion of reliability. The reliability of the information in respect of the selected objectives is assessed to determine whether it adequately reflects the facts (i.e. whether it is valid, accurate and complete). There were no material findings on the Report of the Vice-Chancellor concerning the reliability of the information.

Compliance with laws and regulations

We performed procedures to obtain evidence that the entity has complied with applicable laws and regulations regarding financial matters, financial management and other related matters. We did not identify any instances of material non-compliance with specific matters in key applicable laws and regulations as set out in the General Notice issued in terms of the Higher Education Act of South Africa.

Internal control

We considered internal control relevant to our audit of the financial statements, Report of the Vice Chancellor and compliance with laws and regulations. We did not identify any deficiencies in internal control that we considered sufficiently significant for inclusion in this report.

OTHER REPORTS

Agreed-upon procedures engagements

As requested by the University, we performed agreed upon procedure engagements during the year under review relating to receipt of the grants from the Department of Higher Education and Training relating to the Higher Education Management Information System (HEMIS) data, infrastructure, clinical training, financial data and academic research funded projects. The review required the validation of expenditure incurred, interest earned on unspent funds, financial and student related data.

Ernst & Young Inc.

Ernst & Young Inc.

Director – Adheesh Praveenlall Maharaj

Registered Auditor

Chartered Accountant (SA)

10 June 2013

Nexia SAB&T

Nexia SAB&T

Director - Muhammed Fazel Sulaman

Registered Auditor

Chartered Accountant (SA)

10 June 2013



CONSOLIDATED STATEMENT OF FINANCIAL POSITION

FOR THE YEAR ENDED DECEMBER 31, 2012

	Note	2012 R'000	Restated 2011 R'000	Restated 2010 R'000
ASSETS				
NON-CURRENT ASSETS		904 380	759 158	718 846
Property, plant and equipment	2	550 236	490 064	466 201
Intangible assets	3	5 360	7 548	10 676
Investments	4	326 945	237 101	219 494
Deferred tax	13	464	542	1 141
Non-current receivables	6	21 375	23 903	21 334
CURRENT ASSETS		699 137	594 434	472 258
Inventories	7	1 673	1 588	1 326
Receivables and pre-payments	8	87 948	112 993	80 523
Cash and cash equivalents	9	609 516	479 853	390 409
TOTAL ASSETS		<u>1 603 517</u>	<u>1 353 592</u>	<u>1 191 104</u>
ACCUMULATED FUNDS AND LIABILITIES				
ACCUMULATED FUNDS		1 135 015	940 758	815 453
Property, plant and equipment funds		679 215	593 382	557 378
Restricted use funds		184 767	122 322	133 072
Unrestricted use funds		169 661	160 921	59 854
Fair value reserve		101 372	64 133	65 149
NON-CURRENT LIABILITIES		265 831	233 399	243 446
Borrowings	10	36 352	43 383	50 171
Retirement benefit obligations	11	223 829	169 745	160 861
Employee benefit liabilities	12	5 622	20 266	32 414
Deferred tax	13	28	5	-
CURRENT LIABILITIES		202 671	179 435	132 205
Trade and other payables	14	150 437	128 308	96 767
Provisions	15	33 400	32 320	26 523
Current portion of interest bearing borrowings	10	7 760	7 733	7 841
Current portion of non-interest bearing borrowings	10	11 074	11 074	1 074
TOTAL EQUITY AND LIABILITIES		<u>1 603 517</u>	<u>1 353 592</u>	<u>1 191 104</u>



CONSOLIDATED INCOME STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012

NOTE

RECURRENT ITEMS

	COUNCIL CONTROLLED UNRESTRICTED	SPECIFICALLY FUNDED ACTIVITIES RESTRICTED	SUB- TOTAL	STUDENT AND STAFF ACCOMMODATION RESTRICTED	2012 R'000	2011 R'000
INCOME	985 121	29 480	1 014 601	87 682	1 102 283	1 032 556
State appropriations - subsidies and grants	592 714	-	592 714	-	592 714	565 326
Tuition fee and other income	327 660	240	327 900	87 236	415 136	382 754
Income from contracts	1 719	29 240	30 959	-	30 959	29 920
- For research	483	29 240	29 723	-	29 723	27 358
- For other activities	1 236	-	1 236	-	1 236	2 562
Sales of goods and services	19 117	-	19 117	421	19 538	20 051
Private gifts and grants	2 987	-	2 987	-	2 987	1 418
SUB-TOTAL	944 197	29 480	973 677	87 657	1 061 334	999 469
Investment income	40 924	-	40 924	25	40 949	33 087
EXPENDITURE	938 340	29 240	967 580	97 615	1 065 195	931 046
Personnel	690 975	3 623	694 598	16 298	710 896	623 816
- Academic professional	364 135	-	364 135	-	364 135	318 303
- Other personnel	297 784	3 623	301 407	6 794	308 201	270 293
- Security and cleaning	29 056	-	29 056	9 504	38 560	35 220
Other current operating expenses	194 338	25 617	219 955	81 126	301 081	262 269
Depreciation and amortisation	32 017	-	32 017	191	32 208	26 559
SUB-TOTAL	917 330	29 240	946 570	97 615	1 044 185	912 644
Finance costs	4 203	-	4 203	-	4 203	4 831
Capital expenditure expensed	16 807	-	16 807	-	16 807	13 571
Surplus/(deficit) - Recurrent items	46 781	240	47 021	(9 933)	37 088	101 510

16.1

17

18

2.3

19

NON-RECURRENT ITEMS

INCOME	29 596	137 685	167 281	-	167 281	61 401
State grants	-	81 255	81 255	-	81 255	13 539
Private gifts and grants	-	37 503	37 503	-	37 503	5 173
Realised cumulative net fair value gain/(loss) on the disposal of investments	6 234	1 560	7 794	-	7 794	9 527
Income from contracts	-	11 075	11 075	-	11 075	10 955
Investment income	-	6 269	6 269	-	6 269	4 774
Other income	23 362	23	23 385	-	23 385	17 433
EXPENDITURE	6 186	42 103	48 289	-	48 289	37 291
Personnel	314	17 508	17 822	-	17 822	12 284
- Academic professional	-	12 012	12 012	-	12 012	7 624
- Administration	314	5 496	5 810	-	5 810	4 660
Other current operating expenses	4 906	24 595	29 501	-	29 501	22 901
Loss on disposal of property, plant & equipment	370	-	370	-	370	210
Fair value adjustment	596	-	596	-	596	1 896
Surplus - Non Recurrent items	23 410	95 582	118 992	-	118 992	24 110
NET SURPLUS/(DEFICIT) FOR THE YEAR - BEFORE TRANSFERS AND TAXATION	70 191	95 822	166 013	(9 933)	156 080	125 620
Amounts received not expended : To funds	-	(133 803)	(133 803)	-	(133 803)	(27 970)
Amounts spent from prior year receipts : From funds	-	37 981	37 981	-	37 981	23 753
Taxation	(87)	-	(87)	(14)	(101)	(604)
NET SURPLUS/(DEFICIT) FOR THE YEAR - AFTER TRANSFERS AND TAXATION	70 104	-	70 104	(9 947)	60 157	120 799
Less: Income allocated to departments	(36 007)	-	(36 007)	-	(36 007)	(17 637)
NET SURPLUS/(DEFICIT) AFTER INCOME ALLOCATED TO DEPARTMENTS	34 097	-	34 097	(9 947)	24 150	103 162

16.2

16.1

17

18



NOTE	COUNCIL CONTROLLED UNRESTRICTED	SPECIFICALLY FUNDED ACTIVITIES RESTRICTED	STUDENT AND STAFF ACCOMMODATION RESTRICTED	2011 R'000
	R'000	R'000	R'000	R'000
	930 952	28 201	73 403	1 032 556
RECURRENT ITEMS				
INCOME				
State appropriations - subsidies and grants	565 326	-	-	565 326
Tuition fee and other income	309 682	-	73 072	382 754
Income from contracts	1 719	28 201	-	29 920
- For research	11	27 347	-	27 358
- For other activities	1 708	854	-	2 562
Sales of goods and services	19 727	-	324	20 051
Private gifts and grants	1 418	-	1 418	1 418
SUB-TOTAL	897 872	28 201	73 396	999 469
Investment income	33 080	-	7	33 087
EXPENDITURE	834 391	28 247	68 408	931 046
Personnel	606 903	3 338	13 575	623 816
- Academic professional	318 303	-	-	318 303
- Other personnel	261 806	3 338	5 149	270 293
- Security and cleaning	26 794	-	8 426	35 220
Other current operating expenses	182 723	24 909	54 637	262 269
Depreciation and amortisation	26 363	-	196	26 559
SUB-TOTAL	815 989	28 247	68 408	912 644
Finance costs	4 831	-	4 831	4 831
Capital expenditure expensed	13 571	-	-	13 571
Surplus/(deficit) - Recurrent items	96 561	(46)	4 995	101 510
NON-RECURRENT ITEMS				
INCOME	26 955	34 446	61 401	61 401
State grants	-	13 539	-	13 539
Private gifts and grants	-	5 173	-	5 173
Realised cumulative net fair value gain/(loss) on the disposal of investments	9 527	-	-	9 527
Income from contracts	-	10 955	-	10 955
Investment income	-	4 774	-	4 774
Other income	17 428	5	17 433	17 433
EXPENDITURE	7 108	30 183	37 291	37 291
Personnel	226	12 058	12 284	12 284
- Academic professional	-	7 624	-	7 624
- Administration	226	4 434	-	4 660
Other current operating expenses	4 776	18 125	22 901	22 901
Loss on disposal of property, plant & equipment	210	-	210	210
Fair value adjustment	1 896	-	1 896	1 896
Surplus - Non Recurrent items	19 847	4 263	-	24 110
NET SURPLUS/(DEFICIT) FOR THE YEAR - BEFORE TRANSFERS AND TAXATION	116 408	4 217	4 995	125 620
Amounts received not expended : To funds	-	(27 970)	-	(27 970)
Amounts spent from prior year receipts : From funds	-	23 753	-	23 753
Taxation	(69)	-	(535)	(604)
NET SURPLUS/(DEFICIT) FOR THE YEAR - AFTER TRANSFERS AND TAXATION	116 339	-	4 460	120 799
Less: Income allocated to departments	(17 637)	-	-	(17 637)
NET SURPLUS AFTER INCOME ALLOCATED TO DEPARTMENTS	98 702	-	4 460	103 162



CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

FOR THE YEAR ENDED DECEMBER 31, 2012

	Note	2012 R'000	Restated 2011 R'000
Operating revenue		1 061 334	999 469
Less: Operating expenses		(1 044 185)	(912 644)
- Staff costs	17	(710 896)	(623 816)
- Other operating expenses	18	(301 081)	(262 269)
- Depreciation and amortisation	2,3	(32 208)	(26 559)
Net surplus from operations		17 149	86 825
Income from investments	16.1	47 218	37 861
Loss on disposal of property, plant and equipment		(370)	(210)
Other income	20	161 012	56 627
Finance costs	19	(4 203)	(4 831)
Other expenses		(64 726)	(50 652)
Surplus for the year before transfers		156 080	125 620
Amounts received not expended: To funds		(133 803)	(27 970)
Amounts spent from prior year receipts: From funds		37 981	23 753
Taxation - deferred tax	13	(101)	(604)
Surplus for the year after transfers		60 157	120 799
Other comprehensive income		37 239	(1 016)
Fair value adjustment on available for sale investments		37 239	(1 016)
Total comprehensive income for the year		97 396	119 783



CONSOLIDATED STATEMENT OF CHANGES IN FUNDS

FOR THE YEAR ENDED DECEMBER 31, 2012

DESCRIPTION	Unrestricted accumulated fund R'000	Unrestricted general reserve fund R'000	Unrestricted endowment and similar funds R'000	SUB-TOTAL A R'000	Restricted residence fund R'000	Restricted specific project fund R'000	SUB - TOTAL B R'000	Fair value reserve R'000	Property, plant and equipment Funds R'000	GRAND-TOTAL R'000
Balance at January 1, 2012	136 496	12 741	11 684	160 921	-	122 322	122 322	64 133	593 382	940 758
Net surplus/(deficit) for the year	70 104	-	-	70 104	(9 947)	-	(9 947)	-	-	60 157
Other comprehensive Income	-	-	-	-	-	-	-	37 239	-	37 239
Total comprehensive income	206 600	12 741	11 684	231 025	(9 947)	122 322	112 375	101 372	593 382	1 038 154
Transfers into funds	-	-	-	-	-	-	-	-	85 833	85 833
Other transfers	(3 287)	4 326	-	1 039	-	95 822	95 822	-	-	96 861
Transfers out of funds	(62 403)	-	-	(62 403)	9 947	(33 377)	(23 430)	-	-	(85 833)
Balance at December 31, 2012	140 910	17 067	11 684	169 661	-	184 767	184 767	101 372	679 215	1 135 015



CONSOLIDATED STATEMENT OF CHANGES IN FUNDS

FOR THE YEAR ENDED DECEMBER 31, 2011

DESCRIPTION	Unrestricted accumulated fund R'000	Unrestricted general reserve fund R'000	Unrestricted endowment and similar funds R'000	SUB-TOTAL A R'000	Restricted residence fund R'000	Restricted specific project fund R'000	SUB - TOTAL B R'000	Fair value reserve R'000	Property, plant and equipment Funds R'000	GRAND- TOTAL R'000
Balance at January 1, 2011	36 677	11 493	11 684	59 854	-	133 072	133 072	65 149	557 378	815 453
Net surplus for the year	116 339	-	-	116 339	4 460	-	4 460	-	-	120 799
Other comprehensive income	-	-	-	-	-	-	-	(1 016)	-	(1 016)
Total comprehensive income	153 016	11 493	11 684	176 193	4 460	133 072	137 532	64 133	557 378	935 236
Transfers into funds	-	-	-	-	-	-	-	-	36 004	36 004
Other transfers	57	1 248	-	1 305	-	4 217	4 217	-	-	5 522
Transfers out of funds	(16 577)	-	-	(16 577)	(4 460)	(14 967)	(19 427)	-	-	(36 004)
Balance at December 31, 2011	136 496	12 741	11 684	160 921	-	122 322	122 322	64 133	593 382	940 758



CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED DECEMBER 31, 2012

	Note	2012 R'000	Restated 2011 R'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash generated from operations	25	125 384	95 039
Investment income	16.1	47 218	37 861
Finance costs	19	(4 203)	(4 831)
		<hr/>	<hr/>
NET CASH INFLOWS FROM OPERATING ACTIVITIES		168 399	128 070
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment	2	(91 621)	(48 857)
Purchase of non-current investments		(67 097)	(62 890)
Proceeds from realisation of property plant and equipment		72	366
Proceeds from realisation of non-current investments		30 155	65 434
		<hr/>	<hr/>
NET CASH OUTFLOW FROM INVESTING ACTIVITIES		(128 491)	(45 947)
CASH FLOWS FROM FINANCING ACTIVITIES			
(Decrease)/increase in borrowings		(7 004)	3 104
Increase in funds		96 759	4 217
		<hr/>	<hr/>
NET CASH INFLOWS FROM FINANCING ACTIVITIES		89 755	7 321
INCREASE IN CASH AND CASH EQUIVALENTS		129 663	89 444
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR		479 853	390 409
		<hr/>	<hr/>
CASH AND CASH EQUIVALENTS AT END OF YEAR	9	609 516	479 853



NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012

1. ACCOUNTING POLICIES

1.1 University Information

The consolidated financial statements of the University and its subsidiaries for the year ended December 31, 2012 were authorised for issue in accordance with a resolution of Council on June 8, 2013.

The principal activities of the University and its subsidiaries relate to teaching, research and the providing of residential accommodation to students.

1.2 Basis of preparation

These consolidated financial statements have been prepared under the historical cost convention, except for certain financial instruments which are measured at fair value. The consolidated financial statements are presented in South African Rands (R), and all values are rounded to the nearest thousand (R'000) except where otherwise indicated.

These policies have been consistently applied to all the years presented, except where otherwise stated.

1.3 Statement of compliance

The consolidated financial statements have been prepared in accordance with South African Statements of Generally Accepted Accounting Practice ("SA GAAP") and in the manner required by the Minister of Higher Education and Training in terms of Section 41 of the Higher Education Act, 1997 (Act No 101 of 1997) as amended.

1.4 Presentation of consolidated income statement

In terms of SA GAAP and the Higher Education Act, 1997 (Act No 101 of 1997), the income statement is required to include disclosure up to the line item "Net surplus/(deficit) for the year after transfers". The University has included the line items "Income allocated to departments" and "Net surplus after income allocated to departments" over and above the minimum requirements as it considers this to be improved disclosure.

1.5 Significant accounting judgements, estimates and assumptions

The preparation of the University's consolidated financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Judgements

In the process of applying the University's accounting policies, management has made the following judgements, which have the most significant effect on the amounts recognised in the financial statements:

Operating lease commitments - University as lessor

The University has entered into commercial property leases on its investment property portfolio. The University has determined, based on an evaluation of the terms and conditions of the arrangements, that it retains all the significant risks and rewards of ownership of these properties and accounts for the contracts as operating leases.



1. ACCOUNTING POLICIES (continued)

1.5 Significant accounting judgements, estimates and assumptions (continued)

Investments

All investments are considered to be available-for-sale investments as the intention is to grow the value of the investment portfolios over a long-term horizon.

Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are as follows:

Depreciation and impairment

The University depreciates its assets over their estimated useful lives taking into account residual values, where appropriate. The appropriateness of its assets' estimated useful lives, residual values and their depreciation methods are re-assessed on an annual basis. The actual lives of these assets and their respective residual values may vary depending on a variety of factors. In re-assessing asset lives, factors such as technological innovation, product life cycles and maintenance programmes are taken into account. Management used their judgement in applying the internal and external impairment indicators to its assets. No impairment indicators were identified and as such the recoverable amounts of the aforementioned assets were not calculated.

Retirement benefit obligations (including Defined Accumulated Leave Pay fund)

The University's future obligations in respect of its defined benefit pension plan and its post retirement medical aid benefit plan are determined using actuarial valuations on the projected unit credit method. An actuarial valuation involves making various assumptions. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases. Due to the complexity of the valuation, the underlying assumptions and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date. Details of these assumptions are provided in note 11 and 12. The defined benefit pension plan and post retirement medical aid benefit plan are actuarially valued annually. The defined accumulated leave pay fund is actuarially valued on an ad hoc basis depending on the significance of changes in key assumptions.

Student fees receivable

At year-end management makes an estimate of the amount of total outstanding student fee debt that it expects to hand over to external debt collectors and the total subsequent receipts it expects to receive after year end. In addition, management estimates the amounts that it expects to recover from outstanding balances handed over based upon the age profile of debts handed over and based on prior experience and trends. A provision for impairment is raised based on these estimates. A detailed breakdown of the student fee receivable is provided in note 8.

Student loans

Student loans are recognised initially at fair value plus any directly attributable transaction costs. Market and client specific actuarial assumptions were used in the estimate of the fair value of the student loans at initial recognition. Subsequent to initial recognition student loans are measured at amortised cost using the effective interest method, less any impairment allowances.

With Student loans of this nature being fairly new to the University, the University does not have sufficient volume of history that can generate a reliable set of assumptions in isolation to reliably determine the amortised cost of the student loans of which would take into account the fair value adjustment on initial recognition of the student debt and potential impairments. Consequently, reference was made to the actual experience of the National Students Financial Aid Scheme ("NSFAS") whom have been providing loans to students of similar demographics over the past 20 years. 20 years of data collection was assessed as sufficient to build a reliable valuation model. DUT has adopted the NSFAS valuation model but has amended the model due to differences (specifically interest rate and date of loan issue) in the loan terms.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.5 Significant accounting judgements, estimates and assumptions (continued)

Student loans (continued)

The following assumptions were considered key in actuarially determining the amortised cost of the student loan book:

There will be no repayment of the loan for the first three years of the loan period (being the period the student will be studying). The repayments by students are assumed to occur on the first day of the fourth year.

Transition from being a registered student to graduation or exit does not exceed 10 years. The students are classified in three transitions probability categories of which are valued separately. All loans are issued on the first day of the loan year. Payments are applied to the earliest loan outstanding.

Discount rate is based on the capital market extract of the South African Reserve Bank quarterly reports, using the monthly average bond yield for government bonds with a period of 10 years and over, which represent a long term risk free interest rate. Other key assumptions are the demographics, payment patterns and mortality rates of the students. Assumptions regarding future mortality experience in South Africa are set based on published South African actuarial information.

Certain assumptions were also made in preparing the data to be used in the valuation model. This included setting parameters for the exit dates.

It should be noted that the payment profile has been based on the percentage of outstanding balance repaid by debtors in each month. This approach combines a number of inherent features of the NSFAS loans. The most significant of these are an employment profile, a salary profile (since repayment is a function of salary) and debtors making irregular payment due to loss of employment. These elements could be affected by economic conditions and NSFAS's own debt collection practices.

Based on the actuarial calculation of fair value on initial recognition utilising historical actual data spanning a 20 year period and recognised actuarial standards, a verifiable impairment of the loan book at each reporting date is calculated. A detailed breakdown of the student loans amortised cost is provided in note 6.

1.6 Basis of consolidation

The consolidated financial statements comprise the financial statements of the University and its subsidiaries as at December 31, 2012.

Subsidiaries are fully consolidated from the date of acquisition, being the date on which the University obtains control, and continues to be consolidated until the date that such control ceases.

The financial statements of the subsidiaries are prepared for the same reporting period as the University, using consistent accounting policies.

All intra-group balances, income and expenses and unrealised gains and losses resulting from intra-group transactions are eliminated in full.

The consolidated financial statements incorporate the assets, liabilities and trading operations of the following University controlled entities:

- Maxelect Investments Proprietary Limited
- Melrose Properties Proprietary Limited
- Durban University of Technology - Business Studies Unit (a division of DUT)
- Durban University of Technology Proprietary Limited
- DUT Guesthouse Proprietary Limited



1. ACCOUNTING POLICIES (continued)

1.7 Business combinations and goodwill

Business combinations are accounted for using the purchase method. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at fair values at the date of acquisition, irrespective of the extent of any minority interest.

Goodwill is initially measured at cost being the excess of the cost of the business combination over the University's share in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities. If the cost of acquisitions is less than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the income statement.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the University's cash-generating units that are expected to benefit from the synergies of this combination, irrespective of whether those assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and part of the operations within the unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured based on the relative values of the operation disposed of at the portion of the cash-generating unit retained.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.8 Standards, interpretations and amendments to published standards

1.8.1 Standards early adopted by the entity

There were no standards or interpretations that were early adopted by the entity.

1.8.2 Standards, interpretations and amendments that are not yet effective

- *IFRS 9 Financial Instruments: Classification and Measurement (Effective for annual periods beginning on or after 1 January 2015)*
- *IAS 27 Separate Financial Statements (Effective for annual periods beginning on or after 1 January 2013)*
- *IFRS 10 Consolidated Financial Statements- Transition guidance amendments (Effective for annual periods beginning on or after 1 January 2013)*
- *IFRS 12 Disclosure of Interests in Other Entities (Effective for annual periods beginning on or after 1 January 2013)*
- *IFRS 13 Fair Value Measurement (Effective for annual periods beginning on or after 1 January 2013)*
- *IAS 19 Employee Benefits: Amendment (Effective for annual periods beginning on or after 1 January 2013)* The corridor mechanism for pension plans has been removed. This means all changes in the value of defined benefit plans will be recognised as they occur. Those movements are recorded in profit or loss and other comprehensive income, depending on the type of movement.
- *IAS 28 Investments in Associates and Joint Ventures (Effective for annual periods beginning on or after 1 January 2013)*
- *IAS 32 Financial Instruments: Presentation (Amendment) Offsetting Financial Assets and Financial Liabilities (Effective for annual periods beginning on or after 1 January 2014)*
- *IFRS 12 Disclosure of Interests in Other Entities - Transition guidance amendments. (Effective 1 January 2013)*
- *IFRS 7 Financial Instruments: Offsetting Financial Assets and Financial Liabilities (Effective for annual periods beginning on or after 1 January 2013)*
- *IFRS 1 First-time Adoption of IFRS (Effective for annual periods beginning on or after 1 January 2013)*
- *IFRS 10 Consolidated Financial Statements (Effective for annual periods beginning on or after 1 January 2013)*
- *IFRS 10 Consolidated Financial Statements Investment entities final amendment – exception to consolidation (Effective for annual periods beginning on or after 1 January 2014)*

Management are still in the process of estimating the impact of implementing the above standards, interpretations and amendments. Currently IAS 19 actuarial gains and losses are recognised in surplus or deficit. In 2013 onwards, these amounts will be recognised in other comprehensive income and a retrospective adjustment will be required. With the exception of the aforementioned, management does not however expect the remaining amendments to have a material impact.



1. ACCOUNTING POLICIES (continued)

1.8.3 Standards, interpretations and amendments adopted during the year

- *IAS 1 Presentation of Items of Other Comprehensive Income.* The amendment does not affect change the nature of the items that are in recognised in Other Comprehensive Income, nor does it impact the determination of whether items of Other Comprehensive Income are reclassified through profit or loss in future periods.
- *IAS 12 Income Taxes - Recovery of underlying assets.* Became effective for periods beginning 1 Jan 2012. This did not have an impact on the University, as there are no investment properties or non-depreciable assets that are measured using the revaluation model.
- *IFRS 1 First-time Adoption of IFRS - Severe hyperinflation and removal of fixed dates for first - time adopters.* Effective 1 July 2011. This did not have an impact on the University as the University has no interests in Zimbabwean entities.
- *IFRS 7 Financial Instruments: Disclosures - Transfers of financial assets - Effective 1 July 2011.* This did not have an impact on the University as the University did not derecognise any of its financial assets.

The adoption of the above standards, interpretations and amendments did not have a material impact on the financial performance or financial position of the University with the exception of additional disclosures.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.9 Property, plant and equipment

Property, plant and equipment are initially stated at cost. The cost of an asset comprises the purchase price and costs directly attributable to bringing the asset to the location and condition necessary for it to operate as intended by management.

Land and buildings, which have been adapted to specialised functions, and all other land and buildings which are used for general purposes, plant and equipment are recorded at cost net of accumulated depreciation and accumulated impairment losses, if any, except for donations, which are valued by external independent valuers.

No depreciation is provided on freehold land as it is deemed to have an indefinite life. Property, plant and equipment are depreciated on a straight-line basis estimated to write each asset down to its estimated residual value over the estimated useful lives of the asset which range as follows:

Buildings	50 - 100 years
Motor vehicles	8 - 15 years
Computer equipment	4 - 8 years
Equipment	10 - 15 years
Furniture and equipment	20 years
Air conditioners	10 - 20 years
Lifts	30 - 40 years

The assets' residual values, useful lives and methods of depreciation are reviewed at each reporting date, and adjusted prospectively, if appropriate.

Routine maintenance costs are charged against income as incurred. Costs of major maintenance or overhaul of an item of property, plant or equipment are recognised as an expense, except if the cost had been recognised as a separate part of the cost of the asset, and that amount has already been depreciated to reflect the benefits that had been replaced or restored.

An item of property, plant and equipment and any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Gains and losses on de-recognition of property, plant and equipment are determined by reference to their carrying amounts and are taken into account in determining operating surplus.

Library acquisitions

New library collections are written off in the year of acquisition.



1. ACCOUNTING POLICIES (continued)

1.10 Leases

The determination of whether an arrangement is, or contains a lease is based on the substance of the arrangement at inception date of whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset. A reassessment is made after inception of the lease only if one of the following applies:

- a. There is a change in contractual terms, other than a renewal or extension of the arrangement;
- b. A renewal option is exercised or extension granted, unless the term of the renewal or extension was initially included in the lease term;
- c. There is a change in the determination of whether fulfilment is dependent on a specified asset; or
- d. There is a substantial change to the asset.

Where a reassessment is made, lease accounting shall commence or cease from the date when the change in circumstances gave rise to the reassessment for scenarios (a), (c) or (d) and at the date of renewal or extension period for scenario (b).

For arrangement entered into prior to 1 January 2005, the date of inception is deemed to be 1 January 2005 in accordance with transitional requirements of IFRIC 4.

University as a lessee

Operating lease payments are recognised as an expense in the statement of comprehensive income on a straight-line basis over the lease term.

University as a lessor

Leases where the University does not transfer substantially all the risks and benefits of ownership of the asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

1.11 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

1.12 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. Intangible assets with finite lives are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. Intangible assets with indefinite useful lives are tested for impairment annually as at December 31, as appropriate and when circumstances indicate that the carrying value maybe impaired.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.12 Intangible assets (continued)

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the University estimates the asset's or cash-generating unit's recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in the statement of comprehensive income. The amortisation period and the amortisation method for an intangible asset with a finite useful life is reviewed at least at each financial year end. The amortisation expense on intangible assets is recognised in the statement of comprehensive income. The amortisation periods are as follows:

Right to internet usage	20 years
Computer software	4 - 6 years

Research costs are expensed when incurred.

1.13 Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined by the weighted average cost method. Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

1.14 Impairment of non-financial assets

The University assesses at each reporting date whether there is an indication that an asset may be impaired. If any such indication exists, or when annual impairment testing for an asset is required, the University makes an estimate of the asset's recoverable amount.

An asset's recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

An assessment is made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the recoverable amount is estimated. A previously recognised impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case the carrying amount of the asset is increased to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples or other available fair value indicators.

That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in profit or loss.

After such a reversal the depreciation charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.



1. ACCOUNTING POLICIES (continued)

1.15 Financial assets

Initial recognition and measurement

The University's financial assets within the scope of IAS 39 Financial Instruments: Recognition and Measurement are classified as loans and receivables, and available-for-sale financial assets. The University determines the classification of its financial assets at initial recognition. All financial assets are recognised initially at fair value plus, in the case of investments not at fair value through surplus or deficit, directly attributable transaction costs. The University has not designated any financial assets upon initial recognition as at fair value through surplus or deficit.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market.

Loans and receivables consist of trade receivables and cash and cash equivalents.

Trade receivables

Trade receivables are subsequently measured at amortised cost using the effective interest rate method (EIR), less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR.

A provision for impairment of trade receivables is established when there is objective evidence that the University will not be able to collect all amounts due according to the original terms of the receivables. Significant financial difficulties of the debtor and default or delinquency in payments are considered indicators that the trade receivable is impaired. The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the loss is recognised in the statement of comprehensive income within 'other current operating expenses'. Subsequent recoveries of amounts previously impaired, are credited against the provision account in the statement of financial position.

Cash and cash equivalents

Cash and cash equivalents are subsequently carried in the statement of financial position at amortised cost. For the purposes of the statement of cash flows, cash and cash equivalents comprise cash on hand, deposits held at call with banks, other short-term highly liquid investments and bank overdrafts. Bank overdrafts are included in current liabilities on the statement of financial position and are carried at amortised cost.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets in the statement of financial position unless management intends to dispose of the investment within 12 months of the reporting date.

Such assets are comprised of investments in listed equity shares, quoted interest bearing corporate and government bonds, quoted unit trusts and money market deposits.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.15 Financial assets (continued)

Available-for-sale financial assets (continued)

After initial measurement, available-for-sale financial investments are subsequently measured at fair value with unrealised gains or losses recognised as other comprehensive income in the available-for-sale fair value reserve until the investment is derecognised, at which time the cumulative gain or loss is recognised in other income in the surplus or deficit, or determined to be impaired, at which time the cumulative loss is recognised in other operating expenses in the surplus or deficit and removed from the available-for-sale reserve.

The fair value of marketable securities is market value. Market value is calculated by reference to Stock Exchange quoted selling prices at the close of business on the reporting date. If the fair value of an investment cannot be determined, the investment is measured at cost where there is no fixed maturity, or at amortised cost if there is fixed maturity.

Derecognition of financial assets

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognised when:

- The rights to receive cash flows from the asset have expired; and

The University has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the University has transferred substantially all the risks and rewards of the asset, or (b) the University has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the University has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognised to the extent of the University's continuing involvement in the asset.

In that case, the University also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the University has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the University could be required to repay.

1.16 Impairment of financial assets

The University assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principle payments, the probability that they will enter bankruptcy or other financial reorganisation and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.



1. ACCOUNTING POLICIES (continued)

1.16 Impairment of financial assets (continued)

Financial assets carried at amortised cost

For financial assets carried at amortised cost the University first assesses individually whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the University determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial assets original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognised in the statement of comprehensive income. Interest income continues to be accrued on the reduced carrying amount and is accrued using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of finance income in the statement of comprehensive income. Loans together with the associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realised or has been transferred to the University.

If, in a subsequent year, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is increased or reduced by adjusting the allowance account. If a future write-off is later recovered, the recovery is credited to finance costs in the statement of comprehensive income.

Available-for-sale financial investments

For available-for-sale financial investments, the University assesses at each reporting date whether there is objective evidence that an investment or a group of investments is impaired.

In the case of equity investments classified as available-for-sale, objective evidence would include a significant or prolonged decline in the fair value of the investment below its cost. 'Significant' is to be evaluated against the original cost of the investment and 'prolonged' against the period in which the fair value has been below its original cost. Where there is evidence of impairment, the cumulative loss - measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognised in the statement of comprehensive income - is removed from other comprehensive income and recognised in surplus or deficit. Impairment losses on equity investments are not reversed through surplus or deficit; increases in their fair value after impairment are recognised directly in other comprehensive income.

In the case of debt instruments classified as available-for-sale, impairment is assessed based on the same criteria as financial assets carried at amortised cost. However, the amount recorded for impairment is the cumulative loss measured as the difference between the amortised cost and the current fair value, less any impairment loss on that investment previously recognised in surplus or deficit.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.16 Impairment of financial assets (continued)

Available-for-sale financial investments (continued)

Future interest income continues to be accrued based on the reduced carrying amount of the asset and is accrued using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of finance income. If, in a subsequent year, the fair value of a debt instrument increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in surplus and deficit, the impairment loss is reversed through surplus or deficit.

1.17 Financial liabilities

Initial recognition and measurement

Financial liabilities within the scope of IAS 39 are classified as loans and borrowings. The University determines the classification of its financial liabilities at initial recognition.

All financial liabilities are recognised initially at fair value plus directly attributable transaction costs.

The University's financial liabilities include trade and other payables and borrowings.

The subsequent measurement of financial liabilities depends on their classification as follows:

Trade and other payables

Accounts payable and accrued liabilities are subsequently measured at amortised cost using the effective interest rate method. Gains and losses are recognised in income when the liabilities are de-recognised as well as through the amortisation process.

Deposits provided by prospective and current students are treated as current liabilities until the amount is billed as due. Deposits are initially measured at fair value. They are subsequently measured at amortised cost using the effective interest rate method. Gains and losses are recognised in income when the liabilities are de-recognised as well as through the amortisation process.

Interest bearing borrowings

All interest bearing loans and borrowings are initially recognised at the fair value of the consideration received plus directly attributable transaction costs.

Subsequent to initial recognition, interest-bearing loans and borrowings are measured at amortised cost using the effective interest method. Gains and losses are recognised in net surplus or deficit when the liabilities are de-recognised as well as through the amortisation process.

Derecognition of financial liabilities

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in surplus and deficit.



1. ACCOUNTING POLICIES (continued)

1.17 Financial liabilities (continued)

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Fair value of financial instruments

The fair value of financial instruments that are traded in active markets at each reporting date is determined by reference to quoted market prices or dealer price quotations (bid price for long positions and ask price for short positions), without any deduction for transaction costs.

For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques. Such techniques may include using recent arm's length market transactions; reference to the current fair value of another instrument that is substantially the same; discounted cash flow analysis or other valuation models.

1.18 Provisions

Provisions are recognised when the University has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Where the University expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in surplus and deficit net of any reimbursement. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

Provisions comprise the short term portion of employee benefit obligation and the vacation leave pay.

1.19 Pension obligations

The University operates defined contribution and defined benefit (National Tertiary Retirement Fund) pension schemes in accordance with the Pension Funds Act, 1956. The assets of both schemes are held separately from those of the University and are administered, in the case of the defined benefit plan by trustees of the Fund and in the case of the defined contribution plan by the insurance company selected by the trustees of the Fund.

The cost of providing benefits under the defined benefit plans is determined separately for each plan using the projected unit credit method. Under this method the cost of providing pensions is charged to surplus and deficit to spread the cost over the service lives of employees in accordance with the advice of qualified actuaries.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.19 Pension obligations (continued)

The pension obligation is measured at the present value of the estimated future cash outflows using interest rates of government securities that have terms to maturity approximating the terms of the related liability. The net difference between the expected return on plan assets and the interest factor arising from discounting the obligation is recognised under personnel costs. The obligation is valued annually by independent qualified actuaries. Actuarial gains and losses are recognised immediately in surplus and deficit.

Contributions to the defined contribution scheme are charged to the surplus or deficit as incurred.

1.20 Post retirement medical aid benefits

The University provides post retirement medical aid benefits to certain of their employees. The expected costs of these benefits are accrued over the period of employment, using an accounting methodology similar to that of defined benefit pension plans. These obligations are valued annually by independent qualified actuaries. Actuarial gains and losses are recognised immediately in surplus and deficit.

Actuarial valuations of post-retirement benefit obligations are based on assumptions which include employee turnover, mortality rates, the discount rate, expected long-term rate of return on retirement plan assets, healthcare costs, inflation rates and salary increments.

1.21 Employee benefit liabilities

Employee benefit liabilities represent the non-current portion of the defined accumulated leave pay fund. The fund represents the leave that staff is entitled to for unutilised leave prior to 2008.

The University pays a benefit of basic salary multiplied by the number of accumulated leave days on resignation, death or retirement of an employee. The accrual of additional leave days ceased as at 31 December 2008. The actuarial valuation uses the projected unit method and is based on assumptions which include leave days due to active members, salary increments, the discount rate, the inflation rate and mortality rates.

1.22 Revenue recognition

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the University and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received, taking into account discounts, rebates, and other Value Added Tax or duty.

State appropriations - subsidies and grants

State appropriations and grants for general purposes are recognised as income in the financial year to which the subsidy relates. Appropriations for specific purposes, i.e., capital expenditure, are brought into the appropriate fund at the time they are available for expenditure for the purpose provided. However, if the funding is provided in advance of the specified requirement, (i.e. the University does not have immediate entitlement to it) the relevant amount is not recognised as income.



1. ACCOUNTING POLICIES (continued)

1.22 Revenue recognition (continued)

Designated income from contracts, grants and donations

Income received for designated specific purposes will arise from contracts, grants, donations and income on specific purpose endowments. In all instances, any such income is recognised in surplus and deficit in the financial period when entitled to the use of those funds. Thus, funds included as income but which will not be used until some specified future period or occurrence, are transferred from surplus and deficit to an appropriate fund and held in that fund until the financial period in which the funds can be used, at which time the amount is transferred back to income through surplus and deficit. Prior to that time, the amount is appropriately grouped in one of the restricted funds comprising aggregate funds (held in trust).

Tuition and residence fees

Tuition and residence fees are brought into income in the period to which they relate and at the time, these are formally billed. The income must be recognised as realisable and, to the extent that it is not, provision is realistically made for the estimated unrealisable amount. Deposits provided by prospective students are treated as current liabilities until the amount is billed as due.

Interest and dividend income

Interest is recognised on a time proportion basis, taking account of the principle outstanding and the effective rate over the period to maturity, when it is determined that such income will accrue to the University. Dividends are recognised when the right to receive payment is established.

Interest, dividends and other income received or due on assets representing endowment and trust funds are recognised as income in the statement of comprehensive income. Amounts are transferred to the respective funds and the amounts appropriately re-invested, if required in terms of the establishment of the respective funds.

1.23 Normal tax and deferred tax

Current income tax

Current tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. Current tax represents the expected tax payable on taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustments to tax payable of previous years.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

1. ACCOUNTING POLICIES (continued)

1.23 Normal tax and deferred tax (continued)

Deferred tax

Deferred tax is provided using the liability method on all temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognised for all taxable temporary differences except:

- where the deferred tax liability arises from the initial recognition of goodwill, or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, except where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, carry-forward of unused tax assets and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry-forward of unused tax assets and unused tax losses can be utilised; except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognised directly in equity through other comprehensive income is recognised in equity through other comprehensive income and not in the surplus or deficit for the year.

Value-added tax

Revenue, expenses and assets are recognised net of the amount of value-added tax except:

- where the value-added tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case the value-added tax is recognised as part of the cost of acquisition of the asset or as part of the expense item as applicable, and
- Receivables and payables that are stated with the amount of value-added tax included.

The net amount of value-added tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the statement of financial position.



1. ACCOUNTING POLICIES (continued)

1.24 Foreign currency translation

The University's financial statements are presented in Rands, which is also the University's functional currency. Transactions in foreign currencies are initially recorded by the University at their respective functional currency rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling at the reporting date. All differences are taken to surplus and deficit.

1.25 Accumulated Funds

Accumulated funds is the equity of the University and is categorised as follows:

- Property plant and equipment funds.
- Available funds.

Property, plant and equipment funds

This fund reflects the aggregate of expenditure funded for fixed properties (land, buildings, land improvements) and movable properties.

Available Funds

Available funds are divided into two categories:

- Restricted use funds

These funds comprise of income received by the University from external sources, the use of which is legally beyond the control of Council. Such funds include infrastructure grants, research grants, specific donations, contracts or other income where the use of these funds are directed and specified.

- Unrestricted use funds

These funds arise from income or surplus which is available to the Council to fund activities of the University.

These funds are divided into two categories:

- Designated use funds, which have been committed for capital projects.
- Undesignated use funds, which are funds available to Council, to resource activities of the University.

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

2. Property, plant and equipment

2012	Land and Buildings R'000	Furniture, equipment and computers- owned R'000	Capital work in progress R'000	Vehicles R'000	Total R'000
Opening cost as at January 1, 2012	393 923	242 613	10 454	7 508	654 498
Opening accumulated depreciation as at January 1, 2012	(55 043)	(106 415)	-	(2 976)	(164 434)
Opening net carrying amount as at January 1, 2012	338 880	136 198	10 454	4 532	490 064
Additions	48 202	38 817	2 265	2 337	91 621
Work in progress transferred	7 056	878	(7 934)	-	-
Disposals	-	(231)	-	(211)	(442)
- cost	-	(12 238)	-	(554)	(12 792)
- accumulated depreciation	-	12 007	-	343	12 350
Depreciation charge	(5 866)	(24 323)	-	(818)	(31 007)
Closing net carrying amount as at December 31, 2012	388 272	151 339	4 785	5 840	550 236
As at December 31, 2012					
- cost	449 181	270 070	4 785	9 291	733 327
- accumulated depreciation	(60 909)	(118 731)	-	(3 451)	(183 091)
Net carrying amount	388 272	151 339	4 785	5 840	550 236

A register of land and buildings is available for inspection at the business address. The University is not permitted to dispose of or otherwise alienate its land and buildings without the approval of the Minister of Higher Education and Training. The University's land and buildings have been valued in 2010 at R 1 750 000 000 (2011: R1 750 000 000), based on an open market valuation for existing use, by an independent valuer, Mr Scott Aldridge (NDPV.MIVSA) of Mills Fitchet (Pty) Ltd. There have been no significant changes in the property value since 2010.



2. Property, plant and equipment (continued)

2011	Land and Buildings R'000	Furniture, equipment and computers-owned R'000	Capital work in progress R'000	Furniture, equipment and computers-leased R'000	Vehicles R'000	Total R'000
Opening cost as at January 1, 2011	385 010	209 423	8 081	5 961	6 919	615 394
Opening accumulated depreciation as at January 1, 2011	(49 923)	(91 892)	-	(5 105)	(2 273)	(149 193)
Opening net carrying amount as at January 1, 2011	335 087	117 531	8 081	856	4 646	466 201
Transfer of leased computers to owned	-	856	-	(856)	-	-
- cost	-	5 961	-	(5 961)	-	-
- accumulated depreciation	-	(5 105)	-	5 105	-	-
Additions	9 133	28 626	10 454	-	644	48 857
Work in progress transferred	-	8 081	(8 081)	-	-	-
Disposals	(202)	(319)	-	-	(55)	(576)
- cost	(220)	(9 478)	-	-	(55)	(9 753)
- accumulated depreciation	18	9 159	-	-	-	9 177
Depreciation charge	(5 138)	(18 577)	-	-	(703)	(24 418)
Closing net carrying amount as at December 31, 2011	338 880	136 198	10 454	-	4 532	490 064
As at December 31, 2011						
- cost	393 923	242 613	10 454	-	7 508	654 498
- accumulated depreciation	(55 043)	(106 415)	-	-	(2 976)	(164 434)
Net carrying amount	338 880	136 198	10 454	-	4 532	490 064

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

3. INTANGIBLE ASSETS	<i>Right to internet usage* R'000</i>	<i>Computer Software R'000</i>	<i>Total R'000</i>
2012			
Cost	5 345	7 494	12 839
Accumulated amortisation	<u>(786)</u>	<u>(4 505)</u>	<u>(5 291)</u>
Opening net carrying amount as at January 1, 2012	<u>4 559</u>	<u>2 989</u>	<u>7 548</u>
Derecognised during the year	(987)	-	(987)
Amortisation	<u>(205)</u>	<u>(996)</u>	<u>(1 201)</u>
Closing net carrying amount as at December 31, 2012	<u>3 367</u>	<u>1 993</u>	<u>5 360</u>
Made up as follows:			
Cost	4 358	7 494	11 852
Accumulated amortisation	<u>(991)</u>	<u>(5 501)</u>	<u>(6 492)</u>
Net carrying amount	<u>3 367</u>	<u>1 993</u>	<u>5 360</u>
2011			
Cost	6 332	7 494	13 826
Accumulated amortisation	<u>(519)</u>	<u>(2 631)</u>	<u>(3 150)</u>
Opening net carrying amount as at January 1, 2011	<u>5 813</u>	<u>4 863</u>	<u>10 676</u>
Derecognised during the year	(987)	-	(987)
Amortisation	<u>(267)</u>	<u>(1 874)</u>	<u>(2 141)</u>
Closing net carrying amount as at December 31, 2011	<u>4 559</u>	<u>2 989</u>	<u>7 548</u>
Made up as follows:			
Cost	5 345	7 494	12 839
Accumulated amortisation	<u>(786)</u>	<u>(4 505)</u>	<u>(5 291)</u>
Net carrying amount	<u>4 559</u>	<u>2 989</u>	<u>7 548</u>

*This intangible asset represents the right of use of internet bandwidth in terms of an agreement with the Tertiary Education and Research Network of South Africa (TENET) and was initially recognised at the present value of the future benefit to the University, discounted at 14,17% p.a. in terms of the agreement. It is amortised over a useful life of 20 years and the amortisation expense is included in 'depreciation and amortisation.' As at December 31, 2012 the remaining amortisation period is 17,5 years. The annual payments that have to be made in respect of the TENET agreement results in the de-recognition of the portion of the intangible asset.



4. INVESTMENTS

	2012 R'000	Restated 2011 R'000
<i>At cost</i>		
Listed shares at cost	97 225	58 048
Bonds, annuities and other	108 795	99 013
Foreign investments	19 622	15 666
	<u>225 642</u>	<u>172 727</u>
<i>At valuation</i>		
Market value of listed shares	169 487	106 708
Market value of bonds, annuities and other	133 514	112 546
Market value of foreign investments	23 944	17 847
	<u>326 945</u>	<u>237 101</u>

The University has investments in listed equity and debt securities. The fair value of the quoted debt securities and equity shares is determined by reference to published price quotations in an active market.

There were no impairment provisions on available-for-sale financial assets during 2012 or 2011.

The maximum exposure to credit risk at the reporting date is the fair value of the bond securities classified as available-for-sale. These financial assets are neither past due nor impaired.

Foreign investments are held by a portfolio manager and the equities are denominated in South African Rands.

Comparative figures have been restated due to the reclassification of the money market accounts within the University's portfolio of investments from cash and cash equivalents – current assets – to long term investments – non-current assets. The reclassification is due to a change in management's intention to hold the money market as a long-term investment to fund long term projects, rather than cash and cash equivalents to fund the day-to-day activities of the University. These changes have been made to achieve a more reliable and fair presentation of the financial statements. The amount of the money markets reclassified from current assets to non-current assets is R 42,093 million (2011: R 34,326 million). Refer to Note 9 for the restated cash and cash equivalents balance. Money market accounts are included in Bonds, annuities and other.

5. TAXATION

The University, with the exception of its subsidiaries, is exempt from taxation in terms of Section 10 (1)(cA) of the Income Tax Act.

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

6. NON-CURRENT RECEIVABLES	2012 R'000	2011 R'000
<i>Student loans</i>		
Nominal Value	47 403	47 678
Adjustment due to initial recognition and impairment	(26 654)	(25 250)
Carrying Value	<u>20 749</u>	<u>22 428</u>
Opening Balance	22 428	20 038
New loans issued	983	8 991
Fair value adjustments on new loans issued	(596)	(5 538)
Interest	1 680	1 726
Payments	(1 563)	(2 496)
Experience adjustments	(2 183)	(293)
Closing Balance	<u>20 749</u>	<u>22 428</u>

The repayment of the student loans commences after completion of studies and commencement of employment by the student. The amount receivable each year is indirectly based on a formula determined by National Students Financial Aid Scheme ("NSFAS") which is linked to the salary earned by the student and is net of the estimated uncollectable portion as supported by historical trends and experience. In determining the fair value of the student loans, the following key assumptions were made:

Diploma student loans are interest free and repayable after 3 years. Post graduate students loans are interest free and are repayable after 2 years.

The expected future cash flows anticipated to arise from the loan book are reassessed each year. They take into account the status of the individual loan book and the adjusted assumptions based on an analysis of the historic experience of the loans. As the data related to the loan book changes with the passage of time, the value of the loan book will be reassessed and the cumulative impairment adjusted accordingly. Experience adjustments arise due to actual experience differing from expected performance and the impact of more reliable data.

The entity establishes an allowance for impairment that represents its estimate of incurred losses of its financial assets. A collective loss is established for groups of similar financial assets in respect of losses that may have been incurred but not yet identified, on an individual basis. The collective loss allowance is determined based on historical data of payment statistics for similar financial assets and in the case of the student loan portfolio based on the mortality over the following year.

The impairment is calculated as the difference between the expected cash flow profile and the experienced payment, transitions from the student state and mortality.

The student transition probabilities which form the basis of the valuation are primarily classified as:

- Student to graduate or drop-out
- Graduate to paying or non-paying
- Drop-out to paying or non-paying

A discount rate of 8.69% (2011: 9%) has been used in arriving at the amortised cost.

<i>Loan receivable from TENET</i>	<u>626</u>	<u>1 475</u>
------------------------------------------	------------	--------------

The loan receivable from TENET is carried at amortised cost using the effective interest rate method, less impairment, and has the following terms:

- The effective interest rate is 14,17% p.a. (2011: 14.17% p.a.)
- In terms of the TENET agreement, the loan receivable is recoverable in the following ways:
 - Cash and
 - deduction of amounts owing by the University for internet services provided by TENET

Total non-current receivables	<u>21 375</u>	<u>23 903</u>
--------------------------------------	---------------	---------------



	2012 R'000	2011 R'000
7. INVENTORIES		
Consumables	1 673	1 588

Inventories include stationery, technical inventories and study materials. There were no write-downs of inventories during the year.

	2012 R'000	Restated 2011 R'000
8. RECEIVABLES AND PREPAYMENTS		
Student debtors	218 500	185 548
Less: Provision for impairment	(197 271)	(166 541)
	21 229	19 007
NSFAS	32 904	71 231
Loans to employees	150	110
Other receivables	32 379	20 685
Prepayments	1 286	1 960
	87 948	112 993

All student debtors (after provision for impairment) at year-end are past due but not considered impaired. These student debtors are over 120 days. Amounts past due (after provision for impairment) are not considered impaired due to the University's experience in collecting amounts when students renew their registration in the next academic period. Amounts past due but not impaired represent fees billed in the current year. Other receivables are impaired where necessary.

All NSFAS debtors at year-end are past due but are not impaired. The amounts past due are not considered impaired as NSFAS is a government organisation that pays the University based on valid claims issued by the University. NSFAS pays the University based on claims within 12 months or less thus all amounts raised are based on valid claims approved by NSFAS. There has been no default history with NSFAS.

All loans to employees at year end are past due but not considered impaired. These loans to employees are deducted from the employee's salary based on an instalment plan.

Movement in the provision for impairment of student receivables is as follows:

	2012 R'000	2011 R'000
At beginning of the year	166 541	159 792
Raised during the year	30 870	14 547
Utilised during the year	(140)	(7 798)
At end of the year	197 271	166 541

The movement in the provision for impaired student receivables has been included in 'other operating expenses' in the statement of comprehensive income.

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

9. CASH AND CASH EQUIVALENTS

	2012 R '000	Restated 2011 R '000
Cash at bank and on hand	22 257	20 550
Short term deposits	587 259	459 303
	<u>609 516</u>	<u>479 853</u>

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short-term deposits are made for varying periods of between one day and twelve months depending on the requirements of the University and earn interest at the respective short-term deposit rates. (Refer to Note 4 – reclassification of money market accounts).

	2012 R'000	2011 R'000
10. BORROWINGS		
Non-current borrowings	36 352	43 383
State Guaranteed Loans	6 654	7 107
Development Bank of Southern Africa	27 481	28 824
Loan payable to TENET	1 695	3 151
Nedbank Limited	522	4 301
Current portion of borrowings	18 834	18 807
Current portion of interest bearing borrowings	7 760	7 733
Current portion of non-interest bearing borrowings	11 074	11 074
Total borrowings	<u>55 186</u>	<u>62 190</u>

Name of entity	Variable interest rate %	Fixed interest rate %	Maturity
State Guaranteed Loans	-	13.5 - 17.0	1 July 2022
Development Bank of Southern Africa - Loan 1	-	5.0	31 March 2023
Development Bank of Southern Africa - Loan 2	-	8.7	31 March 2023
Loan payable to TENET	-	14.17	30 June 2014
Nedbank Limited	-	7.2	01 June 2014
NRF bridging finance	-	-	31 March 2013

State Guaranteed and Development Bank of Southern Africa loans

The State Guaranteed Loans and the Development Bank of Southern Africa loans are unsecured. The State Guaranteed Loans, the subsidies of which range between 50% and 85% reflect the balance owing on loans raised to finance the acquisition of property, plant and equipment. The annual cost of interest and redemption, together with the state subsidy on these payments, are included in surplus for the year in the statement of comprehensive income.

Loan payable to TENET

The TENET loan is carried as a financial liability at amortised cost, being the present value of all instalment amounts still owing to TENET as at 31 December 2012.

- The financial liability is discounted using the effective interest rate method.
- The applicable discount rate is 14.17% p.a.
- Repayments are expected to be paid in equal instalments over a five-year period, beginning June 30, 2009.



11. RETIREMENT BENEFIT OBLIGATIONS

	2012 R'000	2011 R'000
Statement of financial position obligations for:		
- Pension benefits	82 553	56 599
- Post employment medical benefits	141 276	113 146
	<u>223 829</u>	<u>169 745</u>

11.1 Pension obligations - National Tertiary Retirement Fund

Defined pension benefits	82 553	56 599
Made up as follows:		
Defined benefit obligation	156 470	121 649
Plan assets at fair value	(73 917)	(65 050)
	<u>82 553</u>	<u>56 599</u>
Unrecognised past service cost	-	-
Unrecognised net (gain)/loss	-	-
Net liability	<u>82 553</u>	<u>56 599</u>

The movement in the defined benefit obligation over the year is as follows:

At beginning of year	56 599	66 670
Interest and service costs	12 402	13 863
Contributions by plan participants	(11 318)	(4 462)
Actuarial loss/(gain)	30 725	(14 323)
Expected return on plan assets	(5 855)	(5 149)
At end of year	<u>82 553</u>	<u>56 599</u>

**Historical information disclosed in Note 29*

The amounts recognised in the statement of comprehensive income are as follows:

Interest and service costs	12 402	13 863
Net actuarial losses/(gains) recognised during the year	30 725	(14 323)
Expected return on plan assets	(5 855)	(5 149)
Total, included in Personnel (Staff costs)	<u>37 272</u>	<u>(5 609)</u>

The principal actuarial assumptions used were as follows:

Discount rate	6.75%	8.25%
Expected return on plan assets	8.25%	9.00%
Future salary increases	6.25%	6.50%
Future pension increases	0.71%	2.12%

Assumptions regarding future mortality experience are set based on advice, published statistics and experience.

The movement in the defined benefit obligation for the year is as follows:

Beginning of the year	121 649	127 249
Service cost	3 519	3 922
Interest cost	8 883	9 941
Actuarial loss/(gain)	33 737	(15 001)
Top-ups allocated	(11 318)	(4 462)
End of the year	<u>156 470</u>	<u>121 649</u>

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

11. RETIREMENT BENEFIT OBLIGATIONS (continued)	2012	2011
	R'000	R'000
11.1 Pension obligations - National Tertiary Retirement Fund (continued)		

The movement in the fair value of plan assets for the year is as follows:

Beginning of the year	65 050	60 579
Expected return on plan assets	5 855	5 149
Employee contribution	11 318	4 462
Top-ups allocated	(11 318)	(4 462)
Actuarial gain/(loss)	3 012	(678)
	<u>73 917</u>	<u>65 050</u>
End of the year		
	<u>14%</u>	<u>7%</u>

Based on present assumptions, the actuaries best estimate of the Universities expected contribution to the defined benefit contribution plan in 2013 approximates R43 946 000.

11.2 Post retirement medical aid benefits

Defined post retirement medical aid benefits	<u>141 276</u>	<u>113 146</u>
Made up as follows:		
Defined benefit obligation	141 276	113 146
Plan assets at fair value	-	-
	<u>141 276</u>	<u>113 146</u>
Unrecognised past service cost	-	-
Unrecognised net (gain)/loss	-	-
	<u>141 276</u>	<u>113 146</u>
Net liability		

Movement in the defined benefit obligation is as follows:

At beginning of year	113 146	94 191
Current service cost	2 313	1 824
Interest cost	9 528	8 744
Actuarial loss	21 088	12 777
Benefits paid	(4 799)	(4 390)
	<u>141 276</u>	<u>113 146</u>
At end of year		

**Historical information disclosed in Note 29*

The amounts recognised in the statement of comprehensive income are as follows:

Current service cost	2 313	1 824
Interest cost	9 528	8 744
Net actuarial loss recognised during the year	<u>21 088</u>	<u>12 777</u>
Total, included in Personnel (Staff costs)	<u>32 929</u>	<u>23 345</u>



11. RETIREMENT BENEFIT OBLIGATIONS (continued) 2012
R'000 2011
R'000

11.2 Post retirement medical aid benefits (continued)

The principal assumptions used are as follows:

Discount rate	7.61%	8.60%
Medical inflation	7.42%	7.52%

The effect of a 1% increase in the medical cost inflation rate is as follows:

Effect on current service costs	502	382
Effect on current interest cost	1 419	1 133
Effect on the obligation	20 731	15 329

The effect of a 1% decrease in the medical cost inflation rate is as follows:

Effect on current service costs	(397)	(305)
Effect on current interest cost	(1 166)	(945)
Effect on the obligation	(17 025)	(12 693)

Based on present assumptions, the actuaries best estimate of the Universities expected contribution to the defined benefit medical aid plan in 2013 approximates R5 186 748.

12. EMPLOYEE BENEFIT LIABILITIES

Defined accumulated leave pay fund	5 622	20 266
<i>Made up as follows:</i>		
Defined benefit obligation	20 622	34 266
Plan assets at fair value	-	-
	20 622	34 266
Unrecognised past service cost	-	-
Unrecognised net (gain)/loss	-	-
Net liability at year end	20 622	34 266
Current portion of defined accumulated leave pay (disclosed under provisions)	(15 000)	(14 000)
	5 622	20 266

**Historical information disclosed in Note 29*

Movement in the defined benefit obligation is as follows:

Beginning of the year	34 266	44 915
Interest cost	2 175	3 286
Actuarial loss	-	193
Benefits paid	(15 819)	(14 128)
End of the year	20 622	34 266

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

12. EMPLOYEE BENEFIT LIABILITIES (continued)

2012
R'000

2011
R'000

The amounts recognised in the statements of comprehensive income are as follows:

Interest cost	2 175	3 286
Net actuarial loss recognised during the year	-	193
Total included in Personnel (Staff costs)	<u>2 175</u>	<u>3 479</u>

The principle assumptions used are as follows:

Discount rate	8.25%	8.25%
Inflation rate	5.50%	5.50%
Salary increase	6.50%	6.50%

Assumptions regarding future mortality are based on advice, published statistics and experience. No actuarial valuation was carried out in 2012 as the key assumptions used in 2011 were not expected to change significantly.

13. DEFERRED TAX

Deferred tax asset	464	542
Deferred tax liabilities	<u>(28)</u>	<u>(5)</u>
	<u>436</u>	<u>537</u>

2012	Balance 31/12/2011 R'000	Charged through surplus or deficit R'000	Balance 31/12/2012 R'000
------	--------------------------------	------------------------------------------------------	--------------------------------

The balance of the deferred tax is made up as follows:

Property, plant and equipment	154	(179)	(25)
Rent expense accrual	(5)	1	(4)
Assessed losses	<u>388</u>	<u>77</u>	<u>465</u>
	<u>537</u>	<u>(101)</u>	<u>436</u>



13. DEFERRED TAX (continued)

	<i>Balance 31/12/2010 R'000</i>	<i>Charged through surplus or deficit R'000</i>	<i>Balance 31/12/2011 R'000</i>
2011			
The balance of the deferred tax is made up as follows:			
Property, plant and equipment	116	38	154
Rent expense accrual	(6)	1	(5)
Assessed losses	1 031	(643)	388
	<u>1 141</u>	<u>(604)</u>	<u>537</u>
		<i>2012 R'000</i>	<i>2011 R'000</i>

14. TRADE AND OTHER PAYABLES

Trade payables	128 936	109 308
Student deposits	4 604	3 853
Other payables	<u>16 897</u>	<u>15 147</u>
Total	<u>150 437</u>	<u>128 308</u>

Terms and conditions of the above financial liabilities:

- Trade and other payables are non-interest bearing
- Trade and other payables are normally settled on 30 day terms
- Other payables includes an accrual for employee bonuses of R 14.8 million (2011: R13.6 million)

15. PROVISIONS

Made up as follows:

Current portion of defined accumulated leave pay fund	15 000	14 000
Vacation leave pay	<u>18 400</u>	<u>18 320</u>
	<u>33 400</u>	<u>32 320</u>

Movement in provision for accumulated leave pay and vacation leave pay is as follows:

At beginning of the year	32 320	26 523
Raised during the year	18 037	20 669
Utilised during the year	<u>(16 957)</u>	<u>(14 872)</u>
At end of the year	<u>33 400</u>	<u>32 320</u>

The provision for vacation leave pay represents the potential liability for leave days accrued and not utilised by staff members at year-end. The current portion of the defined accumulated leave pay fund represents the estimated amount of the capped benefit to be paid out to employees during the following year.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

16. INVESTMENT INCOME	2012	2011
	R'000	R'000
16.1 Investment income		
Recurrent investment income	40 949	33 087
- Income from investments	3 435	3 616
- Interest received - call accounts and short term deposits	27 880	22 277
- Interest received - other	4 318	2 377
- Dividends received	5 316	4 817
Non-recurrent investment income	6 269	4 774
Total investment income	47 218	37 861
16.2 Realised cumulative net fair value gains and losses from the disposal of investments		
- fair value gain on disposal	7 950	9 848
- fair value loss on disposal	(156)	(321)
	7 794	9 527
Realised cumulative net fair value gains from the disposal of investments are recognised in other income in the statement of other comprehensive income.		
17. PERSONNEL (Staff costs)		
Recurrent staff costs	710 896	623 816
Academic professional	364 135	318 303
Other personnel	308 201	270 293
Outsourced services (security and cleaning)	38 560	35 220
Non-recurrent staff costs	17 822	12 284
Total staff costs	728 718	636 100
The following expense is included in the personnel costs:		
- Defined contribution plan	3 022	2 883
Average number of employees employed during the year:		
- Academic	639	635
- Non academic	790	819
Total	1 429	1 454
18. OTHER OPERATING EXPENSES		
The following have been charged in arriving at other current operating expenses:		
Supplies and services	143 099	130 854
Movement in the bad debts provision	31 440	7 103
Repairs and maintenance	32 191	33 153
Included in supplies and services are the following expenses:		
- Auditors' remuneration	2 456	2 200
- Fees paid to internal auditors	1 614	1 493
- Fees paid to forensic auditors	491	317
- Operating lease expenses	42 715	37 325



19. FINANCE COSTS	2012 R'000	2011 R'000
Interest bearing borrowings	4 203	4 831

20. OTHER INCOME

The following have been received in arriving at other income:

State grants	81 255	13 539
Private gifts and grants	37 503	5 173
Fair value adjustment on investments	7 794	9 527
Income from contracts	11 075	10 955

Included in private gifts and grants:
- Bequeathed income (EB Levenstein)

36 169	-
--------	---

21. RISK MANAGEMENT

The University's principle financial instruments comprise available-for-sale investments, receivables, cash, short-term deposits, interest bearing borrowings and trade and other payables.

The University manages a substantial portfolio of financial assets with a long-term view to growing the portfolio in order to provide financial stability, settlement of longer term liabilities, support for new initiatives and strategic choices.

The main purpose of the interest bearing loans and borrowings is to raise finance for the University's infrastructure. The University's other financial assets and liabilities arise directly from its operations.

The main risks arising from the University's financial instruments are market risk, credit risk and liquidity risk.

Council, through its finance and investment committees, reviews and agrees policies for managing each of these risks and they are summarised below.

21.1 Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices.

The financial assets are invested in terms of a considered strategy adopted by the University's Council and advised by the Investment Committee. Portfolios are allocated to selected portfolio managers who operate under defined mandates. The investment decisions made and performances of these managers are closely monitored by the Investment Committee.

The Investment Committee meets quarterly and receives reports from investment managers on a cyclical basis. In addition, the Investment Committee may co-opt any individual, consultant or specialist in the event of their expertise being required.

Internal checks are performed to confirm the income received and the purchase and sale of investments are reflected on the portfolio statements.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

21. RISK MANAGEMENT (continued)

21.1 Market risk (continued)

Price risk

The University and its subsidiaries are exposed to equity securities price risk because of the listed investments held by the University and these are classified in the notes to the financial statements (Refer to Note 4).

At December 31, 2012, if the JSE index increased/decreased by 10% with all other variables held constant and all the University's equity instruments moved according to the historical correlation with the index, funds would have been R16 948 733 (2011: R10 670 589) higher or lower.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The University is not exposed to cash flow interest rate risk on borrowings as the majority of their borrowings have fixed interest rates. The University and its subsidiaries are not exposed to cash flow interest rate risk on funds on call as the rate of interest was fixed on these investments at the year end.

As at December 31, 2012, if interest rates on the fixed term deposits had been entered into at rates 1% higher/lower, the surplus for the year would have been R5 823 898 (2011: R4 563 812) higher/lower as a result of higher/lower interest income.

The University has a number of receivables (i.e. student fees) where interest rates charged are at a fixed rate of 2% per month. The amounts of interest owed by staff are negligible.

The University holds a substantial amount of interest bearing investments and interest earning bank deposits. Interest risks relating to the University's investments are managed and monitored by the Investment Committee and management in the same manner as outlined above.



21. RISK MANAGEMENT (continued)

21.1 Market risk (continued)

The following tables demonstrate the sensitivity of the University's financial assets and financial liabilities that are subject to interest rate risk to a reasonable possible change in interest rates, with all other variables held constant.

Interest rate changes on basis points (BP)	Impact of interest changes on funds employed in R' millions					
	-200BP	-100BP	-50BP	50BP	100BP	200BP

Holdings at December 31, 2012

Local capital market interest bearing investments	(2.67)	(1.33)	(0.67)	0.67	1.33	2.67
---------------------------------------------------	--------	--------	--------	------	------	------

Holdings at December 31, 2011

Local capital market interest bearing investments	(1.56)	(0.78)	(0.39)	0.39	0.78	1.56
---------------------------------------------------	--------	--------	--------	------	------	------

Interest rate changes in basis points (BP)	Impact of interest changes on net surplus in R' millions					
	-200BP	-100BP	-50BP	50BP	100BP	200BP

Holdings at December 31, 2012

Money market and call deposits	(11.75)	(5.87)	(2.94)	2.94	5.87	11.75
Cash and cash equivalents	(0.45)	(0.22)	(0.11)	0.11	0.22	0.45

Holdings at December 31, 2011

Money market and call deposits	(9.19)	(4.59)	(2.30)	2.30	4.59	9.19
Cash and cash equivalents	(0.41)	(0.21)	(0.10)	0.10	0.21	0.41

Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The University enters into foreign currency transactions sporadically through the period however its exposure to foreign currency risk is negligible.

21.2 Credit risk

Credit risk is the risk that counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. Potential concentrations of credit risk consist mainly of short-term cash, cash equivalent investments, trade receivables and other receivables.

The University places cash and cash equivalents with reputable financial institutions and a multi-manager approach to the management of investments is followed in order to limit investment risk.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

21. RISK MANAGEMENT (continued)

21.2 Credit risk (continued)

Credit risk is the risk that counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. Potential concentrations of credit risk consist mainly of short-term cash, cash equivalent investments, trade receivables and other receivables.

The University places cash and cash equivalents with reputable financial institutions and a multi-manager approach to the management of investments is followed in order to limit investment risk.

Receivables comprise outstanding student fees and student loans. The University is exposed to credit risk arising from student loans and outstanding student fees. The risk relating to student fees is mitigated by requiring students to pay an initial instalment in respect of tuition and accommodation fees at registration, the regular monitoring of outstanding fees and the institution of debt collection action in cases of long outstanding amounts. In addition, students with outstanding balances from previous years of study are only permitted to renew their registration after either the settling of the outstanding amount or the conclusion of a formal payment arrangement.

The collection of student loans is administrated by the National Students Financial Aid Scheme ("NSFAS") for which the measurement of the credit risk is actuarially determined.

Credit quality of financial assets

The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to historical information about counterparty default rates:

	2012 R'000	Restated 2011 R'000
<i>Receivables</i>		
Counterparties without external credit rating:		
Group 1 – NSFAS	32 904	71 231
Group 2 - Student loans	20 749	22 428
Group 3 - Student fees	21 229	19 007
Group 4 – TENET	626	1 475
Total trade receivables	75 508	114 141
Group 1 - Amounts outstanding in respect of NSFAS, high credit quality		
Group 2 - Student loans, moderate credit quality		
Group 3 - Existing student accounts, moderate credit quality		
Group 4 - Tenet loan receivable, high credit quality		
	2012 R '000	Restated 2011 R '000
Cash at bank and short term deposits	609 516	479 853

All cash and short-term deposits are held with major banks in South Africa.



21. RISK MANAGEMENT (continued)

21.3 Liquidity risk

Liquidity is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities.

The timing and nature of the University's cash inflows and outflows are such that liquidity problems are unlikely to arise. Furthermore, the University has access to funds through either its holding of short-term bank deposits or the un-endowed investments portfolio in the event that any unforeseen events occur. The cash flow position is monitored by management on a monthly basis by means of a cash flow statement.

The University has minimised its liquidity risk by ensuring that it has adequate banking facilities and reserve borrowing capacity.

Banking facilities

The University has the following facilities with its banker, Standard Bank:

- Credit card facility of R0.12 million
- Performance guarantees of R1.149 million
- Trading facility of R2 million

Contractual maturity profile

The table below summarises the maturity profile of the University's financial liabilities at 31 December 2012, based on contractual undiscounted payments:

	<i>Less than 3 months R'000</i>	<i>3 to 12 Months R'000</i>	<i>1 to 5 years R'000</i>	<i>Greater than 5 years R'000</i>	<i>Total R'000</i>
<i>At December 31, 2012</i>					
Borrowings	-	20 346	21 746	27 989	70 081
Trade and other payables	150 437	-	-	-	150 437
<i>At December 31, 2011</i>					
Borrowings	-	21 006	33 712	27 487	82 205
Trade and other payables	128 308	-	-	-	128 308

21.4 Fair value estimation

The fair value of financial instruments traded in active markets (such as available for sale securities) is based on quoted market prices at the reporting date. The quoted market price used for financial assets held by the University is the current bid price at year-end.

The carrying value of trade receivables and payables approximate their fair values due to their short term nature. Where necessary trade receivables and student loans are discounted to approximate their fair value, on initial recognition.

Council is of the opinion that the carrying amount of all financial instruments as reflected in the statement of financial position approximates its fair value.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

21. RISK MANAGEMENT (continued)

21.4 Fair value estimation (continued)

Fair value hierarchy

The University uses the following hierarchy for determining and disclosing the fair value of financial instruments:

- Level 1 Quoted (unadjusted) prices in active markets for identical assets or liabilities.
- Level 2 Other techniques for which all inputs which have a significant effect on the recorded fair values are observable, either directly or indirectly.
- Level 3 Techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data.

As at December 31, the following financial assets were carried at fair value:

	<i>Level 1 R'000</i>	<i>Level 2 R'000</i>	<i>Level 3 R'000</i>	<i>Total R'000</i>
Non-current investments				
2012	<u>326 945</u>	<u>-</u>	<u>-</u>	<u>326 945</u>
2011	<u>237 101</u>	<u>-</u>	<u>-</u>	<u>237 101</u>

<i>Financial assets by category</i>	<i>Loans and receivables R'000</i>	<i>Available for sale R'000</i>	<i>Total R'000</i>
-------------------------------------	--------------------------------------------	-----------------------------------------	------------------------

December 31, 2012

Financial assets as per statement of financial position

Investments	-	326 945	326 945
Receivables - current	86 662	-	86 662
Receivables - non-current	21 375	-	21 375
Cash and cash equivalents	<u>609 516</u>	<u>-</u>	<u>609 516</u>
Total	<u>717 553</u>	<u>326 945</u>	<u>1 044 498</u>

December 31, 2011

Financial assets as per statement of financial position

Investments	-	237 101	237 101
Receivables - current	111 033	-	111 033
Receivables - non-current	23 903	-	23 903
Cash and cash equivalents	<u>479 853</u>	<u>-</u>	<u>479 853</u>
Total	<u>614 789</u>	<u>237 101</u>	<u>851 890</u>



21. RISK MANAGEMENT (continued)

21.5 Capital risk management

The capital of the University comprises both restricted funds designated for specific purposes and unrestricted funds, being funds that can be employed by the Council at its discretion.

The University's objectives when managing capital are to safeguard the ability of itself to continue as a going concern and to maintain an optimal structure to reduce the cost of capital. In order to maintain the capital structure the University has ensured a sound financial position by limiting exposure to debt and increasing investments and cash balances. This objective is met by a well-planned budget process each year.

	2012 R'000	Restated 2011 R'000
Investments	326 945	237 101
Cash and cash equivalents	609 516	479 853
Total	936 461	716 954
Borrowings	(55 186)	(62 190)
Net position	881 275	654 764

22. CONTINGENT LIABILITIES

22.1 Guarantees issued by the University's bankers:

	2012 R'000	2011 R'000
Retecon Proprietary Limited	-	2 461
City treasurer	39	39
SA Post Office Limited	120	120
Ethekwini Municipality	1 110	1 110
Msunduzi Municipality	42	42
Eskom Holdings Limited	377	377
	1 688	4 149

22.2 Indumiso College of Education

The Department of Education and Training handed over the Indumiso College of Education to the former Natal Technikon. The operations of this college have been incorporated into the Durban University of Technology subsequent to the merger. The land and buildings have been capitalised in the accounting records of the University and no liability has been raised for the land and buildings.

The Department of Education has not given an undertaking to indemnify the University against any liability in respect of land and buildings of this college or against any future claims or liabilities that may exist in respect of this college.

The Department of Education is currently in the process of subdividing the property and transferring this property in the name of the Durban University of Technology. Management is uncertain if the subdivision will result in any possible obligations which may have to be settled in the future from the University's resources. Furthermore, management is unable to determine the quantum of such a liability and has been unable to obtain any further clarity from the Department of Higher Education and Training in this regard.

NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)

22. CONTINGENT LIABILITIES (continued)

22.3 As at December, 2012, the University was defending claims lodged by third parties:

During 2011, the University withdrew a supplier's preferred bidder status in respect of a tender. As at 31 December 2012 an initial application had been made by the supplier of which was dismissed in High Court. A second application for leave to appeal was instituted during March 2013 and judgement on the appeal is in process. The University's possible financial exposure approximates at R 60.2m.

22.4 Contingencies for Business Studies Unit ("BSU")

The University is currently engaged in negotiations with the former franchisee of BSU to recover expenses incurred by the University on behalf of the BSU and claims made by the BSU for expenditure incurred on behalf of the University. At the reporting date we have measured the potential contingent asset to be R4,8 million and the contingent liability to be R1,5 million. The University's attorneys have indicated that there is a reasonable prospect of success in its claim and in having the former franchisee's claim dismissed.

23. Associated Institutions Pension Fund ("AIPF")

97 employees (2011: 102) of the University are members of the AIPF. The AIPF is a state fund established in terms of the Associated Institutions Pension Fund Act No 41, 1963 and is a defined benefit plan with the state being the sponsoring employer responsible for any shortfall of benefits payable to members of the fund. Accordingly, the University is not required to recognise any proportionate share of the AIPF's defined benefit obligation, plan assets and cost associated with the plan in the same way as for any other defined benefit plan.

24. COMMITMENTS

2012	2011
R'000	R'000

24.1 *Capital commitments*

Capital expenditure contracted for at reporting date but not recognised in the financial statements is as follows:

Property, plant and equipment	6 414	33 179
-------------------------------	-------	--------

Capital expenditure contracted as at December 31, 2012 related to additions and alterations to the health science, Indumiso residence and the Mansfield campus buildings.

As at December 31, 2011 Capital expenditure contracted related to additions and alteration to the health science, biotechnology, hotel school and the Ritson campus buildings.



	2012 R'000	2011 R'000
24. COMMITMENTS (continued)		

24.2 Operating lease commitments

The future minimum lease payments under operating leases are as follows:

Not later than 1 year	44 948	6 393
Later than 1 year and not later than 5 years	103 177	7 310
	<u>148 125</u>	<u>13 703</u>

Operating lease commitments are in respect of lease agreements for residence properties, photocopy machines and other office equipment. The increase is due to the renewal and increase in lease rates of the outsourced leased residence in February 2012 as well as new leases.

The average lease term for residential buildings is 1 to 3 years (2011: 1 to 3 years) with an average escalation clause linked to CPI (2011: CPI).

The average lease term for equipment is 5 years (2011: 5 years) with an average escalation clause linked to CPI (2011: CPI).

25. CASH GENERATED FROM OPERATIONS

	2012 R '000	Restated 2011 R '000
Reconciliation of net surplus before taxation to cash generated from operations:		
Net surplus for the year before tax	<u>60 258</u>	<u>121 403</u>
Adjustments for:		
Increase in retirement benefit obligation	54 084	8 884
Movement in employee benefit liability and provisions	(13 564)	(6 351)
Depreciation and amortisation	32 208	26 559
Loss on disposal of property, plant and equipment	370	210
Realised fair value loss on disposal of investments	(7 794)	(9 527)
Investment income	(47 218)	(37 861)
Finance cost	4 203	4 831
Movement in long term cash	(7 767)	(11 583)
Prescribed debtors	<u>(4 326)</u>	<u>(1 249)</u>
Operating surplus before working capital changes	70 454	95 316
Changes in working capital	54 930	(277)
- Receivables and prepayments	32 886	(31 556)
- Inventories	(85)	(262)
- Accounts payable and accruals	22 129	31 541
	<u>125 384</u>	<u>95 039</u>

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

26. RELATED PARTIES

Related parties exist between the University and its subsidiaries and division.

Name of related party	Nature of relationship	Nature of transaction	Transactions during the year		Amount due from/(to) related party	
			2012 R'000	2011 R'000	2012 R'000	2011 R'000
Maxelect Investments Proprietary Limited	Subsidiary	Interest received Rent paid Insurance paid Intercompany loan	(1 157) 3 703 99 -	(683) 3 366 126 (1 400)	- - - 24 298	- - - 23 042
Melrose Properties Proprietary Limited	Subsidiary	Rent paid Insurance paid Intercompany loan	90 108 -	82 137 (400)	- - 4 319	- - 4 212
Durban University of Technology Proprietary Limited	Subsidiary	Loans impaired Salary reimbursement (SEDA) Expenses Administration fees Trade receivables Trade payables (Re-imbursement)	- - 182 170 - 1 911	377 - - - - 1 323	- - - - (78) 30	- - - - - (109)
DUT Guesthouse Proprietary Limited	Subsidiary	Loans written off	411	31	-	-
Business Studies Unit	Division	Royalties received Increase in loan to division Student fees raised on behalf of division Trade payables Intercompany loan	- 53 5 720 - -	- - - - -	- - - 7 469 3 151	- - - 1 350 3 098



27. SENIOR MANAGEMENT COMPENSATION

The following disclosures relates to compensation paid to executive staff. Remuneration is based on the cost of employment to the University. These members of executive staff are considered to be key management personnel of the University.

Gross remuneration – 2012

DETAILS	OFFICE HELD	BASIC SALARY	EMPLOYMENT BENEFITS	OTHER ALLOWANCES	TOTAL COST
		R	R	R	R
EXECUTIVE MANAGEMENT:					
Prof A Bawa	Vice Chancellor	1 746 756	297 813	125 400	2 169 969
Prof N Gawe	Deputy Vice Chancellor - Institutional Support	1 397 363	407 746	101 400	1 906 509
Prof FAO Otieno	Deputy Vice Chancellor - TIP	1 425 396	391 710	89 400	1 906 506
Prof N S Gwele	Deputy Vice Chancellor - Academic	1 509 756	181 855	17 400	1 709 011
		6 079 271	1 279 124	333 600	7 691 995
EXECUTIVE DEANS:					
Dr K F Netshiombo	Executive Dean - Arts	1 285 296	130 168	408 463	1 823 927
Prof TN Andrew	Executive Dean – Engineering	1 163 868	335 639	86 400	1 585 907
Prof T Nepal	Executive Dean - Accounting & Informatics	1 144 020	314 090	14 400	1 472 510
Dr R Balkaran	Executive Dean – Faculty of Management Science (Acting)	392 160	161 963	391 732	945 855
Prof D Lortan	Executive Dean - Applied Sciences	1 110 876	343 264	14 400	1 468 540
Prof T Puckree	Executive Dean – Faculty of Health Sciences (Appointed April '11)	814 344	234 236	14 400	1 062 980
		5 910 564	1 519 360	929 795	8 359 719
EXECUTIVE DIRECTORS:					
*Prof R L Ngcobo	Executive Director - Midlands Campus	1 194 540	248 730	820 840	2 264 110
		1 194 540	248 730	820 840	2 264 110
GRAND TOTAL		13 184 375	3 047 214	2 084 235	18 315 824

* Prof R L Ngcobo : Retirement effective as at 29 February 2012 Annualised salary. Actual salary paid was R 993 885.

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

27. SENIOR MANAGEMENT COMPENSATION (continued)

Gross remuneration – 2011

DETAILS	OFFICE HELD	BASIC SALARY	EMPLOYMENT BENEFITS	OTHER ALLOWANCES	TOTAL COST
		R	R	R	R
EXECUTIVE MANAGEMENT:					
Prof A Bawa	Vice Chancellor	1 624 104	278 815	122 000	2 024 919
Prof N Gawe	Deputy Vice Chancellor - Institutional Support	1 301 520	381 596	183 822	1 866 938
Prof FAO Otieno	Deputy Vice Chancellor - TIP	1 327 732	364 663	74 000	1 766 395
Prof N S Gwele	Deputy Vice Chancellor - Academic	1 359 156	163 823	2 000	1 524 979
		5 612 512	1 188 897	381 822	7 183 231
EXECUTIVE DEANS:					
Dr K F Netshimbo	Executive Dean - Arts	1 152 444	117 559	88 500	1 358 503
Prof TN Andrew	Executive Dean – Engineering	1 083 504	312 254	74 000	1 469 758
Prof T Nepal	Executive Dean - Accounting & Informatics	1 029 100	284 907	2 252	1 316 259
Dr R Balkaran	Executive Dean – Faculty of Management Science (Acting)	366 504	146 953	363 532	876 989
Prof D Lortan	Executive Dean - Applied Sciences	1 000 264	315 399	2 000	1 317 663
Prof T Puckree**	Executive Dean – Faculty of Health Sciences (Appointed April '11)	732 720	199 204	2 000	933 924
		5 364 536	1 376 276	532 284	7 273 096
EXECUTIVE DIRECTORS:					
Ms N Jappie*	Executive Director - Institutional Advancement	1 113 420	460 608	1 787 034	3 361 062
Prof R L Ngcobo	Executive Director - Midlands Campus	1 106 964	288 668	74 000	1 469 632
		2 220 384	749 276	1 861 034	4 830 694
GRAND TOTAL		13 197 432	3 314 449	2 775 140	19 287 021

* Ms N Jappie : retrenchment effective as at October 2011 Annualised salary. Actual salary paid was R 3 102 724

** Prof T Puckree: Appointment effective as at April 2011 Annualised salary. Actual salary paid was R 711 743



28. COUNCIL COMMITTEE COMPENSATION

Payments for attendance at meetings of the Council and its committees

2012

TO WHOM PAID	NUMBER OF MEMBERS	ATTENDANCE AT MEETINGS AGGREGATE AMOUNT PAID	REIMBURSEMENT OF EXPENSES AGGREGATE AMOUNT PAID
Chair of Council	1	12 000	-
Chairs of Committees	5	29 000	10 893
Members of Council	17	85 750	8 418
Members of Committees	23	126 750	19 311

2011

TO WHOM PAID	NUMBER OF MEMBERS	ATTENDANCE AT MEETINGS AGGREGATE AMOUNT PAID	REIMBURSEMENT OF EXPENSES AGGREGATE AMOUNT PAID
Chair of Council	1	12 000	-
Chairs of Committees	5	41 000	7 688
Members of Council	17	91 750	5 359
Members of Committees	23	144 750	13 047

**NOTES TO THE CONSOLIDATED ANNUAL FINANCIAL STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2012 (CONTINUED)**

	2010 R '000	2009 R '000
29. Historical Information on Defined Benefit Plans		
Pension obligations - National Tertiary Retirement Fund		
Defined pension benefits	66 760	34 635
Made up as follows:		
Defined benefit obligation	127 249	89 238
Plan assets at fair value	(60 579)	(54 603)
	66 670	34 635
Unrecognised past service cost	-	-
Unrecognised net (gain)/loss	-	-
Net liability	66 670	34 635
The movement in the defined benefit obligation over the year is as follows:		
At beginning of year	34 635	15 859
Interest and service costs	11 094	4 472
Contributions by plan participants	(4 593)	(1 041)
Actuarial loss	25 534	15 345
At end of year	66 670	34 635
Post retirement medical aid benefits		
Defined post retirement medical aid benefits	94 191	89 243
Made up as follows:		
Defined benefit obligation	94 191	89 243
Plan assets at fair value	-	-
	94 191	89 243
Unrecognised past service cost	-	-
Unrecognised net (gain)/loss	-	-
Net liability	94 191	89 243
The movement in the defined benefit obligation over the year is as follows:		
At beginning of year	89 243	85 011
Current service cost	1 842	2 073
Interest	8 903	7 492
Actuarial gain	(1 775)	(1 724)
Benefits paid	(4 022)	(3 609)
At end of year	94 191	89 243



	2010 R '000	2009 R '000
29. Historical Information on Defined Benefit Plans (continued)		
Employee Benefit Liabilities		
Defined accumulated leave pay fund	32 414	43 582
Made up as follows:		
Defined benefit obligation	44 915	58 582
Plan assets at fair value	-	-
	44 915	58 582
Unrecognised past service cost	-	-
Unrecognised net (gain)/loss	-	-
	44 915	58 582
Net liability at year end	44 915	58 582
Current portion of defined accumulated leave pay fund	(12 501)	(15 000)
	32 414	43 582
Movement in the defined benefit obligation is as follows		
At beginning of year	58 582	61 527
Interest costs	4 535	3 694
Actuarial (gain)/loss	(264)	8 763
Benefits paid	(17 938)	(15 402)
At end of year	44 915	58 582

30. EVENTS SUBSEQUENT TO YEAR END

No material fact or circumstance has occurred between the year end and the date of this report.

31. COMPARATIVES

Certain comparative figures have been restated due to the reclassification of non-recurring expenses out of "operating expenses" into "other expenses" in the statement of comprehensive income.

The amount of the reclassification from operating expenses to other expenses is as follows:

	2011 R '000
Operating expenses:	
Decrease in Staff costs	12 284
Decrease in Other operating expenses	22 901
Increase in Other expenses	35 185

With the exception of the reclassification noted above and that noted in Note 4, other immaterial reclassifications have been made to achieve fairer presentation.



ACKNOWLEDGEMENTS

This report was compiled by the Division of Corporate Affairs.

EDITORIAL COMMITTEE

Sinegugu Ndlovu

Will Edgcumbe

DESIGN COMMITTEE

Alan Khan

Vasanth Govender

With assistance from:

Department of Finance

Department of Management Information

ADMINISTRATIVE SUPPORT

Andile Khambule

Bongiwe Chiliza

AUDITORS

Ernst & Young INC.

SAB&T INC.

LAYOUT AND DESIGN

 Artworks Communications

PHOTOGRAPHY

Kevin Goss-Ross

Workspace

Theatre performance image

Val Adamson

POSTAL ADDRESS

P.O. Box 1334

Durban, 4000, South Africa

PHYSICAL ADDRESS

Steve Biko Campus

Steve Biko Road

Durban

KwaZulu-Natal

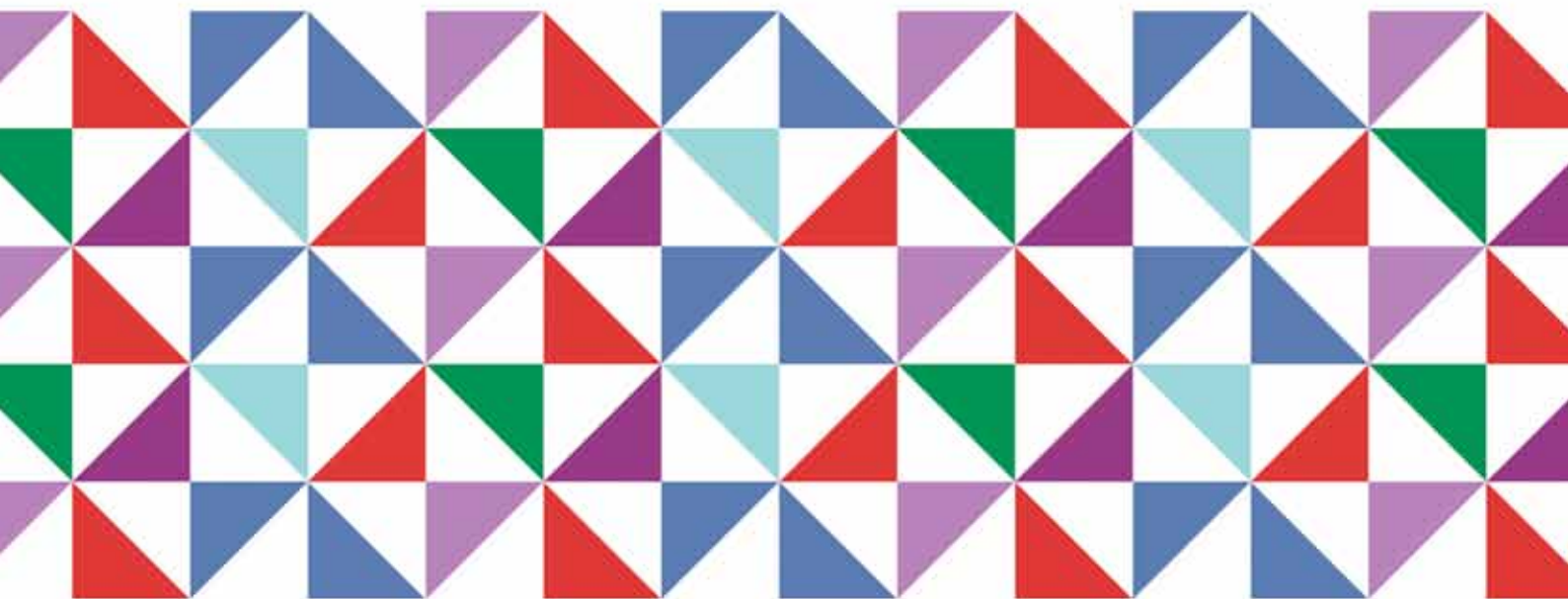
Tel: +27 (0) 31 373 2106

+27 (0) 31 373 2845

E-mail: sinegugunp@dut.ac.za

Website: www.dut.ac.za





www.dut.ac.za