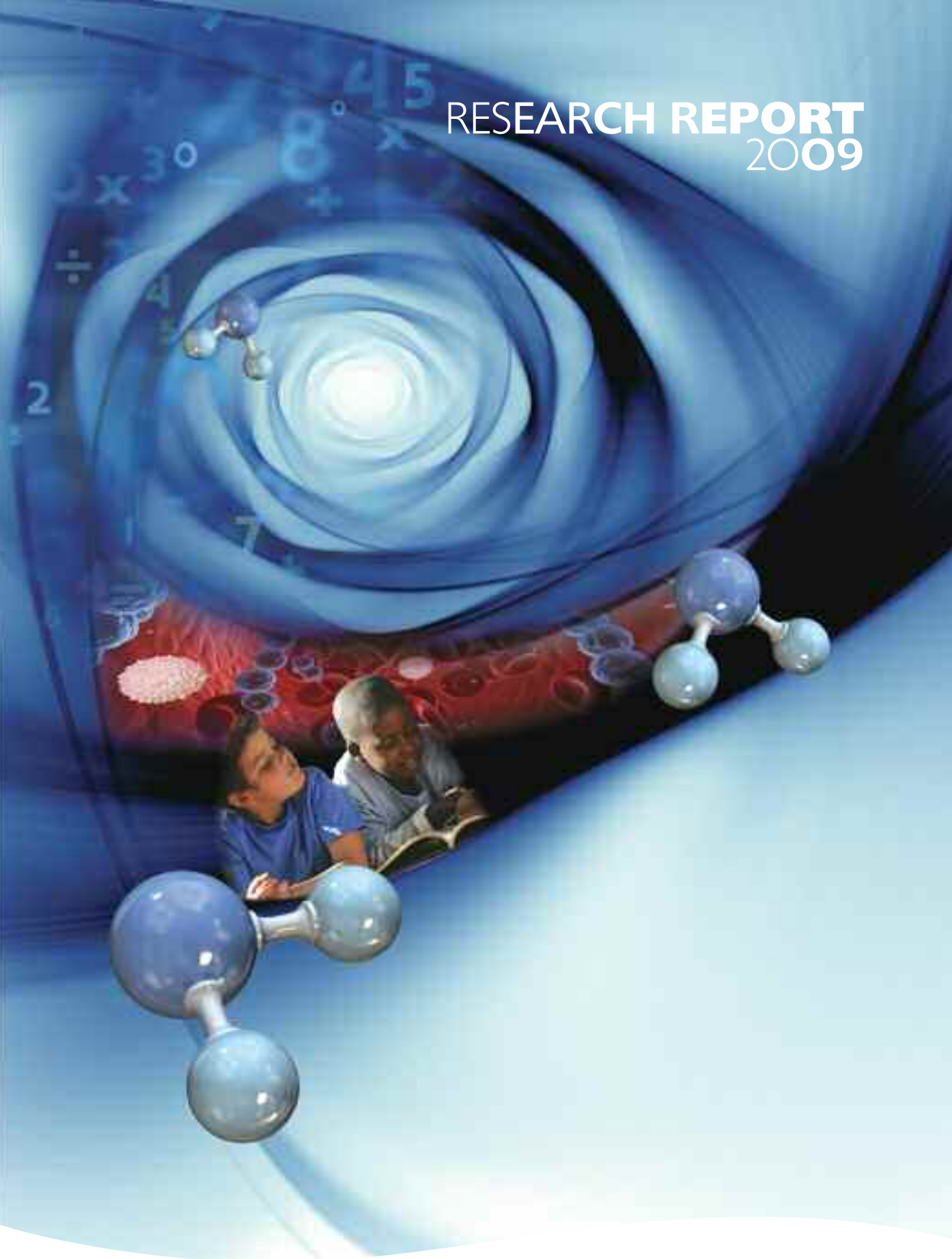


RESEARCH REPORT 2009



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Prof Mandla Makhanya
(Pro Vice-Chancellor),
Prof Rita Maré (Vice-Principal:
Academic and Research) and
Prof Tinyiko Maluleke
(Executive Director: Research)



Poised to become a leading research university

Prof Mandla Makhanya – Pro Vice-Chancellor

Introduction

21st century knowledge needs to be flexible, responsive and relevant so that it can both serve the society in which it is situated and the needs of the global community. Higher education institutions are undoubtedly key role-players in ensuring that our national research agenda is responsive to local and global needs. Unisa's institutional vision: 'towards the African university in the service of humanity' aims to position the university as a vital role-player in contributing positively towards the growth and development of South African society and the African continent. Our research in particular must align itself with this vision to increase knowledge capacity and create a sustainable knowledge base for current and future generations.

Strategic perspective on research at Unisa

The publication of Unisa's five-year review, *Five years transformation – 2004-2008*, allowed the university to reflect on the progress made since the merger in 2004, and to refocus our attention on our deliverable targets and on new opportunities that will ensure that we give tangible expression to our vision.

The 2015 Strategic Plan has set out, as one of its objectives, the promotion of research, with the aim of increasing capacity and productivity and thus addressing national priorities. To achieve this ambitious goal, the plan sets out various targets, including:

- positioning the university as one of the top universities in South Africa in terms of research outputs
- increasing the number of NRF rated researchers
- increasing enrolments and the pass rates of master's and doctoral students
- developing effective practices to recruit and retain quality researchers.

The Research Directorate has, in the time since the merger and under the leadership of Prof Tinyiko Maluleke, steadily progressed towards achieving each of these targets, thus providing the foundation for our future growth. In addition to this, the Research Directorate took the lead in appointing Prof Catherine Hoppers as Unisa's first incumbent of the SARChI Chair in Development Education. The aim of this chair is to create a hub around which inter-, trans- and multi-disciplinary research in development, education, African Renaissance and Indigenous Knowledge Systems will be promoted. The Directorate has also made a point

of promoting equality in research by providing various support mechanisms for previously disadvantaged researchers.

In the broader context, the university has also made progress by acknowledging the importance of open distance learning (ODL) in shaping our institutional identity.

To this end, we welcomed the new Institute for Open Distance Learning, which is mandated to focus on promoting research in open distance learning and to providing training for Unisa's academics and support staff in ODL. The new School for Graduate Studies, established in the latter half of 2009, has also provided a valuable opportunity in which students working towards higher degrees no longer function in isolation, but instead are specifically provided with support (especially in research training). These initiatives are now well established and are ready to create the transformation that can position Unisa as a leading South African research university, both nationally and internationally.

Another initiative which is still in its infancy is the Academy for African Languages and Science. This new unit will better enable Unisa to promote African thought, philosophy, interests and epistemology, all of which will enhance Africa's intellectual position and the application of her knowledge systems. The academy hopes to pave the way in making South Africa's indigenous languages the media of tuition. A developmental approach will also be encouraged, in which African languages are promoted as languages of science, technology and research, thus creating conditions for greater social integration and citizenship as well as for cultural self-assertiveness of mother tongue speakers of African languages. The unit will become fully operational in 2010.

For Unisa to be acknowledged as a research university, we need a strong focus on the discovery of new knowledge that is relevant and of high quality, and to achieve this we must establish an infrastructure that can effectively help us to become a globally recognised research institution.

Nurturing intellectual capital

Placing primacy on the production of new knowledge has a direct impact on the role and responsibilities of academics. Academics are expected not only to conduct

publishable research, but also to teach and to engage with the student community. In addition to this, Unisa's identity as a comprehensive open distance learning provider requires academics to make use of innovative technology to assess and support students, and to engage in self-reflexive research and academic citizenship both within and outside the university. I know that these often competing demands are burdensome, and that they place additional stress on Unisa's academic staff.

Given this, the university has begun an investigation into the feasibility of providing a tutor system that will, hopefully, provide academics with additional time to focus on research outputs. However, very often, those who produce research on a consistent basis are also those who are heavily involved in other university commitments, so it is questionable whether the existence of tutors or tutor markers will have a significant impact on research output.

Ranked 6th out of 23 South African higher education institutions, Unisa is progressing towards becoming South Africa's leading research university. Our NRF rated researchers are steadily increasing in numbers, with 32 newly rated researchers joining our ranks in the 2009 academic year. This steady growth rate is set to increase as our various units give heightened focus to their research outputs. In addition to these initiatives, research leadership is required within our academic cohort and building such a cohort will require the commitment and support of management.

This year we had 15 new young academics nominated from our colleges to join the Young Academics Programme, a programme which provides young academics with the opportunity to understand their strategic importance and the intellectual context in which they function.

Building research capacity

Effective decision-making in all sectors of society rests on the availability and integration of relevant knowledge. Universities must therefore implement strategies that encourage scholarly engagement with civic society. This year the Unisa Library hosted the first annual International Open Access week to raise awareness on the importance of open access for research.

Central to the exhibition was the Unisa institutional repository to which researchers are now encouraged to submit their published articles; this repository gives scholars on the African continent easy access to research topics conducted by their fellow Africans. The exhibition also promoted the use of Open Access journals and Open Access archives. My hope is that

our researchers will make a point of engaging with the library's resource systems, thus making its open educational resources a vital part of their research activity.

In addition to this, we cannot underestimate the importance of establishing collaborative partnerships. One of these strategic partnerships has been created between Unisa and the Council for Scientific and Industrial Research (CSIR); a multimillion rand nuclear magnetic resonance facility has now been established that will position South African scientific research on the world stage, particularly in the field of biotechnology. Every year, three postgraduate students will have the opportunity to participate in research initiatives at this facility.

An exciting initiative that will promote Unisa's engagement with civic society and government is the Archie Mafeje Institute for Applied Social Policy, the Family and the Eradication of Poverty; this initiative was approved in 2009 and will begin its activities in 2010. The institute will focus on African knowledge production and application to the discourses of the family and the impact of poverty, both in South Africa and elsewhere. The institute will set out to provide relevant knowledge about the impact of social policies and social practices (both governmental and non-governmental), thus creating valuable opportunities for socioeconomic interventions that will promote the wellbeing of South African and African families.

Central to our engagement with society is, however, our student body. Both at undergraduate and postgraduate level, our students serve as a vital connection point between the institution and society. An increasing number of students opt to study in an open distance learning environment, and we must not forget that these students are the potential researchers of the future. The nature of open distance learning requires students to be independent thinkers who have the required discipline and skill needed to properly engage with knowledge. Such attributes are vital when one becomes a researcher and it behoves us to nurture whatever talents lie in our student cohort.

Conclusion

The various strategies that I have outlined are all signs that we have a promising future as a research university. We must build on our already strong foundations and never become complacent. Research is a natural and fitting activity for all academics and support staff, simply because it is what we do as university workers. We ask questions, look for answers and apply our minds to the pressing intellectual and social challenges of our time. That is what research is. Long may it prosper at Unisa.

Exciting initiatives around research

Prof Rita Maré – Vice-Principal: Academic and Research

Inspired by the discussions around the *Unisa revisited 2015* document, the Academic and Research Portfolio resolved in 2009 to revisit the institutional research plan and to align the plan with the redefined mission of Unisa, namely to ensure, among others, that the research agenda produces excellent scholarship that contributes to the knowledge and information society, advances development, nurtures a critical citizenry and ensures sustainability. After much thought, the Senate Research Committee formulated Unisa's niche areas as follows:

Unisa focuses its expertise and resources in research on the following areas:

- *knowledge production and capacity building in response to the needs of South Africa and the African continent*
- *the promotion of democracy, human rights and responsible citizenship*
- *innovation in science and technology*
- *economic and environmental sustainability*
- *open distance learning.*

The colleges then began the task of drafting their own research plans, aligned with the identified focus areas of Unisa. The college plans incorporated aspects such as the establishment of research groups around the focus areas, increased research outputs, the promotion of the National Research Foundation (NRF) ratings for staff and an increase in the number of staff with doctorates. All colleges also embraced the notion of research in open distance learning, acknowledging that their own research will enrich the learning experiences of Unisa students and increase their chances of success.

During the unfolding of these processes, it became evident that there was a new vibe around research and that academics were increasingly inspired by the notion of contributing to knowledge production, stretching the borders of their disciplines and providing solutions to the country and continent's problems through multi-, inter- and trans-disciplinary research.

Some of the exciting initiatives around research include the following:

- the College of Economic and Management Sciences, traditionally not a strong research entity, appointed a research manager and launched a strategic research project on women researchers in economic and management sciences
- the College of Human Sciences successfully imple-

- mented their ambitious Scholars Development Programme to ensure that the research capacity of the college is maintained and further developed
- the College of Agriculture and Environmental Sciences attracted much media attention around their fog harvesting project in Limpopo and KwaZulu-Natal and attracted generous external grants for research on sustainable water provision
- the College of Science, Engineering and Technology registered six multidisciplinary research flagships, the most well-established being the project on ecotoxicology (drawing on expertise from chemistry and environmental sciences), a project that also continues to attract postgraduate students
- the College of Law, already virtually meeting the required research output benchmarks, began discussions on the project of dispute resolution in Africa, which ultimately led to the establishment of a research institute to promote the project.

These initiatives were supported by the Unisa Library when the Unisa Research Library became operative. In terms of this project, the Unisa Library made available dedicated research space to researchers at the Muckleneuk library, with wireless internet access as well as access to the Unisa Library's vast digital resources. The institutional research repository, containing the full text of Unisa's research output, was also launched in 2009. The library remains a real inspiration for research. The Unisa Library is the best-resourced library in Africa, with more than two million resources, and it provides access to a wide variety of information resources for students and researchers, regardless of their physical location.

Finally, the hard-earned Senate approval for the establishment of the Unisa School for Graduate Studies was obtained in 2009. This school will stimulate and promote multi-, inter- and trans-disciplinary (MIT) research and provide support to master's and doctoral students.

Unisa's research output statistics show a steady increase over the last five years, and the successful applications for NRF rating are increasing. This research report provides evidence that Unisa is making an excellent contribution to academic excellence and knowledge production for the development of South Africa and the African continent.

The researchers at Unisa should be commended for their dedication and for carrying the torch of academic excellence for Unisa.

Growing researchers at Unisa

Prof Tinyiko Maluleke – Executive Director: Research

Once again, I have the pleasure of presenting the annual research report of the University of South Africa – this one focusing on the year 2009.

The title *Growing researchers at Unisa* was deliberately chosen because of its double meaning. In the first instance, the title suggests that Unisa grows researchers – and it literally does. This is no extravagant claim – just ask the participants of the Unisa Young Academics Programme training initiative of 2009. Each of them will eagerly tell you about the thrilling two weeks of research-related activities they experienced. They will recount how Prof Laurette Pretorius, Prof Shadrack Gutto, Prof Catherine Hoppers and I challenged them to become scholars of note in their respective fields. They will also tell you how they were inspired as they listened in awe to the amazing story of how Ricky de Agrela, a South African, together with two partners, used a combination of research, ambition and courage to become the first people on earth to fly around the world on a microlight aircraft. Each of them will tell you how, after two weeks of intense exposure to the rigours and joys of research, swore to make their mark as researchers in their respective fields.

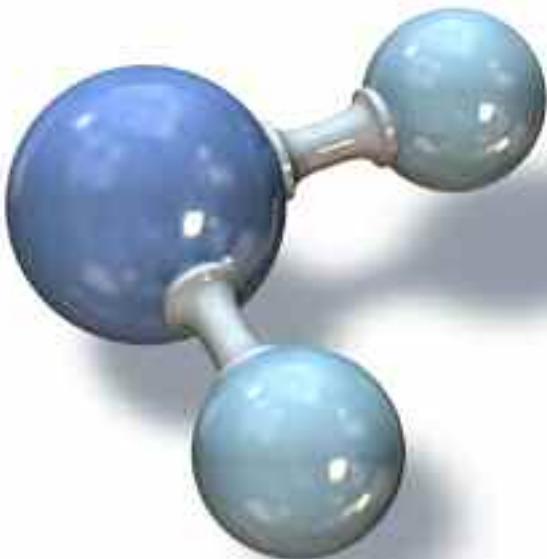
But there is more: Unisa has five young, highly productive researchers (two in the natural sciences and three in law) who have received Y ratings from the National Research Foundation (NRF) over the past three years; as many as 80 Unisa staff members without PhDs are enrolled for doctorates, thanks to an internal Unisa staff bursary programme; and of the 450 applications

submitted by Unisa students for a postgraduate bursary, more than 300 were successful.

However, should you still not be totally convinced, talk to the 1 000 Unisa staff members – of all ranks, races and both genders – who participated in training sessions on various research themes and skills during 2009. That should prove to you that Unisa does indeed grow researchers.

But 'growing researchers' has another meaning: Unisa researchers are growing in confidence, in capacity, in quality and in outputs. A total of 32 Unisa staff members were rated in the year 2009 – three times the annual target that the university has set for itself. Similarly, its research output points have been growing steadily from around 400 points four years ago to more than 600 research output points in 2009.

It is therefore with a sense of pride that I present this research report to you. Yet we must be careful not to become complacent. Until we have met the national per capita benchmarks, we will not be satisfied. Indeed, we will be completely satisfied only when the quality of our research is such that we can compete comfortably with our national and international peers. Moreover, we will be satisfied only when our research creates knowledge that is not only new, but also socially and economically relevant for our country and the world in which we live. Only then will we have fulfilled our vision of being *the African university in the service of humanity*.



Research environment

Research, together with teaching and learning, and community engagement and outreach, is one of Unisa's key business areas. In the past few years the university has invested much to establish and promote a research culture. If there was ever a danger for the Unisa academia slipping into a routine civil service mentality, that danger has been comprehensively dispelled and averted over the past five to seven years. At no time has every Unisa academic been more aware of the importance of research for teaching, for knowledge creation, for development and for the enhancement of personal profiles than they are now. The consensus is solid that research is the defining characteristic of academia, the university and the academic.

COLLEGES

College of Agriculture and Environmental Sciences (CAES)

The year 2009 was an eventful year for the College of Agriculture and Environmental Sciences in terms of research. The college continued its ambitious programme to encourage scholarship and promote academic discourse among academics, collaborators and students. It did this by means of activities such as the funding of research through the College Research and Higher Degrees Committee, hosting seminars and postgraduate colloquia, and establishing partnerships for collaboration in research with the industry. These activities also include increasing the number of postgraduate students and supporting academic staff that will obtain their master's and doctoral qualifications and excellence awards.

Seminars, lectures and conferences

As part of the African Scholar Programme, the college hosted four guest lecture events. The programme enabled scholars to engage in academic discourse with CAES and Unisa academics. The presenters were scholars of high academic standing in their areas of expertise and speakers included Prof Michael Pepper from the University of Pretoria, Prof Kensesse Mossanda of the University of Limpopo, Dr Vinesh Maharaj of the CSIR and Dr KK Mogotsi from the University of Botswana.

In order to promote geography as a study field and enforce the importance of student conferences as stepping stones into an academic career, CAES hosted the National Geography Student Conference. The theme of the conference was 'Geography for a better world', and students from Unisa as well as other South African universities presented a total of 61 papers on a wide array of relevant topics.

The Department of Geography also hosted the 8th Biennial Society of South African Geographers Conference under the theme, 'Geography for a better world'. Throughout the conference, national and international geographers presented and discussed various challenges of the changing world in over 100 papers. During the conference the British Council opened their Darwin exhibition, which 150 school children from disadvantaged schools in Gauteng attended.

The Applied Behavioural Ecology and Ecosystem Research Unit (ABEERU) hosted the 44th Annual Congress of the Grassland Society of Southern Africa (GSSA). The GSSA promotes interaction between environmental practitioners, scientists and students who are affiliated with a wide range of institutions, including government, universities, and agencies related to development, agriculture and wildlife.

CAES successfully conducted the annual postgraduate colloquium in partnership with the Gauteng Environmental Forum (GEF). The colloquium is held in order to showcase research activities and potentials involving staff and students in the department. These are intended to enhance and promote research excellence within the department, the college and the university.

During the 4th International Federation for Home Economics (IFHE) Conference on 'Consumer science beyond hundred years: empowered for the digital world', four researchers from CAES presented papers and conducted a workshop on 'Consumer Science: experiences, challenges and management within the open distance learning context at Unisa'.

Research projects

In 2009 the college identified and formed research groups, and initiated the process of flagship projects. This is an ongoing process as research grows in the college and is aimed at promoting multi-, inter- and trans-disciplinary research. Collaborative research, either with academics in other divisions of Unisa or



counterparts in other universities and scientific institutions, is encouraged.

Among the achievements of 2009 are the long-term research projects of the Applied Behavioural Ecology and Ecosystem Research Unit that have continued in 2009, including research on:

- predator-prey interactions between leopards (*Panthera pardus*) and chacma baboons (*Papio hamadryas ursinus*) in South Africa
- vegetation description of the highveld grasslands of the Loskop Dam Nature Reserve and the effect of fire breaks on plant species composition
- vervet monkey (*Chlorocebus aethiops*) behaviour and habitat use in natural and semi-natural areas
- spatial and temporal patterns in resource dispersion and the structure of range use and coexistence in a social omnivore, *Chlorocebus aethiops*.

ABEERU is actively engaged in collaborative research. In 2009 the unit signed a memorandum of agreement with Rand Water that cemented a long association of collaboration in industry commissioned research, mainly in the fields of Environmental Management and Ornamental Horticulture and Landscaping.

The unit continued with international research partnerships with the Université Louis Pasteur (France), the Institute of Biology of the University of Neuchâtel (Switzerland) and the University of Lethbridge (Canada).

Partnerships and collaborations

The launch of a Nuclear Magnetic Resonance (NMR) facility and DVD

The acquisition and opening of the Nuclear Magnetic Resonance facility, a state-of-the-art instrument, was a

major milestone for the college research initiatives. The facility and research is a joint venture between Unisa and the CSIR and is used mainly for drug development or understanding the mechanisms of host-cell pathogen or toxin interactions. It is envisaged that CSIR-Unisa collaboration will create a research group in biotechnology that is vital for positioning South Africa in the global research community. The NMR project will also allow students to become part of the international student exchange programme. Biodiversity research is a core area of research for this group. During 2009, Unisa and the CSIR jointly secured a total of R3 573 000, mainly from the Department of Science and Technology (DST), and two Unisa MSc students received study bursaries from this initiative.

Itumeleng Setshedi, Cano Ssemakalu, and Teresa Faleschini in front of the Nuclear Magnetic Resonance (NMR) machine that will assist Unisa in its task of establishing a culture of research and a network for biotechnology training platforms.



Children of Unisa staff members participated in the Children's Map Competition on the Florida Campus on 14 April 2009, which was hosted by the Department of Geography.



Consumers' reaction to chocolate wrappers

The Beacon division of Tiger Brands commissioned a study on consumer reaction to the new beacon chocolate packaging which was conducted in collaboration with Unisa's Bureau of Market Research (BMR). The study determined the emotions that each of the new packaging designs elicited and the reasons why specific packaging designs were preferred.

Consumers' understanding of food labels and healthy living

A study was conducted among Gauteng's consumers to determine their reaction to food labelling and the effect of healthy living on food choice. This study, conducted in collaboration with the BMR, focussed on the usage and importance of food labels, consumers' attitude to food labels and health-related behaviour and its relationship to the use of food labels in the purchase decision. With the new labelling legislation passed in South Africa in April 2010, the findings will be beneficial to manufacturers who have to apply the legislation in order to help the consumer make informative food choices.

Food Toxin Research

Together with the Medical Research Council, PROMEC Unit, in Cape Town, the Life and Consumer Sciences Department secured NRF funding to the value of R160 000.00 from SANPAD to sustain research on Aflatoxin and Fumusin contamination and dietary exposure in rural South Africa.

University of Limpopo (Medunsa Campus)

Research in collaboration with the Department of Microbiology (University of Limpopo, Medunsa) has been proposed with a need to investigate the occurrence of *Streptococcus agalactiae*, group B *Streptococcus* (GBS) colonisation occurrence and persistence in pregnancy and pregnancy outcome at

Dr George Mukhari Hospital, Pretoria, South Africa. During 2009, NRF funding of R184 200.00 for a three-year period has been secured. Research involving the molecular characterisation of rotaviruses circulating within South African communities has attracted R400 000 over two years from the MRC.

Birmingham university/CSIR

An integrated partnership with Birmingham University/CSIR and Unisa as binding partner was formed with the aim of achieving cutting-edge bioscience research and training of Unisa postgraduate students through an exchange programme.

Agricultural Research Council (ARC)

A memorandum of understanding with the Agricultural Research Council, signed in August 2009, has paved the way for collaboration in research through sharing facilities, involvement of ARC staff in master's and doctoral supervisions and partnering in research initiatives. Research projects include the *Athrixia* project, which also involves collaboration with the University of Pretoria, Onderstepoort. The Truffles Research group is examining volatiles in the fruiting bodies and in collaboration with the Chemistry Department at University of Pretoria, has obtained promising data relating to these volatiles.

Appointments

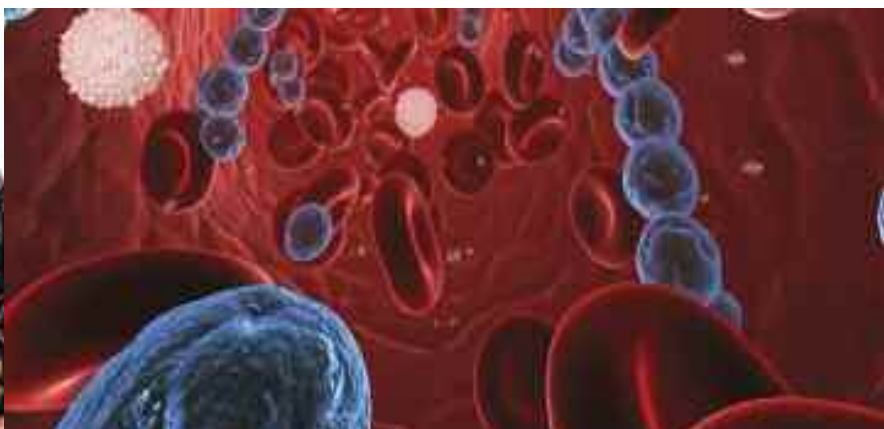
In 2009, CAES appointed nine new staff members. Two were appointed as associate professors, three as senior lecturers, two lecturers and two postgraduate assistants.

Research outputs

The college has 15 published articles in subsidy accredited journals and two articles in the non-accredited journals to its credit. One article appeared in books for the subject specialist and another article in chapter(s) in books for subject specialist. The college awarded five master's degrees and one PhD in 2009.



Dr Maggi Linington: Executive Dean: College of Agriculture and Environmental Sciences



College of Economic and Management Sciences (CEMS)

The College of Economic and Management Sciences has a strong commitment to a vibrant research culture in the field of economic and management sciences. Research in the CEMS is driven by a strategic plan and supported by an enabling environment, working through a suitable structure. Researchers are involved in a variety of research projects, covering nearly all five research niche areas of Unisa.

The first CEMS Research Lekgotla took place on 20 August 2009, where research challenges were identified and possible ways of cultivating a research culture discussed.

Research projects

The college is engaged in research projects covering a wide spectrum. One of the college's flagship projects is the project on *Computational aspects of Brownian motion* under the leadership of Prof Willem Fouché of the Department of Decision Sciences. The project team studies the computational aspects of Brownian motion and the consequent representations of the fractals generated by Brownian motions. Applications of these results include random simulations and probabilistic algorithms in the mathematical modelling of decision-making problems. This internationally recognised project has already led to the publication of seven papers over the past ten years and three doctoral theses (a fourth thesis is to be examined in 2010).

Another noteworthy research project examines the personal finance habits of ordinary South Africans.

The purpose of the project is, eventually, to provide input into policies and programmes that will help to improve South African's personal finances. This research includes research on consumer financial vulnerability and personal indebtedness; the research is funded by a large number of private companies, regulating institutions, the major banks, asset management companies and insurers, government departments, SARS and market research agencies.

Lecturers in the auditing departments of five South African universities have joined forces for the *iKUTU* research project. The first part of this project, spanning three years, has involved lecturers from Unisa, the University of Pretoria (UP), the Tshwane University of Technology (TUT), Monash University (SA) and the Nelson Mandela Metropolitan University (NMMU), together with staff from Unisa's Bureau of Market Research (BMR). This part of the project focused on the standing and demand of internal auditing in the South African private sector. A comprehensive research report has been compiled which is being considered for publication by the International Institute of Internal Auditors (IIA(Inc)) and which appeared in a special edition of the *African Journal of Business Management*, December 2009, 3(13). The next phase of the project will examine the status of internal auditing in the public sector.

In response to a recent announcement by government that a comprehensive review of the country's system of provincial and local government is to take place, Prof Ian Robson of the Department of Public Administration and Management has been conducting research that focuses on the provincial sphere of government, and suggests ways of meaningfully improving a clearly problematic situation. This ongoing research builds on a related doctoral theses and an article has been published in *Politei*, an accredited journal for Political Science and Public Administration, during 2009.



Prof Hellycy Ngambi: Executive Dean: College of Economic and Management Sciences

Partnerships

CEMS researchers conducted their research in partnership with prominent industry leaders. Some of these partnerships are reflected in the existence of the Murray & Roberts Chair in Collaborative Governance and Accountability, the Noah Chair in Responsible Investment and the Exxaro Chair in Business and Climate Change. This has led to a variety of research outputs such as workshops, conference papers and articles in accredited journals.

A partnership in the building of capacity in the writing of scholarly articles between young researchers of CEMS and their colleagues of the Nelson Mandela Metropolitan University culminated in a 'Writing for publication' workshop in January 2009. The workshop, partly sponsored by the NRF, was co-facilitated by the editor of an accredited journal and a CEMS NRF-rated researcher. This partnership project resulted in young CEMS researchers publishing 11 articles in an accredited journal during 2009.

International visitors

CEMS played host to various researchers from abroad, including:

- Dr Badar Iqbak, Chairman of the Department of Commerce, Aligarth Muslim University, India. Dr Iqbak presented a series of seminars in the Department of Economics.
- Mr Tito Mboweni, the then Governor of the South African Reserve Bank, visited the Department of Economics to present a seminar to departmental members and also to address honours students.
- Prof Joel Stern, a high profile scholar from the USA, visited the Department of Management Accounting.

The College of Economic and Management Sciences, together with the World Bank, hosted a public lecture entitled *Weathering the global economic crisis: lessons for emerging markets in 2009*. Pictured are Prof Justin Yifu Lin, Prof Hellicy Ngambi (Executive Dean: CEMS) and Mr Trevor Manuel.



NRF ratings

The number of rated researchers in CEMS is gradually growing. For the first time in the history of CEMS, one of its researchers, Prof Willem Fouché (Department of Decision Sciences), has been awarded a B1 rating by the NRF.

Research outputs

During 2009, CEMS experienced a sharp increase in the number of articles published in accredited journals (to approximately 100). These articles, together with conference presentations, make a considerable contribution to scholarship and to understanding the practical needs of South African society.

College of Human Sciences (CHS)

The College of Human Science embraces disciplines in theology, education, language and literature, and the human and social sciences. It is therefore understandable that research interests in the college are diverse. The college was involved in a host of research activities in 2009.

CHS has developed a research plan that is based on the Institutional Operational Plan (IOP), the research directorate's research plan and departmental research plans. The main emphasis in the College is to ensure that all academic staff members make use of research funds for their individual, group and departmental research projects. The year 2009 saw a range of seminars, workshops and research projects that have contributed to

Prof Rosemary Moeketsi – Executive Dean: College of Human Sciences



improving the research output of individuals and departments.

Many of the schools and departments in the college organised seminars and workshops on a weekly or monthly basis. This afforded staff members the opportunity to present papers or inform the group or attendants of their current research activities. It also assisted staff members in advancing the development of a research culture in the college.

Research projects

CHS used its budget for research to create an enabling environment in which staff members could engage in research activities and publish their research outcomes. The focus was particularly on supporting young, African and female academics.

Some of the college research projects include:

- The project entitled *Reading is FUNdamental*, under the leadership of Prof Lilli Pretorius of the Department of Linguistics, was implemented at Bathokwa Primary School (2005-2009) and Patogeng Primary School in Atteridgeville (2007-2009). The project's aim was to help the schools improve their learners' literacy levels by means of a multi-level approach. This was achieved by building print resources and teacher capacity at the schools. During the five-year project period the project team focused both on getting the libraries fully functional, encouraging school management to gain ownership of the project and building teacher commitment to reading development, assessment and evaluation.
- Prof Olga Makhubela-Nkondo from the Department of Health Studies, embarked on a research project entitled, *Supervision of postgraduate candidates in an ODL context*. The aim of the study was to describe the supervision of candidates enrolled for the master's and doctoral programmes in an open distance learning institution. The research results emphasised the significance of supportive behaviour as it promoted retention and the success of students, post-graduate candidates in particular.
- *Using mobile phone-based technology* is another

research project being conducted by academics from the Department of Health Studies. Prof Olga Makhubela-Nkondo of the department and Dr Elizabeth Qakisa-Makoe of the Institute of Open Distance Learning worked together with Ms Gerd Haugen Mariusson, Director and Head of Administration: University Graduate Centre, at Kjeller, Norway, in a collaborative research project aimed at establishing the role played by mobile phone-based technology play in transmitting health messages. The main purpose of the study was to examine the effectiveness of mobile phone-based technology as a health promotion measure (for the conveyance of health messages).

- One of CHS's most prolific researchers, Prof Loyiso Jita, Director: School of Education, together with his collaborators, proposed a research project to investigate why and how teachers change (or do not change). In their project, entitled *Changing teaching through peer mentoring*, they sought to study some exemplary teacher-development interventions, such as peer mentoring. They also tried to determine what makes some teachers less or more successful than others.
- Prof Lindiwe Zungu is an outstanding young Black female researcher in CHS. The Mine Health and Safety Council awarded her R4 million to undertake a study on the *Post traumatic stress disorder in the South African mining industry*. The focus is on the mining industry. Mines are considered to be harsh, dangerous working environments where accidents are common. These accidents result in high numbers of injuries and fatalities which hinder employees' work performance and productivity. Mine accidents are a major trauma and have the potential to cause severe mental health problems like post-traumatic stress disorder (PTSD). However, there is very limited research evidence conducted on PTSD as a result of mining accidents, both in South Africa and internationally. In view of the possibility that PTSD could be prevalent in the South African mining sector, Prof Zungu aims to establish the prevalence, diagnosis and measurement, treatment and management of the disorder.



Conferences and seminars

- During 2009 the Department of African Languages embarked on a series of research seminars involving international guest lecturers. One of the highlights was a multi-, inter- and trans-disciplinary research seminar on 'Computational linguistics for lesser-resourced languages' which was hosted in collaboration with the School of Computing. Computational linguist, Dr Kenneth R Beesley from SAP Labs, Salt Lake City, USA and Mr Jackson Muhirwe, a PhD student in Computer Science from the Makerere University in Uganda, presented tutorials.
- The Department of Education Studies in the School of Education organised a teacher education conference with the theme, 'Trends and challenges in teacher education at a distance'. One of the topics addressed was effective communication with students at a distance which is particularly relevant to an open distance university such as Unisa. A number of colleagues presented papers.
- The Department of Information Sciences held a research workshop which focused on key components of research such as fostering research ethos in the department, building team work in research, mentorship in research, collaboration in research, identification of areas of research collaboration, creating a strategic research vision for the department, linking form to study materials and assessment, quality assurance in ODL and curriculum development in ODL environment.

Africa speaks

One of the promising projects in CHS is the African Visiting Scholar lecture series. CHS established this innovative lecture series to achieve a number of objectives that are aimed at improving the research capacity of the college. It is also aimed at enhancing a critical

discourse academics in the CHS engage in with African intellectuals on the African continent and in the Diaspora. The vision of the lecture series is to nurture, develop and sustain a vibrant community of researchers and intellectuals in the college to ensure innovation in the quest for truth and the contributions of the CHS to universal knowledge and the transformative needs of a developmental African state.

To achieve the vision and objectives, several African scholars have participated in the programme last year, including:

- Prof Olukoshi Adebayo, Former President: CODESRIA, spoke on *The responsibilities of the human and social sciences in a period of crises, transitions and transformations*.
- Dr Pinky Mekingwe, Programme Officer: CODESRIA, presented a lecture on *Humanities, gender and the Pan African ideal*.
- Prof Samson Moyo, Director: African Institute of Agrarian Studies and President: CODESRIA, presented on *Zimbabwe's agrarian reform and prospects for recovery*.
- Dr Jessie Kabwila-Kapasula, doctoral candidate: Binghamton University, spoke on *Patriarchy and the oppression of African women in the 21st century: a conversation with Adichie and Dangarembwa*.

Research outputs

CHS has created a vibrant environment of research which encourages staff to publish in almost 20 journals. These are housed in CHS and published by Unisa in conjunction with Taylor and Francis. The college continues to play a critical role in the training of graduate students. At present CHS has 72 students registered at doctoral level and 188 at master's level for the Research Project module.

Ms Likhapha Mbatha, Prof Oupa Mashile (Deputy Executive Dean: CHS), Ms Jessie Kabwila-Kapasula, Prof Derik Gelderblom (Chair: Department of Sociology), Prof Rosemary Moeketsi (Executive Dean: CHS), Dr Matshepo Matoane (Chair: Department of Psychology), Ms Thuli Shandu (Department of English Studies), and Prof Kuzvinetsa Dzvimbo (Deputy Executive Dean: CHS)

Prof Samson Moyo spoke on *Zimbabwe's agrarian reform and prospects for recovery* during the African Speaks Lecture Series.



College of Law (CLAW)

The College of Law research policy is aligned with the Unisa research policies and provides the framework for individual and collaborative research. CLAW plays a leading role in research in law, criminology, penology, policing, forensic investigation and security risk management both locally and internationally.

Research projects

The *Grow our own timber* strategic project continued to be very successful. This initiative entailed the appointment of postgraduate research assistants, whose tuition and research progress were then individually monitored. Their progress was reported on quarterly to the College Research and Higher Degrees Committee. The purpose of the CLAW *Grow our own timber* initiative is threefold:

- to bring balance into the employment equity profile of the college, which needs to become more reflective of the country's demographics
- to improve the postgraduate throughput of the college in order to reach the ministerial targets set for Unisa
- to increase research capacity.

Five participants in this programme accepted permanent positions in the college and six completed their master's degrees. Two other participants have been offered lecturing positions on contract.

Prof Nqosa Mahao:
Executive Dean:
College of Law

African Scholar Lecture Series

- Dr Rudolph Zinn, a senior lecturer in Forensic Investigation and a former detective with the special investigation unit of the South African Police Service, presented a lecture entitled *Preventative measures for house robberies from a perpetrator's perspective*. The lecture was based on research he had conducted by interviewing offenders convicted of and incarcerated in Gauteng prisons for house robberies. His research findings indicated that the average house robber is in his 20s, a very experienced criminal who has committed numerous crimes by the time he is arrested, armed, and very violent. Dr Zinn's research has culminated in a book entitled *Home invasion: robbers disclose what you should know*, to be published in 2010.
- Prof Emmanuel Quansah of the University of Botswana presented a lecture entitled *Contemporary challenges facing family law in Botswana*.
- Prof Paschal B Mihyo gave an address entitled *Productivism and the impact on development law and social justice*. Prof Mihyo is currently professor of Politics and Administrative Studies at the University of Namibia (UNAM).
- Prof Caroline van Schoubroeck of the Institute of Commercial and Insurance Law of the University of Leuven delivered a lecture entitled *An overview of the different compensation schemes in Belgium and their relationship with Insurance Law*.
- Prof Matthew Chuks Okpaluba, Professor of Law at the National University of Lesotho, presented a lecture entitled *Fraud, bad faith and misfeasance in public office: Gore in retrospective*.
- The Hon Juan Salvador Guzmán Tapia gave an address entitled *Promoting peace through dialogue (The Pinochet Case) – South Africa session 2009*. Judge Guzmán, who serves on the Global Majority International Advisory Board (IAB), is a retired Chilean judge who became famous internationally for prosecuting former dictator Augusto Pinochet on human rights charges. One of the legacies of the Pinochet case was the signing of the Treaty of Rome in 1998 and its ratification by most evolved countries



belonging to the international community so as to ensure that state agents and civilians are held accountable for genocide, crimes against humanity and war crimes. In terms of this treaty the International Criminal Court (ICC) was established to try those responsible for such crimes when justice cannot or does not take place in the countries in which they have been committed.

Seminars, colloquia and workshops

- CLAW also hosted its first multi, inter and trans-disciplinary workshop. The aim of the workshop was to identify the various methodologies, highlight the need to engage in MIT research, and explore the various methodologies in MIT research.
- The Centre for Business Law held its 8th International Conference on 'Corporate Social Responsibility'. The conference was one of the largest international conferences yet hosted by CLAW. The co-organiser was the Social Responsibility Research Network (SRRNet), which aims at fostering collaborative, cross-cultural, interdisciplinary and international research on all aspects of its social responsibility agenda. The mix of academics and practitioners allowed academics to test their theories, and practitioners to acquaint themselves with the latest academic thinking.
- The first international workshop on trans-border commercial law was presented by the Department of Mercantile Law. The theme of the workshop was 'The legal responses to emerging commercial practices in a changing economic, political and technological environment, with specific emphasis on trans-national business transactions'.
- Workshops on Africanness and what this entails were also held in 2009.

NRF ratings

The applications of 15 CLAW staff members in various categories were successful.

Appointments

Prof Ruchiela Songca was appointed Deputy Executive Dean in January 2009. She is the first African South African woman to be appointed to this position in CLAW.

Prof Annet Ogotto has been appointed as the first African woman full professor in the college. Prof Ogotto was a member of the pioneer group that participated in the University of Michigan's African Presidential Scholars Program from March to August 2009. As part of this initiative ten scholars in various disciplines from African universities – five from universities in South Africa and five from Ghana – were invited to conduct research at the University of Michigan to develop their academic careers. The programme was organised by the University of Michigan's African Studies Centre (ASC). Prof Ogotto's research was in the field of international tax law.

Prof Dr Dres. honoris causa Joseph Strauss was appointed to the DST Chair in Intellectual Property Management in the Department of Mercantile Law. He will assist in the development of a one-year post-graduate diploma in intellectual property management. Prof Straus was Director of the Max Planck Institute for Intellectual Property, Competition and Tax Law, Munich, and is an Emeritus Scientific Member of the institute. He is the author or co-author of more than 250 publications in the field of intellectual property law, especially in the field of the protection of biotechnological inventions.

Prof Annet Ogotto Prof Ruchiela Songca



The Hon Judge Juan Guzmán, Prof Ruchiela Songca (Deputy Executive Dean: CLAW), Prof Nqosa Mahao (Executive Dean: CLAW), Prof Boatamo Mosupyoe (Professor and Director of Pan African Studies, California State University, Sacramento), and Prof André Thomashausen (Chair: Department of Public, Constitutional and International Law)



College of Science, Engineering and Technology (CSET)

Research continued to be a vital component of the College of Science, Engineering and Technology and the year 2009 saw the restructuring of its research activities and the drawing up of a research agenda. The CSET held a research indaba in August, which was facilitated by Prof Mary Scholes of Wits University and attended by all full professors in the CSET, rated National Research Foundation (NRF) scientists and various leaders of research groups. Through robust engagement, the indaba agreed on adopting 'Innovation and capacity building in science and technology' as the CSET research theme.

Six research projects were identified as flagship projects, since these projects already exemplify the most important aspects of the CSET research theme:

- ODL research in science and technology
- topology
- ecotoxicology
- human language technology
- water research
- human computer interaction

For CSET, success in research is not just about being an NRF rated scientist and producing outputs, but also about the respect that these high achievement researchers get from their peers. Being invited to give plenary or keynote lectures is one indicator of the standing of researchers in CSET. In 2009, three CSET researchers were invited to give keynote lectures at key international and national conferences. Prof Mamokgethi Setati, Executive Dean of CSET, set an example by delivering nine invited keynote lectures, two of which were in Pakistan and Mozambique. The other CSET staff members who had such invitations were Prof Mariki Eloff and Mr Marco Pretorius of the School of Computing.

CSET also hosted 19 guest lecturers in 2009. Three of these, Prof Paulos Gerdes, Prof Sospeter Muhongo and Prof Francis Gudyanga, were hosted by the CSET African Scholar Programme, which focuses on forging interactions and collaboration with scholars from elsewhere in Africa.

- Prof Paulos Gerdes, Director of the Centre for Mozambican Studies and Ethno-Science and a full professor of Mathematics at Universidade Pedagógica in Maputo, Mozambique, presented a seminar on 'Medieval mathematical reflections from Ancient Egypt, from Hellenistic Egypt, from Islamic Egypt and from the Maghreb'. Prof Gerdes also discussed research on certain scientific ideas that are embedded in African cultures.
- Prof Sospeter Muhongo is the founding Regional Director of the International Council for Science Regional Office for Africa. He is one of the Editors-in-Chief of the *Journal of African Earth Sciences* (Elsevier), Associate Editor of the *Precambrian Research Journal* (Elsevier) and is also Co-Editor of a book entitled: *Science, technology and innovation for socio-economic development: success stories from Africa*. He has recently been elected to chair the Steering Committee of the EU-funded project, African-European Georesources Observation System (AEGOS). During his presentation he argued that, despite South Africa's mineral wealth, 35 of the world's 50 least developed countries are in Africa. He urged CSET scientists to lead Africa in the eradication of poverty.
- Prof Francis Gudyanga is currently the Permanent Secretary of the Ministry of Science and Technology Development in Zimbabwe (the equivalence of the Director-General in South Africa). In his presentation, Prof Gudyanga argued that colonialism and unjust laws are just some of the factors that have had a detrimental impact on science in Africa. He said that Africa has responded to the challenges

Prof Francis Gudyanga, guest speaker at the African Scholar Programme, with Prof Mamokgethi Setati (Executive Dean: CSET), Prof Ian Alderton (Deputy Dean: CSET) and Prof André Geertsema (Director: School of Engineering)



through Nepad and the African Union by establishing Africa's Science and Technology consolidated plan of action and coming up with new institutional networks.

NRF ratings

Prof Seithuti Moshokoa, Chair of the Department of Mathematical Sciences, Prof Muzi Nindi of the Department of Chemistry as well as Prof Laurette Pretorius and Prof Elmé Smith of the School of Computing were four more academics from CSET who obtained NRF ratings in 2009. By the end of year, the college had a total of 12 NRF rated researchers. As can be seen, all these four rated researchers are from designated groups, which is another indication of the high calibre of African and female researchers in the CSET.

Time-out

Five academics in CSET were granted time-out for research in 2009. All of these academics have made substantial progress towards completion of their post-graduate research projects. Of note here are Ms Malebo Tibane of the Department of Physics, who completed her PhD thesis, and Mr Lucky Maseko of the Department of Mining and Electrical Engineering, who completed his master's dissertation.

The other three academics have made significant progress towards completion of their postgraduate studies.

Research output

CSET produced 55 accredited outputs authored by 33 academics, some of whom were members of the college's management team. The figures show that 33, 3% of these outputs were produced by female academics, while 30,3% were produced by African academics. CSET managers are also leading by example. Prof Mamokgethi Setati, Executive Dean of CSET and Prof Mphahlele, Chair of the Department of Chemistry, are two of the top three performers; Prof Les Labuschagne, Director of the School of Computing, also produced two accredited outputs. All three of these managers remain active researchers (who are also NRF rated).

Growing our own timber

The college runs a *Growing our own timber* project to appoint South African MSc and PhD students as post-graduate assistants with an aim of 'kick-starting' their academic careers. In 2009, seven PhD students and three MSc students were appointed on to the programme. Five of these students produced co-authored papers for publication in accredited journals. At least five students presented seminars on their project proposals. Two of these students were appointed as junior lecturers in the College with effect from 1 January 2010.

Graduate School of Business Leadership (SBL)

The Graduate School of Business Leadership envisages being a home for research excellence as research is one of a Unisa's core business areas. To be recognised as a centre of research excellence, the SBL seeks to realise the following research objectives:

- to initiate, strengthen and extend interdisciplinary, inter-institutional and community research partnerships

Prof Mamokgethi Setati: Executive Dean: College of Science, Engineering and Technology



- to gain increased recognition regionally, nationally and internationally as a business school with distinctive research niches
- to increase research in business leadership and management
- to improve research competencies in developing and proven researchers
- to create knowledge that can be disseminated nationally and internationally
- to produce more NRF rated researchers
- to increase publications in accredited journals and in peer reviewed conference proceedings.

In order to nourish a research culture, the SBL encourages, guides and supports lecturers through research workshops; making research funds and facilities available and by assisting directly in the identification of relevant journals in which academics can publish their work. Various other interventions have also been put in place. These include, supporting and rewarding research excellence; building research bridges through interdisciplinarity, collaboration and partnerships.

Unisa research policies also support research at SBL through ample funding opportunities and research and development leave. SBL builds on these opportunities by making extra funding available through its research office. To foster research at the school; research constitutes 35% of the SBL academic workload and formal work expectation.

Awards

During 2009, the SBL was recognised and awarded significantly for establishing itself as a quality business school in Africa. It scooped an award from EDUNIVERSAL for being part of the official selection of the Best Business Schools, internationally.

EDUNIVERSAL provides students around the world with assistance in selecting the best universities in particular fields. Unlike other newspaper and magazine rankings that focus mainly on the MBA programme, EDUNIVERSAL identifies the best business schools. By creating this unique service EDUNIVERSAL provides students, professionals, HR executives and academic officers with a global panorama of the best educational opportunities.

EDUNIVERSAL rated the top 1 000 business schools in the world out of an estimated 3 000+ worldwide. The SBL received three palms, whereby the school is recognised as an excellent business school with strong national and continental links.

Achievements

Another highlight of 2009 is that Prof David Abdulai, CEO and Executive Director: SBL, was elected to serve on the Board of the Association of African Business

Schools (AABS). The association promotes excellence in business and management education in Africa by supporting graduate business schools through capacity building, collaboration and quality improvement. Prof Abdulai's appointment on this prestigious position will go a long way to enhance the image and reputation of the SBL, as the leading African business school of choice.

Prof Abdulai was invited by his Majesty Otumfuo Osei Tutu II, the Ashanti Hene to chair a high-level symposium on 'Deepening democracy in Africa'. This auspicious event took place in April 2009 at the Kwame Nkrumah University of Science and Technology in Kumasi, Ghana.

NRF ratings

Prof Pantaleo Rwelamila obtained a C3 rating and, in addition, the SBL had six rated researchers.

Research outputs

In 2009, the SBL had seven research units, three subsidy articles, two book chapters and two peer reviewed conference papers. As for student throughput, 183 MBL and 37 MBA students completed their qualifications in 2009.

Prof David Abdulai: Executive Director:
Graduate School of Business Leadership



PROFESSIONAL AND ADMINISTRATIVE RESEARCH GROUP (PARG)

The Professional and Administrative Research Group (PARG) continues to be a unique institution in South African higher education. The PARG is represented by the Professional and Administrative Research Committee (PARC) which was reconstituted at the beginning of 2009 and is chaired by the Executive Director of Research, Prof Tinyiko Maluleke, as directed by the Management Committee.

PARG is a loose grouping of colleagues from various professional and support directorates who continue to produce significant research outputs that contribute to the overall research output of Unisa. The group is growing in stature in the Unisa research domain and will continue to do so in 2010, with particular emphasis on open distance learning as the core business of the institution.

Highlights of the past year include recognition of the journal *Progressio* which is published by the Department of Curriculum and Learning Development (DCLD), a PARG constituency, as an accredited journal for the publication of ODL related articles. As ODL research is the main focus of PARG, the journal is a welcome addition to the repertoire of publication options.

In 2009 PARG also produced a NRF rated researcher, Prof A Kotze. The group also had eight articles accepted for publication and six submitted for publication. Members also presented 29 papers at national conferences and 14 internationally.

Five members of PARG were supported from research funds to attend international conferences and a condition of these grants was that a research output must be produced. PARG was amply resourced by research funds allocations.

CENTRES, INSTITUTES AND BUREAUX

| | | |
|--|------------|--|
| COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCES | Centre | <ul style="list-style-type: none"> • Centre for Sustainability Agriculture and Environmental Science |
| COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES | Centres | <ul style="list-style-type: none"> • Institute for Corporate Citizenship • Centre for Accounting Studies • Centre for Business Management • Centre for Industrial and Organisational Psychology • Centre for Public Administration and Management |
| | Bureaux | <ul style="list-style-type: none"> • Bureau of Market Research • Bureau of Business Studies |
| COLLEGE OF HUMAN SCIENCES | Institutes | <ul style="list-style-type: none"> • Institute for Gender Studies • Institute of Social and Health Sciences • Research Institute in Theology and Religion |
| | Centres | <ul style="list-style-type: none"> • Africa Centre for Arts, Culture and Heritage Studies • Centre for Applied Communication • Centre for Community Training and Development • Centre for Development Studies • Centre for Pan African Languages and Cultural Development • CP Powell Bible Centre • John Povey Centre for English • Unisa Centre for Applied Psychology |
| COLLEGE OF LAW | Institutes | <ul style="list-style-type: none"> • Institute of Foreign and Comparative Law |
| | Centres | <ul style="list-style-type: none"> • Centre for Basic Law • Centre for Business Law • Centre for Criminology Sciences • Centre for Indigenous Law • Centre for Human Rights • Centre for Legal Terminology in African Languages • The VerLoren van Themaat Centre for Public Law Studies |
| COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY | Centre | <ul style="list-style-type: none"> • Centre for Computational Relativity, Astrophysics and Cosmology • Centre for Software Engineering |
| INTER-COLLEGE BOARD | Institute | <ul style="list-style-type: none"> • Institute for Science and Technology Education • Institute for African Renaissance Studies • Institute for Open Distance Learning |

Bureau of Market Research (BMR)

The Bureau of Market Research, operating within the College of Economic and Management Sciences, strives towards excellence in socioeconomic research in South Africa, and in 2009 it once again delivered outstanding research outputs. Prof Deon Tustin, Executive Research Director, says one of the most significant projects capturing much attention was the revolutionary design, in collaboration with FinMark Trust, of the first Consumer Financial Vulnerability Index (CFVI) for South Africa.

The designed CFVI reflects the overall financial vulnerability of South African consumers and includes different dynamics influencing a consumer's profile for income, savings, expenditure and debt. Current indications are that this work will soon be replicated in neighbouring countries such as Namibia and Botswana.

In 2009, for the first time in South Africa, the BMR introduced the use of a nonverbal animated emotions measurement tool. The BMR's involvement in this exciting research project is a further example of innovative research, which also involved close collaboration with other international researchers and academics.

In anticipation of future economic growth trends, the BMR also introduced an Early Economic Growth Indicator (EEGI) for South Africa.

Syndicated research

As in the past, the BMR participated in and generated relevant research output for the broader South African business community through leading-edge research on behalf of sponsor members. The BMR's basic market research is conducted in four research divisions, namely demographic, income and expenditure, behavioural and communication, and economic research divisions.

The research activities of the demographic and income and expenditure divisions in particular, continued to expand the BMR's research data repository, consisting



of population, income, expenditure and national accounts data series.

The **demographic research division** produced updated research output on population estimates for South Africa. Building on the 2008 research on the demographics of the emerging black middle class in South Africa, the division further broadened its scope in 2009 by also examining the demographic status of the white middle class in South Africa.

Overwhelming interest in the demographic models produced by the BMR has also resulted in the BMR moving beyond the boundaries of its syndicate research model and extending its service to private research users with their own unique individual demographic research demands. The demographic competence that resides within the BMR has also secured it the awarding of chief editorship of the *Southern African Journal of Demography* in 2009.

The **income and expenditure research division** has built on its traditional research mandate to closely monitor and report income and expenditure trends in South Africa. The division also expanded its work to include a top-up Income and Expenditure Syndicate Programme (IESP) introduced in 2008. The research programme focuses on income and expenditure dynamics based on personal and household income and expenditure cohorts defined by syndicate members.



The **economic research division** continued with research aimed at monitoring economic-related business trends. It released its forecasts for the South African economy and formal retail sales at the start of the year. The division also expanded its longitudinal informal business panel research project in Soweto, which measures the impact of the changing trade environment on informal business survival and mortality rates.

The economic research division broadened its scope of research to include a consumer focus and conducted a study on consumer income elasticities that measure the extent to which changes in real disposable income per capita impact on consumers' expenditure magnitudes.

The **behavioural and communication research division** concentrated on the most pertinent consumer issues relevant to South African society, namely saving and health. It focused specifically on the nature of consumer savings behaviour in Gauteng with a view of gaining a better understanding of the complexity of constructing financial or savings plans within an extremely vulnerable financial consumer environment.

Behavioural research also investigated consumer preferences regarding food labelling in South Africa. With health featuring as a national priority in South Africa, the study on food labelling and consumer attitudes towards current food labelling legislation could probably not have arrived at a better time. Besides establishing general consumer nutrition knowledge, the research also measures the relationship between food knowledge and choices and the use of food labelling during food choice.

The Youth Research Unit (YRU) in the division conducted tracking studies of new media usage and behaviour among South African adolescents as potential future consumers. Since its inception in 2008, the YRU has designed a generic research model to measure new media usage and behaviour among South African adolescents.

Institutional research

As a research unit within the College of Economic and Management Sciences, the BMR is ideally positioned to conduct research studies on behalf of CEMS and Unisa. In 2009, the BMR participated in 18 institutional research projects, which included studies on diversity, organisational climate, sustainable environmental and ODL practices, student satisfaction, skills analyses, student migration and registration and external customer satisfaction.

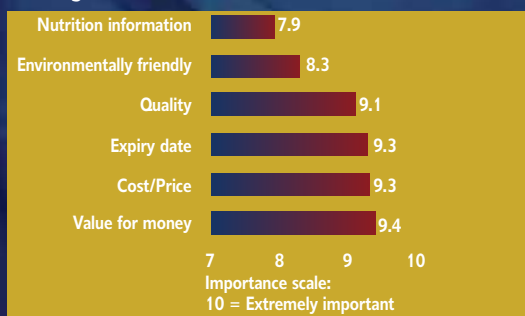
Commissioned research

The BMR also conducts commissioned or contract research on behalf of independent research users operating in the private and public sectors who put out research projects on tender. Participating in research projects outside Unisa is also a clear reflection of the BMR's mandate to give effect to the community engagement endeavours of Unisa and to capitalise on opportunities to diversify income through alternative and additional income streams.

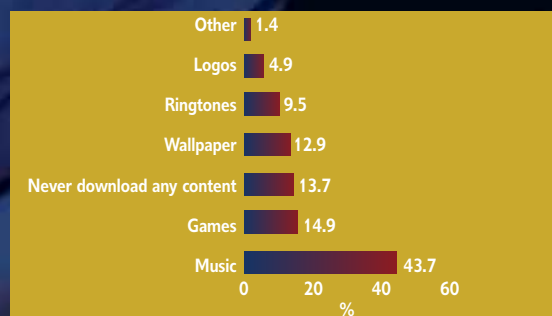
In 2009, the BMR acted as major collaborator in the signing of the historic Memorandum of Understanding (MOA) between Unisa and the City of Tshwane (CoT). Research projects resulting from this collaborative agreement include household and business satisfaction surveys for the CoT as well as customer satisfaction studies for the CoT Fresh Produce Market.

Other commissioned research projects concluded by the BMR in 2009 include studies for the City of Johannesburg (customer satisfaction surveys), FinMark Trust (consumer financial vulnerability), the National Credit Regulator (consumer debt in South Africa), the National Gambling Board (national gambling), the Chief Directorate Population and Development of the Department of Social Development (impact and spread of HIV), the North West Government (migration and settlement patterns), Milk South Africa (consumer trends), Denel Dynamics (market supply) and the Small Enterprise Development Agency (research training).

Food packaging considerations of Gauteng consumers – 2009



Cellphone content downloads by South African adolescents – 2009



Institute of Social and Health Studies (ISHS)

The Institute of Social and Health Studies strives to build and maintain an Africa-centred institute of excellence dedicated to fostering safety, peace, equality, generative identities and health within communities. The year 2009 has been a dynamic year for the institute, during which it created a platform for focused, strategically aligned research, community engagement and academic citizenship activities to be undertaken in the next cycle.

The specific objectives of the ISHS are to:

- engage in trans-disciplinary basic, essential and applied critical and transformative research in the social and health sciences
- provide academic and development opportunities and expertise for research, community service and postgraduate training in the social and health sciences
- support the creation of innovative knowledge systems in the social and health sciences
- cultivate critical thinking, equity, human rights, democracy and inclusiveness in knowledge systems
- produce knowledge for the development and service of caring communities and priority psychological, social and health challenges
- encourage science–society dialogue and the public use of research and knowledge products

Crime, Violence and Injury (CVI) lead programme

The Crime, Violence and Injury lead programme is one of the institute's two main programmes. The CVI, which was formalised as a partnership between Unisa and the Medical Research Council (MRC), incorporates the surveillance and epidemiological research activities of the MRC's former trauma unit and the institute's community-focused prevention and critical theoretical work.



Whereas the CVI emphasised surveillance and the epidemiology of violence and injuries in its first cycle (2001–2005), the study of risks and determinants of crime, violence and injuries have been the focus during its second cycle (2006–2010). During the third cycle (2011–2015) the CVI will concentrate on data-driven prevention initiatives and transferable solutions for priority injury and violence issues, including safety and peace promotion.

The year 2010 will see a continuation of public health research, the introduction of trans-disciplinary safety and peace promotion research, and a proposed name change to the Safety Advancement and Peace Promotion Lead Programme (SAPPP), indicative of a change in focus. The CVI will therefore build on the achievements and lessons of the preceding cycles and in addition incorporate recommendations emanating from a forthcoming international external review (scheduled for 2010) so as operate within a paradigm involving the trans-disciplinary study of safety and peace promotion. This paradigm shift represents a move away from a medically-oriented deficits and reduction of risks for crime, violence and injury' approach towards a promotive one focused on building peace and safety.



This shift, linked to broader health promotion and peace building approaches, places the accent on safety and peace promotion, as well as wellbeing rather than just injuries. In such a conceptualisation, safety and peace are recognised as having physical, psychological, social, environmental and spiritual dimensions. This promotive perspective adopts multiple lenses, analyses and implements interventions to, on the one hand, reduce, control and prevent crime, violence and injuries, and, on the other hand, identify, develop and support the positive determinants of peace and safety. The trans-disciplinary promotive approach recognises the real problems that exist alongside the positive factors and conditions that promote and maintain safety and peace.

The CVI/SAPPP derives its distinctiveness within the sector from its trans-disciplinary orientation, including the use of public health and social sciences concepts and currently marginalised indigenous and community-embedded knowledges; carefully considered shift to safety and peace promotion; emphasis on context; accent on the social determinants of crime, violence and injury (historical colonisation, apartheid and globalisation) and safety and peace (equality, demilitarisation, good governance and social justice); community engagement and responsiveness and deployment of community-based participatory research and action research methodologies.

Wealth Identity Peace Equality (WIPE) programme

The year 2009 saw the conclusion of the Wealth, Identity, Peace and Equality (WIPE) programme. As of 2010, the programme will be incorporated into the

newly established Programme on Traditions and Transformation (POTT).

The WIPE programme was introduced in 2007 to expand the breadth of work that the ISHS undertakes and to deepen the work conducted through the associated programme, the CVI. The WIPE programme tackled problems thought to underlie unintentional injury, violence and crime, including poverty, identities and inequalities. The programme also engaged in analysing aspects that had been neglected within the work of the CVI.

An interesting point of difference between the two main programmes was the WIPE programme's focus on the positive side of the coin. It asked questions such as, what does it take to build wealth; what elements are necessary to establish positive identities; what needs to be in place to build and maintain peace in African countries; and what efforts have to be engaged in to construct social equality? Consequently, the programme concentrated on four broad areas of work, namely, wealth, identities, peace and equality.

Although the programme has come to an end, there were a number of highlights in 2009. One of the most significant was the publication of the book *There was this goat: investigating the Truth Commission testimony of Notrose Nobomvu Konile*, co-authored by Antjie Krog, Nosisi Mpolweni and Kopano Ratele (Co-director of ISHS). This publication is the culmination of a three-year collaboration between the three scholars, drawing on their different disciplinary and social backgrounds; in it, they explore Mrs Konile's account and pose questions about many assumptions that underlie research in this country, and specifically research on the Truth and Reconciliation Commission process. The project also made some suggestions as to how black and white South Africans can bridge the cultural, social and economic divides that separate them and thus threaten our democracy.

Another important highlight was the publication of an article in a country issue of *The Lancet*, the premier



international journal in the health sciences. The article entitled "Violence and injuries in South Africa: prioritising an agenda for prevention" was authored by Mohamed Seedat (Director of ISHS), Ashley Van Niekerk (MRC-Unisa Safety and Peace Promotion Unit), Rachel Jewkes (MRC), Shahnaaz Suffla (MRC-Unisa Safety and Peace Promotion Unit) and Kopano Ratele (Co-director of ISHS). In their article, the authors consider the burden of injuries and violence, which together form the second leading cause of death in South Africa.

Research outputs

In 2009, the ISHS published nine articles in peer-reviewed journals; another ten articles were submitted for publication; and seven are in press. One book was published, while another is in press. Numerous papers were presented at national and international workshops and conferences.

Institute for Science and Technology Education (ISTE)

For South Africa to produce the required number and quality of scientists and technologists it needs to compete internationally and develop domestically, there is a great need for improvement in mathematics, science and technology (MST) education in South Africa. Research is also needed to identify factors which can lead to an improvement in the quality of MST education at all levels of the education system, including tertiary education.

It is for this reason that ISTE was established. In addition to undertaking high-quality research and development across colleges, the institute also promotes inter-college collaboration in the interests of mathematics, science and technology education (MSTE). Colleges involved are the College of Science, Engineering and Technology, the College of Agriculture and Environmental Sciences and the College of Human Sciences. As a result of this collaboration, ISTE coordinates the integration, tuition and development of all modules of formal and non-formal MST education programmes.

Research focus

Research conducted in ISTE is focused on:

- the use of technology in mathematics and science teaching
- the development of research skills of mathematics and science teachers/lecturers
- development of a programme to model effective physics teaching
- the use of action research in improving the teaching of biology in high schools
- the development of effective teaching and learning strategies for the improvement of undergraduates' understanding of biosystematics
- a survey of the impact of language of instruction on the development of mathematics and science skills
- study of the critical issues affecting the development of abilities in mathematics and science in learners
- the use of sociocultural activities in the teaching and learning of mathematics and science
- the teaching and learning of mathematics and science in large, under-resourced classrooms.

ISTE's research theme is *Effective Science Teaching*. This arises from one of the major challenges facing nations today: how to prepare future generations to meet the technological demands of the future. The challenge forms the backdrop for exploring ways and means to attain meaningful learning. Given, however, that meaningful learning is a function of effective teaching, the focus is on investigating aspects of effective science teaching.

Seminars and symposiums

ISTE hosted a symposium on 'The developments in mathematics education in South Africa: mathematics results in the 2008 matriculation examinations'. The symposium attracted, predominantly, mathematics teachers at the FET level, private mathematics tutors, mathematics students and university academics. Speakers were drawn from academia, high schools, non-governmental organisations and the National Department of Education.



Postgraduate seminars were also held in 2009 to expose students to further research techniques and procedures as well as to provide assistance to students with their research work by giving them the opportunity to collaborate with each supervisor individually. All students were expected to present their research, and an opportunity was given to critique each other's work.

During 2009, staff members of ISTE also attended various workshops and conferences.

Institute for Corporate Citizenship (ICC)

The year 2009 was a very productive research year for the Institute for Corporate Citizenship. It was also a year that saw fundamental transition as the Institute underwent a name change from the Centre for Corporate Citizenship (CCC) to become the Institute for Corporate Citizenship.

Dr Neil Eccles, Acting Chair: ICC and Programme Manager, explains that the name change is important because it affirms the institute's primary role as a home for vibrant research. This change has been prompted by aligning this unit with Unisa's Policy on Centres, Institutes and Bureaux. Within this policy context these entities (centres, institutes and bureaux) each have a very specific purpose. Centres are created to organise community engagement, especially where short learning programmes are offered, and therefore focus on *tuition* activities through the delivery of short learning programmes. Institutes and bureaux, on the other hand, are created with a view to doing *research*. While the ICC has offered short learning programmes, its main focus has been on research.

Research projects

The majority of the research conducted in 2009 was structured around three programmes:

- the Exxaro Chair in Business and Climate Change, managed by Dr Godwell Nhamo
- the Murray & Roberts Chair in Collaborative Governance and Partnerships, managed by Dr Sunette Steyn
- the Noah Chair in Responsible Investment, managed by Dr Neil Eccles.

Exxaro Chair in Business and Climate Change

It is widely believed that the issue of climate change is one of the most pressing sustainability challenges facing society today. To illustrate this, one consequence of global warming could be the melting of the Himalayan ice caps. This, in turn, would result in over a billion people in China becoming water refugees, and the social upheavals this would cause are hard to imagine. It is therefore not surprising that all of the major institutions in society, including business, are starting to ask what they should do. To assist in addressing this question, the Exxaro Chair in Business and Climate Change was established.

The highlight of the year was the publication of a book entitled *Climate change: a guide for corporates*, co-authored by Dr Hennie Stoffberg and Dr Paul Prinsloo. In the year under review, Dr Godwell Nhamo succeeded Dr Hennie Stoffberg as manager of the chair. Under the new manager, the chair was able to capitalise on the climate change conference held in Copenhagen and initiate a research project entitled *Copenhagen and beyond*.



This research yielded two articles in accredited journals, as well as a conference proceeding.

Murray and Roberts Chair in Collaborative Governance and Accountability

In recent years, there has been vast growth in the number, size and scope of partnerships between traditionally disparate sectors. Frequently these are motivated by the emergence of increasingly important and complex sustainability challenges, which have to date defied resolution by any one sector or institution working independently. Partnerships are also seen as new accountability mechanisms to ensure effective and equitable resource mobilisation and distribution.

However, evaluations of partnership effectiveness and impact are lacking and a growing chorus of concern is emerging, pointing to the many risks these partnerships carry and their potential to sidestep traditional forms of accountability.

Whether partnerships will be a legitimate governance solution for sustainable development challenges will depend on improvements in their accountability, transparency and performance measures. It is towards these aspects of collaborative governance that the Murray and Roberts Chair directs its research activities.

In 2009 the Murray and Roberts Chair conducted three noteworthy projects:

- *Assessing the effectiveness and accountability of different types of cross-sector partnerships in South Africa* was a project conducted in collaboration with researchers at the University of Cape Town; it sought to investigate and provide guidance on cross-sector partnerships and how they could improve their contribution to sustainable development.
- The project entitled *Civilising knowledge and power in public-private partnerships* was aimed at developing a theoretical framework to legitimise global public-private partnerships.

- *Partnering for service delivery* was a project initiated with a view to providing local municipalities with practical recommendations to enable them to increase service delivery output through partnerships.

Noah Chair in Responsible Investment

The dual purposes of the Noah Chair in Responsible Investment (RI) are to develop and to disseminate knowledge about responsible investment with a view to helping realise this promise. Towards this end, three major research projects were undertaken during 2009:

- The project *35 years of RI research* was conducted in collaboration with Dr Suzette Viviers from Nelson Mandela Metropolitan University and entailed a formal content analysis of 35 years of academic research into the subject of RI.
- *On investment ethics* resulted from observations that there has been a perceptible move to marginalise the consideration of ethics in responsible investment in recent years. Research results indicated that if people do not set out to build a more sustainable world, there is a reasonably good chance that they will not achieve this goal.
- The uneasy relationship between these two concepts in the context of South African pension funds was explored in the project entitled *Fiduciary responsibility and responsible investment*.

Research outputs

Three contract researchers and one research assistant managed to produce the following research outputs: a published book, three articles published in accredited journals, one article in an accredited journal in press, four articles submitted to accredited journals, one book chapter published, two book chapters in press and four conference proceedings.

Institute of Foreign and Comparative Law (IFCOL)

The Institute of Foreign and Comparative Law, the only research unit of its kind in South Africa and recognised by the country's courts as a centre of expertise in foreign law, comparative law and private international law, continued to provide expert legal opinions on legal issues with an international connection in 2009. IFCOL's research projects remained largely focused on the African continent. IFCOL Director, Prof. André Thomashausen, continued with his research on Comparative African Constitutional Law in respect of the ongoing drafting process for a new Angolan Constitution which was finalised in 2009 and came into effect on 5 February 2010.

The project on harmonisation and unification of Private International Law in Africa, especially in the area of civil procedure with regard to international jurisdiction and



the recognition and enforcement of foreign judgments continues to be very topical and relevant, in the light of both increasing inter-African trade and international investments in African countries.

Another key research project deals with environmental law issues, such as the establishment of a Climate Change Independent Regulatory Authority for the SADC region, and the Energy Industry Climate Change Regulation in the SADC member states. Research in this field becomes increasingly important for the African continent if its industries want to remain competitive role players in the international arena.

Unisa Centre for Applied Psychology (UCAP)

The Unisa Centre for Applied Psychology offers unique services in which the discipline of psychology is applied to real life contexts and packaged in order to make these services highly relevant both nationally and internationally. UCAP promotes the application of psychological knowledge in the solution of human problems and in the development of human potential and continuously strives to strengthen the knowledge base of psychology, specifically in the fields of sexology and victimology. This is done by focusing on community engagement and research that informs social development. UCAP's activities also include non-formal tuition and academic citizenship.

Research projects

UCAP is involved in two main areas of research. The first entails trauma intervention and -management, in which hate crimes, as well as the National Victim Empowerment Programme (VEP), are areas of specialisation. The centre has for more than 12 years been involved in strengthening the government-led VEP which aims to make crime victims more central to criminal justice processes, improve on services for victims, and to minimise secondary victimisation.

In 2009 the centre successfully completed a baseline study for the United Nations Office on Drugs and Crime and the National Department of Social Development on the VEP. The findings of the baseline study will inform the victim empowerment (VE) sector on the current state of the VEP and indicates important performance objectives, nationally as well as per province. Some of the results of this study have been presented at international postgraduate courses associated with the World Society of Victimology, initially at Monash University, South Africa, in January 2010, and most recently in Dubrovnik, Croatia, in May 2010.



A second research focus area is the health and well-being of sexual minorities. UCAP has invested in the development of the South African lesbian gay bisexual and transgender (LGBT) sector since 1998. In particular, the emphasis has been to strengthen community-based (mental) health services and LGBT-related research expertise. Much of UCAP's contributions have been made via, or in collaboration with, OUT LGBT Well-Being, a Pretoria-based national, health service provider for LGBT people.

Partnerships and collaborations

Related to its victimology-related research the centre has assumed an active role in the Hate Crimes Working Group, established by civil society to record and monitor hate crimes and advocate for mechanisms to prevent and protect people from hate victimisation. The UCAP is taking the lead in the design and implementation of the baseline study into the nature, prevalence and impact of hate crimes on behalf of the working group.

UCAP is conducting a two-year study in conjunction with two community-based organisations, namely OUT and Gay Umbrella, situated in Mafikeng, North-West Province. The project is partially funded by the South Africa Netherlands Research Programme on Alternatives in Development (SANPAD) and the Unisa Strategic Projects Fund under the title *Empowerment of emerging South African Lesbian Gay Bisexual and Transgender Communities: the North-West Province as case study*, and is hailed as a flagship project by the College of Human Sciences.

The Centre is engaged with the University of Botswana's Psychology Department to start a collaborative research project. This is to be an international project that is aimed at the empowerment of the LGBT communities of Botswana, through facilitating the self-understanding of same-sex sexually orientated persons, as well as by increasing the capacity of Lesbians, Gays and Bisexuals of Botswana (LeGaBiBo), a community-based organisation committed to the recognition, acceptance and equal protection of all human rights of the LGBT community.

OPEN DISTANCE LEARNING RESEARCH

Towards becoming a leading open distance learning institute

From its beginning in 1916, there have been a number of major changes at Unisa. In 1946 Unisa changed from being only an examining body to being a *teaching* university. Since then Unisa steadily built up an international reputation as an affordable, credible, accessible and flexible distance education institution. In January 2004, the former Unisa merged with Technikon Southern Africa and also incorporated the Vista University Distance Education Campus (VUDEC) to form the new Unisa - the only dedicated comprehensive distance education institution in South Africa. In 2007 Unisa started to define itself not only as a world-class distance education institution, but also, more specifically as an *open distance learning* (ODL) institution.

Moving from a distance education institution to an ODL institution may seem, at first, insignificant. But since 2007 Unisa has become increasingly aware of the paradoxes, complexities, challenges and unique opportunities in being and becoming an ODL institution. In 2008 Unisa adopted an ODL policy, which describes ODL as focusing on "removing barriers to access learning, flexibility of learning provision, student-centredness, supporting students and constructing learning programmes with the expectation that students can succeed".

At the end of 2009 Unisa adopted an ODL implementation plan, which revisits Unisa's admission requirements (subject to the provisions in national legislation) and provides alternative access routes to different higher certificates, diplomas and degrees.

Scholarship in ODL includes the discovery and building of new knowledge through research, and the integration of existing and new knowledge claims, and counter claims. This often requires the making of connections across disciplines and integration into larger

canons of knowledge. A crucial part of scholarship in ODL is using research findings in innovative and critical ways to solve problems. These problems are not only in ODL and in the broader context of higher education, but also in addressing some of the pertinent issues humanity and planet earth face globally. Finally, scholarship in ODL and disciplinary, inter-, intra- and multi-disciplinary research should inform teaching and learning at Unisa as part of a broader strategy in the dissemination of our findings and applications.

As the number of knowledge producers increase and the number of knowledge claims and counter-claims proliferate, Unisa fulfills a vital role in participating in not only the creation of knowledge and its dissemination, but more importantly, do so in service of humanity. This, among many other characteristics of this great institution, will make Unisa *the African university serving humanity*.

Institute for Open and Distance Learning (IODL)

Since its launch in 2008, the Institute for Open and Distance Learning has been actively engaged in Unisa's process of transformation towards becoming a leading ODL institution. The IODL supports and promotes this process through open distance learning research, tuition at postgraduate level, teaching and professional staff development and academic collaborations. The Unesco Chair operates within the institute.

The university has identified ODL as one of its research niche areas and the IODL's key research foci are, amongst others, quality, conceptualisation of theory, philosophy and epistemology of ODL, student support, technology-enhanced learning, open educational resources (OERs), policy, management issues and lifelong learning, including continuous professional development in ODL.



Partnerships and collaborations

The IODL has been involved in collaboration and partnerships with other institutions, both nationally and internationally.

In 2009 the institute has embarked on an institutional ODL collaborative research agenda with some African, European and Asian ODL institutions in some of the ODL research focus areas. The IODL also initiated linkages and collaborations with the Open University of the Netherlands, Tianjin Radio and TV University in China, as well as the Distance Learning Centre, University of Ibadan, Nigeria, and it is anticipated that these efforts will be consolidated in 2010.

Lectures, conferences and workshops

In 2009, the institute invited national and international scholars to participate as keynote speakers in the ODL occasional lecture series, as panel discussants in the IODL discussion forum and as facilitators in ODL research workshops. Prof Peter Jarvis from the University of Surrey in England presented the first ODL occasional lecture on *Teaching whole people through distance education*. He also facilitated an open discussion seminar with the members of Unisa's Young Academics Programme and the beneficiaries of the Thuthuka Research Fellowship, and engaged in a discussion forum with the members of the ODL Research Task Team.

Prof Olugbemiro Jegede, the founding Vice-Chancellor of the National Open University of Nigeria (NOUN), was the keynote speaker at the second ODL occasional lecture and he spoke on *From convocation to flexible learning: the role of ODL in community development*. He also led an interactive discussion seminar on ODL research for Unisa academics and professional staff members.

The IODL academic staff members presented papers at local, continental and international conferences, including the ICDE Conference in the Netherlands, the Distance Education Association of Southern Africa (DEASA) Conference in Lesotho, the National Association of Distance Education and Open Learning in South Africa (NADEOSA), and South African Association for Research and Development in Higher Education (SAARDHE) in Potchefstroom. The IODL also facilitated various ODL workshops at Unisa and elsewhere during 2009.

In the year under review a number of research papers were published.

Open Distance Learning Research Task Team

The ODL Research Task Team (RTT) was established in 2008 in order to advance ODL research at Unisa and to increase ODL research to 10% of the total Unisa research outputs, the target set out in the *2015 Strategic Plan*. Some of the tasks that the ODL-RTT has fulfilled to date include the establishment of the ODL research database and the establishment of ODL research groups in the various colleges. In August 2009 a planning workshop was held to compile a 2010-2015 ODL-RTT plan.

Future projects

The Searchlight Research Project (SRP) was conceptualised during 2009 and will be launched in 2010. The aims of the project are, amongst other things, creating space and an intellectual climate for the university's research community to converge and engage in research that adds knowledge of theory and policy as well as improving research practice in ODL.

Prof Kuzvinetsa Dzvimbo (Deputy Executive Dean: CHS), Prof Barney Pityana (Principal and Vice-Chancellor: Unisa), Prof Olugbemiro Jegede (Vice-Chancellor: NOUN and UNESCO Chair: Open and Distance Learning, Nigeria) and Prof Dele Braimoh (Director: IODL).



UNISA LIBRARY

Information resources

The Unisa Library, as the largest academic library in sub-Saharan Africa, and is committed to provide excellent research support. Apart from its 3 791 print periodicals titles, 347 625 audiovisual items and more than 749 linear meters archival material, the library also celebrated its two millionth book in 2009 with the purchase of *The Highgrove Florilegium: Watercolours Depicting Plants Grown in the Garden at Highgrove*, a publication limited to 175 numbered sets, each of which is signed by HRH The Prince of Wales.

The library also provides access to credible, relevant and scientific information resources through its digital collections, including:

- 20 000 electronic books
- 268 individual publishers, bibliographic and reference databases
- 18 000 electronic reserves
- 27 971 unique electronic periodical titles.

Special collections

During 2009 the following important new archival accessions were received:

- Anne Harris-Deppe's draft botanical sketches for *The Highgrove Florilegium*
- 126 Speeches of Prof Marinus Wiechers, former Principal of Unisa (1994-1997)
- SA General Election 2009 manifestoes of political parties
- 15 linear metres of TSA archival records.

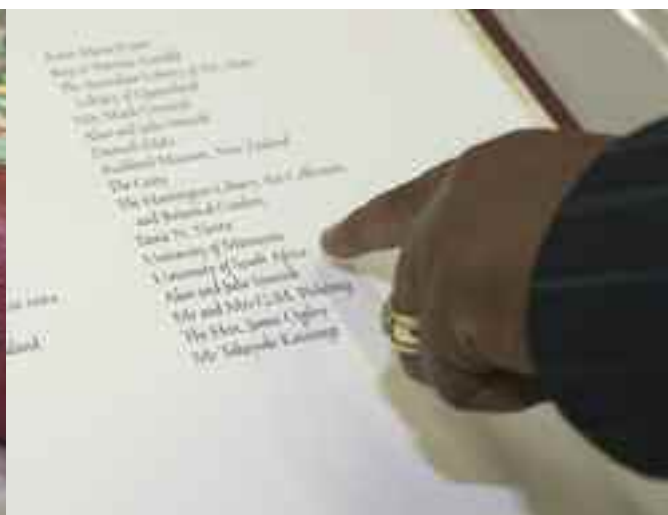
Research services

The library provided research support through its four professional teams, namely personal librarians as research partners, collection developers with their focus on building excellent collections, search librarians in support of information services to remote researchers and archivists to provide archival assistance to researchers.

Research support developments

The Unisa Library is constantly adapting to meet the research needs of its clients and recent library developments in support of research include:

- the migration of the UnisaETD, consisting of 2 392 Unisa theses and dissertations published since mid-2003, to the library's institutional repository, a database of research outputs produced by the university
- the establishment of services to researchers with special needs in line with the ODL principle of equal services to all clients. For example, blind researchers are supplied with the format of their choice, such as conversion of PDF articles to MS Word or audio
- in May 2009, a dedicated research space was launched in the Unisa Library to enhance research activities on the Muckleneuk campus. The area provides a comfortable and conducive environment for research through, wireless access to the internet, computers, printing facilities, reading areas, access to the latest journals as well as professional information services such as training with regard to the use of electronic databases and the development of information search strategies.



UNISA PRESS

In the last fifty years, Unisa Press has grown to become one of the largest and most influential university presses in Southern Africa, garnering international academic prestige with an excellent and competitive publishing list in terms of both scope and depth. In recent years it has increasingly positioned itself in the international arena by fostering dynamic collaborative alliances with other international publishers such as Taylor & Francis, Brill, Rozenberg and the rapidly expanding SAVUSA Series, as well as with James Currey Publishers.

Unisa Press is the only university press in South Africa to combine a vigorous books and journals publishing programme with a wide range of subjects. Publishing focus areas are reviewed on a regular basis to tie in with contemporary issues of significance to the country and the continent, while also being globally relevant. The Press recently acquired new journals via Taylor & Francis: a partnership which has allowed it to become the largest and most influential journals publisher in the region.

As the vast product line of Unisa Press has to be made available to a global body of scholars, Unisa Press began negotiating with various international stakeholders to secure distribution partnerships in the United Kingdom, Canada and the United States.

Some of the highlights Unisa Press experienced in 2009 include:

- publishing 27 books and 71 issues of 33 journals
- the opening of the Unisa Press Bookshop on the Sunnyside Campus
- researching the feasibility of e-commerce and e-books and starting the Google Books project
- *Empire & cricket: the South African experience, 1884-1914*, launched in March 2009, was nominated and short-listed for the UK MCC and Cricket Society Sports Book of the Year, 2009
- hosting its first international book launch in Aarhus, Denmark, at the Global Dialogue conference in November to promote *Climate change: a guide for corporates*
- attending the Cape Town Book Fair in June 2009, where several new publications and journals were showcased.

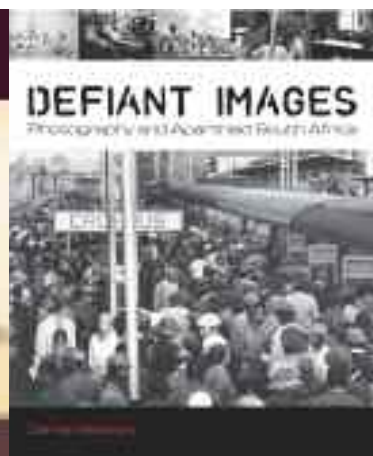
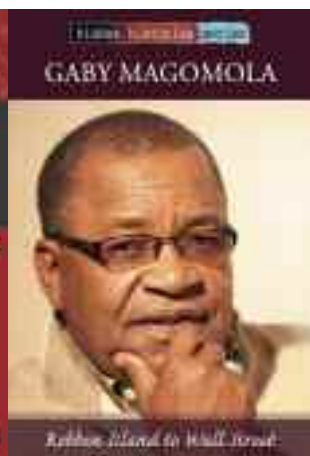
The year 2009 saw a change in leadership at Unisa Press when Ms Beth le Roux resigned. Dr Godfrey Netswera became Acting Director and stayed in this position until Ms Elna Harmse was appointed as Unisa Press Director early this year.

Empire & cricket: the South African experience, 1884-1914, was launched in the presidential suite at Newlands Cricket Stadium in March. The title was also nominated and short-listed (top five) for the UK MCC and Cricket Society Sports Book of the Year 2009.

Time, space and pace
Rabelani Dagada

Robben Island to Wall Street
Gaby Magomola
Unisa Press Hidden Histories Series.

Defiant images: photography and apartheid South Africa
Darren Newbury



Highlights from Research Projects

Looking at the year 2009 from the perspective of research several achievements and milestones stand out. This section presents a selection of excellent research initiatives and projects across the institution.

Giving Africa a voice in the higher education script

Six decades have passed since the colonial flags first started to come down across Africa but the grip of Western norms on the continent remains as strong as ever. "In many parts of Africa, you have to be completely Eurocentric to pass an exam," says Professor Catherine Odora Hoppers, holder of the South African Research Chair in Development Education.

"There is a hidden script at universities," she continues. "It is never said aloud but it is there. The script is: Africa has nothing to offer because history has already been determined and history belongs to Europe. All Africa has to do is imbibe it. That's why universities are so comfortable using the Western default drive."

Prof Catherine Odora Hoppers

Enter Prof Hoppers with her background in international and comparative education. Her task at Unisa, host of the Chair in Development Education, is not so much to overwrite the Western script that African universities are using but to enlarge it so that Africa too has a voice. Her intervention is "transformation by enlargement".

"Africa has not been permitted into the knowledge production structures, which are financed by taxes paid by the African people," she says. "Keeping quiet about indigenous knowledge systems means we are keeping quiet about the knowledge that sustains 70% of the people of Africa."

Why Africa's voice must be heard

Articulating Africa's contribution is not a question of being politically correct but an absolute necessity, she believes. "The Western package is inadequate to the task of bringing up children who have other frames of reference. The system as we have it is too limited for the spectrum of cultural, moral, and ethical requirements that confronts a growing African child."

By way of example, Prof Hoppers points to the failings of the Roman legal system, which is the backbone of Western law, in dealing with crime and justice.



“Western law is based on retributive justice and says that if a person commits a crime, he or she must be prosecuted by a specially trained expert,” she says. “The elite class handles the prosecution process - which the normal citizen doesn’t understand - until it is concluded, probably with the person being locked up. The jails are bursting at the seams ... and it is world-wide.”

In non-Muslim African countries, on the other hand, the jurisprudence is underpinned by restorative justice. “This is a very different process, being circular and not linear,” says Prof Hoppers. “A crime is taken as a disturbance to the harmony of society and the purpose is to restore the person who has committed an offence to the point of goodness. When an offence is committed, what is invoked is not the shortest route to punishment but the potentialities for goodness, about which the person themselves must also make proposals.”

The latter approach was successfully followed after the genocide that tore Rwanda apart in 1994. “Under the Western system, it would have taken 100 years to prosecute everyone involved,” she says. “Instead, the Gacaca court system was invoked to handle the issue and harmony has been restored.”

Seeing science through a different lens

It is not only the law where indigenous knowledge systems have value. The natural sciences, too, spring to mind.

“There is much talk about the shortage of skilled people and the poor performance of science in Africa,” Prof Hoppers says. “Attempts are made to incorporate more girls into the sciences, to no avail.”

What this Western view of science overlooks is the knowledge the African child already has, she says. “The time has come to change glasses and look at the

same situation differently. We need to see the rural child, not as the personification of poverty - i.e. looking at their bare feet and tattered clothes - but as a kid who has a botanical garden coming right to her doorstep. She is naturally evolving inside a system that is integrated with nature, with a good grounding in plant, weather and soil systems, as well as the ecological codes embedded in them. Western science needs to build on the knowledge the African child already has by linking up with the child’s lived world.”

Assisting the university system to broaden its vision is what Prof Hoppers wants to achieve through the Chair in Development Education, which is hosted by Unisa, managed by the National Research Foundation and funded by the Department of Science and Technology. “It is a pedagogy of transformation which goes beyond critique, to new propositions for rethinking key tenets of existing systems,” she says.

Prof Hoppers points out that currently, all national education resources go on the Western system.

“For example, in a law faculty, you will not find one person who is an authority on the other system, the indigenous knowledge system. One may find an authority on “Customary law”, but this would be a little bubble on the fringes of the faculty that does not have “teeth” in terms of developing a strategy for systematising it as the core of the law structure,” she says. “The system as we have it bites a little piece of what is possible; it spits out and ignores the rest. This chair seeks to assist the system to rewire its knowledge framework so that it can take in more knowledge and expand its repertoire. ”

No one has all the answers

Prof Hoppers uses a pedagogic process to engage other scholars on how to bring indigenous knowledge systems into the ambit of university curricula. Her

“Keeping quiet about indigenous knowledge systems means we are keeping quiet about the knowledge that sustains 70% of the people of Africa.”

approach is not to be confused with the cut and thrust of conventional academic debate. "I zoom in on where I think humanity is losing out and I do not do duels," says Prof Hoppers, referring to what she sees as Western academia's tendency to focus on critique.

"Once people have torn up a new idea, everyone is happy," she says bluntly. "No, I only want serious thinkers who can go beyond thinking in terms of critique and make a collective contribution in creating a safe space for co-determination. I am not interested in polemics; I don't have time to waste."

This is not to say that Prof Hoppers herself has all the answers to the questions that the chair is posing about the potential linkages between Western and other knowledge systems. "It's not as if I have solution packets that I can distribute. I'm just leading a kind of transformation process. No one has complete answers. It's about how your one-tenth of the solution can link with that one-tenth and that two-fifths, and so on until we can take the democratic project into the knowledge production arena as well."

With this in mind, she has assembled an international circle of 20 "distinguished fellows" from various fields, including quantum physics, law, peace studies and business ethics. "Some have gone beyond the Western system; they understand the weaknesses and where nodes for the required enlargement can best happen, or get triggered. We meet twice a year for special retreats, zooming into a particular area each time."

She has also set up an "Indigenous Knowledge Advisory Faculty" consisting of elders from the African communities that will engage with the distinguished fellows to figure out under what conditions the integration of knowledge systems can occur.

In addition, Prof Hoppers is also connecting with Native American, Maori, Australian and northern Scandinavian scholars who have experienced both worlds, meaning formal academia and indigenous knowledge networks.

Digging sideways, not deeper

Postgraduate students are signing up from far and wide. Since its launch in 2008, the Chair in Development Education has attracted 19 students (nine master's and 10 doctoral) from South Africa, Cameroon, Canada, Ethiopia, Kenya, the Netherlands and Norway. They too represent a wide range of disciplines, including bio-medical engineering, medicine, philosophy, the performing arts, education, and physics, and are eager to collaborate outside the traditional boundaries associated with their core disciplines.

Transdisciplinarity is crucial if one is to avoid the pitfalls associated with silo thinking, another legacy of the

Western system. "The deeper you specialise in a specific discipline, the deeper you dig yourself into the silo," says Prof Hoppers. "Unless you dig sideways, you lose the capability to converse with other disciplines."

She is convinced that Unisa is just the right university for this particular chair. "I entered Unisa, with its vision of serving humanity, at a point when it had an ethos that was very appealing to me. The aspirations were real and I could feel it was genuine. It means I can be truthful and lead activities that are real, have pertinence, and have moral salience. There is an atmosphere here of genuineness and I feel I have connected with the best of the institution."

About the SARChI Chair in Development Education

- The South African Research Chair in Development Education is one of about 72 university chairs established by the Department of Science and Technology and the National Research Foundation as part of the South African Research Chairs Initiative (SARChI).
- It was awarded to Unisa after a competitive tender process for both the chair and the chair holder, Prof Catherine Hoppers.
- In March 2010, the SARChI Chair was designated as an OECD-PASCAL centre for the global south. Its mandate is to apply restorative action in support of rebuilding the relationship between universities and society not only in Africa but in PASCAL processes worldwide. This catapults Unisa to the same level as the Royal Melbourne Institute of Technology (Australia), University of Illinois (USA), and University of Glasgow (UK), as the fourth node of this global initiative.
- A Swedish national of Ugandan descent, Prof Hoppers is a UNESCO expert in basic education and lifelong learning, a regional expert for the World Intellectual Property Rights Organization and advisor to several multilateral and bi-lateral agencies. Prof Hoppers played a key role in formulating South Africa's national Indigenous Knowledge Systems (IKS) strategy. She was team leader in the drafting of the national policy and legislation on the recognition, development, promotion and protection of IKS under the auspices of the Parliamentary Portfolio Committee of Arts, Culture and Science.

Getting into hot water makes sense for South Africa

For a country without any recent volcanic activity, South Africa is surprisingly well endowed with hot springs. There are about 90 that we know of but probably many more not yet recorded. The search is heating up fast.

“Some countries like Iceland, Japan and New Zealand have a large number of geothermal springs whereas others such as Ireland have very few. South Africa has a lot for a non-volcanic country,” says Prof Jana Olivier, project leader of the Unisa-led research team that is conducting the first large-scale scientific study into South Africa’s hot springs.

“We lag way behind other countries in our knowledge of the properties and potential uses of hot springs,” she says, pointing out that most nations with plentiful springs are far ahead in tapping their potential. Kenya, which has many piping-hot springs, is harnessing their heat to grow roses, while New Zealand is pouring part of its hot spring resources into prawn parks and other forms of aquaculture.

Those countries and others like Iceland, Japan, Costa Rica and Tibet are also using their hot springs to generate increasing amounts of geothermal energy. Iceland, a world leader in geothermal energy, uses its volcano-fuelled hot springs to provide heating for more than 90% of its interior space.

“It’s the greenest of green energies,” says Prof Olivier, who has previously led research into another sustainable resource source, fogwater harvesting. “Geother-

mal energy has virtually no carbon footprint at all, is available 24 hours a day and, as long as the boreholes are recharged, will probably be sustainable.”

At this stage, however, the sole purpose for which South Africa uses its hot springs is conventional tourism. The country has not even touched the surface of geothermal energy generation or dipped into other potential uses of hot springs such as health tourism, balneology (geothermal healing) and metal and minerals extraction.

Prof Olivier and her research team from Unisa’s Department of Environmental Science, the Council for Geoscience (Environmental Geoscience- and Geophysics Units) and the University of Pretoria aim to change that. Backed by a R2,3 million grant received from the Water Research Commission in April, they have started a three-year study into South Africa’s hot spring resources, many of which are in the Limpopo and the Western Cape. The project has three main angles.

Hot, hotter, hottest

“Firstly, we’re trying to understand more about the geology, geophysics and geochemistry of the country’s hot springs.



For instance, our springs are relatively cool compared to those in many other countries," she says, explaining that in South Africa, hot springs have three basic temperature ranges: those of 25 to 37 degrees Celsius are classified as "warm", springs from 27 to 50 degrees are "hot" and those hotter than 50 degrees are "scalding". South Africa's hottest spring is 67 degrees, whereas the hottest of the hot springs, mostly found in Iceland, go all the way up to 300 degrees.

The difference could be due to the origins of South Africa's hot springs, being meteoric rather than linked to volcanic activity. Meteoric springs come from rain-water penetrating deep into the earth and being heated up as it goes down. When the water eventually strikes an impermeable barrier, it flows horizontally until it is forced upwards, emerging on the surface as a hot spring.

"What we don't know is what depth our springs come from, or how hot they get if we drill down, and this is one of the areas of our geophysical research," says Prof Olivier. The answers could be important in determining how feasible it would be to use South African hot springs to exploit geothermal energy.

The team will also try to find out why some springs are hotter than others, and why temperature changes, although these are quite rare, can occur. "Siloam in Limpopo suddenly appeared in the year 2000," she says. "According to the community it was an ordinary spring that became hot."

Testing the waters for chemicals

Geochemically, the team's focus is on testing the waters to establish the physical and chemical, metal and minerals content of hot springs. "We have found that

Project team members Mr Jaco Venter (Council of Geoscience, Environmental Geoscience Unit), Mr Isaac Rampedi (Department of Environmental Science, Unisa), Mr Ernst Tshibalo (Curriculum and Learning Development, Unisa), Prof Jana Olivier (Department of Environmental Science, Unisa, and project team leader), Mr Tshupo Motuakeng (Council of Geoscience, Geophysics Business Unit), Ms Nadia Jonker (Department of Environmental Science, Unisa) and, seated, Mr Peter Nyabeze (Council of Geoscience, Geophysics Business Unit).



some springs have a very high concentration of chemicals. Some are dangerous and some beneficial, and they have to be analysed very carefully," Prof Olivier says. Potentially dangerous chemicals found so far include arsenic, mercury and lead, while those with potentially beneficial properties include lithium, used in anti-depressants, and boron.

A second component of the team's research is investigating the living organisms found in the country's hot springs. "We know there are algae and there might be fungi; we presume there will be bacteria," she says. "Remember, no one has ever done research on these in South African springs. Depending on what we find, it might be possible to extract novel products from extremophiles – microorganisms living in extreme environments such as hot springs. They might have industrial potential."

The results that the team comes up with in their biological, geophysical and geochemical research will feed into the third component of the project – exploring the alternative uses of hot springs, and then looking into which uses could be commercially viable at which springs.

Sustainable development

In considering the potential uses, the team is overlooking conventional commercial tourism as this has already been tapped to its limits. The exception is the Sagole Spa in the Limpopo province. Formerly known as Klein Tshipise, Sagole was once a thriving holiday resort but is now virtually deserted. Ernest Tshibalo, a member of the research team, is studying Sagole's decline and fall – and possible revitalisation – for his doctoral thesis, which he is due to complete in November 2010. The topic explores a strategy for sustainable development of hot springs.

For the rest, the team is leaving no stone unturned in investigating possible options for utilising South Africa's largely underdeveloped hot springs. The options they are looking at include:

- agriculture, mostly irrigation, heating of greenhouses and to accelerate seed germination and fruit or vegetable ripening
- pilot aquaculture projects, such as establishing prawn parks or fish hatcheries along the lines of New Zealand
- health tourism and balneology, focusing on the potential healing properties of mud and water from hot springs
- geothermal energy electricity generation
- chemical, minerals and metal extraction
- industrial or commercial applications involving the use of algae, fungi, bacteria and other living organisms.

The team is also taking care to explore and respect the local legends and traditions that abound around hot springs in South Africa. In Sagole, for instance, it is said that it is a python that spits out the heat and snakes in the area may not be harmed or killed.



“All strategies and projects will have to be socially and environmentally sustainable as well as commercially viable. Local communities will be an integral part of optimising our country’s hot springs.”

Unique and vibrant mathematics

Topology, an abstract study of geometrical shapes, may be a complex area of mathematics; however, it is also a vibrant and important branch that has vital applications to numerous other fields such as engineering, image processing, dynamical systems and certain aspects of physics.

Topology is one of the six flagship research projects of the College of Science, Engineering and Technology (CSET) and is a study field a certain group of academics is passionate about, and dedicated to researching.

It was identified as one of the college's flagship projects after the college restructured its research ethos. CSET supports the research goals and strategies of Unisa by focusing on two of Unisa's five research themes, 'Open Distance Learning (ODL)' and 'Innovation and capacity building in science and technology'.

Prof Themba Dube, Prof Inderasan Naidoo, Prof Augustin Batubenge, Prof Seithuti Moshoka (Chair of Department: Mathematics) and Dr Gugu Moche (Director: School of Science) are the five Unisa academics chosen to spearhead this research project, based on their individual research outputs on the subject and various other sub-disciplines of mathematics.

The team leader, Prof Dube, explains that the research aim is to conduct high-level research in topology to be published in respected journals. The development and capacity building aim is to position Unisa as one of the preferred institutions within Africa for students to read


for master's and doctoral degrees in topology.

Prof Dube described the Unisa academics associated with topology research as "very active" and said that, on average, there have been three outputs every year since 2006. "And since we began the flagship project this year, a paper entitled *On openness and surjectivity of lifted frame homomorphisms*, (authored by Prof Dube and Prof Naidoo) has already been accepted and appeared online in the highly-regarded journal *Topology and its applications*. Seven other papers by various members of the group have also been submitted."

Explaining the flagship project further, Prof Dube said the topology project focuses on four topics within this broad field, namely:

- classical analysis and general topology
- differential topology and algebraic topology
- pointfree topology
- topological algebraic structures with main emphasis on topological semigroups.

"The four topics complement each other and enhance our knowledge of shapes and geometrical structures. Topological algebra tackles these from an algebraic



Prof Dube indicated that while globally there is much topology research activity, Unisa is among the three leading universities conducting pointfree topology research in Africa.

point of view, pointfree topology presumes we get a better view of geometrical shapes if we concentrate on them globally rather than locally, and according to differential topology we understand locally, and then extrapolate to the global picture.”

A unique aspect to the flagship project is that of point-free topology, which has only been researched since the 1960s. Prof Dube indicated that while globally there is much topology research activity, Unisa is among the three leading universities conducting point-free topology research in Africa. The other universities within South Africa, which are active in this area of topology, are the Universities of Cape Town, KwaZulu – Natal, Limpopo and the University of the Western Cape.

He also said that according to listings in the Mathematical Reviews of the American Mathematical Society – which lists the outputs of mathematicians globally – Unisa has the highest accumulative outputs in South Africa over the past five years in pointfree topology. Prof Dube said those who pioneered research in this sub-discipline have done excellent work; however, it is up to a new generation of researchers, such as his

team, to take the discipline forward. He spoke of point-free topology researchers in Portugal, describing them as a young team achieving outstanding results. Looking at the African and South African picture, Prof Dube said that Unisa academics are amongst the trailblazers in pointfree topology research. This he said was largely due to the fact that the world leader in pointfree topology, Prof Bernhard Banaschewski of McMaster University in Canada, visits South Africa every year and academics are able to interact with him closely.

Differential topology is said to have more applications to real-life situations. Prof Batubenge provides, as an example, the universe and its composition. “Our world is made up of the earth and other objects that we can view or observe in the sky by use of technology such as telescopes. In order for us to understand the world, we then need to know or give an approximation of the shape of the earth, the planets or other objects around us.”

The shapes, he said, are looked upon as the geometry of the universe. The shapes and the motion of objects are studied in what is called differential geometry, describing the global dynamic of the system (universe)

Five Unisa academics have been chosen to spearhead the topology flagship project. Pictured from left to right are Prof Themba Dube (Team Leader), Prof Augustin Batubenge, Prof Inderasan Naidoo, Dr Gugu Moche and Prof Seithuti Moshoka.



and requiring in some sense a kind of differentiation. The latter is in turn based on the concept of neighbourhood of each point, which is the topological viewpoint of the study. He further explains that algebraic topology provides the tools to study topological properties of the configuration space of the model under consideration.

Speaking on the emergence of young, African and female researchers, Prof Dube said there was definitely a need for such researchers and for more active researchers in the fields of science and mathematics. However, he said it was pertinent to reveal that the Unisa Mathematics Department has one of the largest number of African PhD mathematicians in the country.

Prof Naidoo said maintaining and sustaining topology within South Africa is central to the Unisa academics researching the discipline. "The diversity and the energy of the team together with the outputs generated thus far continues to have a significant impact on the topology research economy within South Africa and on the African continent." He added that Unisa has enjoyed a rich history with research in topology and those conducting research in this field strive to continue in accentuating Unisa as one of the leading institutions in the generation of research in topology within the African diaspora and on the continent.

Defining topology

Topology is the study of qualitative questions about geometrical structures. Like all branches of pure mathematics, it starts with axioms which seek to abstract certain properties of everyday geometrical shapes. It then builds on this via rigorous arguments based on the axioms and logical deductions.

EVERYDAY EXAMPLES OF TOPOLOGY

Remembering that, in topology, two objects are considered to be the same if each one can be distorted to the other without being cut or torn, other everyday examples of topology include:

- A typical map of a railway system and how it displays the railway lines and how they connect in a very simple form. An accurate map of a railway system would have lots of bends and uneven spacing. The simplified map is topologically equivalent to an accurate map. The important information, like the order of stops and how the different train lines are connected, does not change as the map is distorted from one to the other.
- A Möbius strip is a twisted loop, normally made of paper. The mathematical idea is that a twisted loop is very different from a normal loop. The Möbius strip has only got one side. If you draw a line down the middle of the strip until you get back to your starting point, you will find that you draw on both sides of the paper. The twist in the paper makes you change sides as you draw around.

The Möbius strip used to be common in belt drives (like a car fan belt). With an ordinary belt only the inside of the belt was in contact with the wheels, so it would wear out before the outside did. Since a Möbius strip has only one side, the wear and tear on the belt was spread out more evenly and they would last longer. However, modern belts are made from several layers of different materials, with a definite inside and outside, and do not have a twist.

(Sourced from <http://mathssquad.questacon.edu.au>)

Working on diagrams related to topology are (from left to right) Prof Augustin Batubenge, Prof Inderasan Naidoo and Prof Seithuti Moshoka.



HIV/AIDS research at Unisa 2003-2008

Research into HIV and AIDS is a relatively new phenomenon but (South) African universities have been slowly but surely taking up the challenge.

HIV and AIDS research has become an important aspect of the fight against the disease. The Research Directorate has conducted a study into the numbers and types of research outputs produced at Unisa over the six year period from 2003 to 2008. In keeping with world and continental trends, research into HIV and AIDS has grown sharply in the six-year period under review.

The table below shows a combined distribution of the publication channels of HIV/AIDS literature produced between 2003 and 2008 with the necessary percentages. By far the vast majority of the outputs are journal articles, with dissertations in second position. Doctoral theses publications on HIV/AIDS have been constant over the period, with an average of two units per year in the period under review.

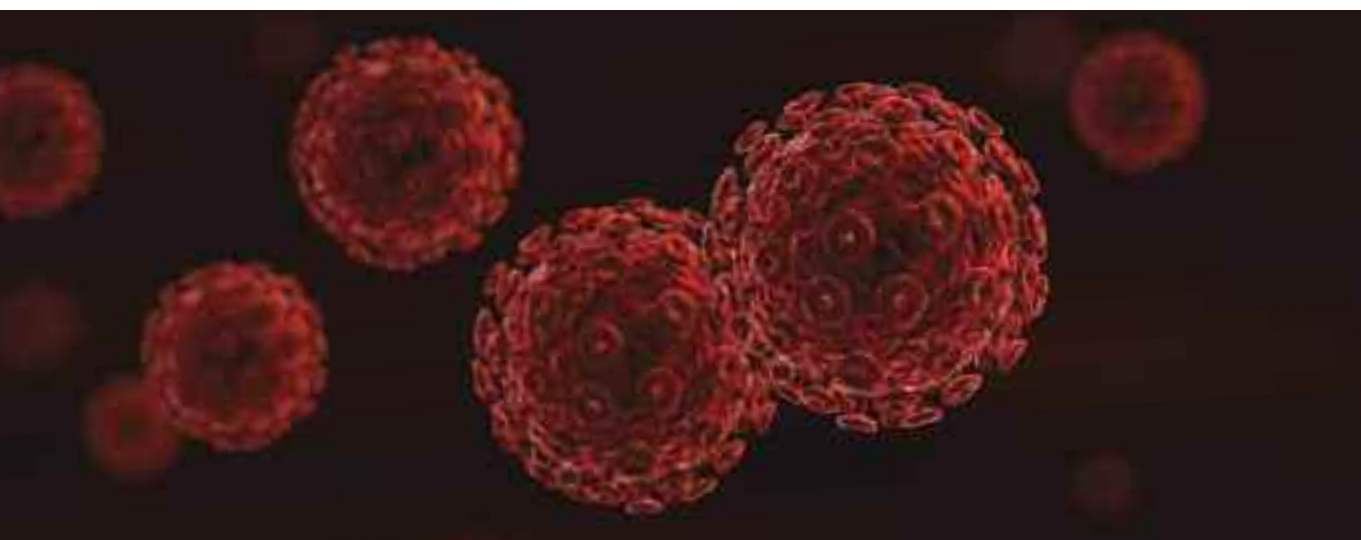
Table 1: HIV/AIDS literature output at Unisa, 2003-2008

| PUBLICATION TYPES | | | | | | |
|-------------------|------------------|-----------|-----------------|-----------|--------------|-------------|
| Year | Journal Articles | Books | Book chapter(s) | Theses | Dissertation | Total |
| 2003 | 9 | 1 | | | 4 | 14 |
| 2004 | 5 | 1 | 2 | 1 | 2 | 11 |
| 2005 | 17 | 1 | | 2 | 9 | 29 |
| 2006 | 10 | | | 3 | 12 | 25 |
| 2007 | 18 | | | 2 | 9 | 29 |
| 2008 | 26 | 1 | 4 | 4 | 8 | 47 |
| Total | 84 | 4 | 6 | 12 | 44 | 155 |
| % | 54% | 3% | 4% | 8% | 29% | 100% |

Of all the journals identified, *South African Business Review*, *Acta Crimilologica*, *African Journal of Nursing and Midwifery* and the *Journal of Contemporary Roman-Dutch Law* are leading in terms of research outputs in HIV/AIDS. There are 241 authors responsible for a cumulative number of 155 records. Of the total, 56 authors are postgraduate students completing theses and dissertations.

Prof Tinyiko Maluleke, Executive Director: Research, says it is encouraging that Unisa researchers and postgraduate students have stepped forward to make their research skills available to the country. "They are making their contribution in addressing one of the most important challenges facing South Africa."

(A full electronic report on this study will be posted on the Unisa Research Directorate website)



Bridging the gap between culture and nature

There is a much-cherished notion among some of the South African media and general public that the country's national parks are "pieces of pristine Africa". Not only are these parks widely seen as ecologically intact, they are also regarded as morally unspoilt, untouched by politics and other mundane dimensions of human activity.

This rosy-tinted view has been brought into sharp focus through the research of Unisa environmental historian Jane Carruthers, professor in the Department of History and a National Research Foundation B1 rated researcher. Fascinated by the national parks phenomenon since 1988 when she completed her doctoral thesis on game protection in the Transvaal region for the period 1846 to 1926, she has systematically explored the mythology woven into their fabric.

"At first, national parks in southern Africa were colonial hunting reserves; then, from the 1920s, they became part of a deliberate white nation-building exercise, embodied by the Kruger National Park founded in specific political circumstances in 1926," she says. "Since 1994, national parks in the region have been redefined as instruments for the delivery of benefits to poor people."

In the process, the conservation element has shifted from total preservation to sustainable development and a function of effective land use. "Instead of taking protected areas out of the economy, putting a fence around them through subsidisation and pretending they are about romantic nature, parks are currently instruments in promoting economic development," Prof Carruthers says.

A wilderness designed for wildlife

Evidence of this evolution in action is the Pilanesberg National Park near Rustenburg in the North West Province. Conceived in the late 1970s, the park had its roots in apartheid-era ideology, as part of the plan to draw tourists to the then homeland of Bophuthatswana. Located close to the Sun City casino and luxury hotel, the area that became the Pilanesberg National Park was considered "appropriate for a small game reserve to amuse hotel visitors," says Prof. Carruthers.

Prof Jane Carruthers



"Far from being a piece of pristine Africa, the Pilanesberg National Park was carefully designed on the drawing board of landscape designers and ecologists," she says. In a paper aptly entitled *Designing a wilderness for wildlife*, delivered at a symposium organised by Harvard University's landscape architecture department at Dumbarton Oaks, Washington DC, Prof Carruthers explains how the park was constructed on marginal farmland, with not a lion, elephant or other member of the Big Five in sight.

She says resident Bagkatla people had to be removed before these "proud symbols of untamed Africa" could be translocated at considerable expense from outside the Pilanesberg National Park, raising some interesting challenges for the park's creators.

"The park managers removed buildings and invasive species while, at the same time, introducing native wildlife," she says in her paper. "While species translocation was largely successful, there were problems with moving elephants into the park because delicate herd structures were disrupted by the addition of too many young males. Cheetahs were also problematic because they ate all the expensive species."

Despite the artifice behind the Pilanesberg National Park's construction, it has shown remarkable longevity and sustainability, based on the many tourists it attracts and the significant number of people it employs. Prof Carruthers attributes its continuing success to the pioneering principles initially adopted by the designers back in the 1970s. "They believed that wildlife must

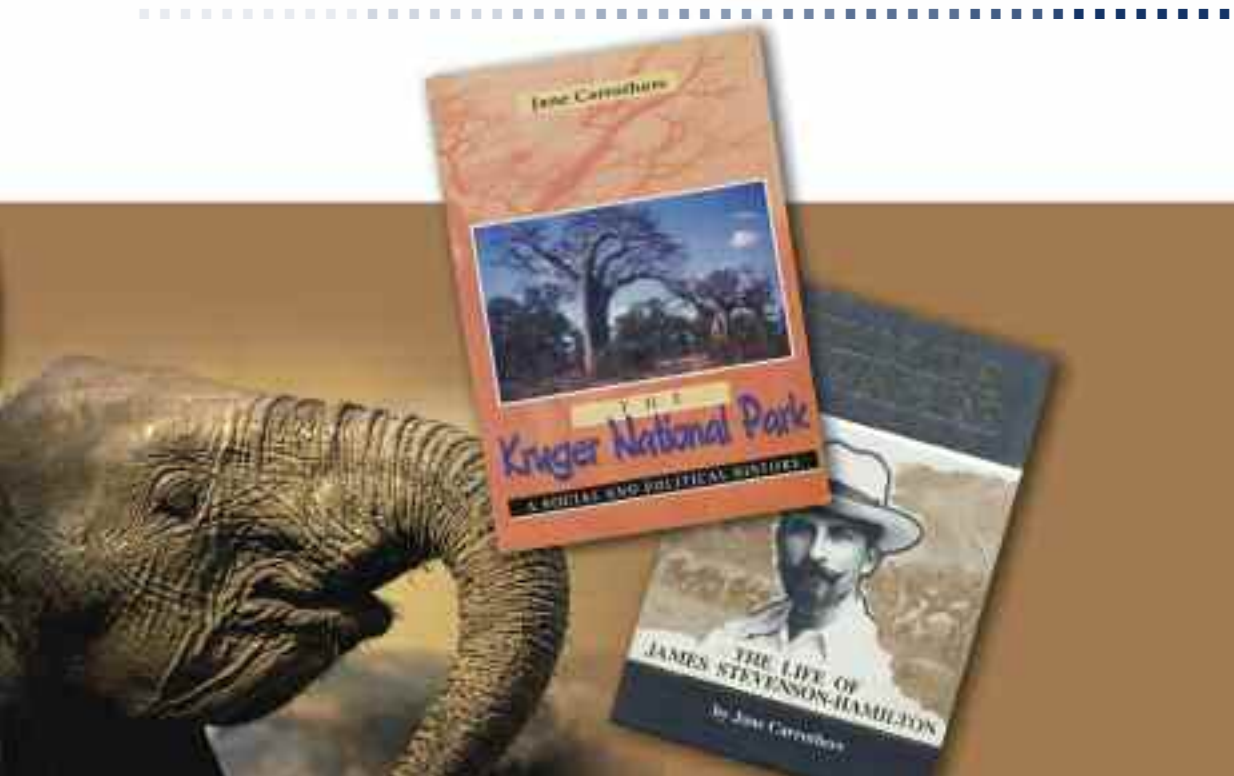
make money, and that the landscape must be productive and also used sustainably. In addition, they rejected urban-based romantic ideas about nature in favour of prioritising local culture and incorporating the community into the park's functioning."

Community parks are the next wave

While the Pilanesberg National Park is today celebrated as a model of the new community park, it did not always enjoy the support of the local community. "To make way for the park, the local Tswana pastoralists belonging to Chief Pilane's Bakgatla community were evicted," she says. The community initially contested the construction of the park and protested against being evicted from it. However, this resistance began crumbling as the socio-economic benefits to the community became apparent.

Even so, decades later, in 2002, Chief Pilane lodged a land claim against the North West provincial government on behalf of his displaced community, a claim which has not yet been resolved. "Because of the profitability of the national park, it is extremely unlikely that it will be deproclaimed and opened to cattlemen once more," Prof Carruthers says.

Considering her familiarity with the terrain of national parks and other cultural landscapes, it is not surprising that land restitution claims research is another area of her expertise. Prof Carruthers has been a consultant to South African National Parks on land claims and historical issues in national parks across South Africa, including the Kruger National Park and the Kalahari



Gemsbok National Park in the Northern Cape. She has also helped the Land Claims Commission research the validity of urban land claims in Lady Selborne township near Pretoria and in Albertville in Johannesburg. “Academics should make a contribution to society and land claims are important in reorganising South Africa’s space with justice in mind.”

Straddling the space between science and the humanities

Another space where Prof Carruthers is unusually comfortable for a historian is that between the humanities and the natural sciences. Indeed, she is one of only two historians to be elected as a Fellow of the Royal Society of South Africa. The usual members of this body, which is the country’s premier scientific academy, are physicists, chemists, astronomers, computer experts and the like.

Nor is her association with the scientific community limited to attending Royal Society gatherings. Down on the ground, Prof Carruthers has worked hand in glove with natural scientists on various projects, including the comprehensive study *Elephant Management: A Scientific Assessment for South Africa* (Wits University Press, 2008). Aimed at assessing the state of knowledge around South Africa’s elephant populations, this study was commissioned by the then Minister of Environmental Affairs and Tourism, Marthinus van Schalkwyk. It was a collaborative project involving approximately 40 researchers, most of them biologists, ecologists, conservationists and wildlife veterinarians, but also drawing in a smattering of non-scientists with back-

grounds in disciplines such as law, ethics and, of course, environmental history.

Prof Carruthers was the lead author of the study’s first chapter, covering the history and distribution of the elephant in South Africa and reviewing historical trends in elephant hunting and ivory exports. This chapter places elephant management in historical perspective, setting the scene for the volume’s in-depth assessment of elephants from every angle, including elephant reproduction and contraception, the effects of elephants on ecosystems and biodiversity, ethical considerations in elephant management and national and international law.

“Before this assessment, there were studies here and there but not a cohesive statement about elephants in South Africa,” says Prof Carruthers. “Our brief was to do a scientific evaluation of what we know and don’t know about elephant management. The result was not an elephant management plan – it was not our task to be prescriptive – but to provide the most reliable body of information on elephants in South Africa that we have.”

Although clearly at home in the company of scientists and familiar with the language they speak, she is the first to say that a natural scientist she is not. “The point is that issues such as animal ethics and climate change are not purely scientific problems; they have a cultural dimension too. I see humanities scholars and scientists as interdependent – we need one another to make a picture of what life on earth is about.”

“The point is that issues such as animal ethics and climate change are not purely scientific problems; they have a cultural dimension too.”



Looking back on 40 years at Unisa

Ask the average person in the street: What is the law of delict? And, in all likelihood, you will only get a vacant stare. Yet, it is this very law that protects us all when we suffer harm, whether through an accident or an intentional act.

Prof Johann Neethling, former dean of the Unisa's then Faculty of Law, has spent most of his 40 years service at the university not just mainly teaching, but also researching this particular field. He has an extensive research and publication record, including nine legal textbooks, and he was editor of the *Journal of Contemporary Roman-Dutch Law* for eleven years.

As a B1 rated researcher by the National Research Foundation, he is held in high regard internationally for his expertise. So much so, that he has been appointed as a Research Fellow of the European Centre of Tort and Insurance Law (ECTIL) in Vienna, Austria, and as Senior Researcher of the *Ius Commune* Research School in Maastricht, Holland. Moreover, in 1995 he was invited by the Advocate-General of the Hoge Raad of the Netherlands to be the South African member of the European Group on Tort Law. The group consisted of tort law scholars from 15 European countries, United States of America, Israel and South Africa. Its goal was to draft European principles of tort law. This was done through national reports on particular topics which were discussed at meetings in different European cities. A comparative analysis was made and generally accepted principles extracted.

Prof Neethling's achievements date back to his student days when he was awarded the Free State Bar Prize for best LLB student in 1969. The SA Academy for Science and Arts has honoured him with the Toon van den Heever prize for legal science for his books on the

law of delict, unlawful competition and the protection of personality rights. Unisa too has awarded him the Chancellor's prize for best law researcher (1997) and he received the Chairperson of Council award for excellent research outputs in 2005.

The recipient of numerous scholarships for research and overseas visits, Prof Neethling, while retiring from Unisa this year, is showing no signs of retiring from his great love of research. He has been awarded an NRF grant from 2009 to 2014 of R80 000 per year. He has already done research in Belgium and the Netherlands and plans to visit Germany later this year for this purpose.

Looking back on 40 years at the university, Prof Neethling has seen many changes and welcomed the process of transformation. One of the recent changes at Unisa he appreciates most is being able to be a professor working from home. "There are no disturbances and colleagues and students can easily contact me if they need to," he explains.

He has been offered a research post at Unisa from next year, but is instead taking up an offer of a Senior Professorship from his alma mater, the University of the Free State. "I am looking forward to that," he said. Since his new post next year only requires a certain number of hours in Bloemfontein, he and his wife will stay on in Pretoria.

While dad finishes his long and illustrious career at Unisa, his youngest daughter has taken a post lecturing in the College of Economic and Management Sciences. Judging from Prof Neethling's proud smile, in spite of everything, he feels this might be his greatest contribution to Unisa!

Prof Johann Neethling



Collaboration with the National Research Foundation

The National Research Foundation (NRF) is a nationally dedicated agency for research support and promotion. It does this through funding, human resources development and the provision of research facilities, in order to facilitate the creation of knowledge, innovation and development in all fields of the natural and social sciences, humanities and technology.

FUNDING AND RATING

The National Research Foundation (NRF) is a nationally dedicated agency for research support and promotion. It does this through funding, human resources development and the provision of research facilities, in order to facilitate the creation of knowledge, innovation and development in all fields of the natural and social sciences, humanities and technology.

Unisa participates actively in NRF funding programmes such as Focus Area Funding for Established Researchers, the Thuthuka programme for young researchers, NRF bursaries and scholarships, and International Networking/Liaison or Travel Grants funding, as well as in the rating of its researchers against their peers in the country.

Annually, the NRF invites individual scientists working in South African institutions of higher learning (universities and science councils) in all academic fields to apply for individual rating as researchers. In order to be rated, a scientist must submit a list of all recent research outputs accompanied by solid motivation as

to why and how these make a substantial and original contribution to scholarship. The submission is then sent to peers (some of whom are chosen by the applicants themselves) for review. The reports of the reviewers are sent to a discipline based specialist panel for review. The specialist panel will then make a recommendation to the NRF committee, which will determine whether a researcher is rateable, and if so, the NRF committee will determine a category.



NRF RATING CATEGORIES

A Leading international researcher

Researchers who are unequivocally recognised by their peers as leading international scholars in their field for the high quality and impact of their recent research outputs. (3 levels: A1, A2, A3)

B Internationally acclaimed researcher

Researchers who enjoy considerable international recognition by their peers for the high quality and impact of their recent research outputs. (3 levels: B1, B2, B3)

C Nationally established researcher

Established researchers with a sustained recent record of productivity in the field. (3 levels: C1, C2, C3)

P President's award for young researchers with tremendous potential

Young researchers (normally younger than 35 years of age), who have held the doctorate or equivalent qualification for less than five years at the time of application and who, on the basis of exceptional potential demonstrated in their published doctoral work and/or their research outputs in their early post-doctoral careers are considered likely to become future leaders in their field.

Y Promising young researchers

Young researchers (normally younger than 35 years of age), who have held the doctorate or equivalent qualification for less than five years at the time of application, and who are recognised as having the potential to establish themselves as researchers within a five-year period after evaluation.

RESEARCHERS RATED BY THE NRF IN 2009/2010

The 2009/2010 rating year yielded the richest harvest of newly NRF rated researchers – no less than 35 for a single year. Of these 13 are women and seven African. The overwhelming majority received C ratings (three in the C1 category and 13 in the C2 category) and there

are also two new Y category ratings. These achievements bear testimony to the stature of the individual researchers among their peers as well as to the improved support structures and interventions for persons applying for rating at Unisa.

| NEWLY RATED NRF RESEARCHERS | | | | | |
|-----------------------------|-------------------------|----------|--------|--------|------|
| Name | College/ Directorate | Category | Expiry | Gender | Race |
| Atagana HI Prof | ICB | C3 | 2015 | M | B |
| Bosch SE Prof | CHS | C1 | 2015 | F | W |
| Cilliers FV Prof | CEMS | C3 | 2015 | M | W |
| Coetzee M Prof | CEMS | C3 | 2015 | F | W |
| Craffert PF Prof | CHS | C1 | 2015 | M | W |
| Du Shengshi Prof | CSET | Y2 | 2014 | M | B |
| Ferreira R Prof | CHS | C2 | 2015 | F | W |
| Fouche WL Prof | CEMS | B1 | 2015 | M | W |
| Havenga PH Prof | Academic Planning | C2 | 2015 | M | W |
| Heaton J Prof | CLAW | C2 | 2015 | F | W |
| Higgs P Prof | CHS | C2 | 2015 | M | W |
| Jita LC Prof | CHS | C3 | 2015 | M | B |
| Kelbrick RA Prof | CLAW | C2 | 2015 | F | W |
| Kelly-Louw M Prof | CLAW | Y2 | 2015 | F | W |
| Knobel JC Prof | CLAW | C3 | 2015 | M | W |
| Kotze AE Prof | Academic Planning | C2 | 2015 | M | W |
| Labuschagne L Prof | CSET | C3 | 2011 | M | W |
| Ladikos, A | CLAW | C3 | 2015 | M | W |
| Lemmer EM Prof | CHS | C3 | 2015 | F | W |
| Luyt WFM Prof | CLAW | C3 | 2015 | M | W |
| Mafela MJ Prof | CHS | C2 | 2015 | M | B |
| Martins N Prof | CEMS | C3 | 2015 | M | W |
| Moshokoa SP Prof | CSET | C2 | 2015 | M | B |
| Nindi MM Prof | CSET | C3 | 2015 | M | B |
| Ntshoe IM Prof | CHS | C3 | 2015 | M | B |
| Potgieter JM Prof | CLAW | C2 | 2015 | M | W |
| Pretorius L Prof | CSET | C2 | 2015 | F | W |
| Prinsloo JH Prof | CLAW | C2 | 2015 | M | W |
| Schenck CJ Prof | CHS | C3 | 2015 | F | W |
| Smith E Prof | CSET | C3 | 2015 | F | W |
| Steyn GM Prof | CHS | C2 | 2015 | F | W |
| Steynberg L Prof | CLAW | C3 | 2015 | F | W |
| Terblanche SS Prof | CLAW | C1 | 2015 | M | W |
| Van der Merwe DP Prof | CLAW | C3 | 2015 | M | W |
| Vettori, M Prof | CLAW | C2 | 2014 | F | W |

CAES (College of Agriculture and Environmental Sciences)
 CEMS (College of Economic and Management Sciences)
 CHS (College of Human Sciences)
 CLAW (College of Law)
 CSET (College of Science, Engineering and Technology)
 ICB (Inter-College Board)

| ALL NRF RATED RESEARCHERS | | | | |
|----------------------------------|----------|--------|--------|------|
| Name | Category | Expiry | Gender | Race |
| College of Law | | | | |
| Bekker PM Prof | C3 | 2011 | M | W |
| Bray W Prof | C2 | 2011 | F | W |
| Dekker AH Prof | Y2 | 2014 | F | W |
| Eiselen GTS Prof | C1 | 2014 | M | W |
| Havenga MK Prof | C2 | 2014 | F | W |
| Heaton J Prof | C2 | 2015 | F | W |
| Jamneck J Prof | C3 | 2010 | F | W |
| Kelbrick RA Prof | C2 | 2015 | F | W |
| Kelly-Louw M Prof | Y2 | 2015 | F | W |
| Knobel JC Prof | C3 | 2015 | M | W |
| Kruger JM Prof | C3 | 2014 | F | W |
| Ladikos, A | C3 | 2015 | M | W |
| Luyt WFM Prof | C3 | 2015 | M | W |
| Mangu AMB Prof | C2 | 2014 | M | B |
| Minnaar ADEV Prof | C3 | 2013 | M | W |
| Naude BC Prof | C3 | 2014 | M | W |
| Neethling J Prof | B1 | 2014 | M | W |
| Neser JJ Prof | C3 | 2011 | M | W |
| Pistorius T Prof | C2 | 2014 | F | W |
| Potgieter JM Prof | C2 | 2015 | M | W |
| Pretorius JT Prof | B3 | 2013 | M | W |
| Prinsloo JH Prof | C2 | 2015 | M | W |
| Schulze HCAW Prof | C2 | 2014 | M | W |
| Schulze WG Prof | C2 | 2014 | M | W |
| Scott SJ Prof | C2 | 2014 | F | W |
| Smith A D Prof | C1 | 2011 | M | W |
| Steynberg L Prof | C3 | 2015 | F | W |
| Terblanche SS Prof | C1 | 2015 | M | W |
| Van den Bergh H Prof | C2 | 2012 | F | W |
| Van der Merwe DP Prof | C3 | 2015 | M | W |
| Van Jaarsveld MI Prof | Y2 | 2014 | F | W |
| Van Niekerk GJ Prof | C3 | 2011 | F | W |
| Van Wyk AMA Prof | C2 | 2014 | F | W |
| Vettori, M Prof | C2 | 2014 | F | W |
| College of Human Sciences | | | | |
| Borman E Prof | C3 | 2013 | F | W |
| Bosch SE Prof | C1 | 2015 | F | W |
| Carruthers EJ Prof | B1 | 2014 | F | W |
| Craffert PF Prof | C1 | 2015 | M | W |
| Dedering TM Dr | B3 | 2010 | M | W |
| Du Toit CW Prof | C3 | 2014 | M | W |
| Ehlers VJ Prof | C2 | 2014 | F | W |
| Ferreira R Prof | C2 | 2015 | F | W |
| Fourie DP Prof | C3 | 2014 | M | W |
| Fourie PJ Prof | C1 | 2014 | M | W |
| Higgs P Prof | C2 | 2015 | M | W |
| Jita LC Prof | C3 | 2015 | M | B |
| Kistner U Prof | C2 | 2011 | F | W |
| Kretzschmar L Prof | C2 | 2014 | F | W |
| Krzychylkiewicz AA Prof | B3 | 2014 | F | W |
| Landman C Prof | C3 | 2014 | F | W |
| Lemmer EM Prof | C3 | 2015 | F | W |
| Mafela MJ Prof | C2 | 2015 | M | B |

| Name | Category | Expiry | Gender | Race |
|---|----------|--------|--------|------|
| College of Human Sciences continue | | | | |
| Moeketsi RMH Prof | C2 | 2011 | F | B |
| Motlhabi MBG Prof | C3 | 2011 | M | B |
| Motsa ZT Prof | L | 2012 | F | B |
| Mouton FA Prof | C2 | 2014 | M | W |
| Ngulube, P Prof | C2 | 2011 | M | B |
| Ntshoe IM Prof | C3 | 2015 | M | B |
| Pretorius EJ Prof | C2 | 2013 | F | W |
| Schenck CJ Prof | C3 | 2015 | F | W |
| Steyn GM Prof | C2 | 2015 | F | W |
| Sumeli Weinberg MG Prof | C2 | 2011 | F | W |
| Swanepoel PH Prof | C2 | 2011 | M | W |
| Van Dyk A C Prof | C3 | 2012 | F | W |
| Viljoen RS Prof | C3 | 2013 | M | B |
| Visagie AG Prof | C1 | 2014 | M | W |
| College of Science, Engineering and Technology | | | | |
| Atagana HI Prof | C3 | 2015 | M | B |
| Bishop NT Prof | B2 | 2012 | M | W |
| Botha A E Dr | Y2 | 2013 | M | W |
| Braun M Prof | C2 | 2012 | M | W |
| Cunow BHL Dr | C3 | 2014 | F | W |
| De Villiers MR Prof | C3 | 2014 | F | W |
| Du Shengshi Prof | Y2 | 2014 | M | B |
| Labuschagne L Prof | C3 | 2011 | M | W |
| Labuschagne LE Prof | B3 | 2014 | M | W |
| Moshokoa SP Prof | C2 | 2015 | M | B |
| Mphahlele MJ Prof | C3 | 2013 | M | B |
| Nindi MM Prof | C3 | 2015 | M | B |
| Pretorius L Prof | C2 | 2015 | F | W |
| Rakitianski SA Dr | B3 | 2011 | M | W |
| Setati, M Prof | C1 | 2011 | F | B |
| Smith E Prof | C3 | 2015 | F | W |
| Smits DP Prof | B3 | 2010 | M | W |
| Summers G Prof | L | 2014 | M | B |
| Tafesse F Prof | C3 | 2014 | M | B |
| Economic and Management Sciences | | | | |
| Cilliers FV Prof | C3 | 2015 | M | W |
| Coetzee M Prof | C3 | 2015 | F | W |
| De Beer M Prof | C2 | 2013 | F | W |
| Erasmus BJ Prof | C3 | 2010 | M | W |
| Fouche WL Prof | B1 | 2015 | M | W |
| Martins N Prof | C3 | 2015 | M | W |
| MK Luhandjula Prof | C2 | 2013 | M | B |
| Rwelamila PMD Prof | C3 | 2011 | M | W |
| Wessels JS Prof | C3 | 2012 | M | W |
| Agriculture and Environmental Sciences | | | | |
| Olivier J Prof | C2 | 2011 | F | W |
| Academic planning | | | | |
| Havenga PH Prof | C2 | 2015 | M | W |
| Kotze AE Prof | C2 | 2015 | M | W |

RESEARCH NICHE AREA: ECOTOXICOLOGY

Since being established in 2008, the ecotoxicology research niche area has evolved into a high-quality postgraduate teaching and research unit. Its high status within the scientific community is supported by the placement of Unisa chemistry graduates in industry and academia as well as the quality of research outputs in the form of peer-reviewed publications.

The current projects comprising the ecotoxicology research niche area have been formulated in a manner that promotes an interdisciplinary and multidisciplinary approach and are based mainly on the expertise and research track record of the participating members. The vision for this research niche area is to conduct world-class investigator-led research with a global impact, focusing on areas aligned with the long-term strategic interests of the university.

Research projects

Two research projects were focused on in 2009:

- Entitled, *Efficient hydrolysis of 4-nitrophenylphosphate catalyzed by copper bipyridyl in microemulsions*, the research sought to investigate and shed light on the possibility of formulating simple, cost-effective and rapid catalytic systems to address the pollution problem of aryl organophosphate contaminants in the environment. Aryl organophosphates are present in the environment as a result of the use of insecticides, pesticides and fertilisers. The presence of excess aryl organophosphates in the biosphere is a health hazard and decontamination processes are of vital importance.
- A second research paper entitled *Evaluation of the Antiangiogenic Effects of 2-Aryl-3-bromoquinolin-4(1H)-ones and a NCH3-4-oxo Derivative*, evaluated the title's compounds for their antiangiogenic effects.

Angiogenesis is a normal and vital process in growth and development, as well as in wound healing. However, it is also a fundamental step in the transition of tumours from a dormant to a malignant state. Hence an antiangiogenic compound has potential in the fight against cancer.

Some of the other highlights of the research niche area include the Mentorship Programme which ensures that research is undertaken not only for self-development and promotion purposes, but also for capacity development (students first).

The mentoring of postgraduate students forms part of the Mentorship Programme. This research niche area owes the success of participating students to the Department of Chemistry's rigorous seminar programme involving postgraduate students, staff and external experts from academia and industry. These seminars, which are compulsory for all in-house trained postgraduate students in the framework of this research niche area, have proven to enhance their scientific presentation skills, to enable the department to monitor student progress and to reduce the dropout rate. To date, the Department of Chemistry's graduate programme is recognised nationally for its core expertise in the fundamental chemistry related to ecotoxicology research. Participating members have trained unprecedented numbers of honours and masters graduates who completed their degrees within the minimum prescribed period of their studies.

Junior staff members participating in activities relating to this programme receive training in research project proposal design and scientific paper writing as well as supervision of postgraduate students to ensure succession. For example, Mr Elias Aphane, who completed his BSc Honours and master's degrees through the College of Science, Engineering and Technology's (CSET) *Grow our own timber* project and who was



appointed as a lecturer in the sub-division of physical chemistry in 1999, was assigned Prof Fikru Tafesse as his mentor. Prof Tafesse then involved Aphane as co-supervisor of Ms Elizabeth Mongadi's MSc project and seminar coordinator. The three have also co-authored a manuscript in an international journal.

As a part of the Mentorship Programme, senior researchers are continuously called upon to serve as referees for several international journals, external examiners of several national tertiary institutions and panel members for the National Research Foundation (NRF). The team is led by Prof Malose Mphahlele and Prof Tafesse, two NRF rated researchers, who have proven track records of mentoring staff and students from previously disadvantaged groups. They are also recognised for their roles in the development of research capacity and establishment of research at tertiary education institutions that previously had no culture of research.

Future opportunities

The presence of indispensable research facilities and research personnel with indigenous knowledge backgrounds offer CSET a rare opportunity to develop a

regional or national research centre for indigenous knowledge systems research related to ecotoxicology. With these considerations in mind and prompted by the increased need to approach research problems through teamwork, team leaders have decided to consolidate research activities to upgrade this niche area into a centre of research excellence.

The Centre of Ecotoxicology Research, as it will be known, will focus mainly on postgraduate student training and staff development in research to address the country's science and technology needs.

The envisioned centre of excellence, which will be housed in the Department of Chemistry, will also build upon the existing academic strengths and research competencies of the current active members of this niche area. The team believes that through a well coordinated multi-disciplinary programme, members will be able to increase research outputs in the form of publications and quality postgraduates; participate in focused inter-institutional collaborative projects and community-based programmes and broaden the relevance of programmes and Unisa to societies.

The vision for this research niche area is to conduct world-class investigator-led research with a global impact, focusing on areas aligned with the long-term strategic interests of the university.



Researcher development



RESEARCH TRAINING

The Research Directorate has, over the years, established an adequate platform for young and aspiring researchers such as master's and doctoral students, including staff members, to be trained in almost all aspects of research.

In alignment and discussion with national research policy directives and in pursuance of the goal of compliance with international research best practices and bench-marks, the Research Directorate endeavors to develop, facilitate, manage and monitor quality research structures, policies and processes. Such structures and processes support, nurture and increase research capacity and quality.

In light of these structures and policies, the Research Directorate has organised and facilitated a host of research training workshops throughout 2009. These workshops are done in collaboration with the five colleges. Such well coordinated research training workshops are aligned with Unisa's Institutional Operation Plan (IOP) which seeks to establish a culture of scholarship and enhance research activities in line with the institutional identity.

Research skills training in 2009 covered more than 20 topics vital to conducting research. Some of the topics included writing for publishing, academic writing, questionnaire design, qualitative and quantitative proposals, ODL research, transdisciplinary research, using the web as a research tool and literature review. The workshops were presented by a variety of researchers with impeccable research skills and publication records.

In 2009, the number of participants attending workshops was 1 069. The majority (58%) were African, with the other race groups (Indian, white and coloured) accounting for 41.9% of the participants. Only 0.1% of the participants were Chinese. Of the participants, 83% were female with males accounting for 17%. A large proportion of the participants was between the ages of 31 and 40 years.

Despite a few challenges, such as the lack of video conferencing facilities in the Ethiopia region, the research training and capacity development workshops were well received. It is upon this background that the quality of future workshops will be improved.

SUPPORT FOR YOUNG, AFRICAN AND WOMEN RESEARCHERS

Unisa's Research Directorate has a number of initiatives which target the development of young, African and women researchers at the university. These include the NRF Thuthuka programme and the Master's and Doctoral Support Programme (MDSP).

The broad aims of these programmes are not only to address the issues of inequality which still persist in the educational systems, but to also provide the opportunities and support for these researchers to become proven researchers, who constantly enhance their teaching and professional practices at Unisa.

NRF Thuthuka programme

The Thuthuka programme, which falls within the Institutional Capacity Development Directorate of the National Research Foundation (NRF), funds young researchers under the age of 45 within the following sub-programmes:

- Researchers in Training (RiT)
- Women-in-Research (WiR)
- Research Development Initiative for Black Academics (REDIBA).

This partnership initiative between the NRF and Unisa is specifically aimed at addressing equity in research development, by targeting African and women researchers below the age of 45. To achieve this goal it utilises a funding formula where Unisa matches every cent the NRF awards. The Thuthuka programme was launched at Unisa in 2001 with just one grantholder. By 2009 a group of around 180 researchers in various disciplines have benefited directly from participating in this programme.



Research skills training in 2009 covered more than 20 topics vital to conducting research.

2009 NRF Thuthuka grantees

Women-in-Research (WiR)

| Grantholder | Race | College |
|-----------------|------|---------|
| Prof I Esser | W | CLAW |
| Dr MD Jankowitz | W | CSET |
| Dr J Kriek | W | CSET |
| Dr P Lenka Bula | B | CHS |
| Dr ME Makoe | B | CHS |
| Dr VC Milton | B | CHS |
| Dr M Naidoo | B | CHS |
| Dr TN Phasha | B | CHS |

Researchers in Training (RiT)

| Grantholder | Race | College |
|----------------------|------|---------|
| Mr HS Clayton | B | CSET |
| Dr PN Kayoka | B | CAES |
| Prof ME Manamela | B | CLAW |
| Ms K Mcguirk | W | CHS |
| Mr KF Mearns | W | CAES |
| Mr MA Nyila | B | CAES |
| Mr KG Phago | B | CEMS |
| Ms VPP Seemela | B | CEMS |
| Mr AE Tshibalo | B | CAES |
| Ms LC Van Jaarsveldt | W | CEMS |

CAES (College of Agriculture and Environmental Sciences)
 CEMS (College of Economic and Management Sciences)
 CHS (College of Human Sciences)
 CLAW (College of Law)
 CSET (College of Science, Engineering and Technology)

Research Development Initiative for Black Academics (REDIBA)

The grant was awarded to Prof ML Lekala (CAES).

NRF Institutional Research Development Programme (IRDP)

The Ecotoxicology niche area within the Chemistry Department is grantees of the NRF Institutional Research Development Programme and include the following members:

Prof HI Atagana
 Prof OR Awofolu
 Dr S Dube
 Prof MJ Mphahlele
 Prof F Tafesse

Master's and Doctoral Support Programme (MDSP)

In order to address the problem of up to 50% of staff members being without doctoral degrees, the Research Directorate initiated the Master's and Doctoral Support Programme in 2008. The MDSP is aimed at providing targeted support to staff members from the designated groups – Africans, women and the disabled – who are eligible or already enrolled for master's or doctoral degrees. MDSP has been specifically designed to complement and emulate the Thuthuka programme by giving support to staff members eligible or already enrolled for postgraduate studies, who, for technical reasons, such as citizenship and age, cannot participate in the NRF Thuthuka programme.

The nature and extent of the support of the MDSP seeks to enhance forms of support already available to staff within the existing university research support systems and programmes. This programme also caters for Unisa researchers enrolled for postgraduate studies with other institutions. The MDSP initiative is also in line with the Comprehensive Research Development Plan for developing research capacity. The overall aim of the programme is to increase the pool of staff with postgraduate degrees and in that way to increase the pool of capable researchers at Unisa.



In 2009, 21 women joined the growing MDSP cohort. In the past two years the programme has grown phenomenally and by the end of 2009, there was a total of 80 grantholders. Linked to this financial assistance, staff members, especially those who are completing grant applications for the first time, have benefitted from the in-house pre-application workshops and individual consultations.

In 2009, the research directorate also initiated the MDSP PLUS programme. This programme targeted those staff members ineligible to apply for the normal MDSP, but eligible for Thuthuka. The MDSP PLUS was closely modeled on the Thuthuka framework. Twenty-two researchers, of which 11 were women, received funding to support their doctoral studies in 2009.

2009 MDSP GRANTHOLDERS

| Grantholder | College | Race | Gender | Level |
|-------------------|---------|------|--------|-------|
| RA Aregbeshola | CEMS | B | M | PhD |
| E Munapo | CEMS | B | M | PhD |
| LAT Leshoro | CEMS | B | F | PhD |
| AK Fitschen | CEMS | W | F | PhD |
| SG Mazibuko | CEMS | B | M | PhD |
| MW Ladzani | CEMS | B | M | PhD |
| S Mukeru | CEMS | B | M | PhD |
| TS Rametsi | CEMS | B | M | PhD |
| PH Nkuna | CHS | B | M | PhD |
| NC Lesame | CHS | B | M | PhD |
| TA Mapotse | CHS | B | M | PhD |
| L Swart | CHS | W | F | PhD |
| CG Thomas | CHS | C | M | PhD |
| MD Mokonoto | CHS | B | F | PhD |
| ND Ndou | CHS | B | F | PhD |
| S Semugabi | CSET | B | M | PhD |
| JW Oguttu | CAES | B | M | PhD |
| AZS Ntuli | IODL | B | F | PhD |
| WN Molefe | PARC | B | F | MA |
| L Janakk | PARC | W | F | MA |
| LB Rantlha | PARC | B | F | MA |
| AJ Humphreys | PARC | W | F | MA |
| KE Maduna | PARC | B | F | MA |
| IP Mahasoa | PARC | B | F | MA |
| N Conradie | CEMS | W | F | MA |
| MS Radebe | CEMS | B | F | MA |
| W Dlamini | CEMS | B | F | MA |
| VP Soke | CEMS | B | M | MA |
| A Moshoeu | CEMS | B | F | MA |
| JC Vermeulen | CEMS | W | M | MA |
| SN Hagen | CHS | W | M | MA |
| L Naidoo | CHS | I | F | MA |
| S Moola | CHS | I | F | MA |
| LH Koenig-Visagie | CHS | W | F | MA |
| TP Ntuli | CHS | B | F | MA |
| BJ Kanyama | CSET | B | M | MA |
| N Hlongwane | CLAW | B | F | LLB |

2009 MDSP PLUS GRANTHOLDERS

| Name | Gender | Race | College |
|-----------------|--------|------|---------|
| HL Sithole | M | B | PARC |
| M Khorombi | M | B | PARC |
| MM Mokgele | F | B | PARC |
| ZL Jansen | F | B | CHS |
| W Strauss | M | W | CHS |
| L Molepo | M | B | CHS |
| Y Li | F | B | CHS |
| B Karam | F | W | CHS |
| MZ Ramorola | F | B | CHS |
| J Lubbe | F | W | CHS |
| S Ndlangamandla | M | B | CHS |
| W Strauss | M | W | CHS |
| J Van Wyk | F | W | CHS |
| TE Manamela | M | B | CLAW |
| S Nkosi | F | B | CLAW |
| M Mthembu | F | B | CLAW |
| W Jacobs | F | W | CLAW |
| NS Radipere | M | B | CEMS |
| PL Mkhize | M | B | CSET |
| M Aphane | M | B | CSET |
| M Tibane | F | B | CSET |
| S Singh | M | B | CSET |

The overall aim of the programme is to increase the pool of staff with postgraduate degrees and in that way to increase the pool of capable researchers at Unisa.

NRF grantholder-linked student bursaries

In 2009, 42 grantholder-linked bursaries were awarded and the overwhelming majority of awarded students were postgraduates, with 24 master's and 10 doctoral students benefiting, and 18 undergraduates who were completing their final year of studies.

| Student | Grantholder | Level |
|----------------------|----------------------------|---|
| KO Egbeiyon | Prof OR Awofolu | Doctoral |
| SJM Kaheru | Prof J Kriek | Doctoral |
| RL Makhubu | AK Wallmach | Doctoral |
| H Marx | Dr VC Milton | Doctoral |
| DF Masita | Prof ML Lekala | Doctoral |
| TA Matamela | University of South Africa | Doctoral |
| FL Nkopane | Prof J Kriek | Doctoral |
| MO Osoba | University of South Africa | Doctoral |
| JE Wehrmeyer | AK Wallmach | Doctoral |
| S Zelezeck Nguimatsa | Dr CAO Hoppers | Doctoral |
| S Abdalla | Dr CAO Hoppers | Masters |
| RO Anyasi | Prof HI Atagana | Masters |
| RD Bailey | AK Wallmach | Masters |
| ND Baloyi | Prof OR Awofolu | Masters |
| T Bigwood | KF Mearns | Masters |
| M P Bosman | M Naidoo | Masters |
| TN Buntu | Dr CAO Hoppers | Masters |
| D Englebrecht | KF Mearns | Masters |
| DT Lesejane | University of South Africa | Masters |
| M Masemula | University of South Africa | Masters |
| MR Mhlongo | Prof J Kriek | Masters – By coursework |
| IA Mohammed | Prof OR Awofolu | Masters |
| TE Mongadi | Dr F Tafesse | Masters |
| MH Mothotoana | KG Phago | Masters – By Coursework |
| MTN Motsei | Dr CAO Hoppers | Masters |
| M Mpelane | Dr F Tafesse | Masters |
| LA Mudau | MC Tshilongamulenzhe | Masters |
| J Mutemba | Dr GL James | Masters |
| M Paulo | Dr GL James | Masters |
| B Ryan | AK Wallmach | Masters |
| OB Swift | AK Wallmach | Masters |
| P van der Merwe | Prof SE Bosch | Masters |
| PJ van der Walt | NT Bishop | Masters |
| C van Lingen | Dr VC Milton | Masters |
| A Chetty | AK Wallmach | Final Year Undergraduate diploma/degree |
| Z Kia Kia | AK Wallmach | Final Year Undergraduate diploma/degree |
| SS Kulu | AK Wallmach | Final Year Undergraduate diploma/degree |
| KM Langa | AK Wallmach | Final Year Undergraduate diploma/degree |
| B Machebele | AK Wallmach | Final Year Undergraduate diploma/degree |
| MJ Mbanjwa | AK Wallmach | Final Year Undergraduate diploma/degree |
| ZM Mnikathi | AK Wallmach | Final Year Undergraduate diploma/degree |
| P Pillay | AK Wallmach | Final Year Undergraduate diploma/degree |

UNISA WOMEN-IN-RESEARCH INITIATIVE (UWIRI)

The Unisa Women-in-Research Initiative aims at increasing and strengthening the participation of women in research at Unisa and forms part of a larger initiative for the support and showcasing of women in research at Unisa. It is a sub-programme of the Master's and Doctoral Support Programme (MDSP) which is aimed at providing targeted support to staff members who are eligible or already enrolled for master's or doctoral degrees.

The objectives of the UWIRI include:

- championing the needs of women in research at departmental and college level
- providing material, intellectual and psychological support for women staff members enrolled for post-graduate studies
- providing material, intellectual and psychological support and skills for women seeking to access research funding internally and externally
- inspiring women of all ranks, age and race to greater heights in research
- conducting periodic reviews and surveys of the state of women of different ranks, age and race in research at Unisa
- facilitating women mentoring other women in research
- facilitating men mentoring women in research
- showcasing women researchers and the research done by women
- identifying targeted and specialised research support for young and black women academics.

Unisa Women-in-Research Annual Lecture

Over the years the UWIRI has grown and developed, and now also includes the Women-in-Research Annual Lecture. The lecture series forms a critical component of generating a women-centred scholarly archive of pressing concerns that influence the development and advancement of women in higher educational institutions locally and globally.

Prof Catherine Odora Hoppers delivered the 2009 lecture entitled *Living with gender integration and mainstreaming: Challenges for transforming higher education institutions*. Centering on the gender vision of a society free from subordination and oppression, Prof Hoppers investigated both the visible and invisible gender dynamics operating in discourses and practices of power, ethics, the citizenry, governance, democracy, human right, policy and politics itself in our societies in her lecture. The Unisa Women-in-Research Awards were also awarded at the event.

Unisa Women-in-Research Awards

The Unisa Women-in-Research Awards form part of the UWIRI and are based on the work done by women researchers over the preceding two to three years. The awards honour and celebrate the achievements of women in their respective fields of research and are awarded annually in four categories.

Research Leadership

The Research Leadership award is awarded to researchers, who in the last five years have demonstrated their outstanding leadership in research in terms of the following:

- published widely
- contributed to the advancement of research within their respective fields
- participated in the development of scholars through mentorship
- provided supervision to a substantial number of postgraduate students
- received recognition and awards in their field as an achiever
- participated in community and/or industry engagement.

The following recipients were awarded R10 000 each:

- Dr Goonasagree Naidoo: Department of Public Administration (College of Economic and Management Sciences)
- Prof Susan Scott: Department of Private Law (College of Law)
- Prof Laurette Pretorius: School of Computing (College of Science, Engineering and Technology)
- Prof Madipoane Masenya: Department of Old Testament (College of Human Sciences)
- Prof Lilli Pretorius: Department of Linguistics (College of Human Sciences)
- Prof Sonja Bosch: Department of African Languages (College of Human Sciences)

Resilience in Research

The Resilience in Research award is awarded to researchers who in the last three years have succeeded in attaining a doctoral qualification in spite of difficult circumstances, highlighting the importance of the values of perseverance, commitment and singular dedication in the pursuit of one's academic goals.

The following recipients were awarded R5 000 each:

- Professor Michelle Kelly-Louw: Department of Mercantile Law (College of Law)
- Dr Genevieve James: Christian Spirituality, Church History and Missiology (College of Human Sciences)
- Dr Rakgadi Phatlane: English Studies (College of Human Sciences)
- Dr Lenka-Bula: Systematic Theology and Theological Ethics (College of Human Sciences)

First Publication

The First Publication award is awarded to researchers who have produced their first single authored article. The research must have been published during the preceding two years.

The following recipients were awarded R2 000 each:

- Ms Judith Geldenhuys: Department of Mercantile Law (College of Law)
- Ms Julie Reid: Department of Communication Science (College of Human Sciences)

Recognition of Young PhD Graduate

The Recognition of Young PhD Graduate award is awarded to the youngest staff member who has obtained her PhD during the preceding year.

The following recipient was awarded R5000:

- Prof Irene-Marie Esser: Department of Mercantile Law (College of Law)

PRINCIPAL'S PRIZE FOR RESEARCH

The prestigious Principal's Prize for Research is awarded every second year to researchers under the age of 35 years in each of the five colleges in recognition of research excellence. The objective of this award is to acknowledge young researchers and to encourage increased excellence in research activity.

Recipients of the award in 2009 were:

- Prof Elme Smith, College of Science, Engineering and Technology (School of Science)

- Prof Enrico Bruno Lombardi, College of Science, Engineering and Technology (School of Science)
- Prof Mari Jansen van Rensburg, College of Economics and Management Sciences
- Ms Liza Ceciel van Jaarsveldt, College of Economics and Management Sciences
- Dr Paul Potgieter, College of Economics and Management Sciences
- Prof Irene-Marie Esser, College of Law
- Dr Kerry Slater, College of Agriculture and Environmental Studies
- Dr Marie Rosalie Jorritsma, College of Human Sciences
- Dr Nkosinathi Ngcobo, College of Human Sciences

Pictured are the recipients of the Principal's Prize for Research. From the left are, back: Dr Nkosinathi Ngcobo, Dr Marie Rosalie Jorritsma and Dr Kerry Slater; front: Prof Mari Jansen van Rensburg, Ms Liza van Jaarsveldt, Prof Irene-Marie Esser and Prof Enrico Bruno Lombardi.



UWiRI award recipients: Prof Sonja Bosch, Dr Puleng Lenka Bula, Dr R Kagadi Phatlane, Prof Michelle Kelly-Louw, Dr Goonasagree Naidoo, Prof Irene-Marie Esser, Ms Judith Geldenhuys, Prof Lilli Pretorius, and Prof Madipoane Masenya



YOUNG ACADEMICS PROGRAMME (YAP)

The Young Academic Programme, a capacity-building initiative, coordinated by Prof Phumla Mtala and Prof Rosalie Finlayson, is aimed at creating a new generation of academics at Unisa, and developing a cohort of young, promising and talented academics for the future, both in terms of academic development as well as management development.

The programme provides the selected young academics with the knowledge and skills required to be top achievers and enables them to assume leadership roles within their academic departments, colleges, and, in turn, Unisa. The nature and intensity of the YAP is linked to the Unisa 2015 strategic plan, *Unisa 2015: An agenda for transformation*, as it acknowledges the need to build a visible critical mass of high quality academics at Unisa.

Subsequent to the success of the pilot group in 2008, a decision was made to run two groups in 2009, with 16 young academics participating in Group one of 2009, and 14 in Group two of 2009. The selection process for young academics is guided by a set of criteria, including age, which is set below 36 years; equity considerations, with preference given to academics from designated groups; and a doctoral qualification, or registration/intention to register for one. The applications for admission into the programme are evaluated by the Young Academics Advisory Board. The Research Directorate also forms a vital component of the YAP by orientating them on various issues such

as the funding for their postgraduate studies. Special workshops on topics such as writing for publishing and research proposals are also organised and the young academics are exposed to various institutes at Unisa, giving them an opportunity to present their research work to distinguished academics. They subsequently receive constructive criticism from the academics that help shape their research initiatives.

The highlights of the 2009 YAP year include:

- The impact the programme had on the morale of the young academics, as well as their loyalty to Unisa and their students.
- A paper was delivered at the National Association of Distance Education and Open Learning in South Africa (NADEOSA) Conference held on 18 August 2009. The paper was prepared by the group and delivered by three of the young academics .
- The two weeks Research Agenda, coordinated by the Research Directorate, ended with a session where each young academic presented to a panel of Unisa distinguished researchers proposals on their planned research. This included proposals for doctoral/master's studies or planned research projects. Panel members evaluated the presentations and suggested amendments to the proposals.
- Three young academics prepared and presented papers at an international conference less than a month after completing the programme, and have attributed this to the skills gained from the programme.
- Positive feedback has been received from the executive deans on the outstanding performance by some of the young academics during recent interviews for senior lecturer positions.

Young Academics from Group one in 2009 from left are, back: Kabelo Maja, Rkgadi Phatlane, Princess Bembe, Elize Symington, Esther Joubert, Charnelle Van der Bijl, Natasja Holtzhausen, Boitumelo Senokoane, Dikeledi Mahlo, Nkosinathi Ngcobo, Ahmed Jazbhay, Tivana Tintswalo, Thompson Mabunda, Mulalo Mudau, Ednah Onyare and Julia Matetso; front: Prof Beatrice Mtala (Young Academic Coordinator), Prof Rosalie Finlayson (Young Academic Coordinator) and Dr Thandi Sidzumo-Mazibuko (Executive Director: Corporate Affairs).



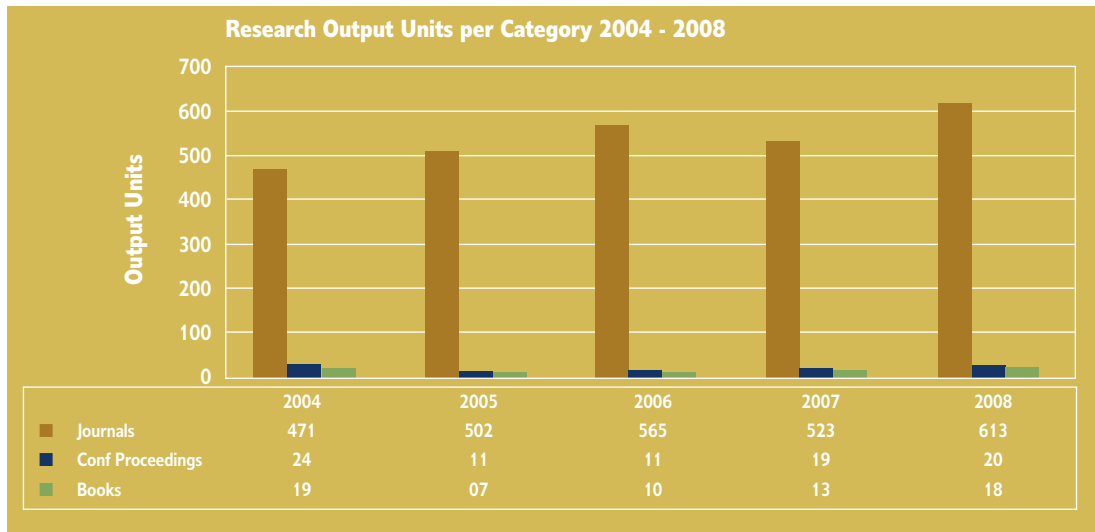
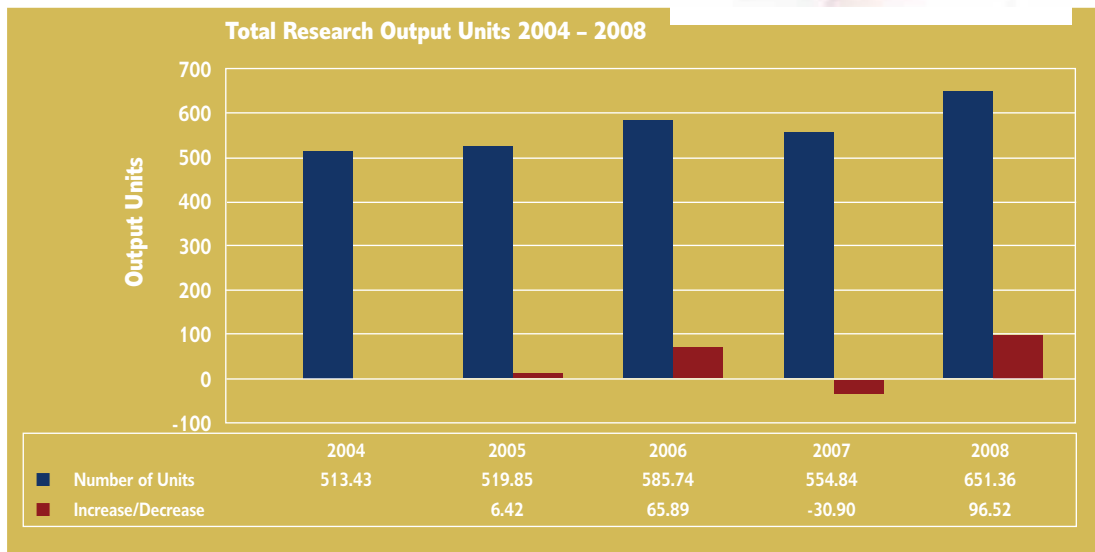
Research outputs

While research is about field and laboratory work, it ultimately is about outputs and products of the new knowledge generated. The published research findings and the completion of postgraduate degrees, especially the doctorate, remain the most important research outputs.

From the graphs below it is clear how, over the five-year period 2004 to 2008, Unisa research outputs have grown from 513 to 651 research output points. In the five-year period under review negative growth was recorded in 2007 only. All of the other years recorded growth of varying degrees. In the five-year period, an annual growth rate of not less than 20 research output units was registered. Unisa aims to keep on improving on this, especially with regards to conference proceedings and books. The university already has a suite of interventions designed to ensure much better returns over the next five-year period.



Unisa Research Output Publications 2004-2008



SELECTED PUBLICATIONS BY NRF RATED RESEARCHERS: 2008

Due to space considerations only selected publications by rated researchers for the year 2008 are listed below:

Author

Department

Title

Authors (internal)

Authors (external)

Journal name

Publication date | Volume | No. | Page

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES (CAES)

Olivier J

Environmental Sciences

Physical and chemical characteristics of thermal springs in the Waterberg area in Limpopo Province South Africa

Olivier J; Van Niekerk HJ

Van der Walt IJ

Water SA

2008 | Volume 34 | No. 2 | Pages 163-174

Olivier J

Environmental Sciences

The development path of rooibos tea - a review of patterns and lessons learnt from the commercialisation of other indigenous teas in South Africa

Rampedi IT;

Olivier J

International Journal of African Renaissance Studies

2008 | Volume 3 | No. 2 | Pages 5-20

COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES (CEMS)

Fouche WL

Decision Sciences

A universal programmable quantum computer?

Fouche WL; Heidema J; Jones EG;

Potgieter PH

South African Journal for Science and Technology

2008 | Volume 27 | No.3 | Pages 196-215

Fouche WL

Decision Sciences

Dynamics of a generic Brownian motion: Recursive aspects

Fouche WL

Theoretical Computer Science

2008 | Volume 394 | Pages 175-186

Fouche WL

Decision Sciences

Subrecursive complexity of identifying the Ramsey structure of posets

Fouche WL

Lecture Notes in Computer Science

2008 | Volume 5028 | Pages 196-205

Fouche WL

Decision Sciences

Universality and programmability of quantum computers

Fouche WL; Heidema J;

Jones EG; Potgieter PH

Theoretical Computer Science

2008 | Volume 403 | Pages 121-129

Cilliers FVN

Industrial and Organisational Psychology

Leadership styles and associated personality traits: support for the conceptualisation of transactional and transformational leadership

Van Eeden R; Cilliers FVN;

Van Deventer SH

South African Journal of Psychology
2008 | Volume 38 | No. 2 | Pages 253-267

Cilliers FVN

Industrial and Organisational Psychology

The integrated experiential executive coaching model: a qualitative exploration

Cilliers FVN

Chapman L

South African Journal of Labour Relations

2008 | Volume 32 | No. 1 | Pages 63-80

Coetzee M

Industrial and Organisational Psychology

A multi-cultural investigation of students' career anchors at a South African higher education institution

Coetzee M; Schreuder AMG

South African Journal of Labour Relations

2008 | Volume 32 | No. 2 | Pages 45-65

Coetzee M

Industrial and Organisational Psychology

Psychological career resources of working adults: a South African survey

Coetzee M

SA Journal of Industrial Psychology

2008 | Volume 34 | No. 2 | Pages 32-41

De Beer M

Industrial and Organisational Psychology

A conceptual framework of integrity

Barnard HA; De Beer M

Schurink W

SA Journal of Industrial Psychology

2008 | Volume 34 | No. 2 | Pages 40-49

De Beer M

Industrial and Organisational Psychology

Predicting work performance through selection interview ratings and psychology assessment

De Beer M; Visser D

Nzama L



SA Journal of Industrial Psychology
2008 | Volume 34 | No.2 | Pages 39-47

De Beer M

Industrial and Organisational Psychology
The relationship between learning potential, English language proficiency and work-related training test results
De Beer M; Visser D
Schoeman A

South African Journal of Labour Relations

2008 | Volume 32 | No. 1 | Pages 47-62

Martins N

Industrial and Organisational Psychology
Organisational justice and employee responses to employment equity
Martins N; Esterhuizen W

South African Journal of Labour Relations

2008 | Volume 32 | No. 2 | Pages 66-85

Wessels JS

Public Administration
Public Administration scholarship without condition: a South African perspective
Wessels JS

Journal of Public Administration
2008 | Volume 43 | No. 2.1 | Pages 276-290

Wessels JS

Public Administration
South African trends in master's and doctoral research in Public Administration
Wessels JS

Administratio Publica
2008 | Volume 15 | No. 2 | Pages 97-120

Wessels JS

Public Administration
Transforming the public service to

serve a diverse society: can representativeness be the most decisive criterion?

Wessels JS

Politeia

2008 | Volume 27 | No. 3 | Pages 21-36

GRADUATE SCHOOL OF BUSINESS LEADERSHIP

Nkomo SM

Graduate School of Business Leadership
Critique and international management: an uneasy relationship

Nkomo SM

Jack GA; Calas MB; Tuomo P

Academy of Management Review

2008 | Volume 33 | No. 4 | Pages 870-884

COLLEGE OF HUMAN SCIENCES

Bosch SE

African Languages

Containing overgeneration in Zulu computational morphology

Pretorius L; Bosch SE

Southern African Linguistics and Applied Language Studies

2008 | Volume 26 | No. 2 | Pages 209-216

Bosch SE

African Languages

Derivational relations in English, Czech and Zulu wordnets

Bosch SE

Fellbaum C; Pala K

LITERATOR

2008 | Volume 29 | No. 1 | Pages 139-162

Mafela MJ

African Languages

L.T. Marole: a forgotten pioneer in Tshivenda lexicography

Mafela MJ

Lexikos

2008 | Volume 18 | Pages 366-373

Coetser JL

Afrikaans and Theory of Literature
Gemeenskapstoneel deur Robert J Pearce: aspekte van bewussyn ('n eerste verkenning)

Coetser JL

South African Theatre Journal

2008 | Volume 22 | Pages 166-189

Coetser JL

Afrikaans and Theory of Literature
Reis as leesstrategie in Elbie Lotter se Dis Ek, Anna (2004)

Coetser JL

Mouaion

2008 | Volume 26 | No. 2 | Pages 225-240

Swanepoel PH

Afrikaans and Theory of Literature

Towards a framework for the description and evaluation of dictionary evaluation criteria

Swanepoel PH

Lexikos

2008 | Volume 18 | Pages 1-25

Visagie AG

Afrikaans and Theory of Literature

Die representasie van die bruin werker as die ander in Marlene van Niekerk se postkoloniale plaasroman Agaat (2004)

Visagie AG

Prinsloo L

Stilet: Tyskrif vir die Afrikaanse Letterkundevereniging

2007 | Volume XIX | No.2 | Pages 43-62

Kistner U

Classics & World Languages

(Auto)Biographie und (Auto)Thanatographie unter den Zeichen von HIV-AIDS



Kistner U

Jahrbuch fur Internationale Germanistik

2008 | Volume 84 | Pages 157-164

Kistner U

Classics & World Languages

(Mis)taken identities; Myths of origin in a South African Familieroman

Kistner U

Arcadia

2008 | Volume 43 | Pages 124-138

Kistner U

Classics & World Languages

Lineages of racism in genocidal contexts - lessons from Hannah Arendt in contemporary African genocide scholarship

Kistner U

Development Dialogue

2008 | Volume 50 | Pages 155-171

Kistner U

Classics & World Languages

The bold, the beautiful and the ugly: reflections occasioned by a beautiful book edited by Sarah Nuttall

Kistner U

South African Journal of Art History

2008 | Volume 23 | No. 2 | Pages 122-128

Fourie PJ

Communication Science

Ubuntuism as a framework for South African media practice and performance: can it work?

Fourie PJ

Communication: South African Journal for Communication Theory and Research

2008 | Volume 34 | No.1 | Pages 53-79

Ntshoe IM

Educational Studies

Steering the South African higher education sector towards transformation

Ntshoe IM

De Villiers Pierre

Perspectives in Education

2008 | Volume 26 | No. 4 | Pges 1-11

Ntshoe IM

Educational Studies

The changing academic profession in higher education and new managerialism and corporatism in South Africa

Ntshoe IM; Higgs LG; Higgs P

Wolhuter CC

South African Journal of Higher Education

2008 | Volume 22 | No. 2 | Pages 391-403

Motsa ZT

English Studies

Music and dramatic performance in Wole Soyinka's plays

Motsa ZT

Muziki (Formerly known as ARS NOVA-UNISA Musicologica)

2007 | Volume 4| No. 2 | Pages 178-189

Jita LC

Further Teacher Education

Capacity for (quality) instruction: a framework for understanding the use of resources to promote teaching and learning in schools

Jita LC

Mokhele ML

Africa Education Review

2008 | Volume 5 | No. 2 | Pages 253-273

Lemmer EM

Further Teacher Education

A comparative assessment of L1 and L2 reading performance among Grade 7 learners in English and Xitsonga

Manyike TV; Lemmer EM

Per Linguam: A Journal of language Learning

2008 | Volume 24 | No. 2 | Pages 65-78

Lemmer EM

Further Teacher Education

The experience of and need for training of school governors in rural schools in South Africa

Van Wyk JN; Lemmer EM

Tsetetsi S

South African Journal of Education

2008 | Volume 28 | No. 3 | Pages 385-400

Lemmer EM

Further Teacher Education

The role of the principal in whole school evaluation

Lemmer EM;

Van Wyk JN; Mazibuko SP

Journal of Educational Studies

2008 | Volume 7 | No. 1 | Pages 18-29

Steyn GM

Further Teacher Education

Continuing professional development for teachers in South Africa and social learning systems: conflicting conceptual framework of learning

Steyn GM

Koers: Bulletin for Christian Scholarship

2008 | Volume 73 | No. 1 | Pages 15-31

Steyn GM

Further Teacher Education

The influence of school leadership preparation programmes: identification of possible focus areas

Steyn GM

South African Journal of Higher Education

2008 | Volume 22 | No. 4 | Pages 887-902

Steyn GM

Further Teacher Education

Towards leadership for school effectiveness: the impact of a preparation programme in education management on practice

Steyn GM; Mays T

Journal of Educational Studies

2008 | Volume 7 | No. 1 | Pages 48-72

Ehlers VJ

Health Studies

Critical care nurses' perceptions of stress and stress related situations in the workplace

Moola S; Ehlers VJ; Hattingh SP

Curationis

2008

Volume 31| No. 2 | Pages 74-86

Ehlers VJ

Health Studies

Experiences of a community-based tuberculosis treatment programme in Namibia: a comparative cohort study

Zvavamwe SC; Ehlers VJ

International Journal of Nursing Studies

2008 | Volume 45 |No. 11 | Pages 2-10

Ehlers VJ

Health Studies

Factors contributing to low institutional deliveries in the Marondera District of Zimbabwe

Ehlers VJ; Roos JH; Mugweni E

Curationis

2008 | Volume 32 |No. 2 | Pages 5-13

Ehlers VJ

Health Studies

Factors influencing nurses' job satisfaction in selected private hospitals in England

Lephalala RP; Ehlers VJ; Oosthuizen MJ

Curationis

2008 | Volume 31| No. 3 | Pages 60-69

Ehlers VJ

Health Studies

Factors motivating young people in Malawi to go for voluntary counselling and testing

Mphaya JC; Roos JH; Ehlers VJ

Africa Journal of Nursing and Midwifery

2008 | Volume 10 | No. 2 | Pages 59-77

Ehlers VJ

Health Studies

Implementing a community-based tuberculosis programme in the Omaheke region of Namibia: nurses' perceived challenges

Zvavamwe SC; Ehlers VJ

Health SA Gesondheid

2008 | Volume 13 | No. 3 | Pages 54-68

Ehlers VJ

Health Studies

Implementing a triage system in an emergency unit: a literature review

Augustyn JE; Hattingh SP; Ehlers VJ

Africa Journal of Nursing and Midwifery

2007 | Volume 9 | No. 2 | Pages 12-33

Ehlers VJ

Health Studies

Mothers' attitudes towards using services preventing mother-to-child HIV/AIDS transmission in Zimbabwe: an interview survey

Ehlers VJ; Roos JH

Chivonivoni C

International Journal of Nursing Studies

2008 | Volume 45 | No. 11 | Pages 1618-1624

Ehlers VJ

Health Studies

South African nurses' reasons for working in foreign countries: an e-mail semi-structured questionnaire survey

Oosthuizen MJ; Ehlers VJ

Africa Journal of Nursing and Midwifery

2008 | Volume 10 | No. 2 | Pages 21-36

Ehlers VJ

Health Studies

The impact of a buddy system on the self-care behaviours of women living with HIV/AIDS in Botswana

Ehlers VJ; Van der Wal DM

Zuyderduin JR

Health SA Gesondheid

2008 | Volume 13 | No. 4 | Pages 4-15

Carruthers EJ

History

Scientists in society: the Royal Society of South Africa

Carruthers EJ

Transactions of the Royal Society of South Africa

2008 | Volume 63 | No. 1 | Pages 1-30

Carruthers EJ

History

Wilding the farm or farming the wild? The evolution of scientific game ranching in South Africa from the 1960s to the present

Carruthers EJ

Transactions of the Royal Society of South Africa

2008 | Volume 63 | No. 2 | Pages 160-181

Viljoen RS

History

Alcohol and art: Charles Davidson Bell and his caricatured images of colonial Khoikhoi in early 19th century South Africa

Viljoen RS

South African Journal of Art History

2008 | Volume 23 | No. 1 | Pages 190-202

Viljoen RS

History

Inter se nulli fines: representations of the presence of the Khoikhoi in early colonial maps of the Cape Good Hope

Viljoen RS

Glatigny D; Mare E

South African Journal of Art History

2008 | Volume 23 | No. 1 | Pages 301-318

Ngulube P

Information Science

Influence of the World Wide Web on the citation patterns of Master of Information Studies students at the University of Natal during the period 1996 to 2002

Ngulube P

Thompson ECG

South African Journal of Libraries and Information Science

2008 | Volume 74 | No. 2 | Pages 160-170

Pretorius EJ

Linguistics

Looking into the seeds of time: developing academic literacy in high poverty schools

Pretorius EJ

Ensovoort

2007 | Volume 11 | No. 2 | Pages 105-125

Pretorius EJ

Linguistics

Relationships between mathematics and literacy: exploring some underlying factors

Pretorius EJ

Bohlmann C

Pythagoras

2008 | Volume 67 | Pages 42-55

Pretorius EJ

Linguistics

The impact of storybook reading on emergent literacy: evidence from poor rural areas in KwaZulu-Natal, South Africa

Pretorius EJ; Machet MP

Mousaion

2008 | Volume 25 | No. 2 | Pages 261-289

Craffert PF

New Testament

Anthropological-historical Jesus research - reflections from the inside

Craffert PF

Theologia Viatorum: Journal of Theology and Religion in Africa

2008 | Volume 32 | No.2 | Pages 219-273

Craffert PF

New Testament

Did Jesus rise bodily from the dead? Yes and No!

Craffert PF

Religion & Theology: A Journal of Contemporary Religious Discourse

2008 | Volume 15 | No.1&2 | Pages 133-153

Kretzschmar L

Philosophy & Systematic Theology

Being and becoming fully human in an HIV-positive world: HIV/AIDS and feminist Christian spirituality

Kretzschmar L; Snyman D

Acta Theologica

2008 | Volume 11 | Suppl Pages 198-219

Kretzschmar L

Philosophy & Systematic Theology

Christian spirituality in dialogue with secular and African spiritualities with reference to moral formation and agency

Kretzschmar L

Theologia Viatorum: Journal of Theology and Religion in Africa

2008 | Volume 32 | No. 1 | Pages 63-96

Fourie DP

Psychology

Intransigent or 'sticky' symptoms: hypnotherapy and the deconstruction of ambivalence

Fourie DP

South African Journal of Psychology

2008 | Volume 38 | No. 2 | Pages 447-453

Van Dyk AC

Psychology

Perspectives of South African school children on HIV/AIDS and the implications for education programmes

Van Dyk AC

African Journal of Aids Research (AJAR)

2008 | Volume 7 | No. 1 | Pages 79-94

Du Toit CW

Research Institute for Theology and Religion

Black consciousness as an expression of radical responsibility: Biko, an African Bonhoeffer

Du Toit CW

Religion & Theology: A Journal of Contemporary Religious Discourse

2008 | Volume 15 | Pages 28-52

Landman C

Research Institute for Theology and Religion

Farm ministries in the Hoedspruit area: past and present

Landman C

Studia Historiae Ecclesiasticae

2008 | Volume XXXIV | No. 2 | Pages 187-201

Landman C

Research Institute for Theology and Religion

HI/Stories of gender in/justice

Landman C

Studia Historiae Ecclesiasticae

2008 | Volume XXXIV | Suppl Pages 161-180

Landman C

Research Institute for Theology and Religion

The healing of intimate spaces through the deconstruction of religious discourses: constructing alternative stories of faith in the context of township spiritualities

Landman C; Theron JPJ

Practical Theology in South Africa

2008 | Volume 23 | No. 3 | Pages 201-218

Schenck CJ

Social Work

Conceptual research on the term facilitation: reducing an elephant to chewable chunks

Schenck CJ; Louw H

Social Work: A Professional Journal for the Social Worker

2008 | Volume 44 | No. 4 | Pages 369-380

Schenck CJ

Social Work

Day labourers in Pretoria, Windhoek and the United States - a comparison of two capitals and a different world

Schenck CJ

Blaauw PF

Acta Commercii

2008 | Volume 2008 | Pages 90-102

Ferreira R

Sociology

Operationalizing human security in South Africa

Ferreira R

Henk Dan

Armed Forces & Society

2008 | April | Pages 1-25

Ferreira R

Sociology

The application of human security in the South African military

Ferreira R

Africanus

2008 | Volume 38 | No. 1 | Pages 64-80

COLLEGE OF LAW

Naude BC

Criminal and Procedural Law

The admissibility of extra-curial statements by a non-testifying accused

Naude BC

Obiter

2008 | Volume 29 | No. 2 | Pages 247-259

Naude BC

Criminal and Procedural Law

The inclusion of inevitably discoverable evidence

Naude BC

South African Journal of Criminal Justice

2008 | Volume 21 | No. 2 | Pages 168-185

Terblanche SS

Criminal and Procedural Law

Die boete as straf in die Duitse reg

Terblanche SS

Stellenbosch Law Review

2008 | Volume 19 | No. 3 | Pages 347-373

Terblanche SS

Criminal and Procedural Law

Mandatory sentences in South Africa: lessons for Australia?

Terblanche SS

Mackenzie Geraldine

Australian and New Zealand Journal of Criminology

2008 | Volume 41 | No. 3 | Pages 402-420

Vd Merwe DP

Criminal and Procedural Law

Knowledge is the key to riches - is the law (or anything else) protecting it adequately?

Van der Merwe DP

Potchefstroomse Elektroniese Regsblad/ Potchefstroom Electronic Law Journal

2008 | Volume 4 | Pages 1-29

Ladikos A

Criminology & Security Science

Die ontwikkeling van 'n misdaad-voorkomingsmodel binne 'n kommersiele produksiegebied

Ladikos A; Kruger JFE

Tydskrif vir Geesteswetenskappe

2008 | Volume 48 | No. 4 | Pages 439-453

Ladikos A

Criminology & Security Science

One more time: Plato's conception of the immortality of the soul

Ladikos A

Phronimon: Journal of the South African Society for Greek Philosophy

and the Humanities

2008 | Volume 9 | No. 2 | Pages 93-109

Neser JJ

Criminology & Security Science

Can private security stand up to the challenges of crime and crime prevention in South Africa? A contemporary perspective

Neser JJ

Potgieter PJ; Ras JM

Acta Criminologica

2008 | Volume 21 | No. 1 | Pages 33-43

Neser JJ

Criminology & Security Science

Cowboys and Crooks? Perceptions of the Scorpions as a specialised investigative unit

Neser JJ

Potgieter PJ; Ras JM; Rugbeer H; Moyo CT

Acta Criminologica

2008 | Volume 21 | No. 2 | Pages 92-108

Prinsloo JH

Criminology & Security Science

A leadership approach to criminal justice education: developing tomorrow's decision makers

Prinsloo JH

Criminal Justice Studies

2008 | Volume 21 | No. | Pages 61-77

Prinsloo JH

Criminology & Security Science

Actuarial based offender assessment: an evaluation of the reliability of the self-appraisal questionnaire: (SAQ)

Prinsloo JH

Acta Criminologica

2008 | Volume 21 | No. 1 | Pages 1-10

Prinsloo JH

Criminology & Security Science

The criminological significance of peer victimisation in public schools in South Africa

Prinsloo JH

Child abuse research in South Africa

2008 | Volume 9 | No. 1 | Pages 27-36

Prinsloo JH

Criminology & Security Science

The potential of spatial technology and multi-land use classes as a crime management strategy

Prinsloo JH; Eloff C

Acta Criminologica

2008 | Volume 21 | No. 3 | Pages 65-90

Schulze HCAW

Institute for Foreign and Comparative Law

Conflict of Laws - 2006

Schulze HCAW

Annual Survey of South African Law

2008 | Pages 851-855

Schulze HCAW

Institute for Foreign and Comparative Law

Conflict of Laws - 2007

Schulze HCAW

Annual Survey of South African Law

2008 | 2007 | Pages 205-210

Schulze HCAW

Institute for Foreign and Comparative Law

International jurisdiction in claims sounding in money: is Richman v Ben-Tovim the last word?

Schulze HCAW

SA Mercantile Law

2008 | Volume 20 | No. 1 | Pages 61-73

Van den Bergh H

Jurisprudence

Divergences within the ius commune (2)

Van den Bergh H

Du Plessis P

Journal of Contemporary Roman Dutch Law

2008 | Volume 71 | No. 1 | Pages 110-118

Van den Bergh H

Jurisprudence

Perfecta emptioe periculum est emptoris: why all the fuss?

Van den Bergh H

Journal of South African Law

2008 | No. 4 | Pages 623-644

Van Niekerk GJ

Jurisprudence

Harmonisation of indigenous laws in Southern Africa

Van Niekerk GJ

Fundamina: A Journal of Legal History

2008

Volume 14 | No. 2 | Pages 155-167

Van Niekerk GJ

Jurisprudence

The challenge of legal pluralism

Van Niekerk GJ

SA Public Law

2008 | Volume 23 | No. 1 | Pages 208-221

Dekker AH

Mercantile Law

Mind the gap: suggestions for bridging the divide between formal and informal social security

Dekker AH

Law Democracy and Development

2008 | Volume 12 | No. 1 | Pages 117-131

Havenga MK

Mercantile Law

Shareholder participation in Corporate Governance

Esser I; Havenga MK

Speculum Juris

2008 | Volume 22 | No. 1 | Pages 74-94

Kelbrick RA

Mercantile Law

Ambush marketing and the protection of the trademarks of international sports organisations - a comparative view

Kelbrick RA

Comparative and International Law Journal of Southern Africa

2008 | Volume XLI | No. 1 | Pages 24-48

Kelbrick RA

Mercantile Law

Intellectual Property Law

Kelbrick RA; Geyer S

Annual Survey of South African Law

2007 | 2007 | Pages 246-260

Kelly-Louw M

Mercantile Law

Collection of an arrear advance made under the repealed Land Bank Act

Kelly-Louw M

Speculum Juris

2008 | Volume 22 | No. 1 | Pages 58-73

Kelly-Louw M

Mercantile Law

The prevention and alleviation of consumer over-indebtedness

Kelly-Louw M

SA Mercantile Law

2008 | Volume 20 | No. 2 | Pages 220-226

Pistorius T

Mercantile Law

The impact of Intellectual Property Law and Policy on sustainable development

Pistorius T

South African Yearbook of International Law

2008 | Volume 32 | Pages 374-395

Pretorius JT

Mercantile Law

Constantaras v BCE Foodservice Equipment (Pty) Ltd 2007 6 SA 338 (SCA)

Pretorius JT

Nagel CJ

De Jure

2008 | Volume 41 | No. 2 | Pages 469-472

Pretorius JT

Mercantile Law

Law of Negotiable Instruments

Pretorius JT

Annual Survey of South African Law

2007 | 2007 | Pages 876-884

Pretorius JT

Mercantile Law

Miscellaneous Contracts (agency, carriage, deposit, donation, loan, partnership, service and suretyship) - 2007

Pretorius JT

Andanda P

Annual Survey of South African Law

2007 | 2007 | Pages 1142-1163

Pretorius JT

Mercantile Law

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Contemporary corrections in South Africa after more than a decade of transformation

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Imprisoned mothers in South African prisons with children outside of the institution

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South African correctional centres and the need to rethink approaches to HIV/AIDS

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Goodbye arrest ad fundandam. Hello forum non conveniens?

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Die volgorde waarin die delikselemente onregmatigheid en skuld bepaal moet word

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The constitutional impact on the burden of proof in restraint of trade covenants - a need for exercising restraint

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Private Law

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Private Law

Aanspreeklikheid van ouers vir skade veroorsaak deur hul minderjarige kinders?

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Democracy and elections in Africa in the Democratic Republic of Congo: lessons for Africa

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Public, Constitutional and International Law

Law religions and human rights in the Democratic Republic of Congo

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African Human Rights Law Journal

2008 | Volume 8 | No. 2 | Pages 1-19

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Public, Constitutional and International Law

State reconstruction, leadership legitimacy and democratic governance in Africa

Mangu AMB

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Public, Constitutional and International Law

The African peer-review mechanism and the promotion of democracy and good political governance in Africa

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The impact of firearms' controls on the South African private security industry

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Security Risk Management

You've received a greeting e-card from: the changing face of cybercrime e-mail spam scams

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SCHOOL FOR GRADUATE STUDIES

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The changing academic profession in higher education and new managerialism and corporatism in South Africa

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Mphahlele MJ

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2-Aryl-4-azido-3-(bromo/iodo)quinolines as substrates for the synthesis of primary 4-Amino-2 3-disubstituted quinoline derivatives

Mphahlele MJ; Mtshemla V

Journal of Heterocyclic Chemistry

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Chemistry

2-Aryl-4-chloro-3-iodoquinolines as substrates for the synthesis of 2 3-diaryl-4-methoxyquinolines

Mphahlele MJ; Mtshemla V

Journal of Chemical Research-S

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Mphahlele MJ

Chemistry

Synthesis and chemical transformation of 2-iodomethyl-1-(phenylmethyl)-1 5 6 7-tetrahydriindol-4-ones

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Synthesis and reactivity in inorganic metal-organic and nano-metal chemistry

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Nitric oxide assisted hydrolysis of nitrophenylphosphate

Tafesse F; Enemchukwa M

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Mathematical Sciences

A beurling theorem for noncommutative L^p

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Mathematical Sciences

Applications of the Fuglede-Kadison determinant: Szego's theorem and outers for noncommutative H^p

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Mathematical Sciences

On convergence completeness in symmetric spaces

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Design of semiconductor heterostructures via inverse quantum scattering

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Action research: the participative researcher or experiential approach

De Villiers MR; Lubbe SI

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Alternation: International Journal for the Study of Southern African Literature and Languages



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De Villiers MR

School of Computing

Iterative design and evaluation of an e-learning tutorial: a research-based approach

Becker D; De Villiers MR

South African Computer Journal
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School of Computing

Knowledge skills and strategies for successful object-oriented programming: a proposed learning repertoire

De Villiers MR

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South African Computer Journal
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Containing overgeneration in Zulu computational morphology

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Towards a computational morphological analysis of Setswana compounds

Pretorius L; Viljoen E

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Information security management: an information security retrieval and awareness model for industry

Kritzinger E; Smith E

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Using language as a transparent resource in the teaching and learning of mathematics in a grade 11 multilingual classroom

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VICE-PRINCIPAL: ACADEMIC & RESEARCH

Kotze AE

Academic Planning

Making sense of irregular realisations on the past tense suffix in Northern Sotho: the phonology-morphology interface

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On the trigger of palatalization in the Sotho languages

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LIST OF DOCTORAL GRADUATES FOR 2009



| Qualification | Subject | Student | Dissertation | Promoter |
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|---------------|---------|---------|--------------|----------|

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES (CAES)

| | | | | |
|------------|-----------|------------|--|----------------|
| PhD (CAES) | Geography | Youthed JG | Assessing and managing the potential for compliance default of applications submitted in terms of South Africa's environmental impact assessment regulations | Mrs S Zietsman |
|------------|-----------|------------|--|----------------|

COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES (CEMS)

| | | | | |
|--------|-----------------------|-------------|---|--------------------|
| DAdmin | Public Administration | Babooa SK | Public participation in the making and implementation of policy in Mauritius with reference to Port Louis' local government | Prof JM Mafunisa |
| DBL | | Coetzee J J | A social contract with business as the basis for a postmodern MBA in a world order of inclusive globalization: A critical metasyntesis | Prof HS Kriek |
| DBL | | Dlamini KC | The gender dividend: Enhancing the economic empowerment of women by recognising the role men play in the entrepreneurial success of women | Prof AE Booysen |
| DBL | | Naude JA | A framework for reporting sustainability performance to major stakeholder groups | Prof V Makin |
| DBL | | Ndlovu M | Developing an appropriate model for regional cooperation in developing countries - the case of SADC | Prof PMD Rwelamila |
| DBL | | Sebuyira G | The impact of culture on preferred leadership attributes: a Ugandan perspective | Prof AE Booysen |



| Qualification | Subject | Student | Dissertation | Promoter |
|---------------------|--|-------------------------|--|--------------------|
| DBL | | Ssegawa-Kaggwa J | Adequacy of project-based financial management systems of small and medium construction enterprises in Botswana | Prof PMD Rwelamila |
| DBL | | Viljoen RC | Sustainable organisational transformation through inclusivity | Prof AE Booysen |
| DCom | Business Management | Jansen van Rensburg MME | The evaluation of business relationships from the buyer's perspective: Antecedents to the consideration set for supplier replacement in the South African advertising industry | Prof JW Strydom |
| DCom | Business Management | Njanja WL | An investigation into management strategies affecting performance of micro, small and medium enterprises (msmes) in Kenya | Prof R Pellissier |
| DLitt et Phil (EMS) | Industrial and Organisational Psychology | Bezuidenhout A | Burnout, work engagement and sense of coherence in female academics at two tertiary education institutions in South Africa | Prof FVN Cilliers |
| DLitt et Phil (EMS) | Public Administration | Warioba LM | Management of conflict in city and municipal councils in Tanzania with specific reference to Iringa municipal council and Tanga city council | Prof FH Smith |

COLLEGE OF HUMAN SCIENCES (CHS)

| | | | | |
|-------|-------------------------|--------------|---|-----------------|
| DDiac | Play Therapy | Horn A | Regaining homeostasis: a Gestalt therapeutic process model for teachers suffering from career-related stress | |
| DDiac | Play Therapy | Verster B | 'n Gestaltterapeutiese intervensieplan wat gerig is op die kind met ATHV en sy steunstelsels | |
| DEd | Inclusive Education | Gous-Kemp CS | The creative use of music to support learning disabled learners in an inclusive classroom: A continuous professional learning programme in distance education | Prof AC Lessing |
| DEd | Comparative Education | Gutierrez HM | A comparative study of the higher education systems of Columbia, Mexico, Argentina and Brazil | Prof EM Lemmer |
| DEd | Psychology of Education | Karimi FK | Factors contributing to academic performance of students in a private university in Kenya | Prof EO Mashile |
| DEd | Psychology of Education | Kerr PP | A psycho-educational programme to enhance the efficacy of parents of adolescents | Prof S Schulze |



| Qualification | Subject | Student | Dissertation | Promoter |
|---------------|-------------------------|---------------|---|-------------------|
| DEd | Education Management | Mohiemang I.T | Effective schools and learners' achievement in Botswana secondary schools: An education management perspective | Prof SG Pretorius |
| DEd | Psychology of education | Moime WM | The effect of orphanhood on the psychosocial development of pre-primary and primary school learners | Prof MW de Witt |
| DEd | Comparative Education | Moore GL | Drama as an instructional tool to develop cultural competency among learners in multicultural secondary schools in South Africa | Prof EM Lemmer |
| DEd | Education Management | Rubaba E | Effective school management in Zimbabwean schools: Evaluation of the better school programme | Prof RJ Botha |
| DEd | Curriculum Studies | Sekgwelea SM | Dynamic approach in the application of information and communication technologies models in the provision of flexible learning for distance education | |
| DEd | Education Management | Singh R | The implementation of positive discipline for instructional improvement | Prof SG Pretorius |
| DEd | Psychology of Education | Thijse LJ | The neuropsychological profiles of learners with Asperger syndrome | Prof HE Roets |
| DEd | Psychology of Education | Thwala SK | The effects of orphanhood on the psychosocial development of orphans and vulnerable children in Swaziland | Prof MW de Witt |
| DEd | Education Management | Vlachos CJ | Developing and managing a vocational training and transition planning programme for intellectually disabled learners | Prof GM Steyn |
| DEd | Inclusive Education | Yilpet RR | A study of in-service teacher training to address specific learning difficulties in Nigerian primary schools | Prof AJ Hugo |
| DEd | Education Management | Zengele VT | The involvement of teacher unions in the implementation of the Employment of Educators' Act 76 of 1998 | Prof IA Coetzer |
| DLitt et Phil | Development Studies | Abdalla NB | The impact of the Sudanese general women's union savings and micro-finance/credit projects on poverty alleviation at the household level with special emphasis on women's vulnerability and empowerment | Prof L Cornwell |



| Qualification | Subject | Student | Dissertation | Promoter |
|---------------|------------------------|----------------|---|---------------------|
| DLitt et Phil | Religious Studies | Afridi MM | Naguib Mahfouz and modern Islamic identity | Prof GJA Lubbe |
| DLitt et Phil | Psychology | Alberts NW | Engaging with Charcot-Marie-tooth disease: A grounded theory approach | DR BC Von Krosigk |
| DLitt et Phil | Psychology | Bing E | Unmaking the torturer: Re-establishing meaning and identity after committing atrocities | Prof FJA Snyders |
| DLitt et Phil | Communication | Burger K | Businesses' social engagement, public relations and social development: a beyond modernist conceptual model | Prof R Barker |
| DLitt et Phil | Psychology | Fourie ME | Mergers in higher education: Towards a survival kit for conserving the self | Prof FJA Snyders |
| DLitt et Phil | Psychology | Fourie AS | Psychological empowerment: a South African perspective | DR R van Eeden |
| DLitt et Phil | International Politics | Gerberg I | The changing nature of Israeli-Indian relations: 1948-2005 | Prof GS Labuschagne |
| DLitt et Phil | Linguistics | Goodier CMM | Purpose and identity in professional and student radiology writing: a genre based approach | Prof EH Hubbard |
| DLitt et Phil | Art History | Grundy SA | The projected image and the introduction of individuality in Italian painting around 1270 | Prof BMR van Haute |
| DLitt et Phil | Consulting Psychology | Henning S | Towards a system psychodynamic model of psychological wellness | Prof FVN Cilliers |
| DLitt et Phil | Psychology | Liebenberg HB | The impact of early traumatic experiences on bariatric patients: A qualitative exploration of their "voices" | Prof M Papaikononou |
| DLitt et Phil | Sociology | Liebenberg JCR | Truth and reconciliation processes and civil-military relations: A qualitative exploration | |
| DLitt et Phil | African Languages | Magwa W | Planning for the future: Exploring possibilities of using indigenous African languages as languages of instruction in education - the Zimbabwean experience | Prof DE Mutasa |
| DLitt et Phil | African Languages | Makaudze G | Shona fiction and its treatment of socio-economic issues in Zimbabwe | Prof DE Mutasa |
| DLitt et Phil | African Languages | Makondo L | An investigation into the anthroponyms of the Shona society | Prof DE Mutasa |



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|---------------|-------------------|------------------|---|--------------------------|
| DLitt et Phil | Health Studies | Matshediso E | The facilitation of youth friendliness in a youth activity centre (YAC) in Botswana | Prof TR Mavundla |
| DLitt et Phil | African Languages | Mavesera M | Empowerment through language: Exploring possibilities of using African languages and literature to promote socio-cultural and economic development in Zimbabwe | Prof DE Mutasa |
| DLitt et Phil | Biblical Studies | Mcnamara DM | The rhetoric of honour and shame in 1 Corinthians 1-6 | Prof PJJ Botha |
| DLitt et Phil | Health Studies | Mkhonta NR | Guidelines for support of orphaned and vulnerable children being cared for by their grandparents in the informal settlements of Mbabane, Swaziland | Prof SM Mogotlane |
| DLitt et Phil | Health Studies | Moleki MM | Critical care nursing students' experience of clinical accompaniment in open distance learning (ODL): A phenomenological perspective | Prof TR Mavundla |
| DLitt et Phil | Health Studies | Mugisha E | Delivery and utilisation of voluntary HIV counselling and testing services among fishing communities in Uganda | Prof GH van Rensburg |
| DLitt et Phil | History | Murphy JB | The American colonization society and Liberia: An analysis of the rise and decline of a nineteenth-century program of social engineering and repatriation | Prof GC Cuthbertson |
| DLitt et Phil | Health Studies | Netangaheni TR | A hidden cohort: HIV and Aids amongst the farming community | Prof ON Makhubela-Nkondo |
| DLitt et Phil | Communication | Phiri SP | Media for change? A critical examination of the open society initiative for Southern Africa's support to the media: 1997 - 2007 | Prof PJ Fourie |
| DLitt et Phil | African Languages | Rananga NC | Professionalising storytelling in African languages with special reference to Venda | Dr TM Sengani |
| DLitt et Phil | Health Studies | Schmidt AR | Evidence based nursing: Outcome trends following inpatient rehabilitation | Prof ON Makhubela-Nkondo |
| DLitt et Phil | Biblical Studies | Schneider CEJ | The warrior ethos within the context of the Ancient Near East - an archaeological and historical comparison between the world-views of the warriors of the Fertile Crescent | Prof WS Boshoff |
| DLitt et Phil | Biblical Studies | Snodderly ME | A socio-rhetorical investigation of the Johannine understanding of "the works of the devil" in 1 John 3:8 | Prof DG van der Merwe |
| DLitt et Phil | African Languages | Tsiu WM | Basotho oral poetry at the beginning of the 21st century | Prof CF Swanepoel |
| DLitt et Phil | Psychology | Ungerer LM | Values as multivariate consumer market segmentation discriminators: A subjective well-being approach | Prof FJ van Staden |
| DLitt et Phil | Health Studies | Van der Heever H | Financial management of public hospitals | Prof MC Bezuidenhout |
| DLitt et Phil | Health Studies | Wentzel SW | The role of a clinic manager in a primary health care setting | Prof MC Bezuidenhout |
| DLitt et Phil | African Languages | Zivenge W | Phonological and morphological nativisation of English loans in Tonga | Prof De Mutasa |

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|---------------|------------------------|-------------|--|--------------------|
| DPhil | Sociology | Kihato CW | Migration, gender and urbanisation in Johannesburg | Prof A Zegeye |
| DPhil | Psychology | Murphy A | Defining the boundaries between trait and ability emotional intelligence: An assessment of the relationship between emotional intelligence and cognitive thinking styles within the occupational environment | DR HC Janeke |
| DTh | Systematic Theology | Bailie J | The impact of liberation theology on methodism in South Africa with regard to the doctrine of Christian perfection | Prof E van Niekerk |
| DTh | Practical Theology | Baumert MOW | Charismen entdecken. Eine praktisch-theologische untersuchung in der Evangelischen Landeskirche in Baden (Discovering charismata. A practical-theological inquiry in the United Lutheran Church of Baden) | Prof JPJ Theron |
| DTh | Practical Theology | Bedard RL | Emerging models of ministerial training for Pentecostal Assemblies of Canada | Prof JPJ Theron |
| DTh | Systematic Theology | Cooper SA | Jesus the great ancestor: Ancestorhood among the mende of Sierra Leone | Prof RTH Dolamo |
| DTh | New Testament | Daniels JW | Gossip's role in constituting Jesus as a shamanic figure in John's Gospel | Prof PF Craffert |
| DTh | Theological Ethics | Eale BE | Justice and poverty in the democratic republic of the Congo: A challenge to the church | Prof RTH Dolamo |
| DTh | Practical Theology | Finucane C | In search of pastoral care in the Seventh-Day Adventist Church: A narrative approach | |
| DTh | Missiology | Gattmann H | Die missionarischen Konzepte der Siebenten-Tags-Adventisten in Deutschland unter besonderer Berücksichtigung der Jahre 1992-2005 (The understanding of mission among Seventh-Day Adventists in Germany, with special reference to the years 1992-2005) | |
| DTh | Old Testament | George AE | Cultic sites and worship in the Jacob narratives: the influence of Canaanite religion on Israelite worship | Prof WS Boshoff |
| DTh | Missiology | Hardmeier R | Das Ganze Evangelium für eine heilsbedürftige Welt: Zur Missionstheologie der radikalen Evangelikalen (The whole Gospel for a world in need of salvation: The mission theology of radical evangelicalism) | |
| DTh | New Testament | Hedlun RJ | The social function of glossolalia in Acts with special attention to the Ephesian disciples pericope (Acts 18:24 - 19:7) | Prof PF Craffert |
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| Qualification | Subject | Student | Dissertation | Promoter |
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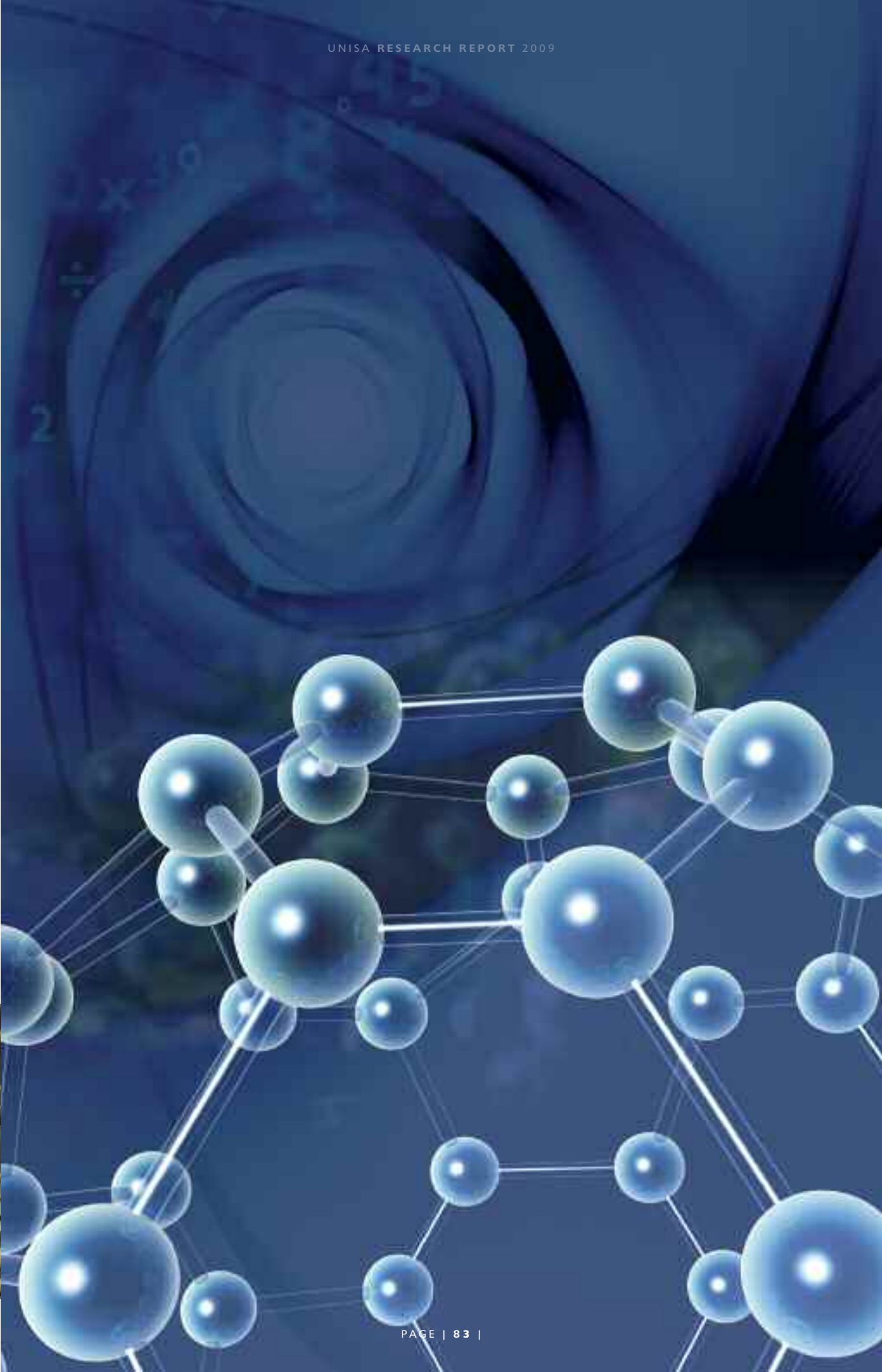


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