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VIR DIE AFRIKAANSE  
WEERGAWE:

HOOP NUUS

# Die US wil 'n beter wêreld help skeep

Gefokuseerde toepassing van die wetenskap afgestem op lewensanderende diensbaarheid aan gemeenskappe dwarsoor die land – gekoppel aan die grootste investering in voortgesette akademiese sukses nóg deur 'n Universiteit in Afrika.

Só beskryf Prof Russel Botman, Rektor en Vise-Kanselier van die US, die Universiteit se HOOP Projek wat die uitnemendheid van die instansie vir komende geslagte wil verseker. Die US se doelwit is om oor die volgende 6 jaar 'n minimum van R1,75 miljard vir hierdie doel in te samel.

Prof Botman het aangekondig dat die Hoop Projek nasionaal en internasionaal groot ondersteuning geniet en dat voorste sakelui, filantropiese instansies en alumni van die Universiteit reeds sowat R500 miljoen aan die US bewillig het.

Hieronder tel 'n leerstoel in intellektuele eiendomsreg aan die fakulteit regsgeleerdheid ten bedrae van etlike miljoen per jaar deur die Rupert-familietrust; skenkings van filantropiese instansies soos

die Mellon-, Carnegie- en Claude Leon-stigtings; en bewilligings en skenkings van voorste sakelui en alumni van die Universiteit. Die staat het ook R190 miljoen gegee vir fasiliteite wat onmisbaar is in die leer en onderrigprogram.

“Dit is vir my betekenisvol dat ons strategiese vennote die Universiteit se visie as bouer van hoop met daad ondersteun en dat die voortsetting van die US se trotse tradisie van akademiese uitnemendheid vir hulle ewe ononderhandelbaar is. Hul bydraes is 'n belegging in die toekoms, want wat ons doen gaan 'n groot impak in hê, het Botman gesê.

“Menslike ontwikkeling is die morele imperatief van ons tyd Daar is groot nood in die wêreld en die universiteit wil hiermee help.”

Die Universiteit het vyf temas uit die internasionale ontwikkelingsagenda gedistilleer, naamlik die uitwissing van armoede, en die bevordering van gesondheid en menswaardigheid, demokrasie en menseregte, vrede en veiligheid, asook 'n volhoubare omgewing en lewenskrachtige industrie. Die



Prof Russel Botman, Rektor en Vise-Kanselier van die US

Picture: ERHARDT THIEL

US streef die verwesenliking van hierdie doelwitte na in elk van sy kernaktiwiteite, naamlik onderrig, navorsing en gemeenskapsinteraksie.

Oor die afgelope drie jaar het fakulteite 'n verskeidenheid akademiese inisiatiewe ontwikkel wat saam met die ander gevestigde hoopskeppende werk van die

fakulteite verdere stukrag verleen aan die Universiteit se strewe om by uitstek 'n bouer van hoop te wees te midde van nood op allerlei terreine in die samelewing.

Onder hierdie inisiatiewe tel die Ukwanda Landelike Kliniese Skool om meer dokters vir die platteland op te lei, tot die US Waterinstituut, wat navorsing doen oor die bewaring van ons land en vasteland se kosbare waterbronne. (Lees meer binne oor die US se hoopskeppende inisiatiewe.)

“Ons talentvolle personeellede en studente, die uitnemendheid van ons akademiese programme en die wyse waarop ons ons kernaktiwiteite met die vyf geselekteerde ontwikkelingstemas belyn het, bewys dat ons werklik gestalte gaan aan ons toekomsvisie. Ons meen deur ons gewig in te gooi by pogings om die samelewing van diens te wees, kan ons help om van die wêreld 'n beter plek te maak,” het Botman gesê.

Die US wil die wetenskap gebruik en 'n verskuiving bring in die ontwikkelingsvlakke in ons land, op ons vasteland en elders in die wêreld.

Een van die hoofuitdagings vir universiteite vandag is hoe jy by 'n snelveranderende wêreld aanpas. Relevante universiteite in hierdie 21ste eeu moet duidelik 'n bydrae tot mense se lewens lewer.

“Ons weet ons gaan baie vennote kry, want dis die regte ding om te doen, op die regte tyd,” sê Botman.

## Pure water in a jiffy



SU scientists develop a high-tech 'tea bag' filter that fits into the neck of a bottle and delivers clean water as you drink from it, writes Engela Duvenage.

When microbiologist Prof Eugene Cloete became Dean of the Faculty of Science at Stellenbosch University (SU) in January 2009, he did not allow his expanded administrative duties to overwhelm his passion for his subject.

He picked up on relevant research outside his own field of expertise, which sparked the invention of a high-tech disposable filter that looks like a tea bag and easily cleans highly polluted water.

Together with researchers from the Department of Microbiology

and SU polymer scientists, he recently patented the innovative invention – a portable, easy-to-use and environmentally-friendly water filtration system that fits into the neck of a bottle.

The sachet promises to provide easy access to clean drinking water



Quick, safe and cheap. Prof Eugene Cloete inserts his invention, the teabag filter system, into the bottle, scoops up river water and drinks it.

Pictures: JACQUES BOTHA



Cheers! Research team members Dr Michéle de Kwaadsteniet and Dr Marelize Botes, both postdoctoral fellows in the Department of Microbiology, sips river water that has been purified with the water filter bags.

for vulnerable communities, for instance those living near polluted water streams. There are also plans to commercialise the filter into a product that can be used by outdoor enthusiasts.

“More than 90% of all cholera cases are reported in Africa, and 300 million people on our continent do not have access to safe drinking water. Clearly, something has to be done about this,” Cloete says.

The system works with a filter that looks like a teabag and fits into the neck of a medium-sized water bottle. The filter is made of nanofibres soaked in biocides and filled with activated carbon. It kills all disease-causing microbes in even the most polluted water and removes harmful chemicals. It produces one clean litre of potable water at a time, after which the filter has to be replaced.

Dr Eugene Smit of SU's Department of Chemistry and Polymer Science developed the technique used to produce the ultra-thin fibres. He works with InnovUS, the

University's technology transfer company.

Cloete believes the “tea bag” filter shows the way forward because it represents decentralised, point-of-use technology. The invention has become one of the first major projects of the new Stellenbosch University Water Institute, a trans-disciplinary initiative established to intensify the search for lasting solutions to the country and continent's water woes.

“It really is exciting to be part of a potentially life-changing project,” says Dr Marelize Botes, postdoctoral fellow in the Department of Microbiology and co-inventor of the filter.

“It's such an easy-to-use and practical solution to something that's been a major problem for so long.”

The filter is currently being tested by the South African Bureau of Standards, after which the team hopes to roll it out to various communities.

www.thehopeproject.co.za/water



# Raak betrokke

Individue, maatskappye en stigtings kan almal die Universiteit Stellenbosch se doelwit om een van die vooraanstaande universiteite en 'n bouer van hoop op die vasteland te wees, ondersteun.

Van die grootste stigtings in die VSA, waaronder die Andrew W. Mellon- en Claude Leon-stigting het reeds hul steun aan die projek toegesê en etlike miljoene aan die Universiteit bewilling. Groot skenkings is al ontvang van alumni en verskeie ander het al aangedui dat hulle die projek sal steun.

Die skenking van sowat R6 miljoen van die Mellon-stigting sal gebruik word vir die US se beursprogram vir talentvolle, jong nagraadse studente en nadoktorale navorsingsgenote in die sosiale en geesteswetenskappe. Die program is daarop gemik om die Suid-Afrikaanse pool van akademiese personeel te vergroot en meer divers te maak.

Twee skenkings van die Claude Leon-stigting van altesaam R1,4 miljoen sal ook bydra tot die Universiteit se doelwit om die tyd wat nagraadse studente neem om hul studies te voltooi, te halveer, en die universiteit se aantal nagraadse studente opstoot.

Die skenking van R1 miljoen (R200 000 per jaar oor 'n tydperk van vyf jaar) sal aangewend word om veral, hoewel nie uitsluitlik nie, jong swart vakkundiges by te staan om, terwyl verdere R400 000 beursgeld beskikbaar gestel is vir studente wat in 2011 vir 'n honneursgraad sal studeer.

Deur die HOOP Projek te ondersteun, belê individue en organisasies in die personeel- en studentesukses, geriewe asook die akademiese inisiatiewe van die US.

Studentesukses sluit onder meer die befondsing van voor- en nagraadse beurse asook die Eerstejaarsakademie in. Geld wat geskenk word aan personeelsukses sal onder meer aangewend word om navorsingskapasiteit te ontwikkel.

Om die nodige fasiliteite en infrastruktuur te voorsien vir volgehoue akademiese en navorsingsuitnemendheid, sal geld ook bewilling word om onder meer 'n nuwe ingenieursgebou, elektroniese klaskamers, die Lentelus Sokkersentrum en die Landelike Kliniese Skool op Worcester op te rig. Opgraderings aan bestaande infrastruktuur soos die JS Gerieke Biblioteek, Konservatorium asook die HB Thom Dramagebou en Teater, sal ook gedoen word.

Die Universiteit is tans besig met 22 akademiese inisiatiewe wat daarop gemik is om die gemeenskap deur die wetenskap te dien en sodoende Suid-Afrika en die vasteland se grootste probleme te takel. Standard Bank, wat geld bewilling het vir Standard Bank Sentrum vir die Ontwikkeling van Agribesigheidsleierskap en Mentorskap, dien as voorbeeld van hoe organisasies of individue spesifieke inisiatiewe kan rugsteun. Lees meer oor hierdie inisiatiewe op die bladsye wat volg.

Skenkings kan op gereelde basis of eenmalig gedoen word en daar is verskeie maniere waarop mense hul bydra tot hierdie verdienstelike projek kan maak.

Skenk via die beveiligde platform, GivenGain, of doen 'n elektroniese geldoordrag. Suid-Afrikaanse maatskappye kan 'n skenking aanlyn inisieer en daar is baie opsies borgskap-gelentehede vir organisasies of vir diegene wat 'n erflating aan die Universiteit wil nalaat.

Raak deel van die HOOP Projek en doen jou deel om van die wêreld 'n beter plek te maak.

Bespreek jou belangstellings met me Annamia van den Heever by die ontwikkelingskantoor by 021 808 4020.

# HIV/Aids in the spotlight



The University uses educational theatre to good effect for conveying important health messages, writes **Liezl Scholtz**.

It is early in the morning on a farm on the picturesque outskirts of Paarl in the Western Cape. A group of farm workers enter a hall, their faces lit up with expectation. They take their seats, and the strains of I heard it through the grapevine fill the air. Cheers go up as another performance of *Lucky the Hero!* gets underway.

For the next half an hour, the audience sits enthralled as such characters as Tienkan Jan, DJ Papsak and Twotime Tokkie take the stage. Their message of HIV/Aids prevention is serious but they deliver it in such an entertaining way that everyone is swept along. This is an indication that the show is having the desired impact.

More than 300 000 people have seen this educational theatre production in the past four years, and 82% of them participated in the voluntary HIV testing on offer after the show.

"This is important because HIV/Aids is far from over. On the contrary, it is only getting worse. The disease has had a terrible toll in terms of human lives and lost productivity. Yet it can be prevented, and that is why we do what we do," says Prof Jan du Toit, director of the structure behind the play, the Africa Centre for HIV/Aids Management at Stellenbosch University (SU).

The Centre, which presents the show, was established in 2003 to "nourish the social, political and economic transformation required to defeat the disease". It runs postgraduate training courses, conducts academic research and engages in community interaction.

It was the need to create awareness among communities in

the greater Stellenbosch area that gave rise to Lucky the Hero! and a second production aimed at the corporate sector, Lucky Fish!

"Jan du Toit had the vision of disseminating HIV information to the community, especially to farm workers who had largely been left out of the loop," explains Prof Jimmie Earl Perry, the director of community mobilisation at the

with Aids.

"These shows are about effecting change. This is more than just entertainment, this is about making a difference," says Mr Hilton Andries, who plays Lucky.

"The community is a great source of inspiration to us. And their experiences are fed back into our training programmes and research. The work we do is for the people



**Workers at the Lanquedoc wine farm outside Paarl enjoy a performance of Lucky the Hero! Ralston Oliphant (bottom left) plays the role of Tienkan Jan, one of the characters in this popular play.**

Picture: JACQUES BOTHA

Centre and the producer of the plays.

The *Lucky* plays have been performed in schools, churches, farm sheds, prisons, town halls, at arts festivals and in major concert halls. And performances have also been staged at big corporations, including Peninsula Beverages (Coca-Cola), Eskom, Transnet Rail Engineering and the South African Revenue Service. Here the spotlight fell on the handling of HIV/Aids in the workplace.

"The successful run of the play has been very fulfilling to us at the Centre," says Perry. The secret lies in the treatment. Topics commonly experienced as intimidating or even taboo are tackled frankly and blended with a good dose of humour. And plenty of music and dancing add to the fun.

Matie alumnus Ms Vicky Davis, an actress and presenter of Pasella on SABC2, wrote the scripts. The dialogue, in Afrikaans and English, resonates with the audience. They clearly relate well to the characters.

"There's lots of straight talking," says Ms Christy-Ann Julies, one of the cast members recruited from Cloetesville in Stellenbosch. "The Lucky plays address the problems and issues head on."

Topics covered include what HIV and Aids are, how the HI virus is transmitted, how it can be prevented, testing for it and living

**Knowledge is power**

The Africa Centre for HIV/Aids Management at Stellenbosch University offers comprehensive academic training and research programmes. It started out with 65 students and its annual intake of students has since grown to 700.

• More than 1 500 students from 45 countries have graduated from the Centre with a Postgraduate Diploma in HIV/Aids Management (PDM). More than 2 000 applications were received for the PDM this year,

out there. Our motto is to make a difference every day," says Du Toit.

The Centre plans to take the plays to other areas of the Western Cape, the Northern Cape and the Free State, and eventually the rest of South Africa – possibility in more languages.

Back at the Paarl farm, the play has ended and most members of the audience stand around in groups waiting to be tested by registered health workers for HIV as well as diabetes and high blood pressure.

*‘This is more than just entertainment. It is about making a difference.’*

Ms Shereldene Paulse, one of the farm workers who came to see the play, says the production is a good way of getting the correct information to communities.

Does she know her status? Yes, she nods and turns to the shy toddler on her lap. "I have gone for an HIV test before, and will do so again today," Paulse says.

"I'm arming myself with information, to stay healthy. It will help me pass on the message to my daughter when she grows up one day." [www.thehopeproject.co.za/aidscentre](http://www.thehopeproject.co.za/aidscentre)

but only 400 students could be accommodated.

- The Centre also offers an MPhil programme. Topics previously researched include voluntary counselling and testing in the workplace, and corporate social responsibility towards Aids orphans.
- The Centre has identified the need for a new building and additional management capacity to expand its activities. It is envisaged that the structure will house offices and a 300-seat community theatre. Construction is meant to start by the end of 2010.

# Training doctors for rural areas



SONIKA LAMPRECHT

A big challenge in the South African health sector is the iniquitous distribution of doctors between rural and urban areas. This creates problems because approximately 46% of the population lives in rural areas and limited access to health care results in poor health.

To contribute to solutions, Stellenbosch University (SU) is establishing the Ukwanda Rural Clinical School. This School will focus on the clinical training of students at rural hospitals and health care facilities.

The students will still receive some of their training at SU's main training hospital at Tygerberg Hospital and its surrounding clinics and smaller hospitals, but will also get some training in a rural settings. International experience indicates that longer exposure in a rural area increases postgraduate retention. And by recruiting rural students there is a greater probability that they will remain in these areas.

SU hopes to motivate health professional students to ultimately settle and practise in rural areas. According to research published in the South African Medical Journal earlier this year, there is significant international evidence that students who grew up in rural areas are more inclined to work in rural areas than their urban counterparts.

Ms Ruth Williams, a sixth-year

medical student at SU, is proof of this. She was born and raised in Saron in the Drakenstein district.

"There wasn't a doctor in the town. My mother, Lenie, is both a nurse and the ambulance service. Ever since I can remember, people came and knocked on our door when there was a need and I went with my mother when she went to help," she says.

Williams says that her rural childhood cultivated a deep interest in people with her. "Not only in their illnesses and complaints but also in them as people."

Mr Nicholas Fortuin, a fifth-year medical student, grew up on a farm outside Malmesbury and says that he hankers after country life. "Because I come from a rural area myself, I understand the conditions."

He remembers how, as a child, he accompanied his mother to the clinic in town. They had to sit and wait there from early morning until late afternoon to see a doctor. "When I was in Grade 10, I shadowed at the hospital and I immediately knew that I wanted to become a doctor."

The fact that medical students are being trained in tertiary hospitals in urban areas is, according to Williams, one of the reasons why many remain there after their studies.

"In tertiary hospitals, you have specialists, tests and equipment at your disposal to make diagnoses and treat people but, in rural areas, you



**Ms Ruth Williams, a sixth-year medical student, on her rounds. She says her rural childhood cultivated a deep interest in people with her.**

Picture: ANTON JORDAAN

have to make do with much less and rely more on your knowledge and clinical skills. But I have seen some of my friends' perceptions change during our rotations in rural towns. I think it's the feeling that you're part of a community that makes rural life so special."

The Ukwanda Rural Clinical School was born from the Ukwanda Centre for Rural Health established in 2001. Ukwanda is a Xhosa word meaning "to develop and grow in the community". The Ukwanda Centre's core is situated in Worcester, with nine smaller centres in other towns in the Western Cape and one at the Madwaleni hospital in the Eastern Cape.

Through Ukwanda, SU's medical students do in-service learning in hospitals, community health-care centres, mobile clinics, school and homes for the elderly.

The Ukwanda Rural Clinical School will enable SU ultimately to train more health professionals. It will include a building with lecture venues and accommodation for students opposite the Worcester regional hospital. The goal is to expand SU's health-care training, which currently takes place

principally at the Tygerberg campus in an urban academic-hospital environment, to rural areas.

"Medical students will gain valuable experience in a rural environment and, simultaneously, help provide health services to communities in these areas," says Dr Therese Fish, Vice-Dean (Community Service and Interaction) of the SU's Faculty of Health Sciences.

Prof HOFFIE Conradie, Director of Ukwanda, was recently in Australia for five weeks, where he visited

three of this country's twelve rural clinical schools. He says that it "works so well there that this form of training is preferred by students".

In South Africa, the aim is for medical students in their sixth and final year of study to go to Worcester and other towns to do their student internship year.

"Such training will equip students with skills suited to the development needs of South Africa and other African countries," says Conradie. [www.thehopeproject.co.za/ukwanda](http://www.thehopeproject.co.za/ukwanda)



**Mr Nicholas Fortuin, a fifth-year medical student, wants to return to his rural roots after his studies.**

Picture: BERNARD BRAVENBOER

# Technology that makes a difference



SONIKA LAMPRECHT

Computer access has long been out of reach for many people with disabilities, but now, thanks to a simple and affordable interface, quadriplegics and cerebral palsy sufferers can look forward to using a computer in the near future.

The interface is being developed by Stellenbosch University's (SU) Communication and Information Systems (CIS), an academic initiative of the institution's Faculty of Engineering. It will look like a telephone headset, with earphones and a small microphone suspended in front of the user's mouth.

Once the device is plugged into a computer, it will work like a mouse. Lifting and lowering the head slightly while wearing the device will move the cursor on the computer screen up and down. Tilting it to the left or right will move the cursor in the corresponding direction. The

click-function will be activated by blowing into the microphone.

The device will be suitable for people who have lost the use of their limbs and torso, but have retained



**Ms Jacki Gilmore, a SU engineer, demonstrates the computer interface. She is building the final prototype.**

Picture: BERNARD BRAVENBOER

control of their neck muscles.

Mr Raven Benny, chairperson of the QuadPara Association of South Africa (Qasa), says his organisation receives about 20 enquiries a month about computer aids for people with disabilities, but cost is a big stumbling block.

"Many people with disabilities battle to make a productive contribution to society because work is scarce for them. Specialised computer equipment is expensive. Sometimes we receive second-hand computers as donations, which we make available to members who can use it. But some of our members miss out because we lack the interfaces to make the equipment accessible to them."

"Sometimes we receive second-hand computers as donations, which we make available to members who can use it. But some of our more severely disabled members miss out because we lack the interfaces to make the equipment accessible

to them."

Benny says user interfaces can make all the difference. "One of our members got new voice-activated software and donated his used program to someone else. The recipient's life changed dramatically. He became productive, and it helped him to play a leadership role in the organisation he is working for."

It is precisely for reasons like these that the project is aimed at developing affordable and appropriate computer aids, says Dr Mike Blanckenberg, a senior lecturer in the Department of Electrical and Electronic Engineering at SU. The scientists involved hope that a large percentage of quadriplegics and cerebral palsy sufferers will be able to benefit from their research.

"Because it basically replaces the mouse, it will be compatible with most common operating systems and programs," says Ms Jacki Gilmore, an electrical and electronic engineer. She is building the

final prototype.

"It could also help people who have lost the ability to speak. They would be able to use this device to control a speech synthesiser."

Similar products are commercially available, but it is simply too expensive for many people. The developers of this device say their interface will be affordable.

"Even if produced on a relatively small scale, it will cost no more than around R600. This is not just an academic exercise. We hope that the product will be available to the public very soon," says Blanckenberg.

Prof Willie Perold, head of the Department of Electrical and Electronic Engineering and leader of the CIS initiative, says the computer access project reflects the University's vision of hope in action. "We want to live hope instead of passively waiting for others to make a difference."

[www.thehopeproject.co.za/comm-info](http://www.thehopeproject.co.za/comm-info)

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# Welcome to the virtual classroom

SU harnesses advanced technology to interact in real time with students across SA and Namibia, writes **Martin Viljoen**.



**Mr Danie Moolman, a technical officer, in the control room from where lectures are transmitted to 19 centres across the country and in Namibia.** Picture: SUPPLIED

It is almost as if you and your lecturer are in the same lecture hall. The interactive communication makes it possible to discuss any problems you may have directly," says Ms Ntomboxolo Blouw of Port Elizabeth.

She obtained an HonsB degree in Public Administration via the interactive telematic platform of Stellenbosch University (SU) last year. She works for the Kouga Municipality as a manager in skills development, and attended all her classes in Port Elizabeth – some 800 km from Stellenbosch.

"I did not want to interrupt my career to study further and therefore grabbed the opportunity to do so via the telematic platform," she said.

SU started offering a telematic service to various faculties for transmitting their classes via satellite back in 1998 already. But the past two years, with the establishment of the Division of Interactive Telematic Services (ITS), saw this service being augmented by mobile phone, smart card and internet technology.

The Division has a modern broadcasting studio and control room at the Stellenbosch campus from where classes for postgraduate programmes in the faculties of Health, Education, Military Sciences, as well as Economic and Management Sciences are transmitted to 19 centres in South Africa and Namibia. The University of Stellenbosch Business School (USB) also makes use of the service to reach postgraduate students in selected courses.

This year, the number of SU postgraduate students "attending" class in this way reached 2 300. This is known as Virtual Postgraduate Learning Support (VPLS).

"With this initiative the divide between residential and non-

residential education disappears," Prof Tom Park, project head and Senior Director: Interactive Telematic Services, says. He is the former Dean of the Faculty of Education.

"Students can actively participate in lectures. They can also visit the library online and get access to a large variety of support services."

The VPLS initiative makes it possible for people with jobs to study further without having to resign or take long leave. Research indicates that successful participation in higher education helps boost the economy.

*‘Almost 21% of all our postgraduate students study via this platform.’*

"We live in a knowledge economy. Although it is necessary to study further, very few people in a professional working environment want to interrupt their careers for this. They would rather combine work and studies," Park says.

"The best option is to take the university to the student – where he or she works and lives. We use technology to make that possible."

This form of higher education is in step with global trends. Virtual institutions are expanding quickly and it is predicted that they would become the mega universities of the future.

Dr Antoinette van der Merwe, ITS Director, says this initiative should not be confused with educational TV, which is not interactive.

## Dwarsliggende inisiatiewe

HOOP Nuus bevat stories oor al 22 akademiese inisiatiewe van die Universiteit Stellenbosch (US) se HOOP Projek. Elk van hulle, insluitend die vier op hierdie twee bladsye, bevorder een of meer van die instelling se vyf ontwikkelingsstemas (sien voorblad).

Hierbenewens help hierdie vier inisiatiewe 'n bevorderlike akademiese en navorsingsomgewing skep om tot die HOOP Projek se sukses by te dra. Hoewel hulle dus in eie reg by die US se ontwikkelingsstemas aansluit, word hulle as dwarsliggende inisiatiewe beskou en nie by 'n spesifieke tema ingedeel nie. –Red.

## Untangling the web

HANS OOSTHUIZEN

Complexity theory is a relatively new, yet important academic discipline. It engages in innovative ways with major problems within the human and natural sciences. A groundbreaking academic initiative at Stellenbosch University (SU), the Centre for Studies in Complexity (CSC), aims to harness the insights of this field in the search for comprehensive solutions to the challenges of human development.

The Centre, the only one of its kind in Africa, has been established by two celebrated academics from widely divergent fields – Prof Paul Cilliers, a philosopher, and Prof Jannie Hofmeyr, a biochemist.

They are developing new strategies for dealing with complex phenomena, such as:

- The behaviour of ecosystems, as well as social and economic systems
- The cellular organisation that constitutes a living organism
- The way in which neurons interact in the brain
- How meaning arises in language
- The causes of political intolerance
- The functioning of health systems

"Our aim is not necessarily to solve specific problems, but rather to reflect deeply both on the intrinsic nature of complex phenomena and on the ethical implications of our increased understanding," Cilliers says.

The CSC is involved in research as well as teaching, and provides a service to fellow academics and the public. It strives to integrate a wide array of disciplines at a theoretical level, and works across existing disciplinary boundaries. Eleven doctoral students and a number of master's students are currently enrolled with the Centre.

Complexity studies challenge scientists to embark on interdisciplinary journeys in the search for answers. The fact that two scientists from different fields of study are heading up the CSC is a reflection of the need to bring together the natural and human sciences.



**Die Sentrum vir die Studie van Kompleksiteit se medeprojekleiers, proff Paul Cilliers (links) en Jannie Hofmeyr in gesprek met me Rika Preiser, navorsingsassistent, by die Stellenbosse Instituut vir Gevorderde Navorsing (STIAS).** Picture: BERNARD BRAVENBOER

The CSC collaborates with the Stellenbosch Institute for Advanced Study (STIAS) and the TsamaHub (Centre for Transdisciplinarity, Sustainability, Assessment, Model-ing and Analysis), both part of SU. Other collaborators include local and overseas universities, the Centre for Scientific and Industrial Research (CSIR), and the Sustainability Institute, a private initiative outside Stellenbosch.

Cilliers and Hofmeyr have both received an A-rating from South Africa's National Research Foundation, which means they are regarded as world-leaders in their respective disciplines. They are also recipients of the Harry Oppenheimer Fellowship Award for research on the African continent.

Having qualified and worked as an engineer, Cilliers finds academic common ground with others in similar fields. "My collaborators are mostly in practical fields, such as organisational and management studies, law, computer sciences and health sciences," he says.

He has developed a sophisticated description of complex systems applicable to both the natural and human sciences. This is based on his analyses of such complex systems as the brain, language and neural networks.

Hofmeyr has for the past 25 years been at the forefront of research in the field of systems biology. He has focused on the emergence of systemic functional properties of the living cell as a result of interaction among its components. He seeks to explain how the organisation and regulation of processes inside cells makes life possible.

"Think of a factory that is able to continuously and autonomously recreate itself, so that the factory persists longer than the lifetimes of any of its machines," he says. "This calls for a very special organisation with circular causality. Our understanding of complex systems is not deep enough to warrant the scale at which we currently attempt to manipulate them."

[www.thehopeproject.co.za/complexity](http://www.thehopeproject.co.za/complexity)

# Opening the doors of e-learning

LYNNE RIPPENAAR

The first time Ms Ashleight Fuller, a fourth-year BA student in International Studies, entered the JS Gerick Library at Stellenbosch University (SU), she felt overwhelmed.

The community library in Eerste River she had used for her school projects was miniscule compared with the university library. The first thing she did was to ask the student library assistants at one of the computer areas for help.

"They were really friendly. They helped me find the information I needed, and ensured that the sources I found were relevant to my level of studies. When I got stuck they referred me to the subject specialists."

Today, Fuller knows the library well. From a student who was

initially daunted by the "huge library" with "all its books" she has developed into a confident researcher. She says she benefited so much from using the library that she decided to sign up as a student assistant herself.

"I want to show first-years how to use the library system and how to use it effectively."

At present, there are two computer areas in the library. Each has 48 computers and 12 laptop network connection points. However, thanks to the library's Access to Electronic Resources initiative, there will soon be a new state-of-the-art Learning Commons. It will have 110 workstations, as well as scanning and printing facilities, network connection points for laptops, and 16 quick-access multimedia points.

Ms Ellen Tise, Senior Director

of the University's Library and Information Service, says SU recognises that in order to retain its edge as an internationally acclaimed research and teaching institution, it has to have a state-of-the-art library.

"Today's generation of students has been brought up at a time when computers and the internet are essential for studying, but many cannot afford their own equipment. Therefore, it is important that the library fills this void with facilities – supported by expert staff – to enrich the learning experience."

"It is not just about providing the facilities, but also the service that goes with it. We provide professional expertise in the form of librarians who are trained and can help students to find the right information," says Tise, who is



**Ms Ashleight Fuller, a fourth-year BA student in International Studies and an assistant at SU's JS Gerick library, helps a fellow student find information online.** Picture: ALEXIA WEBSTER

also President of the International Federation of Library Associations and Institutions.

Ms Elbie van Wyk, Information Literacy Librarian, says the new Learning Commons will enable the library to provide its users with training in information skills.

They will learn how to cite sources and use the library catalogue and electronic databases.

"We want to empower our students," she says.

The Learning Commons should be completed by the end of 2010. [www.thehopeproject.co.za/library](http://www.thehopeproject.co.za/library)

# Africa's next generation of academics and professionals

SU's Graduate School, African Doctoral Academy and PANGeA combine forces to produce the experts the continent needs to address its challenges, writes **Stephanie Nieuwoudt**.

Over the past decades Africa has lost thousands of its highly skilled people who left to look for new opportunities for further study or work elsewhere in the world.

Although Africans abroad do contribute to the continent's economy by sending money home and often create job opportunities by starting new businesses on their return, Africa's research output is still too low. Some of the most pressing reasons are that graduate student training facilities are insufficient in many instances and that there is a lack of experienced supervisors.

The African Doctoral Academy (ADA) and Graduate School in Stellenbosch University's (SU) Faculty of Arts and Social Sciences are designed to address these problems. Doctoral students are recruited from all over Africa to study in one of eight research fields at the University, covering various departments.

The Graduate School coordinates research across academic disciplines and institutions around the following themes:

- Democratisation and peace in Africa (Political Science)



**Mr Edgar Nabutanyi from Uganda, and Mr Evance Mwachunga and Ms Bridget Matuga-Katunda from Uganda are among the new Graduate School's first intake of 31 doctoral students.** Picture: BERNARD BRAVENBOER

- Land, environment and sustainability in Africa (Sociology and Social Anthropology)
  - Africa in the local and global realms of the imagination (English)
  - Science, technology and society (Philosophy)
  - Empowerment of the arts in developing communities (Drama)
  - Application of geographic information technology (Geography and Environmental Studies)
  - Language, culture and communication (African languages)
  - Public mental health (Psychology).
- The Africa Doctoral Academy is the support mechanism used to

develop advanced graduate research. Prospective students can apply for bursaries that may amount to R120 000 per year over three years. A candidate must be a citizen of an African country.

SU has also joined hands, through the Partnership for Africa's Next Generation of Academics (PANGeA) network, with five universities elsewhere on the continent with the aim of boosting higher education.

"Higher education helps to build a dynamic civil society," says Prof Johann Groenewald, the project leader of the Graduate School. "And if you have that, governments can be called to account for issues such as corruption and a lack of moral leadership. We need Africans to provide solutions to Africa's

problems."

The first 31 doctoral students who enrolled at SU via the Graduate School started their research this year. Nine of them are from South Africa, and the rest from elsewhere on the continent.

"One of the hurdles in the way of sufficient academic progress in Africa is the shortage of doctoral graduates," says Mr Evance Mwachunga, a lecturer at Malawi University, who is conducting research at SU on the politics surrounding land use in the urban areas of Malawi.

"The degree that I obtain here will give me an academic head start, and in turn I will be able to assist others in gaining a deeper insight into and find possible solutions to problems

that are becoming more pressing by the day. Tension regarding the use of land in the urban areas of my country is on the increase. This can lead to large-scale conflict."

Fellow Malawian, Ms Bridget Matunga-Katunda, is involved in research on women's property rights in matrilineal communities.

"Although Malawi is relatively gender friendly towards women, there are still some obstacles," she says. "Women's rights are still too often denied when it comes to, among other things, land bequests. I hope my research will eventually contribute to the reformulation of gender policy in my country."

The theme of violence underlies the research of Mr Edgar Nabutanyi, a lecturer at Makerere University in Uganda. His investigation is aimed at establishing how trauma resulting from armed conflict affects children and how this is portrayed in the fictional narratives about violence in war-ravished countries, such as Sudan, Uganda and Rwanda.

"My research may assist in creating awareness about the effects of war on children. Hopefully it will encourage civil society to put in place structures by which child victims can be assisted effectively."

Nabutanyi adds: "I am grateful for the opportunity to study at Stellenbosch where people pursue knowledge with such a sense of purpose."

He ponders for a moment. "For a long time, Makerere University was one of the beacons of academic progress in Africa. Sadly, the university deteriorated a great deal over the past few decades. Fortunately, we now have a new chancellor who is trying to set things straight. With my doctoral degree I can return to Uganda better equipped as an academic to contribute more effectively in terms of applying and conveying knowledge."

[www.thehopeproject.co.za/graduateschool](http://www.thehopeproject.co.za/graduateschool)



# One man's weed is another man's food



Researchers cross disciplinary boundaries to take a fresh look at life's big questions, writes **Hans Oosthuizen**.

Some plants currently vilified as "weeds" could actually be edible, and their reclassification could promote greater food security.

This is the contention of Mr Sydney Mavengahama, a Zimbabwean PhD student at Stellenbosch University's (SU) TsamaHub, an academic initiative aimed at sustainable solutions to the twin crises of endemic poverty and ecological breakdown, with special reference to Africa's unique challenges.

Mavengahama is one of twelve students who joined SU's new transdisciplinary PhD programme in complexity and sustainability in January. He is testing the nutrient levels of various plants with a view to determining whether they could be incorporated into agriculture.

"In modern Western agriculture one uses expensive pesticides, derived from oil, to kill certain plants considered to be weeds. However, Africans have traditionally

eaten some of these so-called weeds.

"If it turns out they are nutritious, lots of money can be saved if we don't have to fight them," he says.

Sustainability is a key focus of the TsamaHub. The body's name is derived from the centrality of transdisciplinarity, sustainability, assessment, modelling and analysis in its work, and the fact that it operates as a focal point for studies in sustainability. "Tsama" is also the common name of a wild watermelon found in Southern Africa's driest parts. It has traditionally sustained people and animals alike.

"The world is in very serious trouble and big decisions have to be made," says Prof Mark Swilling, project leader of the TsamaHub.

"Delegates to last year's UN Climate Change Conference in Copenhagen struggled to agree on anything, except the principle that the Earth should not be trashed. Everyone supports that, but how this should be achieved is not clear."

Professionals are trained at PhD

level to specialise in particular problems, Swilling says, but not to answer the big questions, such as how to build a sustainable world. The TsamaHub is SU's contribution to the search for more comprehensive solutions.

Collaboration is a watchword at the TsamaHub, which is a partnership between SU, the Council for Scientific and Industrial Research, the Human Sciences Research Council and the Sustainability Institute.

The TsamaHub is located in SU's Faculty of Economic and Management Sciences, but it has ties to 17 departments in 7 other faculties, as well as with the University's Centre for Renewable and Sustainable Energy Studies and its Centre for Studies in Complexity.

TsamaHub programme manager John van Breda says the initiative's approach of working across boundaries should open the way to more such collaborative efforts in future.

[www.thehopeproject.co.za/tsama](http://www.thehopeproject.co.za/tsama)



Mr Sydney Mavengahama (left), a PhD student in sustainability and complexity at SU, and Mr John van Breda, manager of the doctoral programme of the TsamaHub, a transdisciplinary unit at the University.

Picture: BERNARD BRAVENBOER

# Icy lessons for Africa



A team of the Faculty of Engineering at SU recently installed the first of three proposed wind turbines at SANAE IV, the South African base in Antarctica.

"The research and manufacturing processes support South Africa's growing wind energy industry and can be applied elsewhere in Africa," says Mr Johan Stander, one of the Stellenbosch engineers who developed the wind turbine system for the base. His fellow team members are Messrs Adriaan Lombard, Johannes Potgieter and Ivan Hobbs.

Because of the ice pack, round trips to Antarctica on board the research vessel SA Agulhas can be undertaken only in high summer. After a journey of two and a half weeks the weather conditions remain favourable for only another month or so before the vessel has to return again.

"For Antarctica we are developing robust, simple, cost-effective wind turbines that can be maintained relatively easily under extreme climate conditions," says Stander. The same principle can be applied to wind turbines for Africa, although with different materials suitable to local conditions.

This research is part of a larger project spearheaded by Prof Maarten Kamper at SU and funded by the National Research Foundation and the SA National Antarctic Programme. It is also linked to an initiative by the Faculty of Engineering entitled Energy and the Environment.

Electricity at the SANAE base



Members of SU's Faculty of Engineering erect the wind turbine that they designed at the SA base in Antarctica earlier this year. The lessons learnt on the icy continent can be applied in Africa, where extreme weather conditions also pose challenges.

Picture JOHAN STANDER

in Antarctica is currently being generated with diesel motors, which is not only expensive but also unfriendly to the environment. Ships have to haul fuel all the way to Antarctica. Wind power will be a far more affordable and cleaner alternative, especially since this source of energy abounds there.

The construction of the first wind turbine for Antarctica started last year. Together, the three proposed wind turbines will be able to generate 45 to 60 kW and save some 18 000 litres of diesel every year.

They will be more or less the same size – each with a 12 m high tower, anchored in rock, and a rotor

of 7,2 m in diameter. Together, the machine and tower will weigh approximately 1,6 t.

In terms of the Antarctic Treaty an environmental impact study had to be done first. The Stellenbosch team had to consult geologists, engineers and the designers of the SA basis in Antarctica. They practiced erecting

the tower in Stellenbosch, followed by an exercise in drilling holes for the foundation plate at Paarl – in solid rock similar to that found in Antarctica.

The actual circumstances were somewhat different, of course.

"Before we could reach the rock below, we first had to dig a hole through the snow," says Stander.

"Team work is essential. We mostly handled the construction of the foundation, the installation of the wind turbine and the integration of the network ourselves, but the base personnel assisted whenever they could."

The wind turbine started working well, but later required repair work. Regrettably, the team had to return before they could complete the work. They left the turbine exactly as it was to see if it could outlast the icy storms with wind speeds of up to 252 km per hour at a height of 10 m.

The team returns at the end of the year and hopes to have all three turbines up and running in Antarctica by 2011.

Prof Willie Perold, Deputy Dean for Research in the Faculty of Engineering and leader of the Energy and Environment Initiative, says the wind power project provides useful knowledge that can be applied elsewhere.

The project is in line with the Faculty's other research projects on renewable energy. Significant progress is being made with, among other things, research into biofuels and the extraction of ethanol from fermentation wastes.

Researchers are also working on mechanical and electrical energy conversion systems. The aim is to make water pumps more affordable to communities in remote areas.

[www.thehopeproject.co.za/energy](http://www.thehopeproject.co.za/energy)

# Mapping the future



Advanced technology shows the way to progress and human development, writes **Hans Oosthuizen**.

The ancient skill of mapmaking, used by artists to guide sailing ships along dangerous sea routes, has evolved into a modern science affecting every aspect of our daily lives.

Thanks to advanced computer equipment and techniques developed over the past few decades, specialists are now able to create precise digital maps. And by incorporating various kinds of data, maps have become powerful tools in urban planning, emergency management, agriculture and public health.

The Geographic Information Technology (GIT) initiative at Stellenbosch University (SU) plays a leading role in teaching, research and service provision in this field – particularly in Africa.

"Our location is important. We

are relatively removed from the world's technology hubs, yet we face enormous human development challenges in Africa. That is why this initiative makes a real difference," says Prof Hannes van der Merwe, leader of the GIT initiative. "We analyse and monitor large parts of our sub-continent. This helps with the management of droughts, floods, earthquakes, deforestation and similar problems."

Different technologies come into play in this initiative: distance measurement techniques (satellite images and aerial photographs), surveillance technology, such as GPS and photogrammetry, and geographical information systems (GIS). Cartography is combined with database technology to capture, store, analyse, manage and present

location-linked data for various purposes.

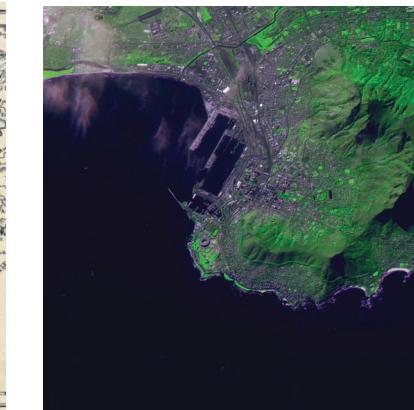
GIT may be applied to whatever has a space component. Real-world applications include census and election planning, the payout of social pensions at post offices countrywide, product distribution and client base information for large companies. Other commercial uses include prospecting for natural resources, site evaluation for large construction projects and identifying marketing and retail opportunities.

In an academic context, geographic information is used for scientific research in a variety of disciplines, from agricultural economics, forestry and nature conservation to medical research, political science and sociology.

At SU, the Department of Geo-



Then and now: An old hand-drawn map of Southern Africa (left) and a recent satellite photograph of Table Bay.



Picture: SUNSPACE & INFORMATION SYSTEMS

graphy and Environmental Studies is responsible for this initiative. It straddles the Faculty of Arts and Social Sciences and the Faculty of Science. Two other departments, Botany and Zoology as well as Sociology, and four other faculties – Engineering, Health Sciences, AgriSciences (including Forestry) and Theology – participate in the GIT initiative.

The University is now casting the

net wider so that more researchers, professionals and policy makers can be trained to put GIT to use for improving people's lives. Academic courses are being developed at SU with a view to offering qualifications in Geographic Information (GI) science. BA (GIS) and BSc (Geoinformatics) degree programmes are being introduced, from first-year level to advanced postgraduate studies.

[www.thehopeproject.co.za/git](http://www.thehopeproject.co.za/git)

# Tsetse flies feel the heat



Researchers investigate the possible effect of climate change on the insect vectors of sleeping sickness and malaria, writes **Engela Duvenage**.

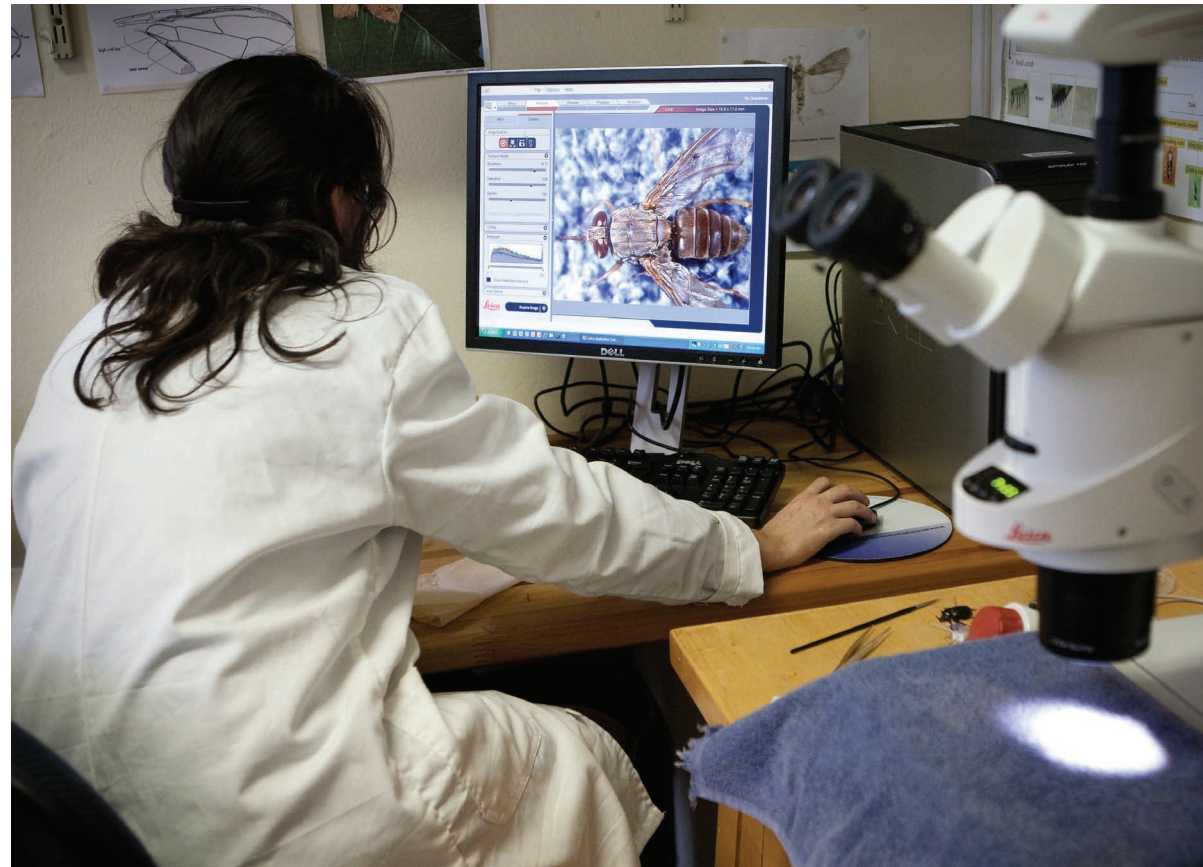
In future, tourists will be able to decide where to take their African safari based on maps of the continent clearly showing areas most prone to sleeping sickness, a potentially deadly tropical disease carried by tsetse flies.

"Such advisories are already available for malaria-prone areas and the regions where tsetse flies are generally found, but there are none that indicate the highest-risk areas for actually contracting sleeping sickness," says Ms Elsje Kleynhans, a Stellenbosch University (SU) master's student in physiological entomology. She is studying the potential impact of climate change on tsetse flies as part of SU's HOPE Project.

Sleeping sickness does not occur in all areas where tsetse flies are found. Only 6 of the more than 30 species of tsetse fly found in sub-Saharan Africa are actually carriers, or vectors, of trypanosomiasis, or sleeping sickness. It is the bite of this hardy, bloodsucking fly that can transmit the trypanosome parasite.



'Hoër temperature kan tsetsevliese metabolisme opjaag en hulle groter aptyt vir gereelde bloedmaaltye gee,' waarsku Dr John Terblanche van die US.



Me Elsje Kleynhans, 'n meestersstudent in fisiologiese entomologie aan die US, kyk met 'n mikroskoop na 'n tsetsevlieg. Sy bestudeer die moontlike invloed van klimaatsverandering op die draers van slaapsiekte.

Picture: BERNARD BRAVENBOER

conditions they are used to.

"Tsetse flies seem unable to stand temperatures higher than 44 °C, which means that rising global temperatures might actually reduce their current distribution range," says Dr Terblanche, who is supervising Kleynhans' research.

"It could also drive the populations further south to cooler areas, for instance more areas in Southern Africa," he speculates.

According to Dr Terblanche, predicting the risk of disease transmission is far more complicated than simply understanding changes in vector distribution. For instance, warmer temperatures could kick-start the metabolic rate of the tsetse fly and increase their need for more frequent blood meals.

Current data puts the chances of humans contracting sleeping sickness from a tsetse fly as 1 in every 20 bites. "More bites mean an increased chance that the parasite will be transmitted," Dr Terblanche warns.

"So, although the actual tsetse populations could shrink, you might find that more people contract the disease because they are bitten more often – also in areas where the flies were not previously found," he explains.

Kleynhans is using a modelling technique developed by Prof Warren Porter of the University of Wisconsin to determine how climate change might influence tsetse fly population size and geographical distribution in the coming decades. She is the first to apply this technique to the tsetse fly.

Because predictions about whether Earth's climate will actually become wetter, drier, warmer or colder – and to what extent – are so varied, Kleynhans is covering all bases and using as many scenarios as possible in experiments.

"This will hopefully make my envisaged tourism warning maps possible, and ultimately help to eradicate the disease," she says.

[www.thehopeproject.co.za/cib](http://www.thehopeproject.co.za/cib)

## Sleeping sickness

- The bite of the tsetse fly erupts into a red sore, and within a few weeks the victim can experience fever, swollen lymph glands, aching muscles and joints, headaches and irritability.

- In advanced stages, the disease attacks the central nervous system and the victim can present with changes in personality, alteration of the biological clock, confusion, slurred speech, seizures and difficulty in walking.

- These problems can develop over many years. If not treated, the victim can die.
- A diagnosis needs to be made as early as possible and before the advanced stage to avoid complicated, difficult and risky treatment procedures.

World Health Organisation



# Good governance crucial for a brighter future



DESMOND THOMPSON

The Unit for Corporate Governance in Africa (UCGA) of the University of Stellenbosch Business School (USB) has been appointed to conduct the company analysis for this year's JSE Socially Responsible Investment (SRI) Index.

Launched in 2004, the Index has become a widely accepted gauge for good corporate citizenship for companies. The index employs a broad range of listing criteria which reflect global SRI standards while accommodating issues peculiar to South Africa, such as Black Economic Empowerment and HIV/Aids.

Mr Daniel Malan, Head of the UCGA, argues that "good

governance is good for business." The UCGA is a research-based initiative. It was founded in 2008 and focuses on the important role that corporate governance plays in South Africa, but also in the wider African and global context.

"Governance is about performance. There are too many companies that see governance only as a tick-box compliance activity where they need to fit within the rules of the game," says Malan.

"We argue that if you focus on performance, it will help organisations do well financially, but also to make a contribution to society, the business world as a whole and to the natural environment. That is sustainability."

Against the backdrop of climate change, sustainability has become

a buzz, but in the business world sustainability refers to the message that money is not everything; social and environmental issues matter too.

The question is how do you get corporate types to stop pursuing profit at all cost while paying nothing but lip service to people and the planet? Do you introduce stringent regulations and make compliance mandatory, or do you get them to cooperate out of their own volition?

In the wake of far-ranging corporate scandals the past few years, governments and financial authorities the world over are wielding the big stick to ensure a minimum level of disclosure and risk prevention. On the other side, there is also the carrot of voluntary standards that can be held out



Mnr Daniel Malan, hoof van die Eenheid vir Korporatiewe Bestuur in Afrika aan die Universiteit Stellenbosch Besigheidskool.

Picture: BERNARD BRAVENBOER

to companies, "which is that if they are given a bit more space to come up with their own ideas they will innovate and go beyond compliance," says Malan.

He maintains that responsible corporate citizenship should be

real, not a publicity stunt. "Many companies, especially in an African context, operate in an environment of extreme poverty. With effective governance they can have a positive impact on the communities within which they operate."

It is not only companies that need to jack up their performance, though. Governments and non-governmental organisations need to improve too. Global rankings in democracy and governance usually position African countries towards the bottom of the scale on both accounts, and this is often used to explain the continent's underdevelopment and inability to attract foreign investment.

Malan says that good governance holds the key to achieving a brighter African future. "If you have a solid democratic system with respect for human rights and freedoms, a system with accountability and transparency, then it becomes easier for companies to operate within that environment and for those values to filter down."

[www.thehopeproject.co.za/governance](http://www.thehopeproject.co.za/governance)

# Someone did listen



The Biblical tale of Tamar's rape is an account of injustice. **Martie Retief Meiring** tells how, many years later and through an extraordinary process, it would be turned into a tool of empowerment.

In II Samuel 13 we read that Tamar, daughter of King David, was raped and rejected by her brother Amnon. In reaction, she tore her clothing, put ashes on her head and wept aloud as she walked through the streets.

One of her other brothers, Absalom, advised her to be "quiet", because "he is your brother". The reader is told only that King David was "furious". Although Absalom did not mention a single word to Amnon about the despicable act, he "hated" him for it.



Dr Charlene van der Walt.

Picture: JAC DE VILLIERS

In 2009, a group of 32 women from diverse cultural and language backgrounds convened in Grahamstown to reflect on this story. The initiative was steered by the Reverend Charlene van der Walt, a young Dutch Reformed Church minister who had by then completed a master's study on power and ideology as found in Old Testament texts.

She wanted to dig deeper into the modern reader's understanding of the Bible and decided to ask women from diverse backgrounds what they thought of Tamar's story.

"I wanted to know how women readers would interpret this text," says Van der Walt. "The Bible

sometimes appears defunct and entirely out of touch with ordinary people's frame of reference. I wanted to determine how women perceive and heed each other's opinions. How does that affect their personal opinions?"

Van der Walt wanted to determine how modern readers interpret this Old Testament text in today's world. Eventually she would produce a remarkable study on how women empowered themselves and experienced significant social interaction among each other.

The young minister's promoter at Stellenbosch University (US), Prof Louis Jonker, related her research to the institution's commitment to service rendering in society, as expressed by Prof Russel Botman, Rector and Vice-Chancellor, in his 2007 installation speech. This commitment was extended over time and resulted in the HOPE Project, a set of comprehensive development themes through which the University aims to help make the world a better place.

In 2009 Van der Walt was selected as the first bursary holder of the Faculty of Theology's Focus on the Promotion of Human Dignity, an academic initiative that falls under the HOPE Project. That enabled her to complete her doctoral degree.

Human dignity is an important theme in at the Faculty. "As Christians we believe that all people are created in God's image (Genesis 1:26-27). That is the source of human dignity in our understanding," says Prof Julie Claassens, senior academic at the Faculty's human dignity initiative.

"We are called to individually and collectively work for a more just and humane world in which it is not acceptable to diminish or degrade the worth of women, men and children, regardless of their race, colour or sexual orientation."

Van der Walt's Grahamstown project focused on dialogue, listening, sharing and learning. The women read Tamar's story together with the aid of various translations. The discussion was facilitated through the drawings of Tammy Griffin, who depicted situations relating to rape and women's responses to that. A facilitator, Kim Barker, recorded the questions and answers in the discussion sessions.

The participants approached the text from various angles, including a feminist perspective and a traditional African mindset. However, during the process everyone came to the same conclusion about Tamar's tragic history: the deafening silence surrounding rape that prevailed in various cultures had to be broken in order to bring about healing for the aggrieved woman and her community.

Van der Walt's research makes for riveting reading. One of the participants in a discussion session said vehemently: "I feel a terrible anger that nothing has changed over so many decades. We are still discussing the major issue of silence."

The women posed many questions about Tamar's ignorance and powerlessness. After all, she had to have known that something was amiss when her supposedly ill brother asked specifically for "heart-shaped cakes" and she had to go and bake them at his house, because "he wanted to eat from her hands".

When he forced his attentions on her, she tried to bargain with him,

but to no avail. "Don't, my brother!" she said to him. "Don't force me. Such a thing should not be done in Israel ... (p)lease speak to the king; he will not keep me from being married to you." But Amnon would not listen to her. He grabbed her and raped her."

*"I wanted to determine how women perceive and heed each other's opinions."*

After he had finished with her, he developed an "intense hatred" for her and ordered his personal servant: "Get this woman out of here and bolt the door after her!"

This story prompted the reader group to divulge their own realities. "Tamar was prepared to do everything for Amnon. That is what we as women usually do," one of the participants said.

One of the readers pointed out that Amnon had shifted the blame for his crime to Tamar by sending her away. Another reader observed that the community had preferred to believe that the woman was "asking for it" and that she did not deserve any respect from the man.

All participants in the project – both black and white – noticed

that Absalom refrained from saying anything against his brother, although he hated him for the rape. Almost everyone agreed that most rapes occurred within the family. That was often the main reason for the subsequent silence.

One of the participants puts it this way: "We are supposed to have democracy and equality as a legal right, but women do not have equal rights. Men hold the power, and we have to listen. Our husbands are like the old tribal chiefs. They do what their ancestors have done. After all, that is how the Bible relates it."

Van der Walt's discussion sessions with the group of women would lead to appeals for self-empowerment. The participants said that the study had given them hope that their condemnation of rape would be clearly heard.

They also undertook to put a stop to the "power games" surrounding rape – the silence and denial – in order to help the community restore what had been broken. In the end they agreed that through their communal reading and reflection they themselves had gone through a process of transformation.

Van der Walt regards the discussion sessions as a portrayal of how social transformation can change the world. That is her response to philosopher Michel Foucault's thesis that the most important thing in life is to become a different person to the one you were before.

[www.thehopeproject.co.za/humandignity](http://www.thehopeproject.co.za/humandignity)



Picture: STEFAN ELS

# New centre for 'watchdogs of democracy'



SONIKA LAMPRECHT

Journalists who stand for a free and independent media are often targeted by oppressive regimes, but Zimbabwean journalist John Masuku, a postgraduate student in journalism at Stellenbosch University, refuses to be deterred.

He is executive director of Voice of the People (VOP), an independent radio station in Harare founded in 2000 as an alternative news source for Zimbabwe amidst mounting opposition to the rule of President Robert Mugabe at the time. Media freedom was subsequently suppressed by the government.

VOP broadcasts on short wave via a relay station of Radio Netherlands in Madagascar. In 2002, a bomb destroyed all the station's equipment. And in 2005, VOP's signal was jammed and it had to switch frequency.

"Whenever I am attacked it always motivates me to fight even harder for a free and fair media in Zimbabwe," Masuku says.

Masuku, who is doing his master's degree on the state-controlled Zimbabwean Broadcasting Corporation, has strong views on the role that the media should be playing.

"We are the watchdogs of democracy. After many years of one party rule, freedom of expression is not very strong. The media can help to improve things by reporting objectively," he says.

"We must expose all forms of corruption, and help the nation to find healing. We must make inputs into constitutional and media reform."

In the African Press Freedom Report of 2009, Gabriel Baglo, executive director of the Federation of African Journalists (FAJ), said that press freedom was still under threat in Africa despite 20 years of democratisation.

"Independent journalism continues to be a perilous profession on the continent, even in peaceful zones. Governments, politicians, economic and religious groups often see the media and journalists as

impostors who have no business in reporting critical issues," he said.

Prof Lizette Rabe, Head of Stellenbosch University's Journalism Department, says the link between media freedom, human rights and democracy is important theme for MEDIAAFRIKA, the institution's new multimedia journalism training and research centre under construction behind the Department's current premises.

"An informed society is an empowered society. Journalism is one of the keys to empowerment. We need quality journalism to advance human development in Africa. MEDIAAFRIKA will help us to realise this goal," she says.

In a 2007 study, the United Nations Educational, Scientific and Cultural Organisation (Unesco) included SU's Journalism Department among the top twelve schools of journalism in Africa. Over the past ten years, the Department's BPhil students have achieved an average of 76% during their internships at various publications and media organisations.

The Department's external partners include Media24, Avusa, and Ramsay Media, leading African media companies. It prides itself in delivering quality journalists who are able to fit smoothly and quickly into a professional working environment.

It's one-year BPhil degree (honours) in journalism is aimed at students who have already obtained a university degree. Its MPhil and DPhil programmes focuses on advanced research in journalism.

The modern, double-storey MEDIAAFRIKA building will include a multifunctional lecture hall, multimedia newsroom with audio and video editing suites, and space for students to relax and interact with each other.

"We are bursting at the seams. But with the new building we will be able to offer our students better facilities and accommodate more visiting scholars," says Rabe.

[www.thehopeproject.co.za/mediafrika](http://www.thehopeproject.co.za/mediafrika)



Stellenbosch master's student in journalism Mr John Masuku, a Zimbabwean journalist and campaigner for media freedom, on a visit to Denmark in 2009.

Picture: SUPPLIED

# Security of tenure strengthened



SU's Legal Aid Clinic succeeds with case that will give farm workers better protection against illegal eviction, writes **Desmond Thompson**.



Ms Marion Hattingh (back) a lawyer with the Stellenbosch University Legal Aid Clinic, with her clients (front from left) Mr Ricardo Hattingh, his brother, Mr Peter Hattingh, mother, Mrs Magrieta Hattingh, sister-in-law, Mrs Edwina Hattingh, and brother, Mr Michael Hattingh. Young Elvino en Micayla are Michael en Edwina's children.

Picture: BERNARD BRAVENBOER

Farm workers' security of tenure was recently strengthened thanks to a court case in which the Legal Aid Clinic at Stellenbosch University (SU) assisted a family on farm in the area.

The Stellenbosch magistrates' court rejected an application by the farm owner, Mr Laurence Edward Juta, to evict the adult children of Mrs Magrieta Hattingh (65), a farm dweller and former farm worker, in June. The court found that she was entitled to a family life under the Extension of Security of Tenure Act (ESTA). Her children may accordingly live with her for as long as she resides on the farm. No application was made for her eviction.

The Hattingh family was overjoyed about the finding. They had been living in a workers' house on the farm for the past eight years. "I was so grateful to the Lord when I heard that my children could stay with me. It was my heart's desire that our family would not be broken up. We arrived here together and so we need to stay together," Hattingh says.

Mrs Hattingh and her deceased husband, Mr Michael Hattingh, had worked for the land owner. She was dismissed about five years ago, but according to court records Mrs Hattingh and her employer had reached a settlement about the matter at the Commission for Conciliation, Mediation and Arbitration. Her husband passed away two years ago.

Mr Michael Hattingh Jr (32) says he welcomed the news that they would not be evicted. "We have been here for a long time. To think that a family who have moved together, could be torn apart ... What would

have happened to my mother? She did not want to live here alone and we did not want to leave her behind."

His wife, Mrs Edwina Hattingh (30), and their children, Micayla (10) and Elvino (3), also live on the farm, as does his brothers, Messrs Peter (40) and Ricardo (23) Hattingh.

Ms Marion Hattingh, an attorney at the Legal Aid Clinic, who deals with the Hattingh's case, says of particular importance from a legal point of view is the court's ruling concerning joinder in this matter. The court decided to officially involve the local municipality, as well as the Department of Rural Development and Land Reform and the Department of Human Settlements in the case.

In terms of the Constitution nobody may be evicted without a court order and everyone has the "right of access to appropriate housing". The state must take "measures, within its available resources, to achieve the progressive realisation of this right". Before a court permits evictions it must consider "all relevant circumstance", including the "availability of suitable alternative housing". The magistrates' court ruled the joinder of the municipality and two government departments so that they could provide the required information.

According to the Legal Aid Clinic this is the first joinder of its kind in terms of ESTA, but it does not set a precedent as it took place at the level of the magistrates' court. However, in matters under related legislation for urban and rural areas the appeals court has ruled similarly in favour of joinder.

The Legal Aid Clinic plans to again apply for the joinder of state

organs in future farm eviction cases. They will have to say what they are doing to provide housing to those in need. Should alternative housing or emergency housing not be available, an eviction order will not be easily granted. This strengthens farm dwellers' security of tenure.

The Legal Aid Clinic says on its web site that farm evictions are "one of the most important legal issues in the Boland" and that this is its "chief specialisation area". "Right of residence of farm workers on farms is solely dependent on employment contracts. Poor labour relations often result in dismissals, followed by eviction applications. Evictions and the subsequent homelessness are a threat to the human rights of farm workers and their children – they become outcasts with little hope of finding homes again and resuming their family life."

Ms Hattingh of the Legal Aid Clinic says farm evictions is a "huge problem" because in "nine out of ten cases in which the court grants an eviction, the family disintegrates completely and the children are placed in foster care".

She says the clinic deals with approximately 40 farm eviction cases every year. "This represents 40 families that require housing annually. Over a period of five years, this a large number of people. Alternative housing simply does not exist. Moreover, no projects are available for people who get evicted from farms."

Juta has served notice that he will be appealing against the ruling. A court date has not been set as yet. The Legal Aid Clinic plans to oppose the appeal on behalf of the respondents.

[www.thehopeproject.co.za/povertyrights](http://www.thehopeproject.co.za/povertyrights)





From left: Ryan Andrews, Shanice Sawyer, Faatimah Timm and Zoelfa Allie of Delft Primary School participate in a workshop hosted by SU's Africa Centre for Dispute Settlement. Picture: BERNARD BRAVENBOER

# Sowing seeds of peace

SU's school mediation project contributes to efforts to break the cycle of violence in conflict-ridden communities, writes **Stephanie Nieuwoudt**.

As is often the case in communities burdened by poverty, the people of Delft on the Cape Flats are tormented by violence and conflict. And the next generation has not escaped the effects of this. Here children are sometimes seen venting their frustrations in socially unacceptable ways such as bullying or by abusing alcohol and other drugs from a young age.

An initiative launched in 2009 in an effort to break this cycle is yielding promising results. The Desmond Tutu Mediation Project for Schools is an initiative of the Africa Centre for Dispute Settlement, a division of the University of Stellenbosch Business School.

Learners, parents and teachers are trained as mediators in order to resolve conflict peacefully. This project has the support of Archbishop Emeritus Desmond Tutu who received the Nobel Peace Prize in 1984. He is the patron of the Centre. Ryan Andrews (12), a learner at Delft Primary School, is excited about personal benefits gained from the project. "Mediation is very important in Delft, as we experience severe poverty here. This leads to a lot of problems, like gangsterism and theft. Some people will steal the last drop of spit from your mouth."

"It is important for me to learn how to resolve conflict, because I hate to see people hurting each other. I want to prevent this kind of behaviour," he said.

From various letters to Mr Francois Botha, a former magistrate who is ploughing back his experience into the mediation project as project leader, it is evident that the programme has already made a difference to many children's lives. A Grade 6 girl writes that she used to be a gang member and smoke dagga. Since becoming involved in the project she is no longer involved in crime or drugs.

Training takes place through discussions, the presentation of learning modules and role-play. The value of the project lies in the fact that not only exemplary children are trained as mediators, but also those with behavioural problems.

Twelve-year-old Faatimah Timm has the face of an angel. Although she appears to be a gentle child, her story is that of a girl who used to bully smaller children.

"I do not know why I did it. But I have learnt since that this does not have to be like that. When my sister and brother argue about something, I tell them to rather talk than fight."

Botha says: "Bullies are usually children who have been bullied themselves; that is why we try to establish new patterns of behaviour."

*‘Some people will steal the last drop of spit from your mouth.’*

Zoelfa Allie (12) says she always believed the best way of resolving a problem was "through shouting".

"I used to shout at everyone when I was angry. But now I know the importance of communicating calmly."

Chantol Carelse (13) adds that she was able to apply the skills acquired as mediator to situations outside the school. "I now know how to tell people that it is better to talk quietly to each other than to shout at the other person."

The project involves 12 Delft schools, with 20 children being trained in each school. Four group leaders from the community are responsible for the training.

"We started in Delft simply because of all the violence here. This

is a forgotten community with few of the privileges and services that are available to more advantaged communities. Negative role models are becoming the examples on which these children model their lives. The sooner we intervene in a child's life to break the circle of violence, the better," says Botha.

Ms Cynthia Botha, principal of Delft Primary School, agrees: "The majority of households in the area do not offer children a stable routine. They are allowed to roam free from very young, which is why gangsterism, alcohol abuse and the smoking of dagga are prevalent in the area.

"However, we have noticed significant changes since the launch of the mediation project. Children who used to be bullies and suffered from other behavioural problems had learnt to become more empathetic. Because they act differently and often show good leadership traits, other children soon regard them as role models."

It is not only learners who benefit from the school mediation project. According to Mr Akhona Baba, one of the group leaders, he has also learnt a lot from the learners. "Thanks to the sessions that I attended as trainer, and my interaction with the children, I am learning to change my own negative behaviour. I am now more careful in what I say and how I say it."

Another group leader, Ms Michelle Adonis, says: "This project is teaching me to think creatively. I now have to come up with new ideas all the time to keep on feeding the learners' interest in the project."

Prof Barney Jordaan, director of the Centre, says the experience gained in the school mediation project is fed back into research so that the impact of the initiative can spread far and wide.

[www.thehopeproject.co.za/disputesettlement](http://www.thehopeproject.co.za/disputesettlement)

## Leadership training to consolidate democracy

DESMOND THOMPSON

A new institute that will promote principles of democratic leadership and good governance in Africa is being established at Stellenbosch University (SU).

"We will be training leaders in the military, police, intelligence and similar fields. But public officials and politicians will also be targeted because there is now a clear understanding that civil society and the security sector need to work together," says Lt Gen Louis Matshwenyego Fisher, Interim Director of the Security Institute for Governance and Leadership in Africa (SIGLA@Stellenbosch).

Fisher knows his stuff. Before joining the ranks of the scholars – first at Wits University, then the University of Botswana and now at the University of Stellenbosch Business School (USB) – he was Chief of the Botswana Defence Force for eight years.

"I always joke that I used to be a general in the military and now I am a corporal in academia. But I do believe I have something to offer, and I am willing to learn."

This trait has clearly served Fisher well. He encourages others to be students of history too.

"Political and military conflicts have caused much suffering in Africa. And a lot of it had to do with leaders imposing themselves on the people. The incoming generation should be learning from these mistakes, not repeating the same ones. Only once that happens will peace and development prevail in Africa."

SIGLA intends forging close ties with the Africa Forum, a network of former heads of state and government on the continent.

"They bring experience with them. They have been there. They have seen it all. Their knowledge should be shared with the leaders of today."

The Institute will be focusing on the relationship between leadership and governance. It believes that good leadership is required for both human security and development.

"A good leader is someone with vision, someone who understands that transparency and accountability are part of his mandate. A good leader will understand that he has got a responsibility to the people he is leading. He is approachable and

listens to his people."

Democratic principles, such as upholding the constitution and regularly staging free and fair elections, form part of SIGLA's vision for good governance and accountable leadership in Africa.

"In terms of examples, we are looking at leaders who understand that when their time is up, they have to go. Leaders have to respect the rules of the game. They can't just change it to suit them. The rule of law needs to be respected."

SIGLA believes transformational leadership can help the continent overcome its political and governance challenges by harnessing skills and shaping talent into effective tools to develop and sustain African nations. Fisher says the Institute will put the fact that it straddles different disciplines and structures to good in order to empower its students.

SIGLA is attached to the USB in Bellville, but it also maintains strong links with SU's Faculty of Military Sciences and with the University's School of Public Management and Planning.

*‘The incoming generation should be learning from these mistakes.’*

"There is rich experience in the University's different faculties and departments. We will take advantage of this so that when these senior people come to us for advanced leadership training, we will help them draw on different sources of excellence built up over years."

SIGLA will be offering a range of training opportunities, from relatively short courses for working executives, to in-depth postgraduate degree programmes on the master's and doctoral level.

"As Africa recovers from past conflicts, the consolidation of peace becomes central to the reconstruction of the continent. The achievement of human security is a crucial part of the continent's developmental goals," says Fisher.

[www.thehopeproject.co.za/sigla](http://www.thehopeproject.co.za/sigla)



Luitenant-generaal Louis Matshwenyego Fisher, tussentydse direkteur van die Sekerheidsinstituut vir Regeerkunde en Leierskap in Afrika (SIGLA @ Stellenbosch). Picture: BERNARD BRAVENBOER

# Farming is a business

MARTIN VILJOEN

You are neither a prize-winning dairy farmer just because you can milk a Friesian cow, nor a champion crop farmer just because you know what to do with maize seeds. To be successful these days you not only need to know how to farm, but also how to manage a complex business."

This is according to Prof Johan van Rooyen, director of the newly established Standard Bank Centre for Agribusiness Leadership and Mentorship Development at Stellenbosch University (SU).

"You must be able to make strategic decisions, analyse financial statements, manage and develop people and show operational leadership. With this development we want to assist with those skills," he adds.

The Centre, a partnership between the banking group and the University, serves as a link between new and upcoming farmers and agricultural communities on the one hand, and the agribusiness value chain on the other.

Land reform is a national priority, and it is in this context that the Centre focuses on previously

disadvantaged communities and individuals. The government's goal is that by 2014, 30% of South Africa's agricultural land will be owned by black farmers. Experts agree that aid to new landowners will help them farm successfully.

"Standard Bank believes that improved access to education, information and the agricultural value chain will empower developing farmers to make a significant contribution to the country's economy," says the bank's director of Agricultural Banking Services, Willie du Plessis.

Specialised knowledge of agriculture does not come automatically. That explains why many land reform projects in South Africa fail. "We believe the answer can be found in knowledge and mentorship, and this is where we believe the centre can make a significant difference," says Van Rooyen.

The centre plans accredited short courses in mentorship and guidance management – nationally and possibly elsewhere in Africa in collaboration with PriceWaterhouseCoopers.

Discussions are being held with the University of Stellenbosch Business

School (USB) to make executive leadership development part of this effort.

Following from these courses in mentorship it is expected that a database of projects and mentors will be published and made available to the benefit of the industry.

The centre offers both postgraduate programmes and shorter certificate and diploma courses. Both sections have a strong academic basis and are interdisciplinary by nature. The target group comprise graduates and operational leaders in agribusiness.

It is expected that at least ten masters and three PhD students will be enrolled at the centre within the next three years, and that at least 60 applications for the mentorship course will be received every year.

The centre's programmes are put together in such a way that prospective students will not necessarily require a graduate qualification in agriculture in order to follow the postgraduate programme. However, a qualification in commerce will be a prerequisite.

In certain instances a bridging course will have to be followed first.

"We want to be a collection point for the agricultural industry where



Mr Willem van Kerwel, Manager of SU's Welgevallen Experimental Farm, in the dairy. He knows all too well that livestock are assets that have to be well managed for the sake of profitability.

Picture: BERNARD BRAVENBOER

the various role players can share their experiences – whether projects have been successful or have failed. We want to scrutinise case studies together, learn from each other and plough back this knowledge into the industry," says Van Rooyen.

Prof Mohammad Karaan, Dean of the University's Faculty of AgriSciences, believes success in the agricultural sector "reaches far beyond food on the table". He was recently appointed to the

government's National Planning Commission chaired by Minister Trevor Manuel.

"Agriculture plays a pivotal role in both economic growth and the development of human resources in South Africa and on the rest of the continent. That can be achieved only if agricultural development takes place and business-oriented land reform programmes are successfully executed," says Karaan.

[www.thehopeproject.co.za/agri](http://www.thehopeproject.co.za/agri)

# Mini helicopter promotes food security

Is it a bird? Is it a plane? No, it's the amazing flying hunger buster! Developed by SU engineers, this unmanned eye in the sky will monitor crops on autopilot. **Sonika Lamprecht** reports.

Stellenbosch University's (SU) Department of Electrical and Electronic Engineering has developed an unmanned helicopter that will enable farmers to monitor their crops, pasturage, vineyards and orchards from the sky.

At present farmers have to rent

helicopter is the detail. "If you want to look at a specific aspect such as drought across the country or province, you will use a satellite image. But if you need information about the vineyards on a specific farm or want to count livestock, then the autonomous mini helicopter will be more effective," says Jones.

By looking at the different colour bands in a photo, one can gather information about aspects such as the water content of soil and chlorophyll content of plants. Farmers can also monitor fencing, the effects of erosion on their land or count game.

Besides having huge potential for agriculture, the autonomous aircraft can also be utilized in other areas such as forestry, conservation, policing and the military.

Different parts of the helicopter were first tested on other vehicles to make sure they were safe. The autonomous flight control system was tested on smaller helicopter systems, the electronics on aero-planes, and the camera system on various fixed and moving platforms.

At this stage testing is being done under strict control at an airfield.

The next step will be to do operational tests in an agricultural environment.

Jones says they hope to have a cost-effective and dependable system ready by 2013. He is working with the Civil Aviation Authority on rules and regulations for unmanned aircraft. The aim is to have legislation regarding the operation of autonomous aircraft passed by 2014.

How does it work?

The airframe of the mini helicopter, a German-made Vario XIV with a 2,5m rotor, is fitted with specialized avionics used to control the aircraft and a video camera.

One of the major advantages an unmanned aircraft has over a remote-controlled aircraft that must be seen in order to be controlled is



Prof Thomas Jones (right), leader of the unmanned aircraft project, and the engineers who built the mini-helicopter, Messrs Rudi Gaum en Ruan de Hart (links).

Picture: ALEXIA WEBSTER

that it can be sent out of sight. It can travel 5km-10km from the base station, and can stay airborne for up to 45 minutes with approximately 2 litres of fuel.

Mr Ruan de Hart, a member of the team of electrical and electronic engineers that built the aircraft, explains that the helicopter is fitted with an inertial measurement unit and a Global Positioning System device. This enables it to determine its speed in relation to the earth.

When the coordinates of a destination is sent to the computer on board the helicopter, it determines its own flight path. The computer tells the engine when to accelerate, hover and land. A collision avoidance system can also be integrated in order for the aircraft to automatically detect and react to obstacles.

Constant contact with the helicopter is possible through a

radio system linked to a computer at the base station. In this way new coordinates and commands can be sent to the aircraft to hover at a specific place and height or get closer to a specific object or area. The camera can be programmed

to take pictures or video footage at predetermined coordinates or while viewing real-time footage sent from the aircraft to the ground station the camera can be ordered to take specific pictures.

[www.thehopeproject.co.za/fsi](http://www.thehopeproject.co.za/fsi)

## Attack on hunger

Worldwide, a child dies from hunger or related causes every six seconds, and in developing countries alone, 907 million people do not have enough to eat, more than 60% of whom are women.

These statistics from the Food and Agriculture Organisation of the United Nations (FAO) drive home the point that more should be done to eradicate endemic poverty and hunger. The SU Food Security Initiative (FSI) is a comprehensive attempt to do exactly that.

The initiative combines the expertise of leading researchers from different departments in five of the University's faculties – Health Sciences, AgriSciences, Science, Arts and Social Sciences, and Engineering – into a multi-pronged attack on hunger. "Food security is not an abstract concept. The ideal of having enough of the right food on one's plate instead of going hungry is very real," says Mrs Julia Harper, FSI project manager. "How we achieve this goal is extremely complex and requires thorough and rigorous interdisciplinary work."



# Women leaders of the future

Research indicates that most women in executive management positions have proven their skills on the sports field. A new initiative at SU aims to take advantage of the link between sport and leadership skills, writes **Stephanie Nieuwoudt**.



**Ms Vidette Ryan, who plays for Maties and South Africa, in action on the hockey pitch. She acts as a mentor to high school learners as part of SU's new Academy for Girls' Leadership and Sport.**

Picture: ALEXIA WEBSTER

**W**omen in Africa are still at the short end of the stick at various levels, whether socio-economically, politically or academically.

And that, according to Prof Liz Bressan, Director of the Centre for Human Performance Sciences at Stellenbosch University (SU), is why the women leaders of the future should be empowered through initiatives such as the institution's new Academy for Girls' Leadership and Sport.

The Academy is a project of the Centre and forms part of an overall academic initiative entitled Universities' Partnership in Adapted

Physical Activity.

About 30 girls between 14 and 19 years old benefited from the Academy's pilot programme the first half of 2010. Learners from the Rhenish Girls' High School in Stellenbosch, as well as other schools, were involved in the project, and while many excel on the sports field, others have only a vague interest in sport. However, they all flourish in leadership roles.

"One of the objectives of the Academy is to empower women and girls through sport and a healthy lifestyle," says Ms Jenny King, principal of the Academy and a former head coach of the South

African national women's hockey side.

Learners get to participate in such activities as camping, archery, hiking and table tennis. There is also a focus on competitive soccer, hockey, netball, swimming, athletics and golf.

Luanne Thomas (14) and Anushca Joseph (14), who were identified as girls with strong leadership qualities, say they had gained a great deal from the pilot project.

"My self-confidence has increased because I managed to acquire new skill, such as listening and communicating effectively," Luanne says.

She explained that the project also included the Sport Counts Programme. With this project high school learners such as herself and Anushca are roped in to help primary school learners.

"I have learnt how to work with younger children and to help improve their physical activity and numeracy skills."

Luanne and Anushca perform excellently at school – their average is above 80% – and they say they are ready to plough back their new skills.

"Many children struggle with numeracy skills. I hope to begin a project in the future through which I will be able to help them," Anushca says.

In turn, high school learners are assisted by female students at SU who perform well both academically and on the sports field.

Ms Vida and Vidette Ryan (26) represented South Africa in hockey at the Beijing Olympic Games in 2008. They are also excellent students and already each hold an honours degree in sport science. They are busy with further studies, and in the meantime still regularly run out for the Proteas and Maties.

About her mentorship Vidette says: "There is an old adage that if you teach someone, you also learn something in return. We noticed that the high school girls became more enthusiastic to participate in the activities as they assisted the younger children."

From own experience Vida knows the value of participating in sports. "I was painfully shy when I was younger, but playing a team sport taught me to communicate and

assert myself."

Naturally, both know the importance of constantly having someone by their side to encourage them.

"Beings twins means that we always had each other to depend on for support," Vida said. "We were each other's role models and could measure our performance on the sports field and in the classroom through healthy rivalry."

Efforts are being made to extend the projects beyond national borders. "One of the greatest challenges is to equip women of Africa with the skills required for them to take their rightful place in society," says Bressan.

"We hope to extend this initiative to other universities in South Africa and Southern Africa, and in that way to contribute to the empowerment of women on the continent."

[www.thehopeproject.co.za/humanperformance](http://www.thehopeproject.co.za/humanperformance)



**Prof Liz Bressan**

Picture: JAC DE VILLIERS

## A sporting chance

SU's After-School Programme keeps children out of harm's way and makes learning fun, writes **Liezl Scholtz**.

**T**he old adage that children learn while they play has inspired a new outreach project by Stellenbosch University (SU) to improve kids' performance at school and teach them important life skills.

Grade 3 learners from the greater Stellenbosch area have been enrolled in the After-School Programme of the university's Youth Sport Initiative (YSI), which uses soccer for development purposes.

The children are collected from school in the afternoons for extra lessons and assistance with their homework, life skills training and football practice. They get a healthy meal at the start of the session and nutritious snacks in-between.

The results have been encouraging, with the participants making good progress both on the sports field and in the classroom.

"We have been working with the kids since February and we have seen an amazing transformation in their lives since then. Some of them struggled at school but have improved on so many levels since starting the programme," says Ms Vossie Dirkse van Schalkwyk,

Manager of the YSI.

The initiative is a joint venture between the Stellenbosch University Sport Performance Institute (SUSPI), Centre for Human Performance Science and Maties Sport. The after-school programme is being piloted over a period of three years and is expected to reach 600 children.

"The university has a proud sporting heritage, good facilities and relevant academic excellence. We want to use all of this to the benefit of society," says Prof Julian Smith, Vice-Rector for Community Interaction and Personnel.

Principals of primary schools in the greater Stellenbosch area were approached to nominate candidates who were academically at risk but showed sporting potential. About 120 children have so far been enrolled in two groups, with some attending on Mondays and Wednesdays, and the rest on Tuesdays and Thursdays.

"It is not just about soccer. We have a holistic approach," says Dirkse van Schalkwyk, for whom the programme is not just a job but clearly a heartfelt passion.



**Grade 3 learners from the greater Stellenbosch area who participate in the programme are taught physical, academic and life skills.**

Pictures: JACQUES BOTHA



"Besides football training, we give the kids different physical exercises. This helps to develop their hand-eye coordination, amongst other things. They also learn life skills, including confidence building, dealing with conflict, communication skills and health education. We want to create an environment where the kids are encouraged to think for themselves."

An example of what can be achieved with this approach is the change brought about in the behaviour of one of the children [name withheld to protect identity]. He came to the programme with

the reputation of being a "bully" at school. After four months on the programme he has turned out to be one of its star pupils.

"All he needed was the right stimulation, attention and guidance. He is now one of the leaders in the class," says Dirkse van Schalkwyk.

A new soccer centre is being built at the Lentelus grounds next to the Goldfields residence. A soccer academy is also being established. Both of these initiatives form part of the University's YSI. It is foreseen that children previously deprived of equal opportunities due to South

Africa's social imbalances will benefit from these initiatives.

"By targeting children with learning difficulties from disadvantaged schools we hope to break the cycle of poverty that they are caught up in," says Ms Gugu Ntuli, CEO of SUSPI and Project Leader of the YSI.

"Many of them are exposed to crime and drugs in their communities. We are providing a supportive, protective environment within which they can learn and develop, safe from danger."

[www.thehopeproject.co.za/youthsport](http://www.thehopeproject.co.za/youthsport)