

# Faculty Newsletter

## MESSAGE FROM THE DEAN

It is hard to believe the first vacation week for 2010 has come and gone and we are into the second half of the first semester.

Although the first year intake for 2010 exceeded our target, the total number of first years was 18.6% lower than the intake for 2009. We are fully aware that there is still pressure on all staff with respect to teaching, lab practicals, lecture venues, etc. The Faculty will monitor this closely and will support the Departments where necessary.

Following on from the Faculty Board discussion at the end of last year, an admissions task team was formed with representatives from all departments, to discuss the admission criteria for EBE applicants in 2012. The task team will develop a model which they will present at the Faculty Board meeting in May.

This being the World Cup year, I am well aware of the pressure that the early start to the academic calendar has put on staff. This is a once-off and I ask that we work together and support one another where we can, to ensure we continue to provide quality teaching to our students.

The University is in the process of

updating the RFJ criteria which will be aligned with faculty specific adhom criteria. This will be presented to the May Faculty Board.

Professor Mark Alexander's tenure as Senior Deputy Dean came to an end in December 2009. From January 2010 he took up the position as Assistant Dean with the academic development portfolio. The support and input that he has given me over the past two years has been greatly appreciated. I am happy that he will still be assisting with academic development. Professor Paul Bowen has taken up the posi-



tion of Senior Deputy Dean with the undergraduate academic portfolio and Professor Candy Lang will continue as Deputy Dean with the portfolio of research and postgraduate studies.

At the DAC Indaba in December 2009, feedback was given on the performance and progress of our annual strategic priorities. In 2010 emphasis will remain on transformation in the Fac-

ulty. The Values and Culture working group will be stepping up the programme to develop a set of values for the Faculty, and the Employment Equity group will be working closely with HR to monitor and report back on the status of employment equity in the Faculty.

The Foundation for Public Good has had a name change to the EBE Initiative for Public Good. Good progress has been made in this field and the launch of the initiative is taking place on 21 April. The proposal to the VC's strategic bid was successful and money was awarded for the projects put forward.

This year we will be holding a Safety Day in the last week of July to highlight once again the importance of safety in the fields of engineering and the built environment. A special focus in the Faculty will be on energy efficiency and a campaign will be developed to encourage staff and students to save energy. We will continue to support and highlight HIV/AIDS and the importance of knowing your status. We will raise the profile of TB and how it affects people in the workplace.

I wish you all the best and look forward to working with you in this exciting but challenging year ahead. I would also like to remind staff of the Speak-to-the-Dean email facility.

### IMPORTANT DATES TO REMEMBER

University Open Day	17 April
UCT Maths Competition	20 April
Launch of the EBE Initiative for Public Good	21 April
Faculty Awards Evening	29 April
UCT Science day	8 May
Hy/SA Catalysis Competence Launch	26 May



**FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT**

# CONGRATULATIONS

## ENERGY RESEARCH CENTRE

In the December 2009 Energy Management News it was reported that the Energy Research Centre has been selected as the African Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA) Regional Designated Centre (RDC) in the field of Energy Planning.

This follows a process that has been ongoing for over a year, and included a visit by a two-man evaluation team to the ERC last year.

As an RDC, the ERC will help the International Atomic Energy Agency (IAEA) to provide training to African energy planners and provide general support in the area of energy planning to the AFRA member states (i.e. most African countries). It also means, amongst other things, that there will be money available to offer training to energy planners from around Africa, and the IAEA will pay the costs.



## NRF RATING

Congratulations to A/Professor David Root from the Department of Construction Economics and Management, who has received a C2 NRF rating.

## INTERNATIONAL RESEARCH GRANT

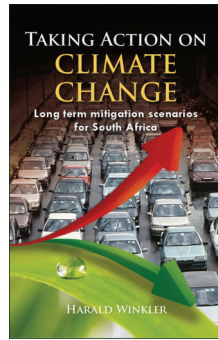
Rachel Mugai has received a six-month research grant from the German Academic Exchange Service (Deutscher Akademischer Austauschdienst - DAAD).



This short-term scholarship will enable Rachel to carry out her PhD study at the Technische Universität München (TUM) in Germany from 15 April to 15 October.

Rachel is doing her doctoral research in the Concrete Materials & Structural Integrity Research Group in the Department of Civil Engineering.

## CLIMATE CHANGE



On 17 February Harald Winkler's book "Taking Action on Climate Change – Long term mitigation scenarios for South Africa" was launched at the Juta Head Office. For more information on the book visit [www.uctpress.co.za](http://www.uctpress.co.za)

## AQUATEST

During 2009, the UCT Aquatest team, led by Associate Professor Ulrike Rivett, worked further on developing the WQReporter cellphone support system for water quality monitoring. The system is now implemented in four municipalities across the country, supporting the delivery of safe drinking water to rural consumers.

A total of 35 users were trained during implementation visits to the Eastern and Northern Cape, and there are currently approximately 150 water sources being monitored through the cellphone system.

During 2010, the UCT Aquatest team plans to assess the impact of the system on information management, resource allocation and service delivery through intensive primary research, predominantly stakeholder interviews.

Current feedback from the users, who include environmental health officers as well as borehole caretakers and municipal workers, has been very positive. Major success factors have included the ease of training people on the mobile-phone-based system, as well as the ability to supply a menu on the phone in multiple languages. The international project team from the Aquatest project visited South Africa in December 2009 and joined us on a field trip to the Chris Hani district, the largest of our four implementation sites of the system.

This is one of the first projects to implement mobile data collection tools in the water sector, and the UCT Aquatest team has benefited greatly from contributing to the open source development of these tools. Collaborative relationships for systems development and implementation have been formed across the African continent and internationally, both through their involvement in technical development and in the wider open source mobile community

# AFRICAN CENTRE FOR CITIES

## ADJUNCT PROFESSORS

ACC has appointed three new adjunct professors :

- Andrew Borraine
- Ian Palmer and
- Dr Dave de Groot

## CLIMATE CHANGE THINK-TANK

The Climate Change Think-Tank was established by the City of Cape Town with funding from the Royal Danish Embassy, in partnership with the ACC and Sustainable Energy Africa. The Think-Tank will facilitate ongoing collaboration and dialogue between academics, researchers, specialists and local government around climate change and its effects on Cape Town. The group first met in September 2009 and the second meeting took place in February 2010 at ACC.



*Laura Lyldegaard Selander (GWA Copenhagen), Meagan Jooste (ERC), Mark Borchers (SEA), Harro von Blottnitz (UCT), Saliem Fakir (WWF), Yvonne Hansen (ACC), Lize Jennings (SEA)*

## WWF LOW CARBON ZONE PROJECT

The ACC and the ERC have been awarded the WWF LCZ scoping study on the feasibility of developing a Low Carbon Zone in the Western Cape. Work on the project is under way by both Meagan Jooste of ERC and Yvonne Hansen of the ACC's Cape Urban Observatory.

## ACC BOOK LAUNCH

6 April saw the book launch and exhibition opening of *Counter-Currents: Experiments in Sustainability in the Cape Town Region*. Edited by Edgar Pieterse, *Counter-Currents* showcases bold urban development initiatives by both the state and the private sector and aims to shift public ideas and discourses about the future of Cape Town.

Dr Max Price (Vice Chancellor: University of Cape Town) introduced the book and said: "It presents serious problems on sustainability and gives real solutions." Edgar Pieterse (Editor & Director: African Centre for Cities), Mokena Makeka (Architect and lecturer at the School of Architecture, Planning & Geomatics at UCT), and Richard Calland (Associate Professor in the Public Law Department at the UCT and Mail & Guardian Columnist) gave their input on the book. Pieterse said: "The book aims to be provocative to start a debate on a sustainable city that can serve us all."



*Left to right: Richard Calland, Tau Tavengwa (design and project coordination); Mokena Makeka; Max Price and Edgar Pieterse*

The exhibition will be on until 11 May at the Cape Town Institute for Architecture, 71 Hout Street, Cape Town. The exhibition also features a series of conversations on the various possibilities and challenges highlighted in the book.

Don't miss the two upcoming debates on aspects of the book which will take place at the Cape Town Institute for Architecture at 17h30 for 18h00:

19 April: **Leadership and the City**

06 May: **Designing Alternative Futures**



## WELCOME

**Dr Sebataolo Rahlao** accepted a Postdoctoral Fellowship with the Energy Research Centre in the Energy and Climate Change group, which is headed up by Associate Professor Harald Winkler.

Sebataolo did his BSc degree at the University of Lesotho, his honours and masters degrees at UCT and his PhD at Stellenbosch. We are delighted to welcome him back to UCT and wish him a happy and successful stay.



**Mr Mark Wichman** joined the Department of Electrical Engineering in February as a Senior Technical Officer. Mark came from industry. He has always had a passion for teaching and wanted to join the academic world. His wife is a lecturer at Northlink College.

In March **Mrs Rosalind Maree** became a permanent staff member in the Department of Chemical Engineering as the Administrative Officer. Rosalind was previously on a temporary contract from May 2009.

In January **Ms Arlene Warrin** joined the Department of Chemical Engineering as the Finance Assistant. Arlene had previously worked in the Faculty Office and the Department of Mechanical Engineering in temporary positions.

In February **Ms Anamarè Burmeister** joined the Faculty Finance section as the Finance Assistant. Anamarè was previously in the Faculty Administration section as an undergraduate admin. assistant.

In January **Mr Ernesto Ismail** became a permanent staff member in the Department of Mechanical Engineering as a lecturer. Ernesto was previously in a contract position.

In January **Ms Tracy Booysen** became a permanent staff member in the Department of Mechanical Engineering as a Chief Scientific Officer. Tracy was previously in a contract position.

## 50th alumni reunion for architects

On Friday, 5 March, 17 alumni from the School of Architecture, Planning and Geomatics got together to celebrate their 50th reunion. They started off their studies in 1960 in a pre-fab building in the car park near the rugby fields. In their final year of study (1965/66) they moved into the new Centlivres Building. They decided that not much had changed in the building. They reminisced about the cafeteria that was in the building at the time and the lady who looked after them so well.

The morning started off with an introduction from A/ Professor Alta Steenkamp and an update on how the school was doing. The alumni had many questions. They were then taken up to the final year lab, where they interacted with the students before having lunch at the UCT Club. It is always very rewarding to see old classmates meet up again after so many years.



*1965/66 architecture alumni in the Crit Room.*



# OUTREACH

## GIRLENG WESTERN CAPE

GirlEng Western Cape (a subdivision of SAWomEng) held its debut Information Session on 27 February 2010.

The main objective was to attract female learners into the engineering industry. Almost 200 girls in grades 10 to 12 from all over the province attended the event, which consisted of highly interactive presentations given by GirlEng mentors about the



different fields of engineering. The mentors also showcased displays and models from different engineering departments and issued information packs about bursaries and selection criteria for tertiary institutions which offer engineering degrees.

The Information Session was a great success, with double the expected turnout according to the team's leader, Doreen Nabaho, who would like to invite university staff and students from different departments to get more involved with GirlEng.

## ENGINEERS WITHOUT BORDERS (EWB)

On the 25 February 20 EWB volunteers, together with volunteers from Stanford University, went out to Wallacedene to complete a home for the Niall Mellon Township Trust.

EWB members were delighted to hear that the Dean had secured funding from the Development BankSA for



*Some of the EWB volunteers waiting for the bus to Wallacedene*

their outreach programmes.

Their next project will take place on Saturday 17 April 2010.

EWB were also part of the proposal which was successful in receiving funding from the VC's strategic bid. They will be working together with Associate Professor Harro Von Blottnitz and his research team on a Township catering project.

## SCHOOL COMPUTER LAB PROJECT

UCT IEEE student members are very excited as the Chair of the EBE ICT Committee, Associate Professor Brandon Collier-Reed, donated 20 PCs to their School Computer Lab project.

In their attempt to find a deserving school in Cape Town, UCT IEEE approached Khanya, the Western Cape Education Department-backed initiative that aims to provide ICT infrastructure to all the schools in the West-

ern Cape. Khanya has been running since 2002 and has made a lot of progress installing computer labs for schools in the Western Cape.

Khanya's liaison officer, Ingrid Graham, suggested that they donate the computers to a school that already has a computer lab but, because of large student numbers or the age of their current computer lab, would be in need of these additional computers. She suggested three schools which some of the committee members visited and after careful consideration they decided to donate the PCs to Oaklands High School.



*Nana-Ampofo Ampofo-Anti, Blessing Katsande, Erica Le Roux, Joyce Mwangama (Chair) and David Oyedokun*

This project is an IEEE EPICS-High project run by the UCT IEEE Student Branch Projects Committee. The confirmed partnerships for the project include Khanya and SHAWCO.



## UCT ASTRONOMY CLUB

A second year Electrical Engineering student, Tafadzwa Mukwashi, has set up an Astronomy club as a UCT society. The club aims to promote and encourage a greater interest and participation in the sciences, engineering, and specifically astronomy and astrophysics at UCT. The club has a schools' outreach programme which will focus on producing self-taught tutorials in high school mathematics and physical science.



## BUY A BAND AND FEED A CHILD

Michael Vice, a Master's student in Civil Engineering, has been involved in the SA Institute for Civil Engineers at UCT, and this year, to raise funds for a Langa Township Food Initiative, they are selling green arm bands for R15. All money generated from the sales of the armbands will be used to feed the children in Langa. The bands are been sold at the Glasshouse on the 3rd level in the Menzies Building.



## SPARKING CURIOSITY IN TECHNOLOGY

The Robotics and Agents Research lab in the Department of Mechanical Engineering was abuzz in the first week of March with Grade 9 high school learners attending a robotics workshop, to excite and educate them on technology and how to build and programme robots.

The lab has been collaborating with Aachen University and Graz University of Technology in Austria to participate in the international RoboCup competition. This year for the first time they will be working together with high school learners for the international RoboCup Junior competition which takes place in Singapore in July. Gerald Steinbauer from Graz University of Technology facilitated the workshop with assistance from Alexander Ferrein, (a post doc from Aachen University) Dr Anet Potgieter, Stephen Marais and postgraduate students from the Robotics and Agents Research lab.

The learners were selected from Westerford, St George's Grammar, Rhodes, Uxolo, Luhlaza and Bulumko high schools. For five afternoons different teams attended the workshop where they had hands-on experience in developing and programming robots. There was great excitement as the learners watched their robots move in the right direction according to their programme commands.

The following week, the teams from each school competed in a competition where they built a robot and gave a technical presentation. The winning school was Uxolo High School in Khayelitsha.

The RoboCup Junior South African team was announced and funding needs to be found to send the four members to Singapore to compete in the international RoboCup Junior competition. The winners are:

Ms Namhla Baartman (Uxolo High School)  
Mr Rushin Galant (Rhodes High School)

Ms Miranda Nkatsha (Bolumko High)  
Ms Tandeka Mathyala (Luhlaza High School)

This is the first time the workshop has been held and one of the aims was to attract female learners into the science field. Dr Anet Potgieter said: "It is very exciting. We are delighted at the turnout of female students. Next year it will be bigger."



Seen at the prize giving: Gerald Steinbauer, Sonia Berman, Nwabisa Mthiyane, Zikhona Tsutsu, Namhla Baartman, Nyameko Mntuyedwa, teacher from Uxolo, Anet Potgieter and Stephen Marais

## UCT MATHS COMPETITION

The UCT Maths Competition will be taking place from 17h00 on Tuesday 20 April.

This year they have broken all previous records and have a record number of 7648 entrants who will be participating in the competition. They come from 138 schools around the province.

The competition will be taking place in 60 venues across Upper Campus. The organisers are warning that there will be heavy traffic that evening

## NEW ARRIVALS



Welcome to Jonathan, who was born on 11 January to Associate Professor Genevieve Langdon and her husband, Gareth. Genevieve and Jonathan were seen at Professor Gerald Nurick's 60th birthday celebrations on Friday, 12 March.



Welcome to Ruan, who was born on 26 February to Dr Sanet Minnaar and her husband, Bertus. Sanet is a senior lecturer in the Department of Chemical Engineering

## BIRTHDAY

Professor Gerald Nurick celebrated his 60th birthday with a tea in the Department of Mechanical Engineering.



*Gerald enjoying the tea with Penny Park-Ross*

## EBE POSTGRADUATE STUDENT ASSOCIATION

On 4 March, the new EBE PGSA held an informal social gathering to introduce themselves to the EBE postgraduate students and to let them know what they could expect from the EBE PGSA in 2010



*Seen at the event are EBE PGSA members and postgraduate students*

## BUILDING PROJECTS

### New Engineering Building

Planning for the New Engineering Building is progressing. It has been agreed that the building will be a green building and discussions are taking place on the various options and the cost implications. The Dean has met with companies to discuss support for the new building and has received positive feedback. A building prospectus is being developed for the fundraising campaign. Demolition will start in the latter half of the year and building will start in early 2011.

### Upgrade to Centlivres building

Discussions are still taking place on the space envelope of the Centlivres Building and how best to utilise it. Various options have been tabled and a decision will be made on which option will meet the needs of the School of Architecture, Planning & Geomatics, the Department of Construction Economics & Management as well as the Department of Higher Education and Training, who have donated the money.

## ORIENTATION

On 18 March the Dean hosted an event to say thank you to the orientation leaders and staff members for the contribution they made to the 2010 Orientation programme.

The process of becoming an orientation leader is arduous. Students applied for the position in May 2009. A selection process took place and 42 applicants were successful. Throughout the year they attend intensive training workshops on Saturdays. Out of the 42 applicants, 37 successfully graduated from the training and 31 arrived for Orientation.



*Orientation Leaders enjoying the event*

The programme for 2010 was changed and departments played a much bigger role. The first years were introduced to their mentors during the programme and this was a huge success.

The feedback from the survey which was sent out to all first years indicates that they found it well structured and very informative. It helped many of them feel more at ease and felt they knew what to expect in the year ahead. The Orientation Leaders and the role they played in assisting first years was rated very highly by all who completed the survey forms.

Thank-you to all the staff members who participated in Orientation 2010 for helping make it a successful programme.

## AWARDS EVENING

On 18 March the high flyers in Construction Economics & Management attended the Department's annual awards event. The guest speaker was Rob McGaffin, who is currently a part-time lecturer in the Department and a consultant for Urban Landmark. He said that students graduating from the department have an advantage as they have the skills that are needed in today's market place. He emphasised that they are going to need to do more with less but that they have been given the skills to correctly identify the problems, raise finance, understand the market, develop feasible projects, leverage additional finance, effectively cost and project manage.

He challenged the graduates to go out and take note of the challenges that are out there and look at tackling them in an integrated manner.



*Mark Massyn awarding Jesse Sui Sang How the shield from Masters Builders Association for the best BSc (Construction Studies) student*

## EBE ATTRACTS THE BEST

On Friday 19 February, the Dean hosted a tea for Megan Woodward, a first-year civil engineering student who was 6th in the Western Province in the final National Senior Certificate exams. The Dean congratulated Megan on her performance and said the Faculty was delighted that she had chosen the Faculty of Engineering & the Built Environment at UCT. Megan attended Springfield Convent in Wynberg.



*Francis Petersen congratulating Megan Woodward*