ALUMNI UPDATE

FROM THE DEAN’S DESK

It continues to give me great pleasure to meet and interact with EBE alumni. It is always great to see alumni coming back on to campus, reconnecting and getting involved.

We are very grateful to the alumni who give up their time to assist with tutoring, lecturing, acting as external examiners, members of advisory boards, mentors, giving sponsorships and bursaries, to mention just a few. The expertise and input from the alumni help us to realise our vision of being the Faculty of choice nationally and internationally.

We continue to celebrate excellence in the Faculty and in April we were pleased to have Mr Robin Carlisle, the MEC for Transport and Public Works in the Western Cape, attend our Awards evening.

As part of our strategic plan, on 21 April we launched the EBE Initiative for Public Good where we outlined bold plans for the Faculty to produce new research that will contribute to the developmental needs of the country.

Planning for the New Engineering Building is nearing completion and building should begin in early 2011. I have started visiting various industry partners as part of the fund-raising campaign and the response has been positive.

The planning for the refurbishment of the Centlivres Building is ongoing and various scenarios are being considered before work can get under way.

It is my hope that I will get to meet many more of you during the year. Please feel free to contact me directly at ebe-dean@uct.ac.za.

Best wishes

Francis Petersen
Dean

Chemical Engineering’s soccer fan park defies electricity failures

The Department of Chemical Engineering dug deep into its creative resources to create a World Cup Fan Park with a TV screen that keeps broadcasting even during electric power failures.

Now staff and students at the department are enjoying the games live on a high-definition TV screen that is powered by a hydrogen fuel cell, which splits hydrogen atoms into electrons and protons. The protons pass through a polymer electrolyte membrane, while the electrons form an external electricity circuit that powers the TV before recombining with the protons and oxygen, forming clean water as its only “waste” product.

This initiative saved the department from power failure on 15 June. The three-hour blackout went unnoticed by those watching, thanks to the hydrogen fuel cell.
**EBE INITIATIVE FOR PUBLIC GOOD**

Speaking at the launch of the EBE Initiative for Public Good, the Dean said that the initiative is responding to growing calls to put innovation to work for social good, alongside economic imperatives.

“This initiative is designed to coordinate and promote research activities within the Faculty that can alleviate South Africa’s myriad social challenges,” said Petersen.

“Our mandate as a university is to produce new knowledge, and I believe that UCT is very good at that. But to what extent do we as a university and as a faculty contribute to improving the quality of life of the poor in this country?” he asked.

Audience members were treated to three presentations showcasing the good work that EBE is already doing in this arena.

Chief amongst these is a project led by Associate Professor Ulrike Rivett from the Department of Civil Engineering. Her team has developed an innovative water quality testing system that is being used in rural communities across the country. The project uses a simple water testing kit and cellphone software package to enable ordinary community members to relay crucial information about water safety back to their municipal managers.

Also present was Gordon Inggs of the UCT chapter of Engineers Without Borders (EWB) – an organisation of socially-conscious students who are putting their learning into practice with high-impact projects in Cape Town’s impoverished communities.

“As students who are ourselves undergoing a process of development, we believe it is important for us to contribute to the development and upliftment of others,” said Inggs.

The group recently completed much-needed maintenance work at the Haven Night Shelter in Kensington and are assisting the shelter in establishing a vegetable garden and wormery to provide it with a constant supply of rich compost.

Petersen explained that, while the Initiative for Public Good is an EBE programme, it will no doubt call for a multi-disciplinary approach crossing faculty borders.

Associate Professor Harro von Blottnitz illustrated the benefits of faculty collaboration in a project that is looking at informal township catering and its associated health hazards.

“In this informal sector self-employed women (mainly) are cooking for the public using methods that are damaging to their health and to that of their customers. The wood that they use to cook with is often treated with dangerous heavy metals,” he said.

Von Blottnitz’s project is drawing on the resources and knowledge of several faculties and research groups to better understand these health risks and develop viable alternatives for the township catering sector.

The launch was further bolstered by Petersen’s announcement that the EBE Initiative for Public Good will be partnering with the Development Bank of Southern Africa and other institutions to facilitate the implementation of research and innovation for development.

“As a university we are aware that we are not always the ideal entity to implement our research and innovation outputs and we will therefore identify and engage with the right implementation partners and with government to see that the new knowledge we produce benefits those at the grassroots level,” he said.

Deputy Vice-Chancellor Danie Visser lauded the Faculty’s efforts to produce innovation that gets to work for social good, saying the Faculty was “setting an example for the entire university”.

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**OUTSTANDING CONTRIBUTION IN INDUSTRIAL WATER TECHNOLOGY**

Dyllon Randall, a Masters student in the Crystallization and Precipitation Unit in the Department of Chemical Engineering, received the Water Institute of Southern Africa (WISA) SAIWA Award, which was awarded for “an outstanding contribution in industrial water technology”.

The award was handed out at the 2010 WISA Biennial Conference in Durban. Professor Alison Lewis is Dyllon Randall’s supervisor. Last year Dyllon received a best technical paper award at the International Mine Conference held in October 2009.
ARCHITECTURE CLASS OF ‘60 REUNION
(written by Ceri Jones)

Despite short notice, about 20 of the 41 classmates who started the Architecture course at UCT in 1960 managed to make the reunion and all had a good time. The visit to the ‘Old School,’ kindly organised by Mary Hilton, was enlivened by the surprise arrival of an unexpected delegate from Zambia heavily disguised in a large straw hat, pink T-shirt and fluorescent plastic shades. Attendees from UK and USA were more soberly attired.

After an introduction to the modern School by Alta Steenkamp we swapped thesis subjects with the final-year students - they are obviously much more intelligent than we were. I wonder what they, looking at us, thought might lie ahead of them in their careers 50 or so years on ...

Lunch at UCT Club was followed by a visit to the new Green Point Stadium, kindly arranged by Alex Robertson, and we were suitably impressed. John Rennie led a visit to the new City Library in the converted Drill Hall on the Saturday morning. We reconvened at Suikerbossie Restaurant that evening, joined by Italo from Jozi, and Lydia from Prince Albert - about 23 of us in all, including partners. Apologies were tendered on behalf of those unable to make it, and there were several toasts - to absent friends, those who are redesigning the Pearly Gates, our lecturers, Parsons, who stamped our submissions in on time (or not), Gertie and Co. at the school cafe, and of course Chris, the waiter at the Pig and Whistle. The evening concluded with short sessions by the class stand-up comedians. Sunday brunch at Kirstenbosch rounded off the festivities - temperatures upwards of 30 degrees put paid to the promised walk round the Gardens, but after the magnificent breakfast I’m not sure anyone could have managed it anyway. One or two stalwarts stayed on for a refreshing G&T before lunch, but most said their farewells and departed to their various corners of the country and/or globe.

It was striking to learn how many colleagues were still very actively engaged in their profession, and the range of work being undertaken - an indication perhaps of the quality of education received at the Centlivres Building in the swinging sixties.

Rock on guys!

ENGINEERING STUDENTS MUST BUILD THE COUNTRY

Engineering students have an obligation and opportunity to make South Africa work by improving and maintaining the country’s ailing infrastructure, according to Robin Carlisle, Western Cape MEC for Transport and Public Works.

At the annual Engineering & the Built Environment (EBE) Awards on 29 April, Carlisle reported that a study by Masakh’ISizwe - a joint project between the Western Cape Provincial Government, the four higher education institutions in the province and the private sector to breed new engineers - has revealed that most municipalities in the Western Cape lack technologists and technicians. This comes as roads are deteriorating, the railway system has largely collapsed, and 400 000 people need to be housed, among other issues.

"These problems need to be solved by engineers," Carlisle told students. "That is your task; that is your future; that is your privilege." He added that it concerned the government that the "march" from being a graduate to a professional took too long.

Professor Francis Petersen said the Faculty always emphasised to students that they should possess five characteristics when they leave the university. These were critical perspective, quality assurance, sensitivity and understanding of critical aspects of safety, health and environment, professionalism, and social responsiveness. Petersen said that the EBE awards, designed to celebrate the excellence and hard work of students, were important for the faculty as a way of motivating people and thanking those who had supported them.
OBITUARY

Emeritus Professor Geoff Hansford passed away on 16 May 2010. Geoff joined the Department of Chemical Engineering at UCT in 1969, returning from his PhD abroad after having done both BSc Chemical Engineering and MSc degrees at UCT. He worked through the ranks and was HOD from the late '70s to the late '80s. He was a strong proponent of scholarship in research and teaching, always challenging staff to raise their game with respect to this. Geoff retired in 2006, remaining active in some of the research projects in mineral bioleaching till the last couple of years. He remained an emeritus professor at UCT. He will be sadly missed by his former colleagues. (*by Professor Sue Harrison*)

URBAN FLOODING AND SEA-LEVEL RISE

Dr Gina Ziervogel is the principal investigator in a just-launched three-year initiative of UCT’s African Centre for Cities (ACC) that will explore options for a collaborative response to urban flooding and sea-level rise in the Western Cape, with Cape Town’s Philippi (a high flood-risk area that’s been hit hard by storms in recent winters) as a case study.

Ziervogel and ACC staff will work closely with a range of stakeholders - the City of Cape Town and community groups in Philippi among them - to see how risk management and response may be strengthened by getting all these stakeholders to work off the same script. And as equals.

"At the moment, the response to floods and climate-variability risk is managed in a very technical, top-down way by the City of Cape Town," says Ziervogel. "And we believe there’s room for a multi-level, interactive response."

The study will involve examining flooding issues related to climate change, urban development, vacant land and housing.

The project is funded by Canada’s International Development Research Centre and the UK’s Department for International Development, and falls under its Climate Change Adaptation in Africa programme.

Other partners at UCT are the African Security and Justice Programme in UCT’s Centre of Criminology, the geomatics department and the Cape Urban Observatory, that fall under the ACC, while external partners include the City of Cape Town, Shack-Dwellers International and the Stockholm Environment Institute.

ENGINEERS WITHOUT BORDERS AT UCT NEED YOUR HELP

Engineers Without Borders UCT is a student-run organisation that aims to promote the role engineers can play in the greater society and developing communities, by both actively running projects and providing a forum for students to engage with such issues on campus. It is still just beginning to take off at UCT, the first chapter of EWB in the country, and is based on successful models in other developed and developing countries.

To date EWB UCT has worked with the Haven Night Shelter in Kensington, doing both simple repairs and maintenance and establishing a vegetable garden and wormery. A larger project currently underway is the Khayelitsha Catering Project, which is working with informal caterers currently burning toxic-treated timber, and replacing current practices with efficient cooking stoves.

EWB UCT has just begun investigating a rain water harvesting project, which will provide an improved water supply to Zithulele Hospital in the Eastern Cape. EWB UCT also hosts talks for students on topics relevant to engineers and other interested parties. EWB UCT is grateful for the generous funding received from the Development Bank of Southern Africa, as well as the Vice Chancellor of UCT.

The response amongst students has been extremely positive and the possibilities for EWB are enormous. However, there is a limit to what students alone can do, and EWB UCT seeks to work closely with external engineers and other professionals both on projects and in developing institutional capacity. It is envisaged that by forming close collaborations with a host of external parties as well as with other universities, EWB can grow in both scope and scale.

To begin this, EWB UCT would like to invite any interested persons to contact us at ewbuct@gmail.com for more details in how you can become involved.
CEO of Louis Karol Architecture

Dr Eitan Karol (BAS, BArch 1982) has been appointed CEO of Louis Karol Architecture in Cape Town. After graduating from UCT, he read art history at Columbia University in New York, where he obtained his MA and MPhil.

His book developed out of his doctoral dissertation at the University of Reading, *Charles Holden Architect*, was awarded the 2008 Alice Davis Hitchcock Medallion by the Society of Architectural Historians of Great Britain. He commutes from Israel, where lives with his wife, Finch, and their five daughters.

CONTINUING PROFESSIONAL COURSES

The following CPD courses will be run in the second semester. For further information visit the website www.cpd.uct.ac.za or telephone: 021 650 5793 or email ebe-cpd@uct.ac.za

**Introduction to Project Management**

**Property Development for Beginners**

**Commercial Property Valuation**

**Energy Modelling and Analysis**

**Architectural and Urban Conservation II – Skills Development**

**Placing Design Central to Urban Decision Making**

**Global Minerals Industry Risk Management Course (in JHB)**

**Conservation & the Built Environment course:**

**Researching & Assessing Heritage Resources**

**Transport Studies courses:**

**Transport Modelling**

**Management of Transport Supply and Demand**

**Bus Planning and Operations Management**

**Transport Demand Analysis and Project Assessment**

**Urban Infrastructure Design and Management courses**

**Community Development**

**Municipal Infrastructure Management**

**Urban Renewal**

**Integrated Urban Water Management**

GetSmarter is a specialist online training company which is working together with the Department of Construction Economics & Management to present a UCT Guest House Management Course. This is a ten-week part-time course presented online, covering all aspects of guesthouse establishment and management. The course is ideal for existing and prospective guest house owners.

For more information visit the website www.getsmarter.co.za or email Deborah@getsmarter.co.za

Mokena Makeka graduated from UCT with a Bachelor of Architecture in 2001 and received a scholarship to do his Masters in City Planning & Urban Design.

Mokena owns Makeka Design Lab (MDL) in Cape Town and is in charge of the Cape Town station’s refurbishment.

In May Mokena received the Johnnie Walker Celebrating Strides Award in the design category for his work on the station. He received a cheque of R125 000 which he says he will use to create an Academy for Leadership and Creative Excellence. In a Cape Times article, Mokena said: “The academy would help develop excellence in architecture, art, dance, theatre, sculpture, music, entrepreneurship and leadership. My full vision is to create a network of academics across Africa in which mediocrity is rejected, excellence is rewarded and creativity is rightfully located as a critical tool for the leaders of tomorrow.”