

NEWS

Editorial

What wonderful weather we are enjoying these days in May! The evenings are chilly, but the days can warm up beautifully. With semester exams just around the corner, our students are very busy at present. Chatting to the first-years, one senses that many of them feel overwhelmed by the quantity of work that has already been covered this semester.

In this issue, we also focus on some of our staff who have excelled. Read about Prof Engelbrecht, who is stepping down after 15 years as Head of the Dept of Physics. Dr Kwezi Mzilikazi (Senior Lecturer, Dept of Zoology) facilitated a discussion at the recent SA – Germany DAAD celebrations. We also have two new staff members who joined the Dept of Statistics in April.

Our recent Open Day activities were a great success – in Port Elizabeth as well as in George. What a pleasure it was to meet prospective students who with friends and family came specially to find out more about what the Faculty can offer. One mother travelled all the way from Underberg (in the Drakensburg) to bring her son to the George campus for one of our programs. Sometimes we are not aware of the reputation our Faculty enjoys across the country. This reputation grows through the collective efforts and hard work of the whole Faculty – keep it up!



Prof Andrew Leitch
Dean of Science

Prof Engelbrecht's new season



Professor Japie Engelbrecht, HoD of Physics for 15 years

Professor Japie Engelbrecht became HoD of Physics almost by default in 1997, when Prof Conrad Ball (the previous HoD of Physics) became Dean of the Faculty of Science.

At that time posts were not advertised, and since Prof Engelbrecht was the longest serving member of staff, he was eligible to become the next HoD – it was as simple as that! (Perhaps it also helped that Prof Engelbrecht was Acting HoD from July 1994 – January 1995, while Prof Ball was on sabbatical?)

Initially, the duties of an HoD were mainly centred around academic and research activities of the department; something which to this day Prof Engelbrecht regards as the core business of academics.

Professor Engelbrecht had a number of colleagues who assisted with most of the research activities within the department – Profs Jan Neethling and Andrew Leitch, as well as Drs Ernest van Dyk and JR Botha.

This resulted in the Physics department “leading the pack” in certain niche areas of research in South Africa, i.e. renewable energy and optical fibres; while retaining skills and expertise in electron microscopy and crystal growth and characterization.

The Nelson Mandela Metropolitan University later afforded the opportunity for different departments to give back to the community by introducing a “community service” scheme. The Physics department immediately became involved – the department delivered upgrading courses for teachers and Prof Engelbrecht especially enjoyed participating in this enriching experience.

Professor Engelbrecht referred to his leadership style as “leading by example”, and he thus continued with a full lecture load, maintained research outputs while actively participating in the activities and responsibilities of the department.

Professor Engelbrecht's main goal was to ensure and promote happiness in his department -believing that a happy department means a more productive department!

We hear it from Professor Japie Engelbrecht himself:

Looking back: it has indeed been a great privilege to have lead this group in the Department of Physics for the past 15 years. My wish for the future is that the new HoD will bring a new vision, new ideas and new energy, so that the Department of Physics can retain its status as an active and vibrant unit; and that all members of staff will give him their full and unequivocal support.

News from George: A Third Year Wood Technologist Dreams Big Dreams...



Troy Dodson and his wife Taryn on their wedding day.

Open day George turned out to be very interesting and memorable. Some members of the Faculty of Science in Port Elizabeth travelled to George Campus to attend the 2 day exhibit presented by the Nelson Mandela Metropolitan University. It was cold and rainy for most of the weekend – but this didn't stop people from attending the exhibit!

As a faculty we found that Open day George was successful, not only in terms of meeting prospective students, but also in terms of networking with existing students and staff members.

Its official – marketers can get “the scoop” from just about anyone! If there is a story – it will be found. 3rd year Wood Technologist student Troy Dodson is proof of this! Troy Dodson was one of the “fortunate or unfortunate” students who happened to stop by our Open day table. At first there was a lot of chit chat – as Troy told us all about his experience as a student at Saasveld – we could tell that he was very passionate about what he was studying and that he loved his course and his surroundings – however Troy had a lot more to tell us! As we carried on speaking to Troy we noticed he was wearing a wedding band – Troy proceeded to tell us his very “dreamy and romantic story”.

“My wife and I met on 8 January 2009 in Nelspruit. It was love at first sight and after just one day we declared our love for each other. Two days later I proposed with a ring my wife was wearing on her right hand. After saving for months, I finally made her a beautiful ring. When we met I was still studying mechatronics engineering in Pretoria, so we had to be apart for a few months. When I returned to Nelspruit I discovered Wood Technology at Saasveld, and we decided to get married before moving to George! We planned our wedding in just three months and got married on 16 January 2010”.

“Two days after returning from honeymoon, we packed up and made our way to George, a place neither of us had ever been to. My wife started working as an au pair to support us, as it was the only job she could find. Last year she started working at a pre-school which makes her much happier”.

“I'm now a third year Wood Technology student and I am planning to continue with B-tech part time in 2013. This will alleviate her responsibility as sole provider of our income. We have lots of fun as a young married couple, and despite the fact that I have so much studying to do and can't contribute financially yet, we are happy as can be!”

Troy is pursuing his dream in becoming a Wood Technologist and he has let nothing stand in the way of this. He is passionate about what he wants to do with his life and he is determined to finish strong. Someone once said – “what is the difference between a job and a career... PASSION.” Well done Troy! We look forward to hearing more about your future endeavours!



DAAD Alumni Conference

In April, Senior Lecturer Dr Kwezi Mzilikazi attended the Alexander von Humboldt- DAAD alumni conference that was held ahead of the official launch of the Germany-South Africa Year of Science.

It dealt with various issues affecting Higher Education Institutions.

In Kwezi's capacity as Ambassador Scientist of the AvH Foundation, she moderated a workshop: Affirmative action, Gender and Equity in Higher Education. This workshop examined similarities and differences between Germany and South Africa as well as the legislative frameworks dealing with affirmative action, gender and equity.

The Faculty welcomes and congratulates...

Lecturers appointed in the department of Statistics, April 2012

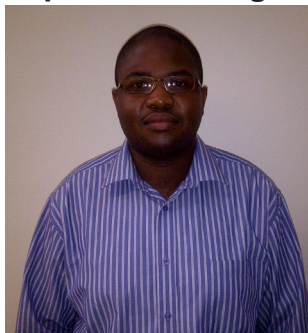
Chantelle Clohessy



Chantelle started her studies at NMMU in 2006, where she completed her BSc degree majoring in Statistics and Physics and continued with a Honours degree (Cum Laude) in Mathematical Statistics. With her interest in renewable energy she started a master's degree in 2010 with a project titled "Evaluation of noise levels of micro wind turbines using a randomised experiment". She recently graduated with an MSc in Mathematical Statistics (Cum Laude).

Chantelle represented NMMU at the Carl von Ossietzky University of Oldenburg Germany where she collaborated with experts in the field of renewable energy. She is involved at the Centre for Energy Research run by the NMMU Physics department. Chantelle has presented at a number of conferences and workshops. She is currently registered for a PhD degree working with both the statistics and physics departments.

Siphumlile Mangisa



Siphumlile Mangisa was born, and did most of his schooling in Mthatha in the former Transkei region. He began his undergraduate studies at NMMU in 2006, graduating in 2009 majoring in Mathematics and Statistics. He continued with his studies and subsequently obtained an MSc in 2012, with a dissertation entitled "Statistical Analysis on Electricity Demand Profiles".

Siphumlile is one of the founding members of the Centre of Expertise in Forecasting (COEF) where he participated as a Research Assistant. The postgraduate's field of expertise lies in electricity demand and in statistical model building. In his spare time (almost none), he enjoys reading.

Sharlene Govender

Sharlene Govender obtained a PhD in Medical Microbiology from the University of Stellenbosch. She was recently promoted to senior lecturer in Microbiology at the Department of Biochemistry & Microbiology.

Sharlene's research focuses on the epidemiology (distribution, control & detection) and antibiotic resistance of respiratory [Mycobacterium tuberculosis (TB)] and sexually transmitted pathogens (Ureaplasma spp. and Neisseria gonorrhoeae).



Arisha Prahaladh

The Faculty welcomes Arisha Prahaladh. Arisha lectured Human Anatomy and Physiology at the University of Johannesburg for 10 years before relocating to PE in 2010.

Arisha enjoys daily interaction with students and the challenges of teaching large groups of diverse students.

As a new staff member, lecture preparation dominates most of her time. She is currently exploring different research avenues in order to embark upon her PhD studies.



Science Discovery week coming up in June 2012!

A poster for Science Discovery Week 2012. It features a large, stylized blue funnel that is tilted, with liquid splashing out of the top. The funnel has the number '250' on its side. In the top right corner, there is a logo for Nelson Mandela Metropolitan University. Text on the poster includes: 'Feeding ...the body...and mind.', 'Date: 25 - 29 June 2012', 'Time: 9am - 4pm (each day)', 'Venue: Summerstand South Campus Auditorium', and 'Entrance cost: Free of charge'. A green banner at the bottom right reads 'SCIENCE DISCOVERY WEEK 2012'.

Water Research Commission grant awarded...



Project team: back row: Brigitte Melly (PhD student), Denise Schael, Phumelele Gama; front: Kelly Rautenbach (Honours student) and Mandla Dlamini (MSc student)

There is urgency in South Africa to understand, manage and conserve wetland systems. Loss of wetlands has exacerbated flooding and reduced the natural filtering capacity of these systems with dire consequences to human health and the natural environment.

Tools to delineate wetland areas have been developed. However, the bulk of the current research has been carried out in the Western Cape and KwaZulu-Natal, where rainfall is more seasonally predictable.

In our area of the Eastern Cape, rainfall is much less predictable on a seasonal basis. This makes ephemeral wetlands more cryptic and difficult to describe, making them more vulnerable as a result of human development activities.

Wetlands act as a transition between terrestrial and aquatic systems, and as such tend to have a high level of species diversity. There are several plant and animal species that are unique to

ephemeral wetlands and cannot exist in other habitat types. In the Bridgemead area of Port Elizabeth, the African Bullfrog (*Pyxichalus adspersus*) was recently rediscovered, having been thought to be locally extinct.

Our work will assist management authorities in identifying vulnerable areas and wetlands of importance within the Mandela Bay Municipality for conservation and sound management strategies.

Drs Denise Schael, Phumelele Gama (Botany Department) and Prof Vincent Kakembo (Geosciences) were recently awarded a Water Research Commission (WRC) grant of R1.6 million over a period of 3 years, to do research on these ephemeral wetlands within the Nelson Mandela Bay area. This work will provide insight on the regional efficacy of available national wetland assessment tools as well as gather critical fundamental baseline information on the ecological functioning of area wetlands.



Did you know?: Fast Facts

The average person accidentally eats 430 bugs each year of their life

Newsletter Marketing & Design team

Michele Minne & Kelly Sin Hidge



Events this month

11-12 May 2012
Open Day 2012



All set up and ready to begin, we had no idea the buzz Open Day would bring to the South Campus Sports Centre on the 11th and 12th of May.

The theme this year was 'Discover your dreams' and no stalls held back in decoration and enthusiasm. By 10am on Friday morning we had our first bus load of learners filling the centre with prospective students interested in the various fields in Science. Our Faculty of Science stalls looked extremely appealing, kitted out with visual presentations, graphics, experiments and much more. Computing Science employed "The Stig" for the day and Agriculture had their very own worm farm!

Open day 2012 was a success and we look forward to seeing many of those interested and enthusiastic learners studying at the Faculty of Science in years to come.

