



Next Generation Professoriate

Newsletter #4
October 2018

Since our last newsletter in August we've had the wonderful news of steadily filling dams (now up to over 75%), the victory of Cape Town City in the MTN Finals and the orderly march towards the end of the academic year. Perhaps the biggest happy punctuation in the orderly march has been the award to Ed February of the Hamilton Naki NRF teaching award in September. Well done, Ed! [See story below]

In this newsletter we hear about Reuben in the US and in France, Amir, his engineering colleague in Pittsburgh and Baltimore, about Corrinne at Virginia Tech and Zarina in Malmo. We hear about Goolam's thoughts on the critical work of accountants, Sedi's investigation into onsite learning of Health Sciences students at the Vanguard Student Learning Centre and cheer as Maureen completes her first full marathon. And finally we have further confirmation of how useful are our writing retreats with a story about the last Mont Fleur visit.

Ed February wins Hamilton Naki Award



July, 2018. Somewhere in the Lake District on a 300 km mountain bike trail from the Irish sea to the North sea [Photograph provided]

Anybody who has ever met Ed will have been struck by his style. I'm not referring to sartorial style but rather to Ed's approach to life. He is very direct. Maybe this was why he took up rock-climbing and pioneered routes up rock-faces that nobody else dared tackle. 100 of them worldwide. Ed is not frightened of challenges

I didn't know Ed when he was one of the world's leading climbers, a legend. I met him when I got to UCT and he told me that his climbing and running days were over. Knees. But Ed is not a person to stand still, to be still. So he told me that he had taken up cycling. This doesn't mean buying a bike and looking at it for weeks and then taking it out for a bit of a jaunt on a Sunday. Ed tackles his cycling as he tackled

climbing and as he has tackled life. With gusto. Pedal to the floor, one hundred per cent. Maybe this is why, since joining the NGP he has had three accidents, each landing him in hospital, with a shoulder now so medically interfered with that Gerrie Coetzee's famous bionic fist probably looks newborn compared to Ed's shoulder.

So here's the take-home message. **If you want to be a good teacher and researcher, be adventurous, take ridiculous risks and love life.**

Ed's passion for adventure and the outdoors logically progressed into an enquiry of how to understand and conserve the environment. This in turn points to one of the reasons why he was selected for the Hamilton Naki, a prestigious national award given each year by the National Research Foundation (NRF) in recognition of "individuals for achieving world-class research performance despite considerable challenges". Ed has lectured at UCT since August 2000 when he joined the Department of Botany from the South African Museum where he had been Senior Museum Natural Scientist. He has garnered numerous awards and fellowships, including a gold medal for his work in the protection of biodiversity of the Cape Floristic Region; The Cape Times Fellowship; and a Ford Foundation Fellowship.

As he puts it, his main interests have been to obtain a better understanding of plant water relations and how these affect vegetation structure. "I believe that people have affected the environment for many thousands of years, particularly by influencing boundaries between different vegetation types". The focus of his research is on two systems, savannas and winter rainfall shrublands. He has pursued these interest in research projects in the Kruger National Park and the winter rainfall shrublands of the Cedarberg and Cape Peninsula. While interested to understand the dynamics of vegetation zones he has always been passionate about helping with the management of the environment and in education.



Photograph: Robert Morrell

On one of the early NGP writing retreats at Mont Fleur we went for our customary evening walk with Michael Galant. Ed could not stop himself. The walk was frequently interrupted with impromptu lectures on this or that plant and their relationship to one another. Very entertaining, very interesting, very learned. So here I saw Ed as educator. Somebody who doesn't draw lines between things but seeks integration, seeks to explore, to explain, to share passion, to change for the better. As we ponder what 'transformation' really is, I look to Ed as an example of what it could be. Thank you, Ed, and congrats.

For more on Ed's award, see:

<https://www.news.uct.ac.za/article/-2018-09-28-uct-scientists-shine-at-nrf-awards>

Robert Morrell

Reuben Govender wins Fulbright Fellowship to Pittsburgh



Reuben in front of Hamerschlag Hall, Carnegie Mellon University, Pittsburgh. [Photograph provided]

About a year ago, my Head of Department encouraged me to apply for funding to travel overseas as my sabbatical had just been approved. Fortuitously, the Fulbright Foundation was advertising the African Research Scholar Program, which provides full support for African academics or researchers to spend some time at a US university. After more paperwork than I care to detail, I find myself at Carnegie Mellon University, Pittsburgh, PA, USA, as a Fulbright Visiting Researcher in the Department of Biomedical Engineering. I am still appreciating how big a deal Americans make of Fulbright Fellows – suffice to say that the Immigrations Officer looked at my visa and paperwork, which notes the Fulbright program, congratulated me on the fellowship and stamped my entry without further questions!

I am working with Professor Adam Feinberg in the Regenerative Biomaterials Group, learning about 3D printing with soft materials (such as silicon rubber) and biomaterials (e.g. collagen). Having set up the 3D printing facilities at UCT Mechanical Engineering, I have some experience with printing hard polymers (think of the materials Lego bricks are made of) – but working with soft materials or organic materials (that can die!) is somewhat more involved!

If there is something I have learned in my first week, it is that patience and resilience are essential qualities for a successful researcher! Having completed most of the administrative hurdles of arriving in a new country, I am settling in with Prof Feinberg's group, which draws postgrad students from a variety of backgrounds ranging from Mechanical Engineering, Physics, Cell Biology and Medicine. Hopefully the next news from me will include some photos of a NFL or NHL match, and likely some snow!

Reuben also recently presented one paper, and was co-author of a second paper, at the 2018 International Conference on the Dynamic Behaviour of Materials (DYMAT-2018), in Arcachon, France. The first paper, which was entitled “Towards standardising the Split Hopkinson Pressure Bar experiment – a Round Robin exercise”, was a collaboration between researchers from the Blast Impact and Survivability Research Unit (BISRU) at UCT, and colleagues from Swinburne University of Technology, Australia; National University of Singapore and University of Sao Paulo, Brazil. Reuben was surprised to see that he was presenting straight after the two keynote speakers (who were publishing in this field before he’d even entered primary school!). However, in the opening address the President of the DYMAT society



Reuben presenting to the DYMAT audience. [Photograph provided]

noted that standardisation was an important issue for the next 5-10 years, which explained my position in the program. The paper was well received, with several delegates approaching me afterwards to enquire about the next phase of the exercise. The second paper, presented by my BISRU colleague Trevor Cloete and co-authored with our MSc student Matt Weyer, focused on simulating damage in metal specimens under high rate tension.

PS Arcachon is the seaside town closest to Bordeaux. Those who know Reuben will realise it wasn’t possible for him to visit this area and not sample some of the Bordeaux wines! They were delicious but ludicrously expensive - it reminded me how lucky wine drinkers in South Africa are in terms of quality of wine for the price we pay!

Goolam Modack – Making Accountancy Accountable

Goolam, as Head of the College of Accounting, recently wrote to various stakeholders in the College’s newsletter *Accounting Matters@UCT, 2017-2018*. The newsletter appeared against the backdrop of revelations of dishonesty and malpractice by auditors and accountants uncovered in the wake of the Guptaleaks. The involvement of accountants in ‘state capture’ is now well-documented and highlights the dangers of malpractice.

Goolam is well aware of the need to produce excellent accountants who are conscious of their social and professional responsibilities. *“As a profession, we must find ways to reaffirm our commitment to the values that speak to protecting the public interest. We are in a privileged position in the College in that we get to play an important and positive role as educators and administrators by supporting our students and delivering on the academic project through excellence in teaching. This enables us to contribute to the creation of a more united and equal society by nurturing future leaders who are accountable and responsive.”* Ultimately, says Goolam, the newsletter is about holding the College accountable - sustaining excellence in teaching, achieving meaningful transformation and developing a new breed of leaders.



[Photograph provided]

Amir Patel's sabbatical in the USA



Typical winter day in Pittsburgh for Tahlia, Amir and Ilhaam (the Patel family) [Photograph provided]

I received an Oppenheimer Memorial Trust fellowship to spend my sabbatical at Carnegie Mellon University (CMU) in Pittsburgh and Johns Hopkins University in Baltimore. We arrived in Pittsburgh at the end of January – our first experience of snow! Pittsburgh was very friendly, and we stayed in a nice suburban area close to the university which my daughter and wife loved. I was hosted by one of my collaborators Aaron Johnson in the Robomechanics Lab.

CMU was amazing because I got to interact with met so many legends in the robotics community.

We moved to Baltimore 1 July to start my visiting scholar position in Noah Cowan's LIMBS Lab at Johns Hopkins. Noah is an expert on applying techniques from robotics to neuroscience and I've been learning a great deal from him.

The main project I have dedicated my sabbatical to is the culmination of my work studying the cheetah's tail and its role in manoeuvrability. Having captured hours of footage at breeding centres in South Africa, I thought this project would be straightforward...but I was very wrong! In a way, this was great because I (with my collaborators) have had to develop novel methods to understand this very interesting animal.

I have really enjoyed having so much time to do research. I have also learned so much! This sabbatical has definitely renewed my enthusiasm for academia and I am very grateful to the Oppenheimer Memorial Trust for giving me this opportunity. That being said, I am eagerly looking forward to coming home to Cape Town 1 December!

Corrinne Shaw develops international engineering education collaboration with Virginia Tech.



From left to right: Dr. Jenni Case, Dr. Corrinne Shaw, and Dr. Nicky Wolmarans [Photograph provided]

Corrinne recently visited Virginia Tech to team up with former colleague from Chemical Engineering, Dr. Jenni Case. Dr Case is professor and department head of engineering education at Virginia Tech. UCT received a grant from the South African Department of Higher Education and Training (DHET) to establish a structured cross-institutional Ph.D. program in engineering education.

“We are really delighted to be the international partner for this important initiative in South African higher education,” said Case. “We have a well-established Ph.D. program in Engineering Education and are really keen to strengthen the link with the South African academics who are running this project to build capacity in South African doctoral production in this field. No doubt there will be important learnings in both directions.” Drs. Nicky Wolmarans (project lead) and Corrinne Shaw visited Virginia Tech with an overall goal to gather information to inform the design on their new program. During their visit, they were able to meet with both faculty and students who both shared the components that make up the engineering education Ph.D. experience at Virginia Tech.

“We were welcomed by staff and students who showed much interest in the project and who generously gave of their time, resources and ideas,” said Shaw. “As a consequence we are leaving with much more than we had hoped for and have been inspired and encouraged by the visit. We look forward to our continued partnership.”

Engineering education is an interdisciplinary intellectual field that has grown tremendously in the last 30 years. Purdue and Virginia Tech (in the USA) were the first engineering schools to introduce departments of engineering education offering PhDs specialising in engineering education since late 90s, early 2000s. While the PhD specialization in Engineering Education is new to South Africa, our context in South Africa offers us the sorts of research opportunities that are both relevant and urgent. We have much to offer the international engineering education research community.

For more on Corinne’s collaboration, see: <https://enge.vt.edu/news/south-africa-collaboration.html>

Winter Writing Retreat, Mont Fleur



From Left to Right, Back: Zarina Patel, Nomonde Mbatani, Shari Daya, Lee-Ann Tong, Bob Osano, Kate le Roux, Lebogang Mateane, Corrinne Shaw, Frank Matose, Pragashni Padayachee, Waheeda Amien, Tanja Bosch, Emese Bordy, Lebogang Ramma, Sedi Namane. Front: Yumna Albertus, Robert Morrell [Photograph: Ricardo Adams]

It was mid-winter when we gathered for another writing retreat at Mont Fleur (30 July to 01 August). Joining us for the first time at a writing retreat were Yumna Albertus, Emese Bordy, Nomonde Mbatani and Pragashni Padayachee. As always the retreat featured morning runs (for some) and an evening walk towards Lourensford Shoulder with Michael Galant. For the first time, impending rain forced the curtailment of the walk but this didn't reduce the appreciation of the greenery and the local natural beauty.

Testimony to the success of the writing retreat is to be found in the reports that are routinely submitted by NGP attendees. Here is a selection:

- *I achieved all my goals and also managed a bit of reading, thanks to the invaluable space of the writing retreat.*
- *The retreat was exactly what I needed to give 2 dormant papers a jumpstart. They have been hanging over my head for years and I've always pushed them aside as there were more "pertinent" work to attend to. Being isolated in a writing environment allowed me to physically block off all "everyday responsibilities". I had the headspace and the freedom to just engage with my data and my writing which I would never have been able to do if I was in my office or home. So thank you very much for arranging this very needed writing space for academics drown in admin and teaching.*
- *This was an amazing end to my sabbatical! Thank you NGP.*

Sedi Namane – Pioneering Health Work at Vanguard



[Photograph provided]

Sedi has just begun a study to reflect on the first decade of Community-based learning and social responsiveness among UCT students at the Vanguard Student's Learning Centre (VSLC). The Centre was built in Bonteheuwel in 2005 and is attached to the Vanguard Community Health Centre (VCHC). It thus provides a health service to the local community while also serving as an educational site for UCT Health Sciences students while based in the Langa and Bonteheuwel communities.

Patients are referred to VCHC for services which are often provided by or with students who are generally in their final year of study. VSLC placement allows final year students to 'practice what they have learnt in prior years by doing' before they graduate. They have a chance to practice professionalism. The experience is invaluable to students and those they serve. Students inhabit a working environment and learn first-hand about the roll out of new protocols and policies. They also learn how to deal with frustration and 'loss' that comes, for example, with a lost folder for their own patient.

Sedi, together with Sharm Naidoo (the manager of the Learning Centre), have been running the VSLC-site since it began. There have never been any complaints about the services provided by students. She reflects with quiet satisfaction and pride on the achievements of the Centre. Documenting and analysing the first ten years of the VSLC's life will, she hopes, provide useful indications of what works or might be challenging in a partnership between the UCT Health Sciences Faculty and the Western Cape Metro Health Services on a Primary Health Care level. The preliminary findings suggest that such a model of community based education could inspire others to use a similar model.

As Clinical head for Vanguard and surrounding smaller clinics, Sedi says she feels fulfilled in working in an environment that leads in the provision of good-quality primary-level health services. "I very much enjoy navigating this person-centred, wellness and health-promoting journey with colleagues and students", she said.

Zarina Patel – Academic, Athlete, Mother!



Zarina’s energetic life shows no signs of slowing. In September, she spent a week in Grand Bassam, Cote d’Ivoire – on a training week with prospective early career academics from across the African continent. The training was under the umbrella of LIRA [Leading Integrated Research for Agenda 2030, a research programme of the International Science Council].

The following week Zarina was in Malmo, Sweden to meet with research collaborators. They finalized a funding proposal for STINT (Swedish Foundation for International Cooperation in Research and Higher Education). She also held many networking meetings to expand collaboration with Swedish colleagues from the University of Malmo, University of Lund and the City authority of Malmo and the Nordic-Africa Institute.



The highlight of a trip to the UK was participating in the Great North 1 mile swim in Lake Windermere. Unexpectedly, the water temperature was 19C, which Zarina describes as “wonderfully warm”.

Zarina’s daughter Zara sporting achievements propelled the family on a long weekend to Durban. Zara played in the Nationals indoor hockey tournament for U11s and was elected spirit/vibe captain for her team.



[Photographs provided]

Maureen Tanner completes her 1st marathon: the City Marathon



Maureen at the start of the Marathon.

[Photo: Maureen Tanner]

I successfully completed the Cape Town Marathon on Sunday 23rd September. It was my first marathon, which ended up being an emotional and physical roller coaster ride! I cried with joy and despair at various points in the race but my body carried me through nonetheless. I was told that I would have to “dig deep” and that my mind and heart would need to carry me through when my legs would fail... I now understand what they meant. ☑ I have accomplished what, 8 months ago, I thought impossible. THANK YOU dear little legs of mine. I’m not a gazelle but a little penguin and the proud little penguin finished a marathon!

Last word from the Editor.

I have often thought about Charles Dickens’ novel *Hard Times* and the words put into the mouth of Mr Sleary, the circus proprietor, who doesn’t endorse a view that life is only about learning facts. "People must be amused, squire, somehow. They can't be always a-working, nor yet they can't be always a-learning." Taking this to heart I had a spectacular two week holiday with Karen in the Scottish Highlands. We encountered many castles and a few old bulls.



Castle Romance in the Scottish Highlands

Scottish Riddle. How do you identify a bull in the Highlands?



[Photographs provided]



Editor: Robert Morrell,
NGP Director