

UCT's Next Generation Professoriate

Newsletter #1

February 2018

Welcome to 2018, to Day Zero, to Presidential Problems on a national scale, and to the prospect of another exciting year at UCT. In this (rather slender) issue we mourn all the stories that were not submitted but continue to believe that the shy and modest members of the cohort one day will discover their writing mojos and strut their stuff. But we shouldn't focus on what we don't have, so let me focus on the riches of this issue.

I am very pleased to report the successes of NGP members in obtaining ad hominem promotion. Paul Barendse was promoted to full professor while Sylvia Bruinders, Tracy Craig, Mushi Matjila, Frank Matose and Lee-Ann Tong were all promoted to Associate Professor. Congratulations! In the last NRF rating cycle, Edmund February retained his NRF rating while Manya Mooya was rated for the first time. Well done!

We say goodbye (and thank you) to Hugh Corder, to Paul Barendse and Tracy Craig. We hear about the launch of Sylvia Bruinders' *Parading Respectability* and of Reuben Govender's travels to Zambia. And we get the thoughts of our chemist, Anwar Jardine, on potable water.

Robert Morrell (Editor)

Interim DVC Hugh Corder's Farewell



Reuben Govender, Joel Chigada, Phumla Sinxadi, Robert Morrell, Bob Osano, Hugh Corder, Waheeda Amien, Sylvia Bruinders, Chun-Sung Huang, Salona Lutchman, Corrinne Shaw, Lee-Ann Tong, Freedom Gumedze, Tracy Gutuza, Zarina Patel and Kate le Roux. [Photo by Nceba Lolwane]

On a warm (hot), dry (dry) late January's day, a good crowd gathered at Common Ground to wish Professor Hugh Corder well and to bid him adieu. Hugh Corder, former Dean of the Law Faculty, took over from Francis Petersen as the DVC responsible for the Faculties and therefore was also in charge of the NGP. Hugh was a 100% supporter of the NGP, always available to offer advice, take ideas forward and to spread the news to communities that may not yet have been persuaded about the NGP's worth and achievements.

Paul Barendse – Hamba Kahle

Congratulations to Paul Barendse, Department of Electrical Engineering, who has been promoted to Full Professor (from January 2018). He was a founder member of the Next Generation Professoriate.



Paul completed his undergraduate (B.Sc) and postgraduate (M.Sc, 2005 and Ph.D, 2007) studies with the Department of Electrical Engineering. He joined the Department as a lecturer in 2007. His research focuses on design, modelling, control and diagnostics of energy conversion systems for alternate energy and industrial applications. These applications include wind energy conversion systems, motorised loads, energy storage systems, electric vehicles, solar energy systems and fuel cells. He aims to improve the life expectancy and ensure the efficient operation of energy conversion devices. Early fault detection allows for planned maintenance and reduced downtime, which translates to cost effectiveness. He also pays particular attention to renewable and alternate energy systems. *“As the demand for energy continues to increase, public interest has shifted towards the development of sustainable solutions. Through my research I have attempted to contribute to the development and maintenance of such systems to ensure that these are reliable and cost effective”.*

His most recent work is in detecting faults in electrochemical devices. This work was funded by the Department of Science and Technology (DST) and HySA Systems, one of the 3 national competence centers established by the DST under the hydrogen and fuel cell technology program. Paul has developed a technique which reduces the time to detect faults within fuel cells from 30 minutes to 5 seconds, while also reducing hardware requirements. A patent has been filed and a grant received from the TIA for refining the prototype for commercial development in 2016. This technique is being adapted for lithium ion batteries, with tremendous potential for electric and hybrid electric vehicles and the explosion in popularity of mobile and portable electronic devices.

Paul has strong international collaborative research ties. He works with Prof Pillay at the University of Concordia, Canada and Prof Rengaswamy of IIT, Madras India. He serves as Associate Editor for the Transactions on Industrial Applications. He has a stellar postgraduate supervision record (at 2015 - 2 PhD students, 15 MSc students). His undergraduate work attempts to capture the interest of the students by constantly demonstrating the industrial relevance and application of topics being taught. Paul has had success in raising research funding successfully applying to TESP, NRF, THRIP, DST and Eskom. In 2014 he was a finalist in the annual NSTF-BHP Billiton Awards in the category *“Outstanding contribution to Science, Engineering, Technology and Innovation: T W Kambule award for an Emerging Researcher”.*

Paul hails from Cape Town and is father to two young children, one who is currently attending UCT’s Educare Centre and the other who has just “graduated” to Grade R. He is deeply passionate about his family and feels fortunate to be working in an environment which recognises the importance and value of these relationships. He also has a keen interest in fitness, even though this has needed to move down the list of priorities already mentioned above.

“I found tremendous value in the NGP”, he says. *“In fact, if it wasn’t for our discussions and meetings with the Dean and HoD, I most likely would not have applied for promotion!”* He also recognises the importance the program serves in creating a sense of community and belonging, especially in an environment which can be quite isolating. He truly hopes the program is sustained, since its value is rooted in a sense of belonging at the university.

Tracy Craig, Hamba Kahle

Tracy Craig was a founder member of the Next Generation Professoriate. She was based in CHED and made a speciality of Mathematics Education. At the end of 2017 Tracy was promoted to Associate Professor. Congratulations! Unfortunately (for us), at the same time, she was offered an academic position in Mathematics at the University of Twente, in the Netherlands, which she took up at the beginning of 2018.



Tracy was born, brought up and educated in Cape Town. She received a BSc, BSc (Hons), MSc and PhD from UCT. Her topic for her 2007 PhD was *'Promoting Understanding in Mathematical Problem-Solving through Writing: A Piagetian Analysis'*. From 2014 to 2016 Tracy was director of the Centre for Research in Engineering and Science Education (CREE). She is an NRF rated researcher and a regular publisher in Maths Education journals, both local and international. She presented her work at local and international conferences regularly (a conference every year). She represented UCT on a panel set up by the Universities South Africa (USAf) on Community of Practice for the Teaching and Learning of Mathematics (CoP TLM), and headed its task team on surveying extended and foundation courses across all universities in South Africa.

Her greatest international exposure has come through the "Delta" series of conferences. These are biennial Southern Hemisphere conferences on the teaching and learning of undergraduate mathematics and statistics. The conferences are the only of their kind, drawing together mathematics and statistics educators from Australia, New Zealand, South Africa, Brazil, Uruguay and elsewhere.

Tracy describes herself as *"a practice-driven researcher teaching mathematics to engineering students in an extended curriculum programme"*. This locates her at the intersection of critical research areas which speak directly to re-thinking pedagogy, to the challenges of higher education teaching in South Africa and the importance of decolonizing the curriculum. Acknowledgement of her teaching excellence came in 2015 as the recipient of the UCT Collaborative Educational Practice award.

Tracy describes her time in the Next Generation Professoriate as an experience that was *'supportive, collegial and, often, joyous'*. She identifies getting to know fellow staff members from other Faculties as a highlight, though also appreciated the environment which blended encouragement with a purposeful focus on academic productivity. *"I owe particular thanks to Rob, who read key bits of my portfolio and gave me useful commentary, as well of course to his constant support and encouragement and provision of enabling activities"*, she said.

"I leave behind many wonderful things at UCT which I shall miss. The NGP cohort is one of those, particularly the people and the many bonds that I formed. I am grateful to UCT for running the NGP and to Rob for the passion he brings to it. I'll miss you all and please pop in for a broodje en koffie, if you happen to be in the neighbourhood".

Words and Music – Launching *Parading Respectability*

The sounds of brass, trumpet, clarinet and tuba of the St Joseph’s Christmas band, welcomed an audience to the launch of Sylvia Bruinders’ book, *Parading Respectability: The Cultural and Moral Aesthetics of the Christmas Bands Movement in the Western Cape, South Africa* (NISC 2017). The launch was held at the College of Music on 7 February 2018 and attracted many members of the Christmas bands, members of the NGP, and family members including Sylvia’s parents, Mr and Mrs Gabriel and Vera Bruinders.



“This book will fill a gap in existing scholarship, it has relevance to the humanities in Africa in general in its attention to the impact of colonialism and the attendant marginalization of this population group to the point that this tradition emerged as a vehicle to establish a semblance of ‘respectability’ in reaction to a negative stereotype”, writes Dr Diane Thram, International Library of African Music, Rhodes University, on the dust cover.

Sylvia joined the St Joseph’s Christmas band in order to study the cultural practice “from the inside”. The band was started in 1936 by Hannes September, and his son leads the band to this day. It is one of the most prominent Christmas bands and boasts of having won nine consecutive ‘Solo’ or prescribed pieces, unrivalled to now and likely never to be rivalled, according to Mr Albert September (Junior). Mr September tried to capture the importance of the bands in community life by referring to his birth in 1945 when his mother, in advanced labour, sent off her husband (Hannes) to participate in the competition rather than help her through the child-birth process.

Sylvia reflected on her time in the bands as a musician, community member and researcher. She described the tough audition process, made particularly tough by her being a woman. Having passed the musical proficiency test, there was another debate within the band on whether to permit her to be a full, marching member. The struggle for the inclusion of women continued, though was finally won when band members acknowledged the reach of the 1996 Constitution and the protection of women’s rights.



Vamont Layne, the keynote speaker and Sylvia's long-time friend and collaborator, referred to the book as a '*resource for decolonization*'. Layne was the Director of the District Six Museum (2004-2008). He looked forward to the day when the Christmas Bands would march through the City Centre and be celebrated as integral parts of the City's heritage. He also noted the connection of the bands to the struggle for a new, non-racial, South Africa, asking the audience to reflect on the many different kinds of contribution music and bands made to the creation of a post-apartheid South Africa.

Fred Hendricks, editor of the AHP book series sent a letter of support stating, "*Sylvia was part of the fourth cohort of African Humanities Program post-docs in 2012. Her book, based on her PhD, is a tour de force in humanities scholarship. She has followed her passion and through insightful participant observation and detailed interviews. For the evidential substantiation of her arguments she has very skillfully meshed these together into a compelling narrative about a little studied area of Western Cape musical culture. She traces the slave origins of the Christmas Band Movement and then places this history within the broader political environment of colonialism, segregation and apartheid. The story is told with intimacy and immediacy and it is beautifully crafted within an appropriate conceptual framework.*"

Professor Rebekke Sandmeier, Head of Music at UCT, expressed her delight at the publication of Sylvia's book. She congratulated Sylvia on this achievement and her recent promotion to Associate Professor and said that it brought great credit to the Department. She also expressed appreciation for the support of the Next Generation Professoriate for Sylvia and for staff members in a similar, mid-career, position.



Robert Morrell, Rebekka Sandmeier, Sylvia Bruinders and Paul Grendon.

Reuben Govender appointed as External Program Evaluator for Zambian Universities

Dr Reuben Govender, together with Associate Professor Olabisi Falowo and Associate Professor Denis Kalumba, from the Mechanical, Electrical and Civil Engineering Departments respectively, have been appointed by the Zambian Higher Education Authority (HEA), to review the Mechanical, Electrical and Civil Engineering curricula for new and existing Universities in Zambia. As external program evaluators they are tasked to audit curricula and facilities at the Zambian institutions registering to offer Engineering Programs and to advise existing Engineering Departments on how to improve the delivery of their programs.

In January Reuben and his colleagues visited the University of Zambia (UNZA) on an accreditation visit. *“At the outset, I knew that this was an opportunity to contribute to furthering engineering education outside of UCT. The academic staff at UNZA were very grateful for the feedback on their programs, as it highlights the areas they can improve. I didn’t realise how much I would benefit from participating in the exercise: seeing what knowledge and skills would be valuable to engineers practicing in Africa; realising how the systems an institution puts in place can raise the minimum standard of teaching and learning; gaining a better appreciation for how an active research and postgraduate program can support undergraduate teaching and learning.”*



Left to right: Elizabeth Namonje (Quality Assurance Officer, HEA), Assoc. Prof. Denis Kalumba, Professor Luke Evuta Mumba (Vice Chancellor, UNZA), Dr Reuben Govender, Associate Professor Olabisi Falowo, Dr. Edward Lusambo (Director of Quality Assurance Unit, UNZA) - at the University of Zambia Vice Chancellor’s Office

Potable water is more valuable than oil

Anwar Jardine

As we approach what seems to be the inevitable day zero, I ponder about the price of water and how it compares with crude oil. A barrel of oil (160 lt) fluctuated between \$40-65 in the past year, that comes to about R3/lt. In the absence of our world class municipal potable water, we pay between R14-20 / 5lt or R2.80-4.00 / lt at the supermarket. It is very predictable that supply and demand economics will lead to the water price exceeding the crude oil price by far.....who could have imagined that?

I spent my entire Dec/Jan break making sure that our family of 6 has sufficient water since we got one of those WMDs, no, not a Weapon of Mass Destruction, a Water Metering Device (Fig 1). I really hated that device since it was set on 350 L/day and that amounts to 58 L/person for a family of 6. I monitored the device daily, hoping that someone from the CTC or their subcontractors would come and give me my fair share of 87 L per day. I gave up on that thought since we are now on level 6B which means 50 L / day anyway. Getting used to this downgrade terminology now, Eskom BB- and SA a BB+, junk - just like the water status.



Fig 1. That freaking WMD giving me only 350 liters!

The WMD must have felt my negative vibe towards it because it popped off at the joint, but luckily for me it was on the municipal supply side. I had nothing to do with that incident, it is just science. If



you connect plastic pipes onto copper pipes, and ask subcontractors to install the WMDs without making them responsible for servicing it, you're asking for trouble. As a result, water was gushing out onto the pavement from 4:00 am when the WMD kicks in until the CTC eventually fixed the leak at 8:00 am. Hence, more than a month's supply of water that was supposed to have been delivered to me ended up in the storm drain (Fig 2).

Fig 2: Penny wise Pound Foolish! WMD malfunction.

Some of the most memorable days during my break centred on water stories and political debate. I was in the queue for spring water at Newlands (Fig 3). We were closing in on day zero. The queues were getting longer and longer and the frustrations and madness started to set in. I experienced this madness while queueing for water - free water I must admit. My conclusion is that CTC rationing and the efforts to get alternative water supplies have renewed and strengthened appreciation for water.



Fig 3: Exchanging water stories in the express queue (15L only) and checking who's breaking the rules of water collection.