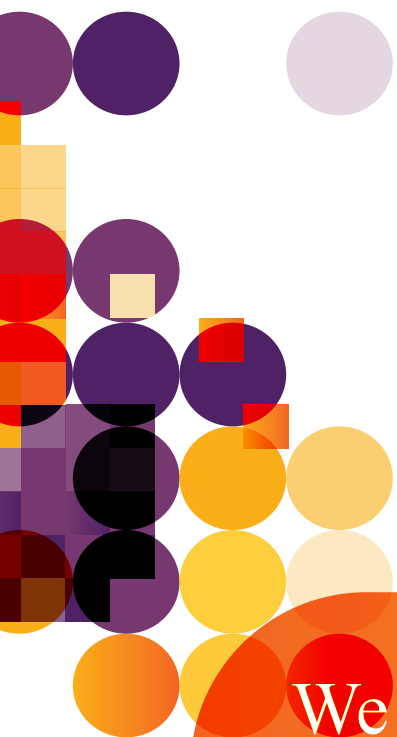


SHOWCASING THE UNIVERSITY OF JOHANNESBURG'S new Generation of Academics Programme (nGAP) Scholars

Division for
Teaching
Excellence





We recognise the transformative potential of nGAP and have worked to ensure that UJ provides the required support, care and enablers. We are proud of our nGAP scholars

(Dr Kirti Menon, Meagan Strydom and Angie Magabane).

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INTRODUCING THE PROGRAMME

Transformation and innovation have been a key priority for universities in South Africa, a reality made even more urgent in the last decade. The National Development Plan (NDP) identifies the nurturing of high-quality academic talent as a critical developmental lever that supports economic growth, unlocking social mobility and addressing major societal challenges. This requires expanding and retaining the number of highly qualified academics teaching in universities while equipping these academics to be skilled in teaching, research and social engagement.

As part of its response to the NDP targets, the Department of Higher Education and Training (DHET) developed the new Generation Academic Programme (nGAP). The nGAP forms part of the three flagship programmes implemented under the Staffing South Africa's Universities Framework (SSAUF). The SSAUF identifies and seeks to address the urgent need to transform the academic profile of higher education in South Africa, while at the same time developing strong early and mid-career academics to ensure a sustainable staff composition in the system. It is designed to be multi-pronged, and cross-coordinated between stakeholders in the higher education sector.

The nGAP provides universities with opportunities to grow a new cohort of academics, with particular attention paid to transformation in terms of race and gender. The funding provides for all candidates' salary and development costs for the first three years, and partial funding for salary and development costs for a further three years, after which period, the position is fully funded by the University. Each nGAP scholar is allocated a mentor as well as a reduced teaching workload, to allow

The nGAP provides universities with opportunities to grow a new cohort of academics, with particular attention paid to transformation in terms of race and gender.

them to focus on their PhD research. To date, the University has a total of 29 nGAP posts hosted by different faculties, and all 29 posts have been taken up. Since its inception in 2015, five participants have completed their PhDs, and the majority have made significant progress in their studies. In early 2022, UJ was allocated an additional five posts in the following fields: Metallurgy; Science Education; Auditing; Psychology and Communication and Media.

How the nGAP works

The nGAP was designed to respond to the above challenges with the aim of preparing the next generation of academics to successfully transition into the profession. Targeted interventions are provided to support lecturers through completing their PhD into being experienced teachers and researchers, creating a pipeline into the academic profession in critical programmes. It is co-funded between the DHET and universities. As part of its transformation mandate, at least 80% of nGAP posts must be held by black, coloured and Indian South Africans, with at least 55% of posts being held by women. Lecturers are appointed as full-time staff members to the institution permanently but are supported for a six-year period through funds from the Department of Higher Education and Training and the university.



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In Phase 1, their focus is the completion of the PhD, for which they receive financial support and teaching relief to allow time off for writing and research. They also enjoy a reduced teaching load and access to ongoing development through the UJ's internal initiatives as well as the SSAU-Development Programme.

In Phase 2, the teaching load is progressively increased as lecturers undertake more teaching and research responsibility and continue their induction as seasoned members of faculty. They also participate in conference attendance and research publication, with dedicated support sessions offered to improve their skills in these areas. Throughout their time in the programme, lecturers are paired with a mentor who acts in a pastoral and professional role, ensuring that along with their supervisor they are offered an effective foundation to support their success. The graphic below captures the pillars of the nGAP programme.

These pillars create an effective wraparound strategy that enables successful completion of the programme alongside significant personal and professional growth. At UJ, the nGAP has been embedded in the academic staff development strategy, contributing to the University's aim of 'growing its own timber' while also meeting the need for redress and strengthening the academic pipeline.

The nGAP experience at UJ

The experiences of the nGAP scholars at UJ, are highlighted with a focus on the variety of disciplines and special interests. The programme has been implemented with great success at the University, with 92% of lecturers being from designated race groups and at least 67% being women.

Supervisors of nGAP students have consistently reported good progress in the completion of PhD studies, noting both satisfactory and excellent progress overall. For their part, mentors have been praised by nGAP lecturers for the professional support they provide, which spans a variety of areas, from assisting with finding supervisors, to research and writing



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guidance, and planning career goals. Coaches have also been provided as an additional layer of group and individual support. The high level of coordination in the management of the programme has ensured solid connections between students, supervisors and mentors, and the programme office, with regular communication and assistance on offer to address lecturers' needs.

Stakeholders in the programme have lauded the support on offer and the impact this has had on research and teaching undertaken by lecturers. A valuable element of the programme is that regular development opportunities facilitate the creation of an nGAP community of scholars at the institution, which boosts collegiality and networking. Lecturers have also been able to draw on this community of peers for personal and academic support.

The lecturers are at different stages in their academic journeys, but their experiences speak to a holistic programme that has supported their achievement of academic and professional goals. This is a spotlight on scholars that started with the programme in the first phase and have completed their six-year training programme. The work of these scholars exemplifies the aims set out for the programme at its inception.



MESSAGE BY PROF LETLHOKWA MPEDI

Deputy Vice-Chancellor: Academic

The aspiration of the University of Johannesburg (UJ) is to ensure that the New Generation of Academics Programme (nGAP) scholars forge academic careers with a strong focus on research, teaching and learning and community engagement. Our mission is to create a vibrant academic community. The end game is to add significant value to higher education. At UJ we have established nGAP scholars as an informal club recognising the need for our young academics to be a community where dreams, aspirations, successes and challenges can be shared.

The overall responsibility for the support programmes is vested in the Division for Teaching Excellence (DTE) at UJ. Our nGAPs meet often with DTE, participate in capacity-building activities, writing retreats, are assigned coaches when required and are mentored by a senior academic. We hope to see the nGAPs blossom in their disciplines and take their rightful places as future leaders in their fields and in the university. Our nGAP scholars are passionate about the academic world and are already having an impact on the lives of students, their disciplines, the university and society.

We are extremely proud of our nGAP scholars.

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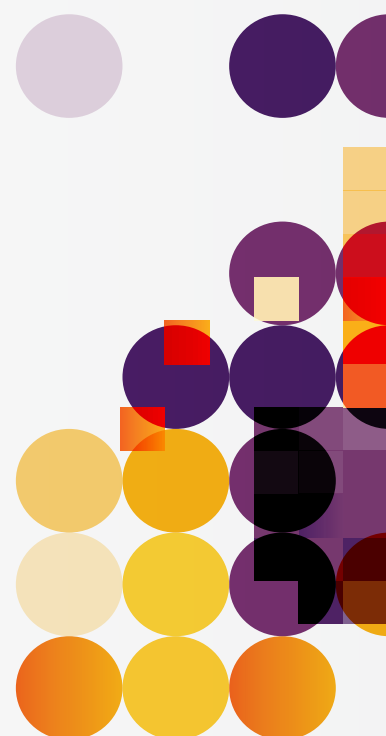
BUILDING A SOLID FOUNDATION FOR ACADEMIC EXCELLENCE

The accounts by nGAP scholars attest to the success of the programme in delivering excellent learning and growth opportunities that deepen their development as professionals in higher education. Lecturers have had the flexibility to use these opportunities in different ways, whether to seek additional certifications to improve their research capacity, or to focus on developing their skills as teachers.

The COVID-19 pandemic was not without its impact on the programme, as many lecturers were unable to make use of the international mobility grant provided as part of the nGAP. Limitations on travel, as well as health and safety concerns, made physical travel difficult. However, lecturers were resourceful in finding other ways to connect with colleagues and international networks, whether through virtual conference attendance, collaboration on research or teaching, and hosting sessions and events of their own that attracted participants from UJ and beyond. Those who had participated in international mobility before the pandemic reported on its enriching effects on completing the PhD and finding a sense of direction and community for future research.

The University takes pride in the nGAP and ensures that our scholars thrive in an academically vibrant environment with all the required support in place.

Dr Kirti Menon



MEET THE UJ NGAP SCHOLARS¹

¹ The nGAP programme commenced in 2016. The nGAP Phase 1 Cohort completed the programme at the end of 2021.

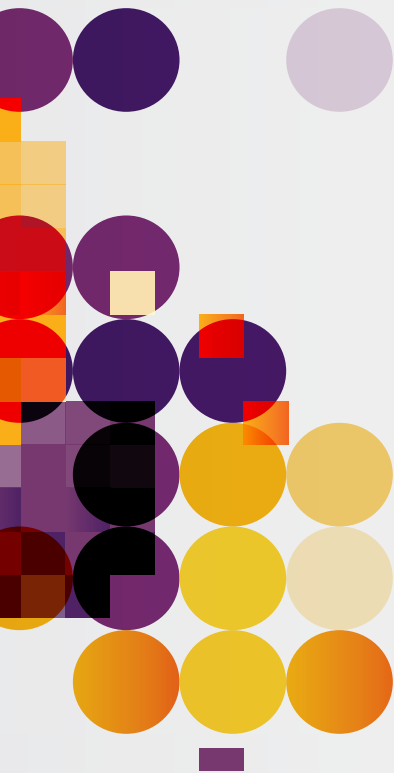


DR TEBOGO MAKHUBELA

Tebogo is based in the Department of Geology where he was recently promoted to Senior Lecturer. He holds a PhD in Geology from UJ. His research interest is the application of geochronology (the science of determining ages of geological materials and processes) in paleo science, specifically the Cradle of Humankind World Heritage Site located about 40 km west of Johannesburg. *'One of the great results from my PhD was the discovery that the soils above the Rising Star cave were as old as 1 million years and, thus, much older than the 300 thousand years old Homo Naledi fossils,'* Tebogo says. This is an important finding in research into human and landscape evolution.

Tebogo shares that the reduced teaching load offered through the nGAP programme allowed him to carry out analytical work at different laboratories including at UJ, the University of the Witwatersrand (Wits), and the Geo Forschungszentrum in Potsdam, which has contributed to the publication of seven research articles on his work to date. The additional funding offered by nGAP, as well as nGAP-specific NRF funding calls, offered opportunities for Tebogo to acquire additional laboratory equipment and pay for analysis costs. He has now started setting up a laboratory for processing cosmogenic nuclide samples, which is in demand in South Africa, and has brought on board collaborators from Wits, UNISA and University of Cape Town who will be making use of this facility. Tebogo has also made use of the opportunities provided by the programme to gain additional training to support his research work. He has completed a Higher Certificate in Information Technology and has completed MATLAB courses to learn to code for his research.

Tebogo started teaching the Applied Engineering and Environmental Geology second-year module in 2019 and environmental isotope geochemistry at Honours level in the Applied and Environmental Mineralogy module in 2021. His PhD research has directly impacted the content of his teaching: *'Following my PhD I have introduced the application of cosmogenic nuclide and U-series dating techniques in environmental geology at the Honours level. These two techniques were previously not presented and after I developed as a speciality researcher using them, I decided to incorporate them into teaching. I have also started supervising MSc and PhD students who are doing projects that utilise these techniques.'* To date, Tebogo has served as a supervisor or co-supervisor on six Honours and three MSc projects. He



currently supervises two PhD students and co-supervises two MSc students at UJ and the Centre for the Exploration of Deep Human Journey at Wits.

As one of the first nGAPs to participate in the programme, Tebogo is positive about the way the programme's management has strengthened over time. *'I was part of the first cohort and in the six years that I was in the programme, there was great improvements in all aspects of the programme. Of course, when we started there were a lot of issues, and some were pertaining to the management of the programme at UJ, but all those issues have now been addressed. In my opinion, the UJ nGAP programme is now running optimally.'*



DR KARABO MORWESI SITTO

Karabo completed her PhD in Strategic Communication at the University of Johannesburg in 2020. During this period, she produced publications for the journals *Papers on Social Representation* and *Community Psychology in Global Perspective*, the latter produced in collaboration with international colleagues. Karabo indicated that *'research looked at how people represent their identity in their interpersonal relationships online versus in person. I looked specifically at a group of voluntary economic migrants, what you'd call expats,'* Karabo explains. *'My scholarship is in the terrain of digital communication and social representation theory. I also work closely with a colleague who does health communications, while I mostly focus on social representation and social identity.'* Karabo's work has also identified important issues relating to the COVID-19 pandemic globally. She has presented and published on some of her PhD work. One paper on COVID-19 as a disease of privilege was featured by the prestigious *Journal of Papers on Social Representation*. This topic/ area is under-researched issue, and therefore this paper led to contributing to a ten-country study of social representation during the COVID-19 pandemic.

Since completing her PhD, Karabo's teaching load has increased to include first year and Honours modules. She has also successfully supervised five Honours students to completion and co-supervised a research master's. She continues to supervise coursework masters students and serves as a supervisor for two research masters students.

Karabo has enjoyed the support and guidance offered by the nGAP programme, including the development opportunities provided, despite encountering some challenges in leadership continuity in her department. She believes it would be valuable for future nGAP scholars to receive peer support from incumbent nGAPs as an additional layer of mentorship in the programme. *'It's a timeous programme that was really thought through in terms of the contribution it makes. Having the space to not have to deal with heavy teaching loads upfront is an outstanding condition that's there. To have a mentor that takes you through the professional part of the journey is also quite good. And to also have access to peers, people in a similar boat to you. I really am an advocate of the programme; I think it is very necessary.'*

DR SONWABILE MAFUNDA



Mafunda completed his PhD at the University of Johannesburg in Mathematics under the supervision of Professors Peter Dankelmann (UJ) and Betsie Jonck (Wits). His PhD is in a branch of mathematics called Graph theory. Graph theory studies mathematical structures called graphs, and their properties. A graph is a mathematical structure that consists of entities (usually called vertices) and the possible connections (usually called edges) between these entities. In cases where the direction of the link between the vertices is important, the corresponding networks are called digraphs (directed graphs). Mafunda explains: *"in my PhD we studied bounds on some distance measures (radius, diameter, proximity, remoteness) in graphs and digraphs"*. A good application of this is to think about what Google does when you search. When Google orders your search results, it uses graph theory in the sense that links that have been clicked more often tend to have a closer distance; the search engine will look for phrases and words that are closely related to what you're searching for. This work has significant value to mathematics, but also to other fields such as computer science, also in applied contexts such as town planning and human geography.

During his PhD, Mafunda's work was of such calibre that it resulted in international collaborations, including an article where he collaborated with researchers from the Royal Holloway University of London and published in the respected international journal *Discrete Mathematics*. His supervisors and mentor report that his performance has exceeded expectations, and he is more than capable of proceeding as an established academic in his field.

His MSc, completed at the University of KwaZulu-Natal, under the supervision of Dr Gareth Amery (UKZN), Professor Simon Mukwembi (Wits) and Dr. Christine Swart (UCT) focused on the interplay of Graph Theory, Group Theory and Cryptography, the three fields he speaks very fondly of.

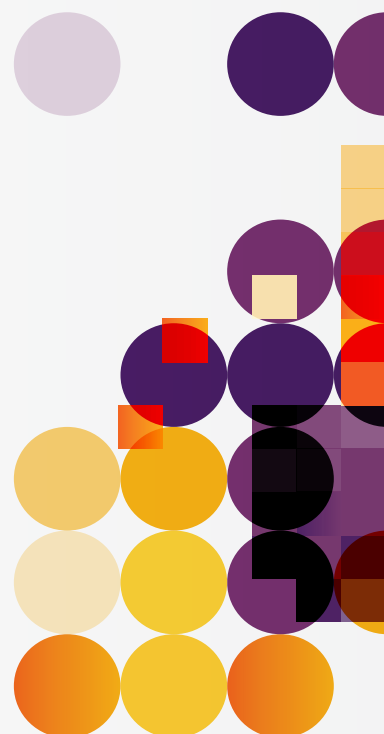
Mafunda has taught about four undergraduate modules, served as an advisor for four Honours projects, as a co-supervisor for an MSc project, and is currently co-supervisor of a PhD candidate, all of which he indicates has served to enrich his professional development in the field. His own academic background has helped him to make the

study of mathematics fun for his students, using cryptography to explain how credit card security features are designed, or graph theory to detail degrees of connection on social media. *'It brings joy to lecture mathematics, its abstract and pure nature leaves one astonished by its ability to produce solutions even in places that are far reaching'*. This has also resulted in him serving as a guest lecturer at the Soka University of America.

Mafunda's interest in mathematics led him to organise and run, online, an international school on graph theory, with videos posted on a YouTube page called School on Graph Theory. The objective of this school is to invite Graph theorists (and possibly cryptographers and group theorists in the future) from all over the world to give research level lectures and share their expertise with postgraduates, early-career academics and established researchers. In 2021 the school ran for four days and featured speakers from St. Andrew's University (UK), Royal Holloway University of London (UK), Uppsala University (Sweden), University of Ghana (Ghana), University of Cape Town (South Africa), University of the Witwatersrand (South Africa) and our own University of Johannesburg (South Africa). The school was supported by the National Graduate Academy for Mathematical and Statistical Sciences (NGA (MaSS)), and the Centre of Excellence in Mathematical and Statistical Sciences (CoE MaSS). The planning for the 2nd international School on Graph Theory is underway for the first week of October 2022.

Mafunda credits the programme with creating an enabling environment for his work to thrive. *'The activities that the programme organises for us, the workshops, and meetings, and having a helping team close by was almost more beneficial. They made the programme a positive experience. And you learn a lot from peers in other disciplines that can subtly improve your practice, so you avoid working in silos. I am thankful to the UJ nGAP lecturers support team for all their tireless commitment'*, says Mafunda.

Mafunda attributes his educational well-being to his late mentor and Professor, Hendrika (Henda) Swart.



MS ZINHLE MNCUBE



Zinhle is based in the Department of Philosophy and is registered for her PhD in the History and Philosophy of Science at the University of Cambridge. She is scheduled to defend her thesis, titled 'The Prospects of Personalising Medicine' during the 2022 academic year. *'The topic looks at the future of medicine, where people won't be treated in a one-size-fits-all manner. If you're sick or need treatment, it's not the case that you'll have the standard treatment on offer – it will be based on your genetic profile, your environment, or other factors related to you as an individual patient. It's the future of medicine also in terms of 4IR, artificial intelligence and big data: personalised medicine also wants to harness information to make treatment more individualised and personalised,' says Zinhle. 'I was also interested in the topic in terms of race and making medicine more personal, and how race and racism affect people's health. There are specific ethical and epistemic issues that come up related to race, biology and physiology.'* At least five papers for publication have already been drafted from the PhD research.

During her PhD journey, Zinhle presented papers at several international colloquia and conferences (including one at Durham University) and has been the organiser of a well-attended weekly seminar on Epistemic Decolonisation, along with three international colleagues. This has dovetailed well with her teaching work – Zinhle has offered three courses (two undergraduate and one joint Honours/Master's course) drawing on her research and focus on race and medicine. She has also served as co-editor for the book *Global Epistemologies & Philosophies of Science*, published by Routledge in 2021.

Zinhle describes her nGAP experience as positive and supportive: *'They're really attempting to bring in scholars and help them further their academic journey with the supports on offer – it's great and works for people in all sorts of departments. The reporting we do every year allows us to learn from others, their achievements and challenges.'* This includes several developmental opportunities on offer that she has taken full advantage of, including lecturer support workshops with a specific focus on issues such as teaching and learning online. Her mentor has expressed satisfaction with her progress and her ability to articulate her needs and concerns. She received the South African Women in Science Award in 2019.



MS LERATO NDABEZITHA

Lerato is currently a lecturer in the Department of Childhood Psychology and pursuing her PhD in Childhood Education at the University of Johannesburg. Her study is titled 'The design and implementation of a teacher education course aimed at developing pre-service teachers' understanding of using a pedagogy of play in the Grade R classroom'. She is taking on a novel approach to her research: *'My study uses design-based research, and I worked with my supervisor and a colleague at Harvard to consider how we could improve the content for teaching this year. This year they are planning a webinar for Foundation Phase (FP) students for using play for teaching and learning.'* Her supervisors and mentor report that her progress to date has been satisfactory and consistent in meeting the targets set for her completion.

She has also been responsible for teaching modules in the Education faculty and has been able to draw on additional teaching support to dedicate additional time to her research. Lerato has expressed that this is one of the beneficial aspects of the nGAP process – being able to communicate challenges and know that the institution offers the necessary support figure things out: *'Sometimes you are afraid to speak to your supervisor or mentor, but then you sit with colleagues from nGAP, and you find they propose solutions!'* she says.

Lerato's mentor reports that she is currently leading a new initiative in the FP teacher education programme focused on pedagogies of play. This incorporates international input in her work and the construction of her teaching modules. *'I became interested in the topic when I realised that young children like to play, and in schools, they are told they aren't there to play but to learn – but play is how children learn best. So, we thought that pre-service teachers should be trained to use guided play to achieve a curriculum goal and maximise learning,'* she explains. *'Play is not seen as something that can be used for learner development; teachers know what play is but are not confident using it as a tool in the classroom because they have not seen it or been trained to use it constructively. This is something that is under-researched both in SA and globally.'* Given that the field of pedagogies of play remains underrepresented in South African education, Lerato is on track to becoming an expert in the field. She believes that incorporating play in the classroom will cultivate a love of learning and have a ripple effect on teachers' ability to reflect on and improve their practices.

MS BELINDA SCHUTTE



Belinda is based in the Department of Accountancy and enrolled for a PhD in Auditing at the University of Johannesburg. Her study is titled: 'Analysing undergraduate Accounting curriculums in South African universities to identify student preparedness for the Fourth Industrial Revolution'. The study investigates if there are specific competencies that accounting graduates should have to be employable in the 4IR, as well as identify the current preparedness of South African universities in achieving these competencies. Belinda explains that her study will assist in determining any areas of improvement that needs to be made in the accounting curriculum.'

She has praised the value of this initial period in her nGAP journey for making research a less intimidating process, given the range of support available to ensure her steady progress. This has included publishing her first article in the *Journal of New Generation Sciences* and presenting at the ICAB conference. '*The programme really provides you with enough time and resources to become a well-rounded academic performing well in both teaching and learning and research activities*', she explains.

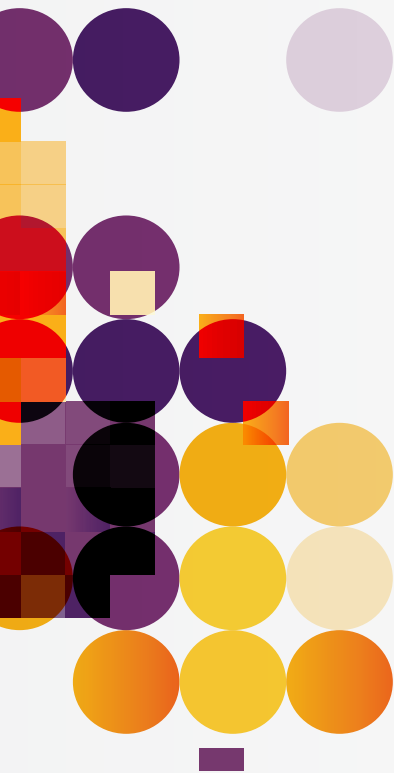
Belinda is enjoying teaching and finding new and innovative ways to make her classes interesting and engaging, including using technology and online resources to keep students interested: In her own words, Belinda explains, '*This has really helped me to incorporate more "technology" aspects into my teaching, and having continued discussions on the 4th Industrial Revolution with my students.*' She has been able to draw on additional support from the Assistant Lecturer (AL) programme, having an AL for Auditing which enabled her to focus on her research and lighten some of the teaching and learning responsibilities. This has also made it possible for her to participate in a wealth of training and development opportunities, both for her lecturing work and as part of her researcher development.



DR RISHEN ROOPCHUND

Rishen is based in the Department of Chemical Engineering Technology. He completed his PhD in Chemical Engineering from the University of KwaZulu-Natal in 2021, where his thesis was titled 'Cellulose nanocrystals: plant design for up-scaled production and applications in green construction materials'. His interest in the research started while completing his master's degree when he became aware of the potential benefits of recycling industrial waste into green construction materials. *'I noticed that the central theme locally and internationally has been that tremendous amounts of industrial waste are generated each year which is either burned or dumped in landfills and contributes to environmental issues. I was looking to find alternate pathways of disposal,'* explains Rishen. The major materials used in his MSc research is fly ash from power stations. This substance usually gets dumped and the toxic elements leech into the water table. He explains that he thought that instead of landfilling, fly ash could be used to develop green construction materials, in this case, a fire-resistant geopolymer. He further expanded this in his PhD, by implementing another waste material, sawdust waste, from which cellulose nanocrystals (CNC) are produced. Rishen's work offers the possibility of reducing landfill waste while saving energy in the creation of green construction materials, which use less fossil fuel and other natural resources in their processing compared to industrial cement. Five research articles emerged from this research, one has been published and four are in the process of being reviewed. Rishen is also co-writing a book in the field of Chemical Engineering education.

Rishen currently teaches two modules, one of them being Process Design, where he draws on his research to inform the use of key concepts in class. *'I also had to design an up-scaled pilot facility and commercial-scale production facility to produce CNC, so a lot of the technology and design models from the PhD are being translated into practical tools for teaching Process Design,'* he says. He has also taken up key leadership roles as the head of the Chemical Engineering Students Association (CESA) and the Chemical Engineering Student's Group (CESG). The association runs a regular programme of community and campus engagement, while the student group is an important resource through which news about scholarships, funding, internships and job opportunities are shared.



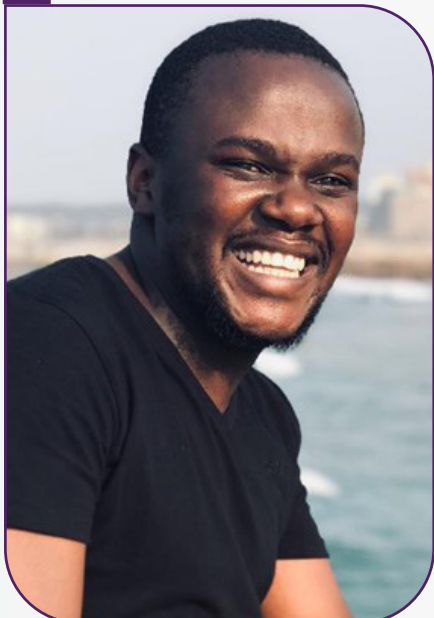
By his own account, the nGAP programme has been an invaluable contribution to Rishen's professional and academic development. *'As an nGAP I'm part of a much bigger community, both at UJ and South Africa. I get to work with other nGAPs, meet them, and see the inspiring, extraordinary work that they are busy with. It allows you to keep the momentum and keep striving for the best.'*

DR NOMALI NGOBESE



Nomali is a Botanist focusing on food and nutrition security at the University of Johannesburg (UJ). She joined UJ as a lecturer under the nGAP in November 2018 and was promoted to a senior lecturer in October 2021 and nominated to Deputy Head of the Botany Department in January 2022. Dr Ngobese teaches postgraduate students. She has secured research grants both nationally and internationally, among which is the Horizon 2020 **Food Systems and Climate** grant. She currently serves as a guest editor for the South African Journal of Botany, and examines courses, dissertations and thesis for other tertiary institutions in the country. Recognition of her work has led to features in popular media platforms like **Million STEM** and ISET Science Careers as well as a nomination as an emerging researcher for the **2021/2022 NSTF South-32 awards**.

Before joining UJ, Dr Ngobese was a postdoctoral fellow at the Agricultural Research Council and the University of Zululand in 2017 and 2018, respectively. She was originally trained as a Plant Biologist (MSc) and later branched into the discipline of Agricultural Engineering to obtain a PhD in Bioresources Systems at the UKZN. Dr Ngobese is very passionate about her research and shares this passion with her students through teaching and annually participating in the Eskom Expo for Young Scientists Fair as a national judge. She is a registered Professional Natural Scientist in Botanical Science with the South African Council for Natural Scientific Professions (**SACNASP-registration 130317**).



DR LUTHANDO TSHWENYA

Luthando is based in the Department of Chemistry at the University of Johannesburg, specialising in electrochemistry. As part of his master's research, Luthando visited the University of Bath with support from the DST/Mintek Nanotechnology Innovation Centre, University of Johannesburg, Water Research Commission and the National Research Foundation to pursue research into water desalination treatment with "ionic diodes". During the three month's stay, Luthando was able to develop new types of diodes by hot-pressing together polymer films. The micro-devices were shown to rectify cation flow and they could in future be combined with an anion rectifier to give a novel water desalination system that is driven by AC electricity without any side reaction or requirements for pumps. Luthando presented his work at the Electrochem 2017 conference in Birmingham and a joint publication has been submitted entitled "*Cationic Diodes by Hot-Pressing of Fumasep FKS-30 Ionomer Film onto a Microhole in Polyethylene Terephthalate of Chemical Sciences. He completed his PhD at the University of Bath*".

Having recently joined the programme, he reports positive integration and induction into the programme and the services on offer. His mentor reports positive reception of his teaching practice, including his management of laboratory practicals for undergraduates.

Luthando hit the ground running upon taking up the nGAP at UJ, taking on the supervision of an MSc student as well as co-supervising students with colleagues. He has buttressed this through making use of the teaching development opportunities offered by the programme, and regularly attended workshops for capacity development and online learning.

DR SUMAYYA MIETA



Sumayya Mieta is a lecturer in the Department of Medical Laboratory Science. She holds a PhD in Biomedical Technology/ Microbiology. Her expertise and experience cover sectors in medical microbiology, molecular biology, research methodology, medical ethics as well as development of technology and innovation related to the water and health sectors. She has gained teaching experience having facilitated lectures for microbiology, research methodology and ethics which are vital to the academic and research community. *'Being appointed as a nGAP lecturer has afforded me the opportunity to develop as an academic by affording me the tools required for success',* says Sumayya. My focus is to develop young talent in the field of Medical Laboratory Sciences at the undergraduate level thereby contributing directly to ensuring entry of highly skilled graduates into industry.

She is supervising master's students, examining dissertations and has developed a new technology for the detection of pathogens in water. This has enabled her to develop a proof-of-concept test kit and pursue its fine tuning and validation thereby gaining entrepreneurial experience. Developing technology has given her the resilience, stamina and passion to continue trying despite failures/ difficulties experienced. Having work experience in teaching at an academic institution, a medical laboratory at the National Health Laboratory Services and the Water and Health Research Centre, she has gained an understanding into the importance of good quality work and has been successful in funding applications to the National Research Foundation, Technology Innovation Agency and Water Research Commission. She has published peer-reviewed articles and technical reports and presented research at national and international conferences.



MS SUNDIKA ISHWARKUMAR

Sundika is a lecturer in the Department of Human Anatomy and Physiology. She is pursuing her PhD in Clinical Anatomy with the University of KwaZulu-Natal. She contributes to several undergraduate modules in the Department of Human Anatomy & Physiology at UJ, both as a lecturer and module coordinator, and shares that she has gained valuable experience and expertise from this. Sundika is involved in student supervision, both honours and master's, with eleven successful graduates to date. Her research niche is Forensic Anthropology, Forensic Dental Anatomy, Clinical Anatomy and Developmental Anatomy. She has published several peer-reviewed articles in accredited journals within the afore-mentioned fields. Sundika has also made eighteen conference presentations (oral and poster) and bagged three best presentation awards at these conferences. Sundika is a member of Anatomical Society of Southern Africa, for which she served as a Student Representative (2018 to 2019), and a member of the Golden Key International Honour Society. She is also the Departmental Social Representative and Departmental Staff-Student liaison as well as newsletter liaison for the Anatomical Society of Southern Africa and Plexus. She has taken full advantage of the developmental opportunities on offer by the programme, engaging in several workshops and developmental sessions to improve her teaching practice and research capacity, as well as attending events including the ASSA World Anatomy Day Symposium, the IFFA World Anatomy Day Symposium and the ANZACA e-Conference hosted by the University of Otago, New Zealand.

MS LEBOGANG PHIRI



Lebogang is a lecturer in the Department of Psychology, and she is working towards submission of her PhD dissertation for examination with the University of South Africa (UNISA), later this year (2022). Her PhD project focuses on the moderating influence of Meaning in life, Sense of Coherence and Spirituality on the nexus between ART Adherence and Intimate Partner Violence among individuals living with HIV/AIDS.

Lebo teaches on undergraduate and postgraduate levels in the Department of Psychology, while coordinating the department's tutor programme. She also supervises Honours and master's students. Lebo's scholarly interests vary from Health Psychology (HIV/AIDS), Intimate Partner Violence, Positive Psychology, Social Media Use, Mental Health and Student Challenges in Higher Education. She intermittently serves as an external examiner for master's research projects, including module/course moderation for higher education institutions outside UJ. Apart from her PhD project, Lebo is also co-investigator on three ongoing projects namely, 1) Psychological stress associated with COVID-19 among mental health professionals, 2) National profiling of mental health professionals working in public health care facilities in South Africa and 3) Prevalence of Complex Posttraumatic Stress Disorder (C-PTSD) and Determinants of Treatment Seeking Behaviours among University Students.

Lebogang notes that the nGAP programme has been a major support enabling her to access opportunities and support for both her thesis completion and her development as a young academic. This has included access to teaching and learning workshops, conference presentations, postgraduate supervision, module coordination, including strategic administrative expertise while serving on the departmental teaching and learning committee.



MS LEAGO MADUMO

Leago was a lecturer in the Department of Architecture with her study titled 'A New Decolonial Curriculum for Schools of Architecture in Africa'. Leago has left UJ to take up a lecturing opportunity at a university in the United Kingdom. She had identified the UJ School of Architecture as her research site and her supervisor has indicated that support is being found to balance her teaching load and ensure that she can dedicate sufficient focus to her research in coming months. During her tenure at UJ, she produced a working paper for conference participation as well as a book chapter with colleagues in the School of Architecture and meets regularly with her mentor to discuss and plan future opportunities for presentation and collaboration.

Leago taught several undergraduate courses in Architecture and has benefited from training offered to improve her lecturing capacity. She reported positive experience regarding the management of nGAP at UJ. She found the management of the programme helpful and effective, providing regular communication and support to ensure she performed at her best, including the provision of workshops geared towards personal wellness and holistic wellbeing.

MS CHAMANDRA KAMMIES



Chamandra's

nGAP is a lecturer in the Department of Medical Imaging and Radiation Sciences formerly known as Radiography. Her teaching and learning responsibilities have includes teaching third year and first year Nuclear Medicine modules, supervising undergraduate research projects and supervising one master's student currently. taught undergraduate modules including Radiopharmacy and Nuclear Medicine. She holds a National Diploma in Nuclear Medicine and a BTech in Nuclear Medicine from the Cape Peninsula University of Technology (CPUT). She also holds a Post Graduate Diploma in Public Health from the University of the Western Cape (UWC). She completed her master's degree in Health Profession Education 2021. Her research focused on the perceptions of radiography educators on caring and its importance in the radiography curriculum. She is currently engaged in work that will feed into her PhD. She has submitted an article to the journal of Radiography, which was accepted in May 2022.

Chamandra has had a good experience in the programme where she had constant engagement and communication with her mentor to map her growth path, and together they have identified opportunities for her ongoing development. She has made use of nGAP developmental opportunities to improve her teaching and learning practices. She indicated that the programme enables a natural shift from teaching towards learning how to mentor and supervise students.



MS VUYISWA LETSOKO

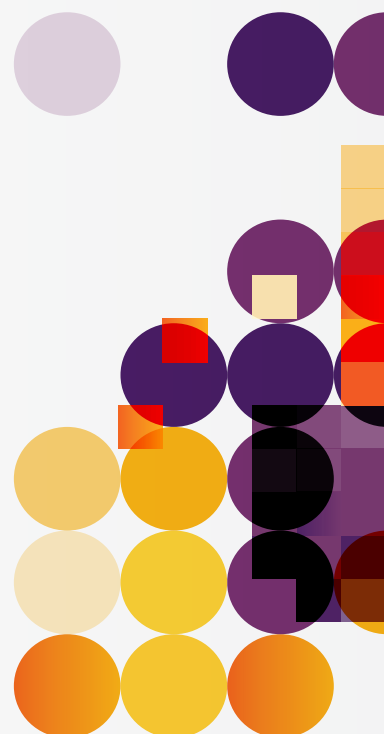
Vuyiswa Letsoko is an nGAP lecturer at the Department of Urban and Regional Planning under the Faculty of Engineering and the Built Environment at University of Johannesburg (UJ). She is the third-year coordinator and the Student Welfare and Development leader in the Department. Her teaching and learning responsibilities in the department involve teaching the third-year modules Sociology and Planning 3B and Management in Planning 3B and supervising four honors and four master's research projects. She holds a Master's in Town and Regional Planning degree from the University of Pretoria (cum laude), BTech in Town and Regional Planning (cum laude) degree and a National Diploma in Town and Regional Planning from the University of Johannesburg. She is currently completing her PhD in Urban Studies at the University of Johannesburg under the Department of Sociology. She is enthusiastic about social change and her research interest are centered on the privatization of space, gated communities, community cohesion and urban sociology. She has published in various national and international conferences and journals. In 2018/2019 Vuyiswa was awarded nGAP specific funding by the NRF that assisted in preliminary investigations for her PhD study and attending research workshops at the African Doctoral Academy at the University of Stellenbosch. She has been awarded academic honorary colors at the University of Pretoria in 2017 and is also a member of the Golden Key International Society. She was also part of the UJenius Club (Deans List) at UJ and awarded the SAPI best overall student in BTech Student. She has industry experience in both public (national government) and private sector and is specialized in strategic spatial planning, informal settlements strategies, housing and development, urban management, and community participation. To date, she has successfully supervised three master's students to completion. She is also an external examiner for the Department of Town and Regional Planning at the University of Pretoria. She has enjoyed being part of the nGAP programme and the opportunities that it has offered and the positive impact it has had on her growth as an academic and young researcher.

MS CHLOE JOHANNES



Chloe is a lecturer in the Department of Mercantile Law. She is completing her PhD in private international and maritime law at the University of Antwerp and is making positive progress on her research. Her time schedule with the faculty of law is well-established, allowing her time off during the second semester of each year to maximise work on her research. In 2019, Chloe visited the University of Antwerp for four months where she completed several research courses offered by the postgraduate school of the University and had the opportunity to work closely with her supervisor from the University of Antwerp.

While part of the programme, Chloe presented at the Law Teacher's Conference of South Africa and at a webinar on Covid-19 and the Law. She published a peer-reviewed chapter in the edited book *African Perspectives on Selected Marine, Maritime and International Trade Law Topics* (SUN Press). She lectures Maritime Law (the carriage of goods by sea and marine insurance) as part of the LLM in International Commercial Law. Chloe lectures and co-ordinates the undergraduate course of Private International Law. Chloe is a research associate of the Research Centre for Private International Law in Emerging Countries. The support afforded to Chloe by the Faculty of Law and the nGAP programme has positively impacted her development as a lecturer and researcher.





MR THABISO LANGA

Thabiso is a lecturer in the Department of Engineering Metallurgy. His work focuses on Metallurgy, and he is registered for his PhD at UJ in Material Studies. He is in the experimental phase of his project, titled 'Synthesis and Characterisation of Ti-Nb-Ta-Zr-based gum alloy'. He meets regularly with his supervisor who has also arranged additional teaching support. Thabiso teaches modules in Physical Metallurgy, Powder Metallurgy and Experiential Learning, and has benefited from the teaching development opportunities provided.

One of the highlights of the programme he mentions is the personal and psychological wellbeing sessions offered in collaboration with PsyCAD and the DAPQPASD. This has been valuable to Thabiso also because of the increased demands of teaching online and balancing academic, professional and personal demands. Being able to interact and engage with other nGAP scholars also provides an important sense of community, shared understanding and support.

MS REFILWE LUKHWARENI



Refilwe is based in the Department of Zoology and is registered for her PhD in Aquatic Health at the University of Johannesburg. Her thesis is titled 'The effect of microcystin-LR on the liver structure and function of *Clarias gariepinus*'. Her exposure and field study are complete, and a journal article has already been drafted from the results of the samples analysed from the field survey. She presented part of her work at the SA Akademie vir Wetenskap en Kuns (2019) and won second prize for best presenter; and did a poster presentation at the International Congregation of the Zoological Society in 2021. She has supervised and co-supervised five honours projects to completion and is busy with four for 2022. In 2020, she was featured in the Quest magazine published by ASSAf for her career story. She has been described as a 'stellar performer' by her mentor, and she shares that the program helps her to feel empowered through the creation of community among scholars and the additional mechanisms of support built into the program. The programme has been invaluable in transitioning her from a support role in the same institution to building an academic path in the same space. Refilwe and her mentor regularly discuss introducing 4IR technologies into teaching and learning, with the result that she acquired a 3D printer to produce anatomical models for the Physiology course she coordinates and lectures. She has taught Physiology for second-year students regularly since 2019 and made extensive use of teaching development opportunities offered by the institution to date.



MS NAADHIRA SEEDAT

Naadhira is based in the Department of Chemical Engineering Technology and has completed her PhD in Chemical Engineering at the University of Witwatersrand. Her thesis was submitted for examination in February 2022, and she is awaiting the results. Her study is titled 'Extending McCabe-Thiele diagrams to multicomponent distillation systems', and to date she has produced two journal articles from this research, with one published in the journal *Chemical Engineering Research and Design*. She has also exhibited the poster presentation 'Re-looking at Distillation design in the new Anthropocene' at the 2021 SACEC conference, with a third paper in the editing phase.

Naadhira has taught undergraduate modules including Multistage Operations, and Unit Operations. She is a member of the departmental postgraduate and ECSA committee. She values the teaching development workshops offered in the programme for facilitating a smoother transition to online teaching during the challenging lockdown period of the pandemic, during which she also went on maternity leave and participated in career development sessions. She currently supervises final year BEng Tech students, Honours BEng Tech students and master's students. Her work has recently been featured in the ISET Gauteng 2022 magazine.

MR BHEKI MAGUNGA



Bheki is a lecturer in the Department of Environmental Health. He is in the final stages of his PhD in Environmental Health which he is pursuing with the Central University of Technology (CUT). His thesis is titled 'Thyme oil and Thyme oil Hydrosol as alternative fungicides against *Phyllosticta citricarpa* (causative agent of Citrus Black Spot)'. His supervisor and mentor indicate positive progress despite the disruption caused by the pandemic, and his mentor has expressed desire to continue working with him on collaborations and research projects after completion of his doctorate. Bheki presented his research work successfully at recognised national and international conference. In 2018 he was selected for the award of young emerging researcher at the International Association of Food Protection (IAFP) in Salt Lake, Utah in the USA. Furthermore in 2018 he was also selected as the winner for the best presentation by the post graduate student at Central University of Technology prestige research day which is held annually. Bheki is also contributing to research supervision, as he currently supervises master's and undergraduate in the department of Environmental Health. He also supervises Master of Public Health (MPH) Student in the department. He is part of the undergraduate Research Ethics Committee (REC) in university of Johannesburg faculty of health science.



MR TUMISI MOLELEKOA

Tumisi is based in the Department of Biotechnology & Food Technology. He is in the final stages of his PhD in Food Technology which he registered with the Tshwane University of Technology (TUT). His study is titled 'Production and Characterisation of Filamentous Fungi Bio-Pigments using Green Waste Substrates for Potential Application in Food Model System(s)'. He has drawn on this research to present at the 23rd SAAFoST Biennial Conference 2019, where his poster presentation placed second in the poster competition. Additionally, he has also presented his research findings at QualiREG international symposia and the National Science Week in 2021. At least two papers have been produced on the research to date, with the first published in the *Journal of Fungi* and the second currently in the publication process.

Tumisi has taught modules in Food Biochemistry and Food Technology and is also a Spectrum Committee member in the faculty of science. He has found the flexibility in the nGAP programme's provision essential to his ability to meet his PhD objectives to date, and has enjoyed a close relationship with his mentor, working on issues of personal and professional development, publishing and career planning.

MS MOLIEHI MOTHAE



Moliehi is a lecturer in the Department of Human Anatomy and Physiology. She is in the data analysis phase of her PhD in Cardiovascular Physiology which she is pursuing with the North-West University. Her study is titled 'Urinary dopamine in relation to sodium handling and subclinical target organ damage: The SABPA study'. The COVID-19 pandemic caused some delays in her data collection, but her research is now on track, and she is in the process of producing the first related article for publication.

Moliehi has enjoyed the support offered through the programme and the ongoing engagement with her fellow nGAP students. As she teaches and/or coordinates several Physiology modules, she has committed significant time to developing her teaching skills, with a specific focus on assessment and developing effective online assessment strategies to measure learning and reduce plagiarism.



MR TEBOHO TSOTETSI

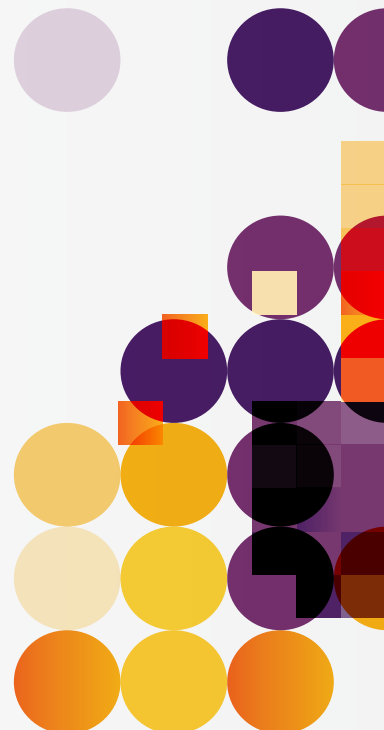
Teboho is based in the Department of Biochemistry, and he is enrolled for a PhD in Biochemistry at THE University of Johannesburg. His thesis is titled 'Multi-platform metabolomics studies to elucidate key biochemical mechanisms underlying biostimulant-crop plant interactions'. His work is progressing well, and his mentor indicates that its multidisciplinary focus will position Teboho well to establish his work as a scholar internationally. Teboho teaches a service course in Environmental Health in the Faculty of Health Sciences and has worked closely with his department to establish a teaching schedule that supports his research. This, coupled with access to writing workshops provided through the programme, has enabled him to produce at least two manuscripts from the research at its current stage.

MS MEGHAN FINN



Meghan is a lecturer in the Department of Public Law. She is currently completing her PhD in Public Law at the University of Witwatersrand, where her research is titled 'Duties of Private Persons and the Right to Equality in South Africa'. She has published in several accredited journals and contributed chapters to book projects, and her academic work has been cited by the South African Constitutional Court. Meghan was recently awarded the inaugural Judge Margaret Victor research prize for the best article authored by a full-time junior faculty staff member.

Since joining UJ in 2020, Meghan has taught several courses in UJ's LLB programme, including Social Security Law, Administrative Law, Constitutional Law, and Introduction to Legal Studies. In addition, she has participated in several ongoing collaborations between UJ and international universities and is the Faculty of Law coordinator for an ongoing collaboration with Nirma University, India. Meghan serves as a managing editor of *Constitutional Court Review*, a DHET-accredited journal. She is a qualified advocate and prior to joining UJ, she practised at the Johannesburg Bar.





MR THENDO MAFUNA

Thendo is a lecturer in the Department of Biochemistry and is in the process of completing his PhD in Bioinformatics which he is pursuing with the University of Pretoria (UP), where his thesis is titled 'Whole-Genome Sequencing analysis of Listeria species isolated from Food and Food production environment'. His nGAP in Biochemistry started in 2021, and in this time, he completed another online course in data science to support his research and has published four papers in international research Journal.

Thendo started teaching in the second semester of 2021 where he offered the practical component of a service course in Optometry in the Faculty of Health Sciences. He works closely with his mentor and supervisor on his academic growth objectives, and his progress to date has been described as impressive.

MS LULAMA NGOBENI



Lulama Ngobeni is a lecturer in the Department of Civil Engineering. She enrolled for a PhD in the Department of Construction Economics and Management at the University of Cape Town. Lulama is passionate about teaching and promoting research on the development of sustainable settlements. Her teaching responsibilities at the University of Johannesburg include teaching third and final year students and supervising final year research projects. She holds a BSc (Eng) in Civil Engineering and an MCom in Information Systems from the University of Cape Town. The title of her PhD research is on “Using Facilities Management principles to promote Sustainable Urban Water Management in Formal and Informal Settlements in the Republic of South Africa (RSA)”. The study seeks to develop an alternative funding framework for Sustainable Drainage Systems (SuDS) in the informal settlement of Imizamo Yethu. Lulama hopes to influence policy and practice through her research; and has done so through her participation in the drafting of the revised City of Johannesburg Sanitation Policy in collaborative project with the University of Witwatersrand; and the development of Gauteng Department of Rural Agriculture and Development’s training manual on the SuDS implementation manual drafted in 2020 in collaboration with UJ-PEETS and UCT Future Water.

Lulama credits the nGAP programme with contributing to the significant progress she has made with both her teaching and her research. The support given through the programme has enabled her to time and resources to develop as a researcher, and innovative teacher. The opportunities to interact with experienced academics and fellow nGAP lecturers has also proven to be invaluable.

Through her research and teaching, Lulama endeavours to contribute towards the growth of the South African Water Sensitive Design Community of Practice through her active participation and encouraging students and graduates to participate in Water Sensitive Design research and practice.



MS ZINZILE MDLULI

Zinzile is based in the Department of Mining Engineering and Mine Survey and is registered for a PhD specialising in Mine Survey with the University of Johannesburg. Zinzile was introduced to academia via the Mining Qualifications Authority (MQA) as an assistant lecturer in 2013. Zinzile has developed to be a well-presented and self-motivated lecturer, who has gained wide knowledge of academia in the broader aspects of research and pedagogy, particularly in the constantly evolving field of mine survey. Possessing excellent counselling and communication skills, along with the ability to report complex and intricate information about matters in an understandable form to students, colleagues and other industry stakeholders has assisted Zinzile in her transition into the nGAP programme. Zinzile has exceptional multi-tasking and organisational expertise, all of which are imperative when working on procedural, transformation and development matters within education in the geomatics field. In addition to her PhD, Zinzile is currently completing the South African Mine Surveyors Certificate of Competency.

MS RAGI BASHONGA



Ragi Bashonga joined the UJ Sociology department as a lecturer in April 2021. She is a PhD candidate in Sociology at the University of Cape Town (UCT). Her PhD study, *Mirrors in Frames: Identity and Belonging in young Congolese people in South Africa*, is an exploration of the idea of home, belonging, and Africanity for the African diaspora in South Africa. By making use of creative methodologies of portraiture and poetic inquiry, this thesis uses storytelling to explore the complexities of citizenship, Blackness and Africanity in the context of Afrophobia in South Africa.

Ragi has published journal articles and book chapter on various subjects such as poetry, violence against women, and questions of belonging. Having an interest in the politics of identity, gender, and critical race studies; Ragi pursues academia through the lens of the arts and the complexities of the human experience. In her teaching, Ragi's aim is to contribute towards building critical thinkers who can identify, challenge and develop solutions to societal issues through the use, examination, and development chapters of sociological theory.

Ragi has worked for as a researcher for over 7 years. Having begun as a sociology tutor at UJ in 2012, Ragi went on to work in the Gender Focal Point unit at the National Department of Social Development. She then worked as a researcher at the Human Sciences Research Council (HSRC) while completing her master's degree in Industrial Sociology and Labour Studies at the University of Pretoria. In late 2019, Ragi joined Isandla Institute as a Policy Researcher working on issues of urban development and urban citizenship. Ragi is a graduate of the Thabo Mbeki African Leadership Institute, and currently serves as a youth representative to the United Nations for in International Sociological Association (ISA).



MR NCEDILE NZIMANDE

Ncedile Ndzimande was appointed a lecturer in the History department in 2021. He has been accepted at Princeton University in the United States of America (USA) to study for his PhD. His academic career began in 2019 when he was awarded the National Research Foundation (NRF) Scholarship, which he used towards studying for his master's degree, which he completed with distinction. He investigated the recurring labour shortages that South Africa's gold mining industry had to contend with in the mid-twentieth century. In looking at how and why these shortages occurred, his research focused on the industry's main source of labour, African men, and how their relationship with the rural economy - agriculture, pastoralism, and livestock auctioning - presented a constant obstacle to the industry's recruiting.

