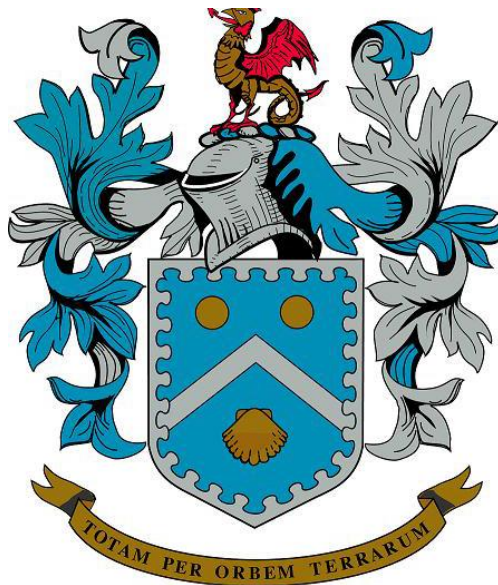


SOCIETY
OF
SOUTH AFRICAN GEOGRAPHERS
(SSAG)



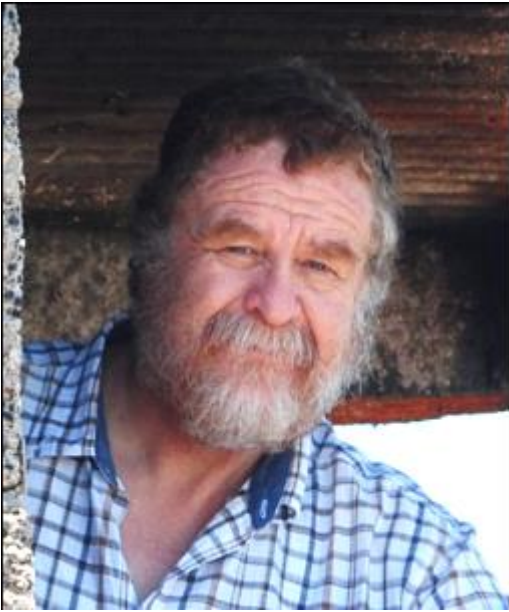
2016-2017
NEWSLETTER

Newsletter was compiled using the unedited submissions of representatives of each department

Contents

Foreword by the president	3
University of Cape Town: Department of Environmental and Geographical Science	5
Stellenbosch University: Geography and Environmental Studies.....	13
University of the Witwatersrand: School of Geography, Archaeology & Environmental Studies.....	41
Nelson Mandela University: Department of Geosciences.....	54
University of Pretoria: Geography, Geoinformatics and Meteorology	58
University of the Free State: Department of Geography.....	78
University of South Africa: Department of Environmental Science.....	89
University of South Africa: Department of Geography.....	98
University of Johannesburg: Department of Geography, Environmental Management and Energy Studies	113
University of Fort Hare: Department of Geography and Environmental Science	138
University of Mpumalanga: School of Biology and Environmental Science	140
North-West University, Potchefstroom Campus: Department of Geo-and Spatial Sciences	143
University of KwaZulu-Natal: Geography – three campuses Westville and Howard College in Durban Centre and Pietermaritzburg	151
Walter Sisulu University: Department of Biological and Environmental Science (BES)	171
University of the Witwatersrand, Johannesburg. School of Education, Faculty of Humanities, Division of Social & Economic Sciences, Department of Geography.....	176
University of Zululand:Department of Geography and Environmental Studies.....	180
SSAG 48 th Geography Students Conference Report	187

Foreword by the president



Dear Geography colleagues

With this 2016-2017 newsletter, some feedback from Council:

1. The first Student conference of the second century of the Geographical society in South Africa was hosted for SSAG by the University of Mpumalanga Geography department, our youngest sibling, and attracted presentations from ALL of our Universities, as well as from some of our neighbouring countries. This was the first academic conference to be held at UMP, and as a learned society we are proud to have been involved. Our congratulations and thanks go to our colleague Pakama Siyongwana and her team who so ably arranged and presented the conference.

We extend our thanks and appreciation to the various sponsors, and in particular, the National Institute for Humanities and Social Sciences (NIHSS) who supported the Society with a very generous sponsorship.

Our congratulations also go all of the students who presented papers, and particularly to the prize winners. Judging by what was presented, our future is in good hands.

2. We look forward to the 2018 Student and Senior conferences to be hosted by UFS in Bloemfontein and Qwaqwa in October. Arrangements are well in place as we will celebrate 100 years of Geography at UFS.
3. Moving forward from the centennial celebrations, the funding for the centenary projects has now been allocated to the South African National Geography Olympiad (SANGO) for high schools. In this new venture we partnered with the South African Geography Teachers Association (SAGTA). The first round in 2017 was a great success and we are encouraged as we

move on the second round in 2018. One of the goals is to send a South African team to the IGU international Olympiad in due course. Our thanks and appreciation to Tracey MacKay, Clinton van der Merwe and Milton Milaras for their significant contributions to this success. Details are on the Society website.

4. Our website is in the process of being revamped and modernized, having become somewhat dated and also insecure, resulting in a hacking event in the course of 2017.
5. As always, the contributions of all members of the Geographical community are necessary for this newsletter. Thank you to all the contributors, and keep up the good work.

Luke Sandham

President: SSAG

University of Cape Town: Department of Environmental and Geographical Science

Head of Department: Professor Mike Meadows

Address:

Department of Environmental and Geographical Science
University of Cape Town, Private Bag X3, Rondebosch, 7701
Telephone: SA (021) 650 2873/4
Fax: SA (021) 650 3456

Permanent Academic Staff

Dr Babatunde Abiodun (Senior Lecturer - Atmospheric Science, Climatology)
Dr Pippin Anderson (Senior Lecturer – Ecology and Society, Sustainability)
Dr Shari Daya (Senior Lecturer – Gender, Modernity)
Dr Frank Eckardt (Senior Lecturer – Geomorphology, Remote Sensing)
Professor Bruce Hewitson (NRF SARChI Chair in Climate Change – Atmospheric Science, Climatology)
Dr Peter Johnston (Research Officer – Seasonal Forecasting Applications; Climate Change)
Professor Mike Meadows (Head of Department – Quaternary Environmental Change)
Ms Philile Mbatha (Lecturer, Marine and Coastal governance, Natural Resources)
Professor Sue Parnell (Urban Studies, Historical Geography)
Dr Zarina Patel (Senior Lecturer – Environmental Governance and Politics)
Dr Serge Raemaekers (Lecturer – Small-scale Fisheries Governance)
Professor Maano Ramutsindela (Political Geography, Transnational Regionalism)
Associate Professor Merle Sowman (Environmental Planning and Management, Coastal and Small-Scale Fisheries Management)
Ms Anna Steynor (Research Officer; Stakeholder Engagement)
Dr Kevin Winter (Senior Lecturer – Environmental Management, Water Resources, Monitoring and Evaluation)
Dr Piotr Wolski (Senior Research Officer – Hydrology)
Associate Professor Rachel Wynberg (NRF SARChI Chair in Environmental and Social

Dimensions of the Bio-economy – Biodiversity and Social Justice, Commercial Use of Biodiversity, Access and Benefit Sharing, Genetic Resources for Food and Agriculture)
Dr Gina Ziervogel (Senior Lecturer – Vulnerability and Adaptation)

Professional and Support Staff in the Department

Contract Research Staff

Dr Olivier Crespo (Agricultural and Water Research Modelling)
Dr Chris Lennard (Atmospheric Science)
Ms Kate Sutherland (Research Assistant; Climate Data Analysis)

Administrative and Support Staff

Mrs Sharon Adams (Administrative Officer)
Mrs Sharon Barnard (Administrative Assistant)
Ms Tanya Basadien (Senior Secretary)
Ms Lisa Coop (Research Assistant)
Mr Roger Duffett (IT Manager)
Ms Fahdelah Hartley (Senior Secretary)
Mr Sayed Hess (Technical Assistant)
Dr Chris Jack (Senior Scientific Technical Officer)
Ms Vuyokazi Mafanya (Senior Secretary)
Mr Phillip Mukwenha (IT Assistant)
Mr Nur Toffar (Finance Officer)
Ms Mathilda Jaci Van Niekerk (Research Assistant)

Postdoctoral Fellows

Dr Ross Blamey (Atmospheric Science)
Dr Joseph Daron (Climate Uncertainties and Adaptation)
Dr Tristan Hauser (Uncertainty Quantification and Statistical Modelling)
Dr Kelly Kirsten-Sardinha (Palaeo Science)
Dr Kazeem Oare Okosun (Epidemiological Modelling and Climate Impact)
Dr Laura Pereira (Bio-Economy/Climate Change)
Dr Lynne Quick (Palaeo Science)
Dr Alex Shabala (Climate Modelling and Analysis)
Dr Modathir Abdalla Zaroug (Climate Change Adaptation)

Honorary Professors

Professor John Boardman (Soil Erosion, Land Degradation)
Professor Jonathan Crush (International Migration, Transnationalism)
Professor Dave Thomas (Arid Zone Geomorphology, Quaternary Science)

Emeritus Staff

Professor Richard Fuggle

Edited Books

Pereira, L.M., McElroy, C., Littaye, A. & Girard, A.M. (Eds). 2017. *Food, Energy and Water Sustainability: Emergent Governance Strategies*. London: Routledge.

Journal articles & Book Chapters

Abba Omar, S. and Abiodun, B.J. 2017. How well do CORDEX models simulate extreme rainfall events over the East Coast of South Africa? *Theoretical and Applied Climatology* 128(1-2), pp. 453-464.

Abatan, A.A., Osayomi, T., Akande, S.O., Abiodun, B.J. and Gutowski, W.J. 2017. Trends in mean and extreme temperatures over Ibadan, Southwest Nigeria. *Theoretical and Applied Climatology* 28, pp. 1-12.

Abiodun, B.J., Adegoke, J., Abatan, A.A., Ibe, C.A., Egbebiyi, T.S., Engelbrecht, F. and Pinto, I. 2017. Potential impacts of climate change on extreme precipitation over four African coastal cities. *Climatic Change* 143 (3-4), pp. 399-413.

Abiodun, G.J., Witbooi, P. and Okosun, K.O. 2017. Modeling and analyzing the impact of temperature and rainfall on mosquito population dynamics over Kwazulu-Natal, South Africa. *International Journal of Biomathematics* 10(4): 1750055.

Angéilil, O., Stone, D., Perkins-Kirkpatrick, S., Alexander, L.V., Wehner, M., Shiogama, H., Wolski, P., Ciavarella, A. and Christidis, N. 2017. On the nonlinearity of spatial scales in extreme weather attribution statements. *Climate Dynamics*, pp. 1-14.

Bamutaze, Y., Wanyama, J., Opedes, H., Diekkruuger, B. and Meadows, M.E. 2017. Dynamics of surface runoff and soil loss from a toposequence under varied land use practices in Rwizi catchment, Lake Victoria Basin. *Journal of Soil and Water Conservation* 72(5):480-492.

Baleta, H. and Winter, K. 2017. Towards a shared understanding of water security risks in the public and private sectors. *International Journal of Water Resources Development* 33(2), pp. 233-245.

Baudoin, M.A., Vogel, C., Nortje, K. and Naik, M., 2017. Living with drought in South Africa: lessons learnt from the recent El Niño drought period. *International Journal of Disaster Risk Reduction*, 23: 128-137.

Baudoin, M.A. and Ziervogel, G. 2017. What role for local organisations in climate change adaptation? Insights from South Africa. *Regional Environmental Change* 17(3), pp. 691-702.

Bavinck, M., Berkes, F., Charles, A., Dias, A.C.E., Doubleday, N., Nayak, P. and Sowman, M. 2017. The impact of coastal grabbing on community conservation – a global reconnaissance. *Maritime Studies* 16(1).

Blamey, R.C., Middleton, C., Lennard, C. and Reason, C.J.C. 2017. A climatology of potential severe convective environments across South Africa. *Climate Dynamics* 49(5-6), pp. 2161-2178.

Boardman, J., Bateman, S. and Seymour, S., 2017. Understanding the influence of farmer motivations on changes to soil erosion risk on sites of former serious erosion in the South Downs National Park, UK. *Land Use Policy* 60, pp. 298-312.

Boardman, J., Foster, I.D., Rowntree, K.M., Favis-Mortlock, D.T., Mol, L., Suich, H. and Gaynor, D., 2017. Long-term studies of land degradation in the Sneeuberg uplands, eastern Karoo, South Africa: A synthesis. *Geomorphology* 285, pp. 106-120.

Bonyah, E., Khan, M.A., Okosun, K.O. & Islam, S. 2017. A theoretical model for Zika virus transmission. *PloS One* 12(10), p.e0185540.

Borel-Saladin, J. and Parnell, S. 2017. The metrics of African urbanization. *Urban Forum* pp. 1-3.

Brill, G. and Anderson, P. 2017. Methodological and empirical considerations when assessing freshwater ecosystem service provision in a developing city context: Making the best of what we have. *Ecological Indicators* 76, pp. 256-274.

Brown, A.G., Tooth, S., Bullard, J.E., Thomas, D.S., Chiverrell, R.C., Plater, A.J., Murton, J., Thorndycraft, V.R., et al. 2017. The geomorphology of the Anthropocene: emergence, status and implications. *Earth Surface Processes and Landforms* 42(1), pp. 71-90.

Calvo-Ugarteburu, G., Raemaekers, S. and Halling, C. 2017. Rehabilitating mussel beds in Coffee Bay, South Africa: Towards fostering cooperative small-scale fisheries governance and enabling community upliftment. *Ambio* 46(2), pp. 214-226.

Candel, J.J. and Pereira, L. 2017. Towards integrated food policy: Main challenges and steps ahead. *Environmental Science & Policy* 73, pp. 89-92.

Crush, J. and Caesar, M., 2017. Introduction: cultivating the migration-food security Nexus. *International Migration* 55(4), pp. 10-17.

Crush, J. and McCordic, C. 2017. The hungry cities food purchases matrix: household food sourcing and food system interaction. *Urban Forum*, 1-13.

Crush, J., Skinner, C. and Stulgaitis, M. 2017. Benign neglect or active destruction? A critical Analysis of refugee and informal sector policy and practice in South Africa. *African Human Mobility Review*, 751.

Crush, J. and Tawodzera, G. 2017. South-South migration and urban food security: Zimbabwean migrants in South African cities. *International Migration* 55(4), pp. 88-102.

Culwick, C. and Patel, Z. 2017. United and divided responses to complex urban issues: insights on the value of a transdisciplinary approach to flooding risk. *Area* 49(1), pp. 43-51.

Dansie, A., Wiggs, G.F.S. and Thomas, D.S.G. 2017. Measurements of windblown dust characteristics and ocean fertilization potential: the ephemeral river valleys of Namibia. *Aeolian Research* 29, pp. 30-41.

Dansie, A.P., Wiggs, G.F.S. and Thomas, D.S.G. 2017. Iron and nutrient content of wind-erodible sediment in the ephemeral river valleys of Namibia. *Geomorphology* 290, pp. 335-346.

Diasso, U. and Abiodun, B.J. 2017. Future impacts of global warming and reforestation on drought patterns over West Africa. *Theoretical and Applied Climatology*, pp. 1-16.

Diasso, U. and Abiodun, B.J. 2017. Drought modes in West Africa and how well CORDEX RCMs simulate them. *Theoretical and Applied Climatology* 128(1-2), pp. 223-240.

Evans, J., Foster, I., Boardman, J. and Holmes, N., 2017. SMART–Sediment Mitigation Actions for the River Rother, UK. *Proceedings of the International Association of Hydrological Sciences* 375, pp. 35-39.

Foster, I.D., Boardman, J., Collins, A.L., Copeland-Phillips, R., Kuhn, N.J., Mighall, T.M., Pulley, S. & Rowntree, K.M. 2017. The potential for gamma-emitting radionuclides to contribute to an understanding of erosion processes in South Africa. *Proceedings of the International Association of Hydrological Sciences* 375, pp. 9-34.

Fraser, A., Leck, H., Parnell, S., Pelling, M. 2017. Africa's Urban Risk and Resilience. *International Journal of Disaster Risk Reduction* 26, pp. 1-6.

Fraser, A., Leck, H., Parnell, S., Pelling, M, Brown, D. and Lwasa, S. 2017. Meeting the challenge of risk-sensitive and resilient urban development in sub-Saharan Africa: Directions for future research and practice. *International Journal of Disaster Risk Reduction* 26, pp. 106-109.

Hauck, M., Steinmann, Z.J., Schipper, A.M., Gorrissen, F., Venkatesh, A. and Huijbregts, M.A. 2017. Estimating the Greenhouse Gas Balance of Individual Gas-Fired and Oil-Fired Electricity Plants on a Global Scale. *Journal of Industrial Ecology* 21(1), pp. 127-135.

Hewitson, B., Waagsaether, K., Wohland, J., Kloppers, K. and Kara, T. 2017. Climate information websites: an evolving landscape. *Wiley Interdisciplinary Reviews: Climate Change* 8(5), September/October.

Hunter-Adams, J., Yongsi, B.N., Dzasi, K., Parnell, S., Boufford, J.I., Pieterse, E. and Oni, T. 2017. How to address non-communicable diseases in urban Africa. *The Lancet Diabetes and Endocrinology*.

Khan, M.A., Ali, K., Bonyah, E., Okosun, K.O., Islam, S. and Khan, A. 2017. Mathematical modeling and stability analysis of Pine Wilt Disease with optimal control. *Scientific Reports*, 7.

Landman, W.A., Engelbrecht, F., Hewitson, B., Malherbe, J. and van der Merwe, J. 2017. Towards bridging the gap between climate change projections and maize producers in South Africa. *Theoretical and Applied Climatology*, pp. 1-11.

Maoyi, M.L., Abiodun, B.J., Prusa, J.M. and Veitch, J.J. 2017. Simulating the characteristics of tropical cyclones over the South West Indian Ocean using a Stretched-Grid Global Climate Model. *Climate Dynamics*, pp. 1-16.

Myers, A., Fig, D., Tugendhaft, A., Myers, J.E. and Hofman, K.J. 2017. The history of the South African sugar industry illuminates deeply rooted obstacles for sugar reduction anti-obesity interventions. *African Studies*, 1-16.

- Myers, A., Fig, D., Tugendhaft, A., Mandle, J., Myers, J. and Hofman, K. 2017. Sugar and health in South Africa: Potential challenges to leveraging policy change. *Global Public Health* 12(1), pp. 98-115.
- Mosimane, K., Struyf, E., Gondwe, M.J., Frings, P., van Pelt, D., Wolski, P., Schoelynck, J., Schaller, J., Conley, D.J. and Murray-Hudson, M. 2017. Variability in chemistry of surface and soil waters of an evapotranspiration-dominated flood-pulsed wetland: Solute processing in the Okavango delta, Botswana. *Water SA* 43(1), pp. 104-115.
- Nyamnjoh, H.M. 2017. Navigating 'ngunda'/'adoro' and negotiating economic uncertainty amongst mobile Cameroonian migrants in Cape Town (South Africa). *Critical African Studies* 9(2), pp. 241-260.
- Oguntunde, P.G, Lischeid, G. and Abiodun, B.J 2017. Impacts of climate variability and change on drought characteristics in the Niger River Basin, West Africa. *Stochastic Environmental Research and Risk Assessment*, pp. 1-18.
- Oguntunde, P.G., Abiodun, B.J. and Lischeid, G. 2017. Impacts of climate change on hydro-meteorological drought over the Volta Basin, West Africa. *Global and Planetary Change*, pp.121-132.
- Oguntunde, P.G., Lischeid, G., Abiodun, B.J. and Dietrich, O. 2017. Analysis of long-term dry and wet conditions over Nigeria. *International Journal of Climatology* 39(9), pp. 3577-3586.
- Odoulami, R.C., Abiodun, B.J., Ajayi, A.E., Diasso, U.J. and Mounkaila Saley, M. 2017. Potential impacts of forestation on heatwaves over West Africa in the future. *Ecological Engineering* 102, pp. 546-556.
- Okosun, K.O., Khan, M.A., Bonyah, E. and Ogunlade, S.T. 2017. On the dynamics of HIV-AIDS and cryptosporidiosis. *The European Physical Journal Plus* 132(8).
- Okosun, K.O. and Smith, R. 2017. Optimal control analysis of malaria-schistosomiasis co-infection dynamics. *Mathematical biosciences and engineering: MBE* 14(2), pp. 377-405.
- Patel, Z., Greyling, S., Simon, D., Arfvidsson, H., Moodley, N., Primo, N. and Wright, C. 2017. Local responses to global sustainability agendas: learning from experimenting with the urban sustainable development goal in Cape Town. *Sustainability Science* 12(5), pp. 785-797.
- Ramachandran, S., Crush, J. & Tawodzera, G. 2017. Security risk and xenophobia in the urban informal sector. *African Human Mobility Review*, 854.
- Ramutsindela, M. 2017. Greening Africa's borderlands: The symbiotic politics of land and borders in peace parks. *Political Geography* 56, pp. 106-113.
- Ramutsindela, M. and Sinthumule, I. 2017. Property and difference in nature conservation conservation. *Geographical Review* 107(3), pp. 415-432.
- Rice, W.S., Raemaekers, S., and Sowman, M.R. 2017. Understanding bycatch using an EAF approach: The case of the Olifants estuary small-scale gillnet-fishery, South Africa. *Ocean and Coastal Management* 149, pp. 22-32.

Rodina, L., Baker, L.A., Galvin, M., Goldin, J., Harris, L.M., Manungufala, T., Musemwa, M., Sutherland, C. and Ziervogel, G. 2017. Water, equity and resilience in Southern Africa: future directions for research and practice. *Current Opinion in Environmental Sustainability* 26-27, pp. 143-151.

Rosa, I.M., Pereira, H.M., Ferrier, S., Alkemade, R., Acosta, L.A., Akcakaya, H.R., den Belder, E., Fazel, A.M., Fujimori, S., Harfoot, M. and Harhash, K.A. 2017. Multiscale scenarios for nature futures. *Nature Ecology & Evolution* 1(10), pp. 14-16.

Rowell, A., Thomas, D., Bailey, R., Stone, A., Garzanti, E. and Padoan, M., 2017. Controls on sand ramp formation in southern Namibia. *Earth Surface Processes and Landforms*. doi: 10.1002/esp.4159.

Schultz, O.J. 2017. The micro-politics of small-scale fisheries governance in South Africa: a case study of community-based political representation as a form of brokerage. *Maritime Studies* 16(1).

Singh, C., Daron, J., Bazaz, A., Ziervogel, G., Spear, D., Krishnaswamy, J., Zaroug, M. and Kituyi, E. 2017. The utility of weather and climate information for adaptation decision-making: current uses and future prospects in Africa and India. *Climate and Development*, pp. 1-17.

Sowman, M. 2017. Turning the tide: strategies, innovation and transformative learning at the olifants estuary, South Africa. In Armitage, D., Charles, A. and Berkes, F. (eds), . *Governing the coastal commons: communities, resilience and transformation*, pp. 25-42. London: Routledge.

Steinmann, Z.J., Schipper, A.M., Hauck, M., Giljum, S., Wernet, G. and Huijbregts, M.A., 2017. Resource Footprints are Good Proxies of Environmental Damage. *Environmental Science & Technology* 51 (11), pp 6360–6366

Suich, H. and Boardman, J., 2017. Wheat Growing and Changing Farming Systems in South African Dryland Margins: The Case of the Sneeuberg, South Africa. *Land Degradation & Development* 28(1), pp. 57-64.

Sunde, J. 2017. Expressions of Tenure in South Africa in the Context of the Small-Scale Fisheries Guidelines. *The Small-Scale Fisheries Guidelines*, 139-163.

Suri, J., Anderson, P.M., Charles-Dominique, T., Hellard, E. and Cumming, G.S. 2017. More than just a corridor: A suburban river catchment enhances bird functional diversity. *Landscape and Urban Planning* 157, pp, 331-342.

Termeer, C.J., Drimie, S., Ingram, J., Pereira, L. and Whittingham, M.J., 2017. A diagnostic framework for food system governance arrangements: The case of South Africa. *NJAS-Wageningen Journal of Life Sciences* doi.org/10.1016/j.njas.2017.08.001.

Thomas, D.S. and Bailey, R.M., 2017. Is there evidence for global-scale forcing of southern hemisphere Quaternary desert dune accumulation? A quantitative method for testing hypotheses of dune system development. *Earth Surface Processes and Landforms* doi: 10.1002/esp.4183

van Niekerk, J. and Wynberg, R. 2017. Traditional seed and exchange systems cement social relations and provide a safety net: A case study from KwaZulu-Natal, South Africa. *Agroecology and Sustainable Food Systems* 41(9-10), pp. 1099-1123.

von Holdt, J.R., Eckardt, F.D., and Wiggs, G.F.S. 2017. Landsat identifies aeolian dust emission dynamics at the landform scale. *Remote Sensing of Environment* 198, pp. 229-243.

von Holdt, J.R. and Eckardt, F.D. 2017. Dust activity and surface sediment characteristics of the dustiest river in southern Africa: the Kuiseb River, Central Namib. *South African Geographical Journal*, 1-18.

Wentink, C.R., Raemaekers, S. and Bush, S.R. 2017. Co-governance and upgrading in the South African small-scale fisheries value chain. *Maritime Studies* 16(1).

Wolski, P., Lennard, C., Jack, C. and Tadross, M. 2017. Seasonal hydrological forecasting - Current state of play. *Water Wheel* 16(5), pp. 30-33.

Wolski, P., Jack, C., Tadross, M., van Aardenne, L. & Lennard, C. 2017. Interannual rainfall variability and SOM-based circulation classification. *Climate Dynamics*, 1-14.

Wynberg, R. 2017. Making sense of access and benefit sharing in the rooibos industry: Towards a holistic, just and sustainable framing. *South African Journal of Botany* 110, pp. 39-51.

Wynberg, R. and Laird, S.A. 2017. Fast science and sluggish policy: The herculean task of regulating biodiscovery. *Trends in Biotechnology* doi.org/10.1016/j.tibtech.2017.09.002.

Ziervogel, G., Pasquini, L. and Haiden, S. 2017. Nodes and networks in the governance of ecosystem-based adaptation: the case of the Bergrivier municipality, South Africa. *Climatic Change* 144(2), pp. 271-285.

Ziervogel, G., Pelling, M., Cartwright, A., Chu, E., Deshpande, T., Harris, L., Hyams, K., Kaunda, J., Klaus, B., Michael, K., Pasquini, L., Pharoah, R., Rodina, L., Scott, D. and Zweig, P. 2017. Inserting rights and justice into urban resilience: a focus on everyday risk. *Environment and Urbanization* 29(1), pp. 123-138.

Stellenbosch University: Geography and Environmental Studies

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Prof Gustav Visser	Urban geography; tourism geography; sexuality and South African institutions and geography in higher education	gevisser@sun.ac.za	021 808 3103

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
De Klerk, Helen, Dr	Senior lecturer	GIS, Spatial analysis, biogeography, species modelling, fire ecology	hdeklerk@sun.ac.za	021 808 9322
De Waal, Jan Mr	Lecturer	Climate change; Flooding risk assessment; Urban risk research with a particular focus on informal settlements	jannied@gmail.com	021 803108
Donaldson, Ronnie, Prof	Vice-Chair	Urban social geography and tourism studies, SA city structure and changes, Tourism landscapes in the countryside, Residential desegregation in SA cities	rdonaldson@sun.ac.za	021 808 3882
Du Plessis, Danie, Mr	CRUISE - Urban &	Urban planning systems, Urban	ddp@sun.ac.za	021 808 3126

	Regional Planner/Senior Lecturer	transformation, Spatial analysis and Modelling of cities and urban systems		
Du Plessis N, Miss	CGA GIS operator	Soil behaviour, digital elevation modelling	naajidah@sun.ac.za	021 808 9544
De Kock, Carinus, Mr	Radar Researcher, academic	Disaster risk, capacity-building, disaster occurrence, patterns and trends	dekockc@sun.ac.za	021 808 9584
Eichhoff, Jess, Miss	CGA GIS operator & Social media coordinator	Cartography Digital elevation modelling	eichhoffj@sun.ac.za	021 808 3112
Ferreira, Sanette Prof	Departmental Vice- Chair: Geography	Tourism and regional development, tourism in small towns, Tourism and crime	slaf@sun.ac.za	021 808 3105
Fortune, Gillian, Ms	Radar-Knowledge Co-ordinator	Research: Loss estimation in severe weather post-event assessments	gillianfortune@sun.ac.za	021 808 9283
Francioli, Alberto, Mr	Radar Researcher	Disaster risk	albertofrancioli@sun.ac.za	021 808 9401
Geyer, Manie HS, Prof	CRUISE - Urban & Regional Planner; Director:	Migration; Urban morphology; Urban systems	hsgeyer@sun.ac.za	021 808 3107
Geyer, Herman S, Jnr, Mr	CRUISE - Town & Regional Planner/ Lecturer.	Complexity theory; Urban systems; Economic geography	hsgeyerjr@sun.ac.za	021 808 3107
Groeneveld, Gretha, Mrs	CGA GIS lecturer & short course manager	Education and teaching of GIS; Geographic information systems; Distance/on-line learning;	Gretha_g@sun.ac.za	021 808 3218
Harber, Inger, Ms	Project Coordinator	Disaster risk reduction, disaster management	iharber@sun.ac.za	021 808 9284
Holloway, Ailsa J, Dr	Director: Radar	Disaster risk research & related policy advocacy; Disaster risk curriculum and Expertise in inter-national humanitarian assistance	ailsaholloway@sun.ac.za	021 808 9281
Horn, Anele Mrs	CRUISE - Town and Regional Planner/Lecturer,	Urban & regional planning; Development	anelehorn@sun.ac.za	021 808 9181

		frameworks; Urban growth management / monitoring		
Kemp, Jaco, Dr	Lecturer	Earth Observation, Synthetic Aperture Radar, Photogrammetry	jkemp@sun.ac.za	021 808 9147
Mashimbye, Eric Dr	Lecturer	Remote Sensing, Geoinformatics, Agronomy	ericm@sun.za	021 808 9702
Muller, Jascha, Mr	CGA Assistant General Manager, GIS & EO analyst	Multi-temporal earth observation techniques for agricultural application, Identification of within-field salinity and waterlogging	mullersj@sun.ac.za	021 808 3112
Munch, Zahn, Mrs	Lecturer	GIS; Spatial decision making	zmunch@sun.ac.za	021 808 9101
Pauw, Theo, Mr	CGA Technical officer, GIS & EO analyst	Remote Sensing: GEOBIA, classification, automation, radar, photogrammetry, pre-processing, GIS: Web-based GIS, cartography	theopauw@sun.ac.za	021 808 3112
Pharoah, Robyn, Dr	RADAR - GIS Analyst	Disaster risk reduction and Urban risk	robynpharoah@sun.ac.za	021 808 9492
Poona, Nitesh , Mr	Lecturer	Remote sensing; Spatial statistics and modelling	poona@sun.ac.za	021 808 9105
Spocter, Manfred Dr	Senior lecturer	Public and private spaces, small-town geographies, urban social geographies	mspocter@sun.ac.za	021 808 3095
Stephenson Garth, Mr	CGA General manager, GIS & EO analyst	Mapping irrigated areas from earth observation imagery, geographic object-based image analysis, automated land cover / use classification, expert-system, ruleset classification.	garth@sun.ac.za	021 808 3112
Theron Christiaan, Mr	CGA GIS Scriptor & data capturer	Programming and scripting	ctheron@sun.ac.za	021 808 3112
Van Niekerk Adriaan, Prof	Associate Professor and Director of CGA	GIT, Spatial decision support systems	avn@sun.ac.za	021 808 3101
Vermeulen Divan, Mr	CGA GIS & EO analyst	Object-orientated image classification	vermeulend@sun.ac.za	021 808 3112

Vermeulen Jacques, Mr	CGA GIS operator	Remote sensing, town planning	vermeulenj@sun.ac.za	021 808 9544
Waddell, Joy, Dr	Radar Research Coordinator	Urban and community-based risk reduction, disaster governance and disaster risk management in cities of the Global South.	joywaddell@sun.ac.za	021 808 9281
Williams, Samantha Dr	Lecturer	Natural Resources, Livelihoods and Governance	samanthawilliams@sun.ac.za	021 808 4975
Willemse, Lodene, Miss	CRUISE - Lecturer.	- Urban liveability and quality of life Sustainable urban development and urban efficiency Urban form and function Urban open space system Recreation and leisure studies Application of statistics in the field of urban and regional science	lodene@sun.ac.za	021 808 9103
Zweig, Trish, Mrs	Radar- Risk Reduction Co-ordinator	Informal settlements; Low cost housing policy; Historical townships admin; Municipal commonage, Urban risk	patriciazweig@sun.ac.za	21 808 9282

Professional and support staff

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Liederman, Catherine Mrs	Secretary	Office administration	catherine@sun.ac.za	021 808 3218
Regue, Yvette Mrs	Snr Dept Officer	Office administration (CRUISE)	regue@sun.ac.za	021 808 3104
Bullock, Jennilee, Mrs	Radar Project accountant	Accounts	jennileeb@sun.ac.za	021 808 9604
Ortell, Selene Mrs	Postgraduate Program Coordinator	Postgraduate students	seleneortell@sun.ac.za	021 8083100

Roux, Wilma, Ms	Radar- Admin and financial officer	Administrator	wmr@sun.ac.za	021 808 9285
-----------------	------------------------------------	---------------	--	--------------

Departmental News

We congratulate Professor Sanette Ferreira on her promotion to Professor. Her inaugural lecture took place in March 2017.



The lecture investigated “Wine tourism landscapes: Life cycles, wine resorts and lifestyle farming.” The following serves as an outline of the lecture.

Wine can be studied from a variety of perspectives which includes the perceptions of places as well as wine tourism products and experiences. Wine, as a message carrier and a symbolic representation of lifestyles, cultures, social and economic status, is a potentially significant source of competitive advantage and differentiation at regional level. The main focus of this lecture is on the evolutionary development of wine tourism in South Africa over the last 45 years; the spatial dimension of wine tourism development (nodes, networks, winescapes); and the differential growth of wine nodes into wine resorts. Second, the natures of the winescapes – cultural and natural – that draw wine tourists as well as lifestyle wine farming and lifestyle estates by high net worth (HNW) individuals to the winelands, are examined. Third, Stellenbosch Wine Route is discussed in the context of Butler’s (1980) and Dodd and Beverland’s (2001) life cycle models. The differential development of certain winery nodes that possesses enclave characteristics is also reported. Last, conclusions are drawn and recommendations are made about challenges facing wine tourism and its planning.

Dr Tyler Flügel joined the department as a research associate during the year. He will be supervising postgraduate students.



Dr Tyrel Flügel on his PhD graduation

Conferences

During 2017 the department hosted two conferences and a symposium.

The 3rd Biannual ISlbalo Regional Science Conference

Professor Manie Geyer of CRUISE, hosted in conjunction with Statistics South Africa, the 3rd Biannual ISlbalo Regional Science Conference at Stellenbosch in July, this year. The aim of the international conference was to create an opportunity for African regional scientists and planners to showcase their work as a first step in a process to establish an African Division of the Regional Science Association International. Well over a hundred participants presented papers. The conference was attended by the President of the RSAI as well as 5 internationally renowned members of the society. Minister Jeb Radebe, Peter Nijkamp and Vice Rector Eugene Cloete presented keynote addresses at the conference. Ten papers that were presented at the conference has since been accepted for publication in *Regional Science, Policy and Practice*, the official journal of RSAI.



3rd Annual SUNSAR Conference

The SUNSAR Conference was hosted by Dr Jaco Kemp. The Department initiated and has now hosted the 3rd annual Stellenbosch University Synthetic Aperture Radar (SUNSAR) Symposium on 12 and 13 October 2017. The symposium was initiated by Jaco in 2015 and serves as a forum for sharing and discussion of research and development of Synthetic Aperture Radar (SAR) technologies and applications in South Africa. This year 40 delegates attended and more than 20 technical presentations were delivered. Stellenbosch University, the CSIR, local government and private industry made up the bulk of the delegates, with some international visitors from Germany and La Réunion in attendance as well. The symposium was preceded by a 3-day training workshop on Advanced SAR Applications, presented by Dr Thomas Jagdhuber from the German Aerospace Agency (DLR) and Prof Christiane Schmullius and Dr Jussi Baade from the Friedrich-Schiller University in Jena, Germany.



Participants at the 3rd Annual SUNSAR Conference

Participants at the symposium



Some leisure time for participants at the 3rd Annual SUNSAR Conference Workshop

Geography student symposium

The department hosted a student symposium on Saturday 28 October where 48 honours students from UWC, UCT, Military Academy and Stellenbosch presented their research projects. This event was initiated by Professor Ronnie Donaldson, and it was the first time that honours students of all the geography departments in the province met for such an occasion. The symposium was concluded with a social get together braai. We hope to make this an annual event for the Western Cape Province geography departments.

The Research Alliance for Disaster and Risk Reduction (RADAR)

The RADAR group, located in the department since 2013, has been unbundled and has been operating as an independent research entity of the university since October 2017.

SSAG student conference

Six postgraduate students represented the department at the annual SSAG student conference at the University of Mpumalanga in Mbombela. For his work on densification in Stellenbosch, Ruan Kruger received the award for the best human geography paper.

The following academics visited the department during 2017

Prof Nico Kotze (University of Johannesburg)

Dr Evance Mwathunga (University of Malawi)

A range of faculty from Oklahoma State University

Prof Christiane Schmullius and Dr Jussi Baade (Friedrich-Schiller University in Jena, Germany)

Dr Thomas Jagdhuber (German Aerospace Agency (DLR))

Dr Thomas Kemper (Joint Research Centre, European Commission)

International research collaboration

Ronnie Donaldson undertook a research trip to France in September where he met with colleagues at Bordeaux and Sciences Po universities. A collaborative research paper is being written with Dr Hyman (Sciences Po) and the potential for a collaborative research project on art and geography was discussed with prof Guyot (Bordeaux). The possibility of a research project on 'abandoned towns/villages' was also explored and he visited selected small towns that are showing signs of abandonment.

Gustav Visser presented a number of seminars at the Universities of Oulu (Finland) and Umea (Sweden) to consolidate research collaborations with those institutions. He is currently working on book projects with Jayne Rogerson (University of Johannesburg) on "Urban Tourism in South Africa" and Ronnie Donaldson as well as Tony Lemon (Oxford University) on the project "Homes still apart" following up on the classic text by Tony Lemon which appeared in the late 1980s as "Homes apart".

Dr Jaco Kemp has recently been awarded very considerable funding from the European Union with extensive international research collaboration outcomes. The project is entitled "Operational applications of radar images for the optimization of sugarcane farming practices and productivity" and will be funded by the EU through the African-Caribbean-Pacific Group of States. The project proposes the development of advanced methodologies for the use of radar satellite imagery (which can see through clouds) to map areas under sugarcane cultivation in South Africa and Kenya, and provide information on aspects such as harvest dates, yield estimates and total biomass. Since sugarcane is largely grown in tropical countries, the ability to use weather-independent radar imagery for these tasks is becoming important. The project will run over four years with six partner institutions from South Africa, France and Kenya, with Stellenbosch University (Dr Kemp) being the coordinating partner. The total project budget is around R20 million and makes provision for (some) salaries, computing equipment, satellite imagery, international travel between partner institutions, masters and PhD bursaries, workshops and other miscellaneous running costs. It is estimated that the project will kick off in the second semester of 2018. Jaco's project links to the extensive external funding received in the department to date.



Dr Jaco Kemp, is lead investigator of the research programme “Operational applications of radar images for the optimization of sugarcane farming practices and productivity”

Post-doctoral Fellows

The department hosted two post-doctoral fellows in 2017: Dr Solene Baffi (mentored by Prof Ronnie Donaldson) and Louise Bordelon (mentored by Prof Sanette Ferreira).

CRUISE

CRUISE was established at SU in 2009 with the financial support of Stats SA and is part of a drive to advance science education in the Southern African region. The research centre is situated in the Geography and Environmental Studies Department and focuses on social and economic development issues locally, regionally, nationally and internationally. Since its inception the centre has placed a strong

emphasis on quantitative empirical research and has also maintained a strong output level. It is also part of the ISibalo group of institutions whose main aim is to advance the use of statistics in research in Africa. While CRUISE is considered a research centre, it also has an important teaching function offering postgraduate programmes in both Urban and Regional Science and Urban and Regional Planning.

CRUISE has been very active on the academic front in 2017. Four of its staff members are currently actively busy with PhD studies. Ten Master's students in Urban and Regional Science and eight in Urban and Regional Planning have graduated in March 2017 while a further eight have submitted theses for evaluation in Urban and Regional Science and eight more in Urban and Regional Planning in October this year. These students are expected to receive their degrees in March 2018. The Centre has accepted 15 applications for Master's study in Urban and Regional Science and 16 in Urban and Regional Planning in 2018. Fourteen of CRUISE's publications have appeared, or have been accepted for publication in accredited journals nationally and internationally this year.



Mr Risenga Maluleke, a graduate of the Centre for Regional and Urban Innovation and Statistical Exploration (CRUISE) which is situated in the Faculty of Arts and Social Sciences at Stellenbosch University (SU), has been appointed as the new Statistician-General of South Africa and the Head of Statistics South Africa (Stats SA). Maluleke completed an MPhil in Urban and Regional Science at CRUISE and was one of the first group of students to complete this degree at the centre in 2011.

"We are very proud that one of our graduates have been appointed to this position and that we have contributed to equipping him for this demanding challenge to lead Statistics South Africa in providing statistical systems for evidence-based decision-making," said Professor Manie Geyer, Director of CRUISE.

According to a press release issued by Stats SA, Maluleke has extensive experience in the organisation, which is backed by his qualifications – a BSc in Mathematical Statistics from the University of Limpopo and an MPhil in Urban and Regional Science from SU. He has also completed Senior Executive Programmes with the Wits and Harvard Business Schools.

"In Risenga Maluleke I had a trusted and enduring partner with whom over a quarter of a century we engaged in the most daring of leadership missions to construct what has become the most iconic institution of the state. Whilst matters of appointment of a Statistician-General are prescribed in law

and are not for an outgoing Statistician-General, I am distinctly pleased by the choice the leadership has made. I can now safely disclose what I said to Dr Benny Mokaba twenty one years ago after the panel interviewed and decided to appoint Risenga Maluleke in October 1996 to the Statistics Office in Limpopo. I called Benny and said to him 'today we have appointed a new head for the Central Statistics Service in the making'," said his predecessor Mr Pali Lehohla.

"In Risenga we have a well-grounded leader with balance, instilling fairness and justice in all his dealings, he has enduring strength, he imbues humility, he is a servant leader, a village boy who with agility adapts to metropolises of the world, and who is ready to take on any adversity with a singularly determined mind for finding solutions. My success in leading and building this mighty organisation would not have been possible if Risenga was not leading with me in the most treacherous of waters. My relay is done I am passing the baton to a well-tested professional and leader."

2017 dated publications:

Journal articles

Adeniyi S.A., De Clercq, W.P. and Van Niekerk, A. 2017. Development of a composite soil degradation assessment index for cocoa agroecosystems in southwestern Nigeria. *Solid Earth* 8: 827-843.

Baffi S., Donaldson, R. and Spocter, M. 2017. Transport and tourism: The MyCiti experience in Cape Town. Research report prepared for CHEC / CCT Joint Research Programme.

Bangira, T., Alfieri, S.M., Menenti, M., Van Niekerk, A. and Vekerdy, Z. 2017. A Spectral Unmixing Method with Ensemble Estimation of Endmembers: Application to Flood Mapping in the Caprivi Floodplain. *Remote Sensing* 9(10): 1013.

Bordelon, L. and Ferreira, S.L.A. 2017. Tourist photographs and destination imagery on Social Media: Reading the Winelands through the tourist lens. *Tourism Review International*. 21(3): 317-329

Chikowore, T. and Willemse, L. 2017. Identifying the changes in the quality of life of Southern African Development Community (SADC) migrants in South Africa from 2001 to 2011. *South African Geographical Journal*, 99 (1): 86-112.

Cronje, C. and Spocter, M. 2017. Open-plan suburb to fortified suburb: Home fortification in Soneike, Cape Town, South Africa. *Journal of Housing and the Built Environment*, 32 (4), 713-732.

De Klerk, H.M. and, Buchanan, G. 2017. Remote sensing training in African conservation. *Remote Sensing in Ecology and Conservation*. 3(1): 7-20.

De Waal, J.H., Chapman, A. and Kemp, J. 2017. Extreme 1-day rainfall distributions: Analysing: Change in the Western Cape. *South African Journal of Science*. 113.7-8. 1-8

Descals, A., Szantoi, Z., Beck, P.S.A., Brink, A. and Strobl, P. 2017. Automated Detection of Selective Logging Using SmallSat Imagery. *IEEE Geoscience and Remote Sensing Letters*. 1-5

Donaldson, R. 2017. Managing national parks: Counting visitors to the open-access urban national park of Table Mountain. *Journal of Public Administration* 52(1): 74-88.

El-Sheikh, M.A., Thomas, J., Alfarhan, A.H., Alatar, A.A., Mayandy, S., Hennekens, S.M., Schaminee, J.H.J., Mucina, L. and Alansari, A.M. 2017. SaudiVeg ecoinformatics: Aims, current status and perspectives. *Saudi Journal of Biological Sciences*. 24, 389-398.

Engelbrecht, J., Theron, A., Vhengani, L. and Kemp J. 2017. A Simple Normalized Difference Approach to Burnt Area Mapping Using Multi-Polarisation C-Band SAR. *Remote Sensing*. 2017, 9, 764

- Ferreira, S.L.A. and Hunter, C.A. 2017. Wine tourism development in South Africa: A geographical analysis. *Tourism Geographies*. 19:5, 676-698
- Gilbertson, J.K. and Van Niekerk, A. 2017. Value of dimensionality reduction for crop differentiation with multi-temporal imagery and machine learning, *Computers and Electronics in Agriculture* 142: 50-58.
- Gilbertson, J.K., Kemp, J. and Van Niekerk, A. 2017. Effect of pan-sharpening multi-temporal Landsat 8 imagery for crop type differentiation using different classification techniques. *Computers and Electronics in Agriculture* 134: 151-159.
- Kalusova, V., Chytrý, M., Van Kleunen, M., Mucina, L., Dawson, W., Essl, F., Kreft, H., Pergl, J., Weigelt, P., Winter, M. and Pyšek, P.. 2017. Naturalization of European plants on other continents: The role of donor habitats. *Proceedings of the National Academy of Sciences of the United States of America*. Doi: 10.1073/pnas.1705487114
- Lombard, L., Ismail, R. and Poona, N. 2017. Modelling forest canopy gaps using LiDAR-derived variables. *Geocarto International*. DOI: 10.1080/10106049.2017.1377775.
- Mahlakanya, I. and Willemse, L. 2017. The changes in the quality of life of rented free-standing and backyard shack and backyard room tenants in the three Gauteng metropolitan municipalities. *Urban Forum*, 28: 293-312.
- Moolman, T. and Donaldson, R. 2017. Career paths of geography graduates. *South African Geographical Journal*. 99(3): 252-266.
- Mucina, L. 2017. Caroxylon (*Chenopodia* s.str.) in continental southern Africa and Madagascar: a preliminary nomenclatural synopsis and biogeographical considerations. *Phytotaxa*. 312(2):151-178.
- Mucina, L. 2017. Vegetation of Brazilian campos rupestres on siliceous substrates and their global analogues. *Flora*. 51150 (13).
- Ottaviani, G., Tsakalos, J.L., Keppel, G. and Mucina, L. 2017. Quantifying the effects of ecological constraints on trait expression using novel trait-gradient analysis parameters. *Ecology and Evolution*. DOI: 10.1002/ece3.3541
- Pharoah, R. and Zweig, P. 2017. Unique in their complexity: Conceptualising everyday risk in urban communities in the Western Cape, South Africa. *International Journal of Disaster Risk Reduction*.
- Spocter, M. 2017. Privatisation of municipal golf courses in small towns in the Western Cape, South Africa. *South African Geographical Journal*. 99 (2), 113-133.
- Spocter, M. 2017. Open-plan suburb to fortified suburb: home fortification in Soneike, Cape Town, South Africa. *Journal of Housing and the Built Environment*, 32(4), 713-732.
- Theron, A., Engelbrecht, J., Kemp, J., Kleynhans, W., Turnbull, T. 2017. Detection of Sinkhole Precursors Through SAR Interferometry: Radar and Geological Considerations. *IEEE Geoscience and remote sensing letters*. 14.16. 1545-598x
- Verhulp, J. and Van Niekerk, A. 2017. Transferability of decision trees for land cover classification in a heterogeneous area. *South African Journal of Geomatics* 6(1): 30-46.
- Vermeulen, D. and Van Niekerk, A. 2017. Machine learning performance for predicting soil salinity using different combinations of geomorphometric covariates. *Geoderma* 299: 1-12.
- Visser, G. 2017. Reflections on student tourism research in South Africa. *African Journal of Hospitality, Tourism and Leisure*. 6.2.1-18.

- Visser, G., Erasmus, I. and Miller, M. 2017: Airbnb: The emergence of a new accommodation type in Cape Town, South Africa. *Tourism Review International* 21(2), 151-168.
- Wellman, L. and Ferreira, S,L,A. 2017. Saldanha: Sea Harvest 'back [fish] bone' in the local economy. *Local Economy*, 32 (6) 487-504.
- Willemse, L. 2017. A class-differentiated analysis of park use in Cape Town, South Africa. S10708-017-9809-4; 1-20
- Ziervogel, G., Pelling, M., Cartwright, A., Chu, E., Deshpande, T., Harris, L., Hyams, K., Kaunda, J., Klaue, B., Michael, K., Pasquinin, L., Pharoah, R., Rodina, L., Scott, D. and Zweig, P. 2017. Inserting rights and justice into urban resilience: A focus on everyday risk. *Environment and Urbanization*, 123 29(1): 123–138.
- Zweig, P. and Pharoah, R. 2017. Unique in their complexity: Conceptualising everyday risk in urban communities in the Western Cape, South Africa. *International Journal of Risk Reduction*. 26:51-56.
- Zweig, P.J., 2017. Collaborative risk governance in informal urban areas: The case of Wallacedene temporary relocation area. *Jàmbá: Journal of Disaster Risk Studies*, 9(1),1-7.

Chapters in books

- Mucina, L., Bustamante-Sánchez, M.A., Dugu, B., Holmes, P., Keeler-Wolf, T., Armesto, J.J., Dobrowolski, M., Gaertne, M., Smith-Ramírez, C. and Vilagrosa, A.. 2017. Ecological restoration in mediterranean-type shrublands and woodlands. In: Allison, S. and Murphy, S. (eds.), *Routledge Handbook of Ecological and Environmental Restoration*. Abington: Taylor and Francis,, pp. 173–196.
- Schuermans, N. and Spocter, M. 2016. Avoiding encounters with poverty: Aesthetics, politics and economics in a privileged neighbourhood of Cape Town. In: De Backer, M., Melgaço, L., Varna, G. and Menichelli, F. (eds.), *Order and Conflict in Public Space*. Routledge: London. pp.79-100.
- Spocter, M. 2017. Citizen-driven privatisation of public space in Cape Town, South Africa. In: Da Fonseca, A., Puentes, A. and Vilariño, B. (eds.), *Digital Cities and Spatial Justice*. Salvador: Urban Geography Commission, pp. 161-181.
- Walls, R. and Zweig, P. 2017. Towards sustainable slums: understanding fire engineering in informal settlements. In: *Advanced Technologies for Sustainable Systems*. Utrecht, Springer International Publishing., pp 93-98.

Books

- Gill, M., Jongman, R.H.G., Luque, S., Mora, B., Paganini, M., Szantoi, Z. 2017. *A Sourcebook of Methods and Procedures for Monitoring Essential Biodiversity Variables in Tropical Forests with Remote Sensing*. Publisher: GOFC-GOLD and GEO BON. ISSN: 2542-6729

Reports

- Donaldson, R. 2017. Shining pearl in the shadow of the Cape Town metro: Drakenstein, a place of (spatial) excellence? Report prepared for SA Cities Network.
- Donaldson, R. 2017. Report on the Universal Accessibility (UA) Awareness Campaign of the City of Cape Town's Tourism Department. Report prepared for the City of Cape Town: Department of Tourism.

Donaldson, R. and McKay, T. 2017. A snap review of adventure tourism operators in Cape Town. Report prepared for the City of Cape Town: Department of Tourism.

Donaldson, R., Viljoen, V., Acker, S., Lord, M. and Burger, R.. 2017. An audit of conference and meeting venues in Stellenbosch. Report prepared for Stellenbosch 360. p 34.

Van Niekerk, A. and Donaldson, R. 2017. Map analysis of tourism data along the Coast, Durbanville and Langa. Report prepared for the City of Cape Town: Department of Tourism.

Conference proceedings

Ferreira, S.L.A. 2017. Wine tourism landscapes: Life cycles, wine resorts and lifestyle farming. IGU Tourism Shaping Places, 18-21-October 2017.Vila-seca-Spain

Stroble, P., Baumann, P., Lewis, A., Szantoi, Z., Killough, B., Purss, M., Craglia, M., Nativi S, Held A and Dhu T. 2017. The six faces of the data cube. In Proceedings of the 2017 conference on Big Data from Space (BIDS' 2017). 28-30 November 2017. Toulouse, France.

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Lodene Willemse and Nozipho Shabalala	Consumption expenditure patterns of economically sustainable and unsustainable RDP households in South Africa	Oral presentation	3-6 July 2016	Planning Africa
Lodene Willemse and Trevor Chikowore	A new lease of life, or not? Determining the changes in the living conditions of SADC migrants in the four metropolitan areas of South Africa from 2001 to 2011	Oral presentation	25-28 September 2016	The Society of South African Geographers 10th Biennial Conference
Lodene	A class-	Oral presentation	3-5 July 2017	Third biannual urban and

Willemse	differentiated analysis of community neighbourhood park (CNP) use in Cape Town, South Africa.			regional science conference
Gustav Visser	Gay male urban spaces after Grindr and gentrification: rethinking gay urban geographies	Oral presentation	29 August to 2 September 2017	Annual Conference of the Royal Geographical Society and Institute of British Geographers Conference, London
Gustav Visser	Urban leisure and tourism-led redevelopment frontier in central Cape Town (South Africa) since the 1990s	Oral presentation	29 August to 2 September 2017	Annual Conference of the Royal Geographical Society and Institute of British Geographers Conference, London
Gustav Visser	Urban leisure and tourism-led redevelopment frontier in central Cape Town (South Africa) since the 1990s	Oral presentation	3-5 July 2017	Third Biennial Urban and Regional Science Conference, Department of Geography and Environmental Studies, Stellenbosch University
Sanette Ferreira	Wine tourism landscapes: Gentrification of the Cape Winelands	Oral presentation	18-21 Oct 2017	IGU, Tourism Shaping places, Villa Seca, Spain
Louise Bordelon, L and Sanette Ferreira,	Reading the winelands through the tourist lens	Oral presentation	31 May, 2017	Cape Town research Seminar, V&AW Conference Centre, Cape Town
Manfred Spocter	Citizen-driven privatisation of public space in	Oral presentation	6-13 August 2017	2017 IGU Urban Commission, Salvador, Brazil

	Cape Town, South Africa			
Manfred Spocter	Transport and tourism: The MyCiti experience in Cape Town	Oral presentation	31 May 2017	Cape Town Tourism Research conference, Cape Town
Manfred Spocter	Segregation and gated communities in the post-apartheid small town milieu	Oral presentation	26 November 2016	DIVERSITY in LOW-DYNAMIC REGIONS IN AFRICA AND EUROPE: Analyzing the conditions for solidarity and conviviality in residential diversity, Leuven, Belgium
Manfred Spocter	Privatisation of municipal golf courses in small towns in the Western Cape	Oral presentation	25-28 September 2016	SSAG centennial conference, Stellenbosch
Manfred Spocter	Open-plan suburb to fortified suburb: Home fortification in Soneike, Cape Town	Oral presentation	21-25 August 2016	33rd International Geographical Congress, Beijing
Manfred Spocter	Privatisation of municipal golf courses in small towns in the Western Cape, South Africa	Oral presentation	21-25 August 2016	33rd International Geographical Congress, Beijing
Manfred Spocter	Open-plan suburb to fortified suburb: Home fortification in Soneike, Cape Town	Oral presentation	17-19 March 2016	Southern African City Studies Conference 2016, Durban
Adriaan Van Niekerk	Wide-scale modelling of water and water availability with	Oral presentation	1-2 February 2016	TIGER Workshop 2016: Looking After Water for Sustainable Development

	earth observation			
Adriaan Van Niekerk,	What is the potential of new earth observation (EO) data for monitoring ecosystems at national, regional and local scales?	Oral presentation	29 September - 1 October 2016	Trilateral workshop between South Africa, Egypt and the UK on Ecosystems Services for Water and Food Security
Van Niekerk A, Goudriaan R, Jarmain C, Pauw T, Stephenson G, Muller SJ	Mapping irrigated agriculture in South Africa.	Oral presentation	11 October 2016	South African National Committee on Irrigation and Drainage (SANCID)
Van Niekerk A.	Lessons learned in developing a 2m resolution digital elevation model of South Africa, Society	Oral presentation	26-28 September 2016	Society of South African Geographers 10th Biennial Conference
Van Niekerk A.	Developing and verifying an irrigated agriculture map of South Africa using earth observation methods	Oral presentation	26-28 September 2016	Society of South African Geographers 10th Biennial Conference
Van Niekerk A., Muller SJ, Vermeulen, D.	Earth observation methods for monitoring salt accumulation in irrigated areas	Oral presentation	8-12 May 2017	International Symposium of Remote Sensing and the Environment
Van Niekerk A.	Earth observation methods for operational	Oral presentation	14 September 2017	Africa STEM Indaba

	monitoring of irrigation extent and water use in South Africa			
Van Niekerk A.	Wide-scale modelling of water and water availability with earth observation/satellite imagery	Oral presentation	15 August 2017	AgBiz Mini Symposium
Kemp, JN	Mapping and monitoring open water bodies in an agricultural area using SAR interferometry and polarimetry	Oral presentation	8-12 May 2017	International Symposium on Remote Sensing of Environment (ISRSE), Pretoria

Seminars

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Hoogendoorn, G. and Visser, G	South African tourism geographies		13 September 2017	Department of Geography, Umeå University
Visser, G	Urban leisure and tourism-led redevelopment frontier in central Cape Town (South Africa) since the 1990s		12 September 2017	Department of Geography, Umeå University
Visser, G	Airbnb: The emergence of a new tourist accommodation type in Cape		25 May, 2017	Department of Geography, Environmental Studies and Tourism, University

	Town, South Africa			of the Western Cape
Visser. G	Knowing the city, Africa Centre for Cities		19-21 April 2017	University of Cape Town Workshop, Mount Fleur, Stellenbosch
Visser. G	Urban leisure and tourism-led redevelopment frontiers in central Cape Town since the 1990s		14 March 2017	Department of Geography, University of the Free State
Visser. G	The origin and growth of geography as a discipline at South African universities		14 March 2017	Department of Geography, University of the Free State
Visser. G	Stellenbosch: Birthplace of geography at South African universities		26-27 January 2017	Faculty History Symposium, Stellenbosch University
Donaldson, R. and Visser, G	Globalisation and the production of uneven geographies in Stellenbosch		16 March, 2017	Department of Geography and Environmental Studies, Stellenbosch University
P Zweig	Is this term everyday risk fit for purpose?	SKYPE presentation	2017/09/21	Durham University , UK
P Zweig	Where there's smoke there's fire!	Powerpoint presentation	27-28 September	The Disaster Management Institute of Southern Africa
	Introduction to smoke alarm	Speech	2017/10/13	Klapmuts, Stellenbosch

	initiative			
--	------------	--	--	--

Research Master Dissertations completed in 2016-17:

Student's Name	Title of dissertation	Qualification	Supervisor	Co-supervisor
Rozitta De Villiers	The V&A Waterfront (Cape Town) as work and playground for Capetonians	MA	SLA Ferreira	
Steve Adesuyi	Automating land cover modelling using time series NDVI: A case study in the Berg River catchment area	MSc Geoinformatics	Mrs Z Munch	
Curtis Bailey	Scaling patterns and drivers of species richness and turnover across the Afrotropics	MSc Geoinformatics	Dr H de Klerk	<i>Mrs Z Munch / Prof C Hui</i>
Khaleed Ballim	Detecting informal settlements from high resolution imagery using an object-based image analysis approach	MSc Geoinformatics	Mr N Poona	
Sven Christ	Spatial visualization of uncertainty	MA Geography and Environmental Studies	Mrs Z Munch	
Monique Damons	The nature, extent and locational dynamics of Tygervally businesses in the Cape Town economic inequality context	MA Geography and Environmental Studies	Dr M Spocter	
Avril Gardiner	The socio-economic wellbeing of small mining in the Northern Cape	MA Geography and Environmental Studies	Prof R Donaldson	
Ruan Kruger	The extent of urban densification in Stellenbosch	MA Geography and Environmental	Prof R Donaldson	

		Studies		
Cikizwa Mbolambi	Assessment of coastal vegetation degradation using remote sensing in False Bay, South Africa	MSc Geoinformatics	Dr M Lück-Vogel	
Jascha Muller	Indirect soil salinity detection in irrigated areas using earth observation methods	MSc Geoinformatics	Prof A van Niekerk	
Michael Portnoi	Methods for sugarcane harvest detection using polarimetric SAR	MSc Geoinformatics	Dr J Kemp	
Andre Theron	Detection of sinkhole precursors through SAR interferometry	MSc Geoinformatics	Dr J Kemp	<i>Dr J Engelbrecht</i>
Jeroen Venema	Retail transformations and social impacts from decentralised shopping malls in Paarl & Stellenbosch	MA Geography and Environmental Studies	Prof R Donaldson	<i>Dr M Spocter</i>
Julie Verhulp	Decision tree development for land cover classification in the Eastern Cape	MSc Geoinformatics	Prof A van Niekerk	
Sebastian Wenger	Evaluation of SFM against traditional stereophotogrammetry and LIDAR techniques for DSM creation in various land cover areas	MSc Geoinformatics	Dr J Kemp	
Caitlyn Hunter	Wine tourism development in South Africa	MA Geography and Environmental Studies	Prof SLA Ferreira	
Jason Gilbertson	Machine learning for object-based crop classification using multi-temporal Landsat-8 imagery	MSc Geoinformatics	Prof A van Niekerk	

Master Dissertations of limited scope completed in 2016-17:

Student's	Title of dissertation	Qualification	Supervisor
-----------	-----------------------	---------------	------------

Name			
Fick Brendie	Determining the spatial extent of golf residential lifestyle estates and its accessibility to facilities: Managing this marketed lifestyle throughout the Western Cape	Master of urban and regional planning	Lodene Willemse
Fledermaus Sergio	A study based on the changessocio-economic profiles and population density of the areas surrounding stations on the Atlantis-Cape Town MyCity Bus Rapid Transport (BRT) route (Phase 1A) (2001 – 2011).	Master of urban and regional planning	Amanda van Eeden
Jenneker Ashwell Christopher	A typology for back yard housing focusing on policy implementation: The case of Diepsloot and Alexandra	MPhil Urban and regional science	Anele Horn
Kgantsi Modisa Eugene	Measuring the expansion of economic activities in the city of Johannesburg using building statistics: The impact of development corridors	MPhil Urban and regional science	Prof Geyer
Mahlakanya Itumeleng	Comparing the changes in the quality of life of people residing in the rented main shacks, backyard rooms and backyard shacks in the metropolitan municipalities in Gauteng from 2001 to 2011	MPhil Urban and regional science	Lodene Willemse
Maribe Hellen	Assessment of Municipal Property rates in South Africa.	MPhil Urban and regional science	Amanda Van Eeden
Mokwena Edward Boy	Overview of Self-employment and Informal Employment in the Informal Economy in Gauteng Province between 2009 and 2013	MPhil Urban and regional science	Amanda Van Eeden
Molayi Rakutwane Solly	Factors influencing travel mode choice for work and educational trips in Gauteng	MPhil Urban and regional science	Herman Geyer
Mostert Marelize	The effects of water security on Urban Development, A case study of Windhoek,	Master of urban and regional	Anele Horn

	Namibia	planning	
Nzimakwe Vusumuzi	Factors affecting and spatial trend of tuberculosis in RSA (2010-2014): Evidence from vital registration systems	MPhil Urban and regional science	Amanda Van Eeden
Quin Lyle	Relationship between mixed land-use developments and property value trends in Woodstock, Cape Town	Master of urban and regional planning	Herman Geyer
Roux Daniel Jacobus	The dynamics of household formation and composition and its implications for housing	MPhil Urban and regional science	Herman Geyer
Terblanche Michael	Identifying the trends of property value within the Cape Town urban edge since 2001	Master of urban and regional planning	Herman Geyer
Thoka Malesela	The effects of migration on fertility: An analysis of internal migrants from other provinces in South Africa to Gauteng.	MPhil Urban and regional science	Prof Geyer
Thothela Monamodi Owen	Citizen participation in municipal planning and performance management processes in Kwazulu-Natal province: Understanding citizen satisfaction with municipal performance	MPhil Urban and regional science	Danie du Plessis
Viljoen Ernst	Determining the applicability of the ISO 37120 standards as a potential tool for evaluating city planning processes: A case study of the City of Cape Town	Master of urban and regional planning	Danie du Plessis
Walters Clyde	Public art's "right to the city": Determining various role players' perceptions, experiences and preferences for public art in public spaces in the City of Cape Town	Master of urban and regional planning	Lodene Willemse
Wilson Melissa	Urban densities and transit: An analysis of Cape Town's Integrated Rapid Transit System	Master of urban and regional planning F	

PhD Theses completed in 2017:

Student's Name	Title of thesis	Institution	Qualification	Supervisor
HAP Smit	Military environmental literacy in the South African Army	University of Stellenbosch	PhD Geography and Environmental Studies	Prof JH Van der Merwe

Short description of the curriculum presented:

Since the Department of Geography and Environmental Studies underwent major expansion during 2009 through two initiatives: a university Overarching Strategic Plan (OSP) focused on GIT and the incorporation of new and externally funded Centre for Urban and Regional Innovation and Statistical Exploration (CRUISE) and in 2011 the incorporation of the Disaster Mitigation for Sustainable Livelihoods Programme (DiMP), the forerunner for RADAR (Research Alliance for Disaster and Risk Reduction) numerous degree programmes have been introduced. Some of these are GIT and Environment and Development at undergraduate level, to Urban and Regional Planning and Disaster Risk Science and Development at masters level. More information can be obtained from the Stellenbosch University yearbooks.

Student Numbers (2016-17):

Level	2016	2017
First year	293	289
Second year	179	129
Third year	185	162
Honours	25	34
Masters	60	57
Doctoral	21	24

Some student news

Congratulations to Nina Botha, a Master's student in our department, who was selected by the secretariat of the Man And Biodiversity (MAB) Programme and the UNESCO Regional Bureau for Science and Culture in Europe to participate in the 2017 MAB Youth Forum.

The Forum, which was held in Po Delta Biosphere Reserve, near Venice, Italy, from 18 to 23 September 2017, aimed to strengthen the role, and promote the active participation, of youth in the

MAB Programme, and to encourage their contribution to the sustainable development of their communities within the World Network of Biosphere Reserves.

Nina represented the Garden Route Biosphere Reserve, which was only declared in June this year. The Garden Route Biosphere Reserve stretches from east of the Groot Brak River near Mossel Bay, to the van Stadens River west of Port Elizabeth, and from the Outeniqua Mountain range to the ocean, including three marine reserves.



Nina Botha



Students having Geography fun



Honours fieldwork class

Risk and disaster management honours students conducting fieldwork



Honours fieldwork class

University of the Witwatersrand: School of Geography, Archaeology & Environmental Studies

Staff

Name	Position	Area of specialisation	E-mail	Telephone number
HEAD OF SCHOOL				
Prof Ahmed, F	Head of School	Remote sensing & GIS	Fethi.Ahmed@wits.ac.za	011 717 6503
HEAD OF DIVISION				
Prof Curtis, C	Professor, Head of Geography Division	Water resources, water & air pollution, environmental change, biogeochemical cycles	Christopher.curtis@wits.ac.za	011 717 6505
ACADEMIC STAFF				
Dr Adam, E	Senior Lecturer	Remote sensing and GIS, applied environmental science and precision agriculture, especially mapping and monitoring various properties of vegetation	Elhadi.Adam@wits.ac.za	011 717 6532
Dr Butcher, S	Lecturer	Southern Africa's land-housing-finance nexus, geographies of markets, state-capital relations, suburbanisation, critical geographies of race	Siân.Butcher@wits.ac.za	011 717 6573
Dr Evans, M	Lecturer	Air pollution, OSL dating	Mary.Evans@wits.ac.za	011 717 6521
Dr Fitchett, J	Lecturer	Climatology, palaeoclimates, phenology, tourism and climate change	Jennifer.Fitchett@wits.ac.za	011 717 6514
Prof Grab, S	Professor	Historical climate change, climatic and sandstone geomorphology, palaeoenvironmental change, periglacial geomorphology	Stefan.grab@wits.ac.za	011 717 6512

Prof Knight, J	Professor	Sedimentary systems, responses of landscapes and sedimentary systems to climatic and environmental changes during the late Pleistocene and Holocene	Jasper.knight@wits.ac.za	011 717 6508
Dr Merlo, S	Lecturer	GIS and remote sensing, archaeology	Stefania.merlo@wits.ac.za	011 717 6509
Dr Moolla, R	Lecturer	Atmospheric sciences, environmental health, air quality and pollution (especially VOCs, ozone), waste management and health risk analysis	Raeesa.moolla@wits.ac.za	011 717 6522
Dr Samson, M	Senior Lecturer	Human geography, economic geography, Africa Waste Sector Specialist for Women in Informal Employment, Globalizing and Organizing (WIEGO)	Melanie.samson@wits.ac.za	011 717 6521
Prof Simatele, D	Associate Professor	Environmental impact & risk assessments (EIA/ERA), environmental management systems (EMS), sustainability, climate change adaptation, solid waste management	Danny.simatele@wits.ac.za	011 717 6515
Dr Wafer, A	Senior Lecturer	Human geography, economic and political geography, geographic theory, informality, infrastructure and citizenship	Alex.wafer@wits.ac.za	011 717 6517
SUPPORT STAFF				
Ms Koch, D	Senior Administrative Officer		Donna.koch@wits.ac.za	011 717 6503
Mr Nsimbi, T	Senior Technician		Thandizwe.nsimbi@wits.ac.za	011 717 6520
Ms Chabalala, Y	Senior GIS & Remote Sensing Technician		yingisani.chabalala@wits.ac.za	011 717 6513
Mrs Ngubo, K	Finance Officer		khanyo.ngubo@wits.ac.za	011 717 6584
Mr Madithapa, C	Procurement Officer		clarence.madithapa@wits.ac.za	011 717 6513

Ms Mafora, K	Postgraduate Administrator	Kerayamang.Mafora@wits.ac.za	011 717 6590
Ms Phillips, W	Cartographer	Wendy.phillips@wits.ac.za	011 717 6504
POSTDOCTORAL FELLOWS			
Dr Strachan, K	Foraminifera, Holocene sea-level change	Kate.Strachan@wits.ac.za	
Dr Kubanza, S	Sustainability	Nzalalemba.Kubanza@wits.ac.za	

Departmental News

Three new academic staff members joined the Geography Division at the beginning of 2017 – Dr Siân Butcher, Dr Jennifer Fitchett and Dr Mary Evans. Ms Kerayamang Mafora also joined the staff in 2017 as the postgraduate administrator.

Dr Melanie Samson was awarded the prestigious Bellagio writing fellowship to work on her book ‘Rising from the Rubbish’ at the Rockefeller Foundation Bellagio Centre Academic Writing Residency in Italy, where she spent late August to September writing. She was also awarded a BRICS Mobility Grant from the National Institute for the Humanities and Social Science to collaborate with colleagues in India and Brazil on issues related to waste picker integration, and was asked to design and facilitate DEA’s Waste Picker Policy Process.

Dr Jennifer Fitchett was awarded the SSAG Centenary Award for Early Career Researchers in 2017. She was also a nominee for the NSTF –Kambule award for emerging researchers, and finalist for the NSTF special theme award for research on sustainable tourism.

Dr Jennifer Fitchett and Dr Eromose Ebhuoma attended the Newton Fund Researcher Links Climate Workshop in Cape Town.

Prof Chris Curtis and Dr Jennifer Fitchett have been awarded a grant from the National Geographic Society to conduct research on pollution threats to freshwater systems in southern African biodiversity hotspots, collaborating with researchers from University College London and Royal Holloway University of London.

2016-2017 dated publications:

Book chapters

Knight, J. 2017. Deglaciation of the Northern Irish Sea Basin, Chapter 6. In Coxon, P., McCarron, S. and Mitchell, F. (Eds.) *Advances in Irish Quaternary Studies*, Paris: Atlantis Press.

Journal articles

Abdel-Rahman, E., Onesimo, M., Odindi, J., **Adam, E.**, Odindo, A. and Riyad, I. 2017. Estimating swiss chard foliar macro- and micronutrient concentrations under different irrigation water sources using ground-based hyperspectral data and four partial least squares (PLS)-based (PLS1, PLS2, SPLS1 and SPLS2) regression algorithms. *Computers and Electronics in Agriculture*, 132: 21-33.

Adam, E., Houtao, D., Odindi, J., Abdel-Rahman, E. and Onesimo, M. 2017. Detecting the early stage of *Phaeosphaeria* leaf spot infestations in maize crop using in situ hyperspectral data and guided regularized random forest algorithm. *Journal of Spectroscopy*, 6961387: 1-8.

Adam, E., Myreriwa, N. and Newete, S. 2017. Mapping *Prosopis glandulosa* (mesquite) in the semi-arid environment of South Africa using high-resolution WorldView-2 imagery and machine learning classifiers. *Journal of Arid Environments*, 145: 43-51.

Biagetti, S., **Merlo, S.**, **Adam, E.**, Lobo, A., Conesa, F.C., **Knight, J.**, Bekrani, H., Crema, E.R., Alcaina-Mateos, J. and Madella, M. 2017. High and Medium Resolution satellite imagery to evaluate late Holocene human-environment interactions in arid lands: A case study from the central Sahara. *Remote Sensing*, 9: 1-21.

Bikwibili, H. and **Simatele, D.** 2017. Community-based water resource management in the Northwest Cameroon: the role of potable water supply in community development. *South African Geographical Journal*, 99(2): 166-183.

Butcher, S. 2017. Book Review – ‘Changing Space, Changing City: Johannesburg after apartheid’, by Philip Harrison, Graeme Gotz, Alison Todes and Chris Wray (Eds). *Thesis Eleven*, 141(1): 123–127.

Craparo, A., Steppe, K., Van Asten, P.J.A., Läderach, P., Jassonge, L.T.P. and **Grab, S.** 2017. Application of thermography for monitoring stomatal conductance of *Coffea Arabica* under different shading systems. *Science of the Total Environment*, 609: 755-763.

Culwick, C., Götz, G., **Butcher, S.**, Harber, J., Maree, G., Mushongera, D. 2017. Doing more with less (data): complexities of resource flow analysis in the Gauteng City-Region. *Environmental Research Letters*, 12, 125006. doi: 10.1088/1748-9326/aa7c21

De Lecea, A., Green, A., Cooper, A., **Strachan, K.L.** and Wiles, E. 2017. Mechanisms controlling Holocene back-barrier changes in a large marine embayment: Maputo Bay, Mozambique. *Estuarine, Coastal and Shelf Science*, 193: 25-36.

- Dzikiti, L.** and van der Merwe, C. 2017. The expenditure patterns of Zimbabweans travelling to and from South Africa for Visiting Friends and Relatives purposes. *African Journal of Hospitality, Tourism and Leisure*, 6(3): 1-22.
- Ebhuoma, E.** and **Simatele, D.** 2017. Defying the odds: climate variability, asset adaptation and food security nexus in the Delta State of Nigeria. *International Journal of Disaster Risk Reduction*, 21: 231-242.
- Fitchett, J.M., Robinson, D.** and Hoogendoorn, G. 2017. Climate suitability for tourism in South Africa. *Journal of Sustainable Tourism*, 25(6): 851-867.
- Fitchett, J.M.** and Bamford, M.K. 2017. The validity of the Asteraceae: Poaceae fossil pollen ratio in discrimination of the southern African summer- and winter-rainfall zones. *Quaternary Science Reviews*, 160: 85-95
- Fitchett, J.M.,** Bamford, M.K., Mackay, A.W. and **Grab, S.W.** 2017. *Chrysocoma ciliata* L. (Asteraceae) in the Lesotho Highlands: An anthropogenically introduced invasive or niche coloniser? *Biological Invasions*, 19(9): 2711-2728.
- Fitchett, J.M.,** Mackay, A.W., **Grab, S.W.** and Bamford, M.K. 2017. Holocene climatic variability indicated by a multi-proxy record from southern Africa's highest wetland. *The Holocene*, 27(5): 638-650.
- Fitchett, J.M.** and Bamford, M.K. 2017. Research, Discussion and Debate in Southern African Quaternary Research in 2017. *Palaeontologia africana*, 52: 3-6.
- Fitchett, J.M., Knight, J.,** Bamford, M.K., Cawthra, H., Esterhuysen, A., Quick, L.J. and Thackeray, J.F. 2017. Discussion on the Last Glacial Maximum in southern Africa. *Palaeontologia africana*, 52: 6-8.
- Fitchett, J.M., Grab, S.W.,** Bamford, M.K. & Mackay, A.W. 2017. Late Quaternary research in southern Africa: progress, challenges and future trajectories. *Transactions of the Royal Society of South Africa*, 72(3): 280-293.
- Fitchett, J.M., Grab, S.W.,** Bamford, M.K. and Mackay, A.W. 2016. A multi-proxy analysis of late Quaternary palaeoenvironments, Sekhokong Range, Eastern Lesotho. *Journal of Quaternary Science*, 31(7), 788-798.
- Fitchett, J.M.,** Hoogendoorn, G. and **Robinson, D.** 2016. Data challenges and solutions in the calculation of Tourism Climate Index (TCI) scores in South Africa. *Tourism: An International Interdisciplinary Journal*, 64(4): 359-370.
- Giddy, J.K., **Fitchett, J.M.** and Hoogendoorn, G. 2017. A case study into the preparedness of white-water tourism to severe climatic events in southern Africa. *Tourism Review International*, 21(2): 213-220.
- Giddy, J.K., **Fitchett, J.M.** and Hoogendoorn, G. 2017. Insight into American tourists' experiences with weather in South Africa. *Bulletin of Geography – Socio Economic Series*, 38: 57-72.

- Grab, S., Linde, J. and De Lemos, H.** 2017. Some attributes of snow occurrence and snowmelt/sublimation rates in the Lesotho Highlands: Environmental implications. *Water SA*, 43(2): 333-342.
- Jombo, S., Adam, E. and Odindi, J.** 2017. Quantification of landscape transformation due to the Fast Track Land Reform Programme (FTLRP) in Zimbabwe using remotely sensed data. *Land Use Policy*, 68: 287-294.
- Knight, J. and Robinson, K.** 2017. What is Geography? Perceptions of first year undergraduates in South Africa. *Journal of Geography in Higher Education*, 41(2): 230-245.
- Knight, J. and Evans, M.** 2017. The sediment stratigraphy of a flood event: An example from the Sabie River, South Africa. *CATENA*, 151: 87-97.
- Kubanza, N.S. and Simatele, D.** 2017. Sustainable Solid Waste Management in Sub-Saharan African cities: Application of System Thinking and System Dynamic as Methodological Imperatives in Kinshasa, the Democratic Republic of Congo, *Local Environment*, DOI: 10.1080/13549839.2017.1399996.
- Kubanza, N.S. Das, D.K. and Simatele, D.** 2017. Some Happy, Others Sad: Exploring Environmental Justice in Solid Waste Management in Kinshasa, The Democratic Republic of Congo, *Local Environment*, 22(5): 595-620
- Kubanza, N.S. and Simatele, D.** 2016. Social and Environmental Injustices in Solid Waste Management in Sub-Saharan Africa: A Study of Kinshasa, the Democratic Republic of Congo, *Local Environment*, 21(7): 866-882
- Lakhraj-Govender, R., Grab, S. and Ndebele, N.** 2017. A homogenized long-term temperature record for the Western Cape Province in South Africa: 1916-2013. *International Journal of Climatology*, 37: 2337-2353.
- Musavengane, R. and Simatele, D.** 2017. Significance of social capital in collaborative management of natural resources in sub-Saharan African rural communities: a qualitative meta-analysis. *South African Geographical Journal*, 99(3): 276-282.
- Odini, J., Mutanga, O., Abdel-Rahman, E., Adam, E. and Bangamwabo, V.** 2017. Determination of urban land-cover types and their implication on thermal characteristics in three South African coastal metropolitans using remotely sensed data. *South African Geographical Journal*, 99(1): 52-67.
- Omer, G., Mutanga, O., Abdel-Rahman, E., Peerbhay, K. and Adam, E.** 2017. Mapping leaf nitrogen and carbon concentrations of intact and fragmented indigenous forest ecosystems using empirical modelling techniques and WorldView-2 data. *ISPRS Journal of Photogrammetry and Remote Sensing*, 131: 26-39.

Pauline, N., Vogel, C., **Grab, S.** and Liwenga, E. 2017. Smallholder farmers in the Great Ruaha River sub-basin of Tanzania: coping or adapting to rainfall variability? *Climate and Development*, 9(3): 217-230.

Saeidabadi, R. *, Najafi, M.S., Roshan, G., **Fitchett, J.M.** and Abkharabat, S. (2016). Modelling spatial, altitudinal and temporal variability of annual precipitation in mountainous regions: The case of the Middle Zagros, Iran. *Asia-Pacific Journal of Atmospheric Sciences*, 52(5) 437-449.

Simatele, D; Dlamini, S; and **Kubanza, NS.** (2017). From Informality to Formality: Perspectives on the Challenges of Integrating Solid Waste management Into the Urban Development and Planning Policy in Johannesburg, South Africa, Habitat International, 63. 122-130

Strachan, K.L., Hill, T.R., Finch, J.M., Barnett, R.L. and Frenzel, P. 2017. Distribution of salt-marsh foraminifera in two South African estuaries, and application as sea-level indicators. *Journal of Coastal Research*, 33(3): 619-631.

Strachan, K.L., Hill, T.R. and Finch, J.M. 2017. Vertical distribution of living mangrove foraminifera from KwaZulu-Natal, South Africa. *African Journal of Marine Science*, 39(4): 409-422.

Wright, M. and **Grab, S.** 2017. Wind speed characteristics and implications for wind power generation: Cape regions, South Africa. *South African Journal of Science*, 113(7/8): 1-8.

Conference Presentations in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference	Name of Conference/workshop
Butcher, S.	Making the market work: marketising and subsidising 'affordable housing' in Johannesburg's greenfields	Oral	15-17 June 2017	Geographies of Markets workshop, Karl Polanyi Institute
Butcher, S.	Urban Geography, meet Economic Geography: tracking a sub-disciplinary dialogue	Oral	26-28 September 2016	Society of South African Geographers biennial conference
Butcher, S.	Private equity discovers Johannesburg's housing backlog after the crisis: the 'affordable' housing-	Oral	30 August - 2 September 2016	RGS-IBG Annual International Conference

	land-finance nexus on the postapartheid city's edge			
Butcher, S. and Tariq Toffah	Greenfield affordable housing	Oral	13 June 2016	Urban Design (UDISA) conference
Curtis, C.J., Khuzwayo, L., Austnes, K., Aas, W., et al.	Unravelling stream acidification in South Africa: coal, drought, DOC & cryptic species	Oral	24 August 2017	BIOGEOMON 2017: 9 th International Symposium on Ecosystem Behaviour
Fitchett, J.M.	Storm Track and Landfall Location of Southwest Indian Ocean Tropical Cyclones: Historical Perspective	Oral	3-7 September 2017	21 st International Congress of Biometeorology
Fitchett, J.M., Bamford, M.K., Mackay, A.W. and Grab, S.W.	Accidental science: fossil pollen evidence to dispute the classification of <i>Chrysocoma ciliata</i> as an invasive in the eastern Lesotho Highlands	Oral	3-7 April 2017	SASQUA 2017: People and the Environment
Strachan, K.L., Finch, J.M. and Hill, T.R.	Foraminifera: a tool for palaeoenvironmental analysis along South Africa's coastline	Oral	3-7 April 2017	SASQUA 2017: People and the Environment
Katanha, A. and Simatele, D.	Natural Hazard Mitigation. Strategies Review: Actor Network Theory and the Eco Based Approach Understanding In Zimbabwe	Oral	20-22 September 2017	Agriculture: Social-ecological transitions and bio-cultural shifts.
Dzoga, M. Simatele, D. and Munga,	Impact of sea surface temperature and rainfall on the distribution,	Oral	30 October – 4 November 2017	10th WIOMSA symposium

C.	composition and abundance of fin fish in Ungwana Bay and Lower Tana Delta, Kenya			
Chabalala, S. and Simatele, D.	Exploring the Role of Institutional and Policy Framework in Water Resource Monitoring and Management in a Sub-Saharan African Context: A Study of the Gauteng Province, South Africa	Oral	27-28 January 2017	6 th World Sustainability Forum
Bwikibili, H. and Simatele, D.	Community-based natural resources management in sub-Saharan Africa: Problematics of governance of rural water schemes in Northwest Cameroon	Oral	27-30 September 2017	Biennial Conference Series Organized by Under Western Skies (UWS) on the Environment in Alberta
Knight, J., Petherick, L., Shulmeister, J. & Rojas, M.	Towards an understanding of the Last Glacial Maximum in the southern hemisphere	Oral	3-7 April 2017	SASQUA 2017: People and the Environment
Knight, J., Fitchett, J.M. & Eze, P.N.	Re-evaluating the Last Glacial Maximum in southern Africa	Oral	3-7 April 2017	SASQUA 2017: People and the Environment

Research Master Dissertations completed in 2016-17:

Student's Name	Qualification	Supervisor	Co-supervisor
Khumbelo Chisebe	MSc	Prof Danny Simatele	
Lianda Dzikiti	MSc	Dr Clinton van der Merwe	Dr Cheryl Chamberlain
Maxine Joubert	MSc	Prof Chris Curtis	
Aobakwe Lenkwe	MSc	Prof Chris Curtis	

Emmah Mandishona	MSc	Prof Jasper Knight	
Penelope Mkhondo	MSc	Prof Danny Simatele	
Sumayya Mohammed	MSc	Prof Teresa Dirsuweit	
Popopo Mohlala	MSc	Dr Alex Wafer	Dr Sonwabile Mnwana
Jandira Morais	MSc	Dr Alex Wafer	
Sarah Roffe	MSc	Dr Raeesa Moolla	Prof Fethi Ahmed
Maite Sekhwela	MSc	Dr Melanie Samson	
Mercia Southon	MSc	Dr Clinton van der Merwe	Dr Cheryl Chamberlain
Ashley Warner	MSc	Prof Stefan Grab	Dr Dave Thompson

Master Dissertations of limited scope completed in 2016-17:

Student's Name	Qualification	Supervisor	Co-supervisor
Paul Ajayi	MSc CWRR GIS & RS	Dr Stefania Merlo	Dr Ingrid Watson
Freddy Bangelesa	MSc CWRR GIS & RS	Dr Elhadi Adam	
Yingisani Chabalala	MSc CWRR GIS & RS	Dr Elhadi Adam	Dr Oumar Zakariyyaa
Dzidzai Chemhere	MSc CWRR GIS & RS	Prof Fethi Ahmed	
Spencer Johnson	MSc CWRR GIS & RS	Dr Stefania Merlo	
Sibongile Madela	MSc CWRR GIS & RS	Dr Stefania Merlo	
Isabel Mbewe	MSc CWRR Environ. Science	Prof Chris Curtis	
Vuledzani Munyai	MSc CWRR GIS & RS	Dr Elhadi Adam	Dr Stefania Merlo
Calvin Opiti	MSc CWRR GIS & RS	Dr Stefania Merlo	Prof Frederick Cawood
Lungile Selani	MSc CWRR GIS & RS	Dr Elhadi Adam	
Jacobus Strydom	MSc CWRR GIS & RS	Dr Stefania Merlo	

PhD Theses completed in 2016-17:

Student's Name	Qualification	Supervisor	Co-supervisor
Simpiwe Chabalala	PhD	Prof Danny Simatele	
Alessandro Craparo	PhD	Prof Stefan Grab	
Eromose Ebhuoma	PhD	Prof Danny Simatele	
Henry Bikwibili	PhD	Prof Danny Simatele	
Rakhee Lakraj-Govender	PhD	Prof Stefan Grab	

Short description of the curriculum presented in 2017:

Undergraduate (NQF levels 5, 6 and 7):

First Year - GEOG1000 (full year course):

Block 1: Environmental Change (Dr Jennifer Fitchett)

Block 2: Landscapes of Southern Africa (Prof Jasper Knight)

Block 3: Space and Society (Dr Melanie Samson and Dr Siân Butcher)

Block 4: Atmospheric Science (Dr Mary Evans)

Second Year – 4 compulsory courses in 2017

GEOG2015 Thinking Geographically: Concepts & Practices in Human Geography (Dr Alex Wafer)

GEOG2013 Geographic Information Systems, Science & Mapping (Dr Stefania Merlo)

GEOG2010 Earth and Atmospheric Processes (Prof Stefan Grab, Dr Mary Evans and Dr Raeesa Moolla)

GEOG2012 Environmental Governance (Prof Danny Simatele & Prof Jasper Knight)

Third Year – choose 4 options (1 from each block)

Block 1: GEOG3021 Advanced Atmospheric Science (Dr Jennifer Fitchett)

GEOG3023 Sustainability (Prof Danny Simatele)

Block 2: GEOG3017 GIS and Remote Sensing (Dr Elhadi Adam)

GEOG3025 Urban Futures: Political Economy of Population & Scarcity (Dr Alex Wafer)

Block 3: GEOG3024 Environmental Monitoring & Modelling (Prof Chris Curtis)

GEOG3026 Food: Security, Politics and Culture (Dr Siân Butcher)

Block 4: GEOG3020 Climate and Environmental Change (Prof Stefan Grab)

GEOG3019 Economic Geography (Dr Melanie Samson)

Options have been reintroduced for the second semester of second year for 2018, and the third year options are now offered in different timetable slots.

Postgraduate (NQF levels 8-10):

BSc and BA Honours (NQF level 8)

The Geography Honours Programme involves two compulsory courses and three optional courses

Compulsory Course:

GEOG4038 Research Project

GEOG4032 Advanced Research Methods

Optional Courses:

GEOG4015 Geographic Information Systems (Dr Stefania Merlo)

GEOG4033 Advanced GIS and Remote Sensing (Dr Elhadi Adam)

GEOG4034 Environmental Management: Water Challenges in South Africa (Prof Chris Curtis)

GEOG4037 Environmental Policy and Practice (Prof Danny Simatele)

GEOG4039 Local and Regional Economic Development (Dr Siân Butcher)

GEOG4040 Chemistry in the Global Atmosphere Climate Change (Dr Jennifer Fitchett)

GEOG4035 Environmental Geomorphology and Geohazards (Prof Jasper Knight)

GEOG4042 Air Pollution and Synoptic Climatology (Dr Raeesa Moolla and Prof Fethi Ahmed)

GEOG4043 Integrated Environmental Management (Dr Melanie Samson)

MSc by Coursework and Research Report in the Field of GIS and Remote Sensing (NQF level 9)

1 year full time

Contact person: Dr Stefania Merlo (Stefania.Merlo@wits.ac.za)

MSc or MA in Geography by Dissertation (NQF level 9)

1 year full time or two years part time

Contact person: Prof Danny Simatele (Danny.Simatele@wits.ac.za)

PhD in Geography (NQF level 10)

2 years full time or 4 years part time

Contact person: Prof Danny Simatele (Danny.Simatele@wits.ac.za)

Student Numbers (2015-16):

Level	2016	2017
First year	232	220
Second year	94	83
Third year	97	67
Honours	65	46
Masters (Course Work & Research Report)	16	16
Masters (Research)		42
Doctoral		50

QS World Rankings

QS World University Rankings 2016: Wits Geography again in the world's top 100 geography departments.

Name and contact details of the Wits SSAG person for any further (and future) information: Dr Alex Wafer (alex.wafer@wits.ac.za)

Nelson Mandela University: Department of Geosciences

Head/Chair of Department: Dr AH de Wit

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr de Wit AH	Environmental Management	<i>Anton.dewit@mandela.ac.za</i>	41 4 2498

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr de Wit AH	HOD	Environmental Management	<i>Anton.Dewit@mandela.ac.za</i>	041 504 2498
Prof Kakembo V	Prof	Physical Geography	<i>Vincent.Kakembo@mandela.ac.za</i>	041 504 4516
Mrs Williams L	Lecturer	Human Geography	<i>Leizel.Williams-Bruinders@mandela.ac.za</i>	041 504 4367
Dr Britz W	Lecturer	GIS	<i>Wilma.Britz@mandela.ac.za</i>	041 504 2432
Dr Webb NL	Principal Lecturer	Human Geography	<i>Nigel.Webb@mandela.ac.za</i>	041 504 2028
Prof AJ Christopher	Prof (Research Associate)	Human Geography	<i>AJ.Christopher@mandela.ac.za</i>	041 504 2355

Professional and support staff

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Mrs Goldman Z	Departmental Secretary		<i>Zelna.Goldman@mandela.ac.za</i>	041 504 2325

Departmental News

Dr N.L. Webb retires at the end of 2017

Dr P.Q. Siyongwane resigned in order to join the University of Mpumalanga

2016-17 dated publications:

Manjoro, M, Rowntree, K.M., Kakembo, V., Foster, I. and Collins, A.L. (2017). Use of sediment source fingerprinting to assess the role of subsurface erosion in the supply of fine sediment in a degraded catchment in the Eastern Cape, South Africa. *Journal of Environmental Management*, 194, 27- 41. [http://dx.doi.org/ 10.1016/j.jenvman.2016.07.019](http://dx.doi.org/10.1016/j.jenvman.2016.07.019).

Barasa, B., Kakembo, V., Mwololo W. T and Laban, M. 2017: Effects of heterogeneous land use/cover types on river channel morphology in the Solo River catchment, Eastern Uganda. *Geocarto International*, 32 (2), 155-166. <http://dx.doi.org/10.1080/10106049.2015.1132480>.

Zengeni, R. and Kakembo, V. 2017. ^{13}C and ^{15}N isotope ratios in Leptosols of thicket ecosystems in South Africa. *Geoderma Regional*, 1, 113 – 122. doi: : 10.1016/j.geodrs.2017.08.006.

Grothmann, T., Petzold, M., Ndaki, P., Kakembo, V., Siebenhner, B., Kleyer, M., Yanda, P. and Ndou N. (2017). Vulnerability assessment in African Villages under conditions of land use and climate change: Case studies from Mkomazi and Keiskamma. *Sustainability*, 9 (976), 1-30.

Jjagwe, A., Kakembo, V. and Barasa, B. (2017). An assessment of the spatial and temporal changes of Mabira tropical forest reserve and its environs, Central Uganda. *Journal of Institutes of Development Studies*, 15, (1&2), 32-52.

Christopher, A.J. (2016). The debate on the future of the population census: relevance for South Africa? *Development Southern Africa* 33, 600-612.

Christopher, A.J. (2016). Exploring a statistical treasure trove: the Commonwealth censuses, *Arab World Geographer* 19, 38-44.

Christopher, A.J. (2017). Statistics as news: South African newspapers and the release of Community Survey 2016, *African Journalism Studies* 38(1), 85-103.

Barakagira, A. and A.H. de Wit, 2017. Community livelihood activities as key determinants for community based conservation of wetlands in Uganda. *Environmental & Socio-economic Studies*, 5 (1), 11-24.

Giddy, J.K. and Webb, N.L. 2016. The influence of the environment on motivations to participate in adventure tourism: The case of the Tsitsikamma. *South African Geographical Journal*, 98 (2), 351-366.

Britz, H.W. and Webb, P. 2016. 2016. The effect of an intervention using GIS-generated geo-spatial data on the promotion of spatial cognition and spatial perspective taking in grade 11 learners. *South African Geographical Journal*, 98 (1), 182 -193.

Siyongwana, P.Q. 2017. Interrogating the post-apartheid socio-economic transformation in Mdantsane, Buffalo City. *Geojournal*, 82 (4), 735-750.

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Zuze, H. <u>and</u> A.H. de Wit	GIS and the Selection of Solid Waste Landfill Sites in the Nelson Mandela Bay Metro	Oral presentation	18 October 2017	KZN LAW TIG Landfill 2017 Seminar

Student Numbers 2016-17:

Level	2016	2017
First year	118	135
Second year	70	76
Third year	66	69
Honours	32	22
Masters	5	7
Doctoral	6	7

University of Pretoria: Geography, Geoinformatics and Meteorology

Head/Chair of Department: Professor Paul Sumner

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Professor Paul Sumner	Geomorphology	paul.sumner@up.ac.za	+27124203536

Geographers in the Department

Title	Surname	Name / Initial	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Ms	Booyesen	Ingrid	Senior Cartographer	Geoinformation and mapping	<i>Ingrid.Booyesen@up.ac.za</i>	012 420 8262
Dr	Botai	OJ	Extraordinary Lecturer	Meteorology	<i>Joel.botai@weathersa.co.za</i>	012 367 6070
Prof	Breetzke	Gregory	Associate Professor	Geography of crime (GIS)	<i>greg.breetzke@up.ac.za</i>	012 420 4318
Prof	Coetzee	Serena	Associate professor, Director: GIS	Geoinformation Science	<i>Serena.coetzee@up.ac.za</i>	012 420 3823
Prof	Combrinck	Ludwig	Extraordinary Professor	Geoinformatics (Geodesy)	<i>ludwig@hartrao.ac.za</i>	012 301 3224
Dr	Darkey	Daniel	Senior Lecturer	Geography	<i>Daniel.darkey@up.ac.za</i>	012 420 3710
Dr	Cooper	Anthony	Extraordinary Lecturer	Geoinformatics	<i>acooper@csir.co.za</i>	012 841 4121
Dr	Wessels	Konrad	Extraordinary Lecturer	Geoinformatics	<i>KWessels@csir.co.za</i>	012 841 3100
Dr	van Gils	Hein	Extraordinary Lecturer	Environmental Ecology/Assessment; GIS	<i>vangils@t-online.de</i>	
Dr	Schmitz	Peter	Extraordinary Lecturer	Geoinformatics	<i>pschmitz@csir.co.za</i>	012 481 3841
Dr	Davis	Nerhene	Lecturer	Human geography	<i>Nerhene.davis@up.ac.za</i>	012 420 2882
Prof	Djolv	George	Extraordinary Professor	Meteorology	<i>George.djolv@up.ac.za</i>	012 420 2489
Dr	Dyson	Liesl	Senior Lecturer	Meteorology	<i>Liesl.dyson@up.ac.za</i>	012 420 2469
Mr	Esterhuizen	Joos	Lecturer	Geoinformatics (surveying)	<i>Joos.esterhuizen@up.ac.za</i>	012 420 4172
Prof	Hall	KJ	Extraordinary Professor	Geomorphology	<i>Kevin.Hall@unbc.ca</i>	(250) 960-5864
Ms	Hansen	CD	Part-time Lecturer	Geomorphology	<i>christeldhansen@gmail.com</i>	0827337666
Dr	Haussman	Natalie	Senior lecturer	Bio-geomorphology	<i>Natalie.haussmann@up.ac.za</i>	012 420 4049
Dr	Jordaan	Winifred	Extraordinary Lecturer	Meteorology	<i>winifred.jordaan@weathersa.co.za</i>	012 367 6000
Mr	Kruger	Kruger	Extraordinary	Meteorology	<i>Andries.kruger@weathers</i>	

Title	Surname	Name / Initial	Rank/Position	Area of specialisation	E-mail	Office Telephone number
			Lecturer		<i>a.co.za</i>	
Prof Mr	Landman	Willem	Professor	Meteorology	<i>Willem.landman@up.ac.za</i>	012 420 3713
	Loubser	Michael	Lecturer	Geomorphology	<i>michael.loubser@up.ac.za</i>	N/A
Dr	Mathieu	Renaud	Extraordinary Lecturer	Geoinformatics (Remote Sensing)	<i>rmathieu@csir.co.za</i>	012 841 4089
Mr	Munghemezulu	Cilence	Lecturer	Geoinformatics	<i>Cilence.munghemezulu@up.ac.za</i>	012 420 2170
Dr	Ndarana	T	Senior Lecturer	Meteorology	<i>thando.ndarana@up.ac.za</i>	012 420 5164
Dr	Nsubuga	FWN	Lecturer		<i>Francis.Nsubuga@up.ac.za</i>	012 420 2532
Prof	Olivier	Jana	Extraordinary Professor	Meteorology	<i>jana1@mweb.co.za</i>	
Dr	Olwoch	Jane	Extraordinary Lecturer	Climate change and environmental health	<i>jolwoch@sansa.org.za</i>	
Dr	Rautenbach	Victoria	Lecturer	Geoinformatics	<i>victoria.rautenbach@up.ac.za</i>	012 420 3489
Dr	Shongwe	ME	Extraordinary Lecturer	Meteorology		
Mr	Tsela	Philemon	Lecturer	Geoinformatics	<i>Philemon.tsela@up.ac.za</i>	012 420 4939
Mr	van der Merwe	Barend	Lecturer	Geography/ Environmental Science	<i>Barend.vandermerwe@up.ac.za</i>	012 420 3699
Dr	Wright	Caradee	Extraordinary Lecturer	Public health/ Geography	<i>cwright@mrc.ac.za</i>	012 339 8543

Professional and support staff

Title	Surname	Name	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Ms	Celliers	MA	Department administrator	Administration CFES	<i>mcilliers@zoology.up.ac.za</i>	12 420 4048
Mrs	Mahlangu	Popi	Lab Assistant		<i>Popi.mahlangu@up.ac.za</i>	012 420 2990
Mrs	Ngcongco	Lunga	Departmental administration	Administration and Student Enquiries	<i>Lunga.ngcongco@up.ac.za</i>	012 420 3536
Ms	Pretorius	Erica	Senior technical assistant	GIS support	<i>Erika.pretorius@up.ac.za</i>	012 420 3737
Mrs	Van Aardt	Corne	Departmental Coordinator	Administration and Finances	<i>Corne.vanaardt@up.ac.za</i>	012 420 2489

Departmental News

2017 Guest Lecture Series held by the Centre for Geoinformation Science in the Department

The Centre for Geoinformation Science held a guest lecture series in 2017. There were six lectures and seven lectures held in the first and second semesters, respectively. Topics presented by various guests included, for example, 'Spurring a transformation for land degradation, drought and desertification monitoring in South Africa: a synthesis for the UNCCD framework' and 'The role of open data and civic technology in promoting democracy in action'.

Women's Day celebration in the Department

During the month of August, which also Anti-Discrimination Month at the University of Pretoria (UP), we joined South Africa in commemorating the Women's March to Pretoria on 9 August 1956. In line with this broader institutional initiative, the Physical Science cluster at UP consisting of the departments of Geography, Geo-informatics and Meteorology, Chemistry, Physics and Geology felt that women's contribution to science in particular should be celebrated. To this end we organised and hosted a *Women in Science* half-day seminar series on Thursday 31 August 2017 from 09:30-12:15 where insightful presentations by female scientists who reflected on their career journeys and women's positioning in science were presented.

Participation in the 2017 BRICS Futures Summer school, Russia, Ekaterinburg

Nerhene Davis and three of our current postgraduate students; Ms Pheladi Tlhatlha, Mr Mzukisi Kuse and Ms Anzel Swart were invited to form part of this initiative. The Summer school was hosted by the Ural Federal University of Yekaterinburg from the 9th-13th April 2017 and the programme included formal lecture sessions, a bus tour of the Yekaterinburg area and a visit to the Yeltsin Centre to ensure the "real Russia" experience. The programme concluded with a culture evening which was used to showcase the diversity of BRICS participating country members and the South African delegation used the opportunity to represent the South African culture which was received very enthusiastically by fellow workshop participants. Nerhene Davis also presented a lecture entitled: *Sustainable Urban and Human Development issue to consider for the BRICS 2013 vision*.



Dr Nerhene Davis, Ms Anzel Swart, Ms Pheladi Tlhatlha & Mr Mzukisi Kuse representing UP at the BRICS Futures Summer School, 9th-13th April, 2017, Russia. Photo: Ural Federal University.

2017 Winter School - Participatory Sensing in Alaska

From 23 July to 5 August 2017, the Centre for Geoinformation Science at the University of Pretoria (UP) hosted the 2017 Winter School on Participatory Sensing as part of the GEOMATICS & PARTICIPATION project between the Karlsruhe University of Applied Sciences (HsKA) in Germany and the University of Pretoria. The project is funded by the Baden-Württemberg Stiftung under its programme Baden-Württemberg-STIPENDIUM for university students – BWS plus and aims to bring students from the technology and innovation region Baden-Württemberg together with students from South Africa so that they can benefit from experience and knowledge regarding real-time geomatics at the two institutions. In 2016, an MoU was signed between the two universities. The 2017 Winter School was officially declared open by Dr Lisette Andreae, Head of Science and Education at the German Embassy in Pretoria, and by Prof Lubuma, Dean of the Faculty of Natural and Agricultural Sciences.



The Opening Ceremony with Dr Lisette Andreae, Head of Science and Education, German Embassy, Pretoria; Prof Lubuma, Dean: Faculty of Natural and Agricultural Sciences, University of Pretoria; Prof. Dr.-Ing. Gertrud Schaab, Faculty of Information Management and Media, Karlsruhe University of Applied Sciences, Germany; and Prof Serena Coetzee, Director: Centre for Geoinformation Science, University of Pretoria (Photo: Martie Meyer)



Left: Alaska informal settlement; Right: students test the mobile map apps during a visit to Alaska. (Photos: Gertrud Schaab)

Seven students from the Karlsruhe University of Applied Sciences visited the University of Pretoria from 23 July to 5 August for the 2017 Winter School, Geomatics and Participation. From the UP side, seven BScHons Geoinformatics students associated with the Centre for Geoinformation Science participated in the winter school. On the first evening, the guests were welcomed in South Africa with beers and burgers at Capital Craft. From the start, the students from the two universities engaged in lively discussions, not only about geoinformatics, but also food and music preferences from the many different backgrounds made up a large part of the discussions.

The programme of the winter school introduced the participants to the Alaska informal settlement on the outskirts of Mamelodi and to participatory mobile map applications. In

addition, a number of presentations provided some theoretical background: Dr Carin Combrinck from the UP Department of Architecture inspired the students about in-situ upgrades of informal settlements and townships; her Honours students presented the maps that they use for their urban design projects in Mamelodi; Nina Honiball from the UP Department of Family Medicine shared her experiences about participatory mapping with community health workers in the City of Tshwane; Dr Nerhene Davis from the Department introduced the students to the challenges of developing cities; and Derrick Kotze from mLabs guided them on the development of participatory mobile map applications.

The students developed three mobile apps. With the first app users can map locations of environmental hazards, such as open wiring; the second app records locations of community gathering points, useful for planning upgrades in a settlement; and the third app, a panic button, tells the community where to respond in the case of an emergency. Only open source software was used, amongst others, PostgreSQL with PostGIS, Geoserver, Leaflet API and Cordova. The students gained some real-life experiences that will prepare them for their life as geoinformatics professionals: to coordinate work in teams, the harsh reality of life in an informal settlement and how geoinformatics applications can help those in need.

MOU signed between the Department and the South African Weather Service

The Department works closely with the South African Weather Service where training and research collaboration continues. This year, an MOU was signed between the Department and the South African Weather Service.

SAAG Pre-Conference field trip

The University of Pretoria and University of Swaziland hosted the Southern African Association of Geomorphologists Preconference excursion in July 2017. Approximately 30 delegates from eight universities toured with Paul Sumner and Heinz Beckedahl from the KZN Drakensberg to the KZN north coast. The excursion centred on presentations by honours and masters projects either completed or ongoing along the route. These included aspects of mountain geomorphology, drought, catchment and coastal dynamics. In northern KZN the group was also introduced to erosion issues near Ulundi on route to the start of the conference at the University of Swaziland.

January 2016- October 2017 dated publications:

2017

Archer ERM, **Landman WA**, Tadross MA, Malherbe J, Weepener H, Maluleke P and Marumbwa FM (2017) Understanding the Evolution of the 2014–2016 Summer Rainfall Seasons in Southern Africa: Key Lessons, *Climate Risk Management*, 16, 22–28.

Arnold K, Le Roux A and Hattingh M (2017) Impact of Gautrain Stations on Property Prices and Sales Activity in the City of Johannesburg between 2006 and 2015, *South African Journal of Geomatics*, 6, 184.

- Bean TA, **Sumner PD**, Boojhawon R, Tatayah V, Khadun AK, Hedding DW, Rughooputh SDDV and Nel W (2017) Bedrock-Incised Gully Erosion Phenomena on Round Island, Mauritius, *Catena*, 151, 107–117.
- Breetzke GD**, King M and Fabris-Rotelli I (2016) The Impact of the Canterbury Earthquakes on the Temporal and Spatial Patterning of Crime in Christchurch, New Zealand, *Australian & New Zealand Journal of Criminology*. In press.
- Breetzke GD** (2017) The Importance of Space and Time in Aggravated Assault Victimization, *Journal of Interpersonal Violence*, 88626051770496.
- Breetzke GD** and Pearson AL (2017) The Spatial Patterning of Alcohol Outlets in Post-Disaster Christchurch, New Zealand: Practical and Policy Implications, *Urban Policy and Research*, 1146, 1–15.
- Dai L, Palombo C, **van Gils H**, Rossiter DG, Tognetti R, Dai L, Palombo C, Rossiter DG, Tognetti R and Luo G (2017) Pinus Mugo Krummholz Dynamics During Concomitant Change in Pastoralism and Climate in the Central Apennines, *Mountain Research and Development*, 37, 75–86.
- Darkey D** and Mushili B M (2017) 'Implications of climate variability on artisanal fishing in the kafue flats of Zambia', *PONTE International Scientific Research Journal*, 73, 67–97.
- Diffey BL, Norval M, Albers PN and **Wright CY** (2017) The Influence of HIV Infection on the Age Dependence of Squamous Cell Carcinoma of the Skin in South Africa, *South African Medical Journal*, 107, 127.
- Engelbrecht CJ**, **Landman WA**, Graham R and McLean P (2017) Seasonal Predictive Skill of Intraseasonal Synoptic Type Variability over the Cape South Coast of South Africa by Making Use of the Met Office Global Seasonal Forecast System 5, *International Journal of Climatology*, 37, 1998–2012.
- Hausmann NS** (2017) Soil movement by burrowing mammals: a review comparing excavation size and rate to body mass of excavators, *Progress in Physical Geography*, 41, 29–45.
- Isioye OA**, **Combrinck L** and **Botai JO** (2017) Retrieval and Analysis of Precipitable Water Vapour Based on GNSS, AIRS, and Reanalysis Models over Nigeria, *International Journal of Remote Sensing*, 38, 5710–5735.
- Katumba S** and **Coetzee S** (2017) Employing Search Engine Optimization (SEO) Techniques for Improving the Discovery of Geospatial Resources on the Web, *ISPRS International Journal of Geo-Information*, 6, 284.
- Kruger AC** and Nxumalo MP (2017) Historical Rainfall Trends in South Africa: 1921 – 2015, *Water SA*, 43, 285–297.
- Kunda-Wamuwi CF**, Babalola FD and Chirwa PW (2017) Investigating Factors Responsible for Farmers' Abandonment of *Jatropha Curcas* L. as Bioenergy Crop under Smallholder out-Grower Schemes in Chibombo District, Zambia, *Energy Policy*, 110, 62–68.

- Kunene Z, Albers PN, Lucas RM, Banwell C, Mathee A and **Wright CY** (2017) My Child Did Not like Using Sun Protection': Practices and Perceptions of Child Sun Protection among Rural Black African Mothers, *BMC Public Health*, 17, 1–8.
- Louw MA, le Roux, PC, Meyer-Milne E and **Hausmann NS** (2017) Mammal Burrowing in Discrete Landscape Patches Further Increases Soil and Vegetation Heterogeneity in an Arid Environment, *Journal of Arid Environments*, 141, 68–75.
- Mafanya M, Tsele P, Botai J**, Manyama P, Swart B and Monate T (2017) Evaluating Pixel and Object Based Image Classification Techniques for Mapping Plant Invasions from UAV Derived Aerial Imagery: *Harrisia Pomanensis* as a Case Study, *ISPRS Journal of Photogrammetry and Remote Sensing*, 129, 1–11.
- Mararakanye N and **Sumner PD** (2017) Gully Erosion: A Comparison of Contributing Factors in Two Catchments in South Africa, *Geomorphology*, 288, 99–110.
- Mubanga KH and **Ferguson W** (2017) Threats to Food Sufficiency among Smallholder Farmers in Choma, Zambia, *Food Security*, 9, 745–758.
- Rautenbach V, Coetzee S** and Çöltekin A (2017) Development and Evaluation of a Specialized Task Taxonomy for Spatial Planning – A Map Literacy Experiment with Topographic Maps, *ISPRS Journal of Photogrammetry and Remote Sensing*, 127, 16–26.
- Sangeetha SK, Sivakumar V, Josipovic M, Gebreslasie M. and **Wright CY** (2017) SO₂ Seasonal Variation and Assessment of Ozone Monitoring Instrument (OMI) Measurements at Sharpeville (27.86°E; 26.68°S) a South African Ground-Based Station, *International Journal of Remote Sensing*, 38, 6680–6696.
- Schlegel RW, Oliver ECJ, Perkins-Kirkpatrick S, **Kruger A** and Smit AJ (2017) Predominant Atmospheric and Oceanic Patterns during Coastal Marine Heatwaves, *Frontiers in Marine Science*, 4, 1–15.
- Singh J and **Kruger A** (2017) Is the Summer Season Losing Potential for Solar Energy Applications in South Africa? *Journal of Energy in Southern Africa*, 28, 52.
- Sinvula KM, Coetzee S, Cooper AK**, Owusu W, Nangolo E, **Rautenbach V** and Hipondoka M (2017) A Comparative Analysis of Stakeholder Roles in the Spatial Data Infrastructures of South Africa, Namibia and Ghana, *International Journal of Spatial Data Infrastructures Research*, 12, 1–25.
- Sumner, P.D.** and Beckedahl, H.R. (2017). Drakensberg and KZN north coast. *Field guide for the SAAG Preconference Excursion 22-25 July 2017* (Eds), 48pp
- van der Hoven, C., Ubomba-Jaswa, E., **van der Merwe, B.**, Loubser, M. & Abia, A.L.K. 2017: The impact of various land uses on the microbial and physicochemical quality of surface water bodies in developing countries: Prioritisation of water resources management areas, *Environmental Nanotechnology, Monitoring & Management* 8, 280 - 289.
- Wright CY**, Dominick F, Kunene Z, Kapwata T and Street RA (2017) Bibliometric Trends of South African Environmental Health Articles between 1998 and 2015: Making Local Research Visible and Retrievable, *South African medical journal*, 107, 915–924.

- Wright CY**, Reddy T, Mathee A and Street RA (2017) Sun Exposure, Sun-Related Symptoms, and Sun Protection Practices in an African Informal Traditional Medicines Market, *International Journal of Environmental Research and Public Health*, 14, 1–7.
- Wright CY**, Albers PN, Mathee A, Kunene Z, D'Este C, Swaminathan A and Lucas RM (2017) Sun Protection to Improve Vaccine Effectiveness in Children in a High Ambient Ultraviolet Radiation and Rural Environment: An Intervention Study, *BMC public health*, 17, 37.
- Wright CY**, Ramotsehoa M, du Plessis J, Wittlich M and Peters C (2017) Solar UV Radiation-Induced Non-Melanoma Skin Cancer as an Occupational Reportable Disease : International Experience to Inform South Africa, *Occupational Health South Africa*, 23, 2–9.
- Wright CY**, Albers PN, Reeder AI and Mathee A (2017) Sunbeds and Skin Cancer Risk: Quantifying a Baseline Estimate of Sunbed Facilities in South Africa prior to Implementation of Sunbed Regulations, *Pan African Medical Journal*, 26, 1–11.
- Wright CY**, Street R, Cele N, Kunene Z, Balakrishna Y, Albers P and Mathee A (2017) Indoor Temperatures in Patient Waiting Rooms in Eight Rural Primary Health Care Centers in Northern South Africa and the Related Potential Risks to Human Health and Wellbeing, *International Journal of Environmental Research and Public Health*, 14, 43.
- York K, Dlova NC, **Wright CY**, Khumalo NP, Kellett P, Kassanje R and Mosam A (2017) Primary Cutaneous Malignancies in the Northern Cape Province of South Africa: A Retrospective Histopathological Review, *South African Medical Journal*, 107, 83–88.

2016

- Ayeni A, Cho A, **Mathieu R** and Adegoke J (2016) The local experts' perception of environmental change and its impacts on surface water in Southwestern Nigeria. *Environmental Development*, 17, 33-47.
- Beraki AF, **Landman WA**, DeWitt D and Olivier C (2016) Global dynamical forecasting system conditioned to robust initial and boundary forcings: seasonal context. *International Journal of Climatology*, 36, 4455-4474.
- Bidassey-Manilal S, **Wright CY**, Engelbrecht JC, Albers PN, Garland RM and Matooane M (2016) Students' perceived heat-health symptoms increased with warmer temperatures. *Int J Environ Res Public Health*, 13, 566.
- Blesic S, Stratimirovic DI, Ajtic J, **Wright CY** and Allen MW (2016) Novel approach to analysing large data sets of personal sun exposure measurements. *J Exp Science and Env Epidemiology*, 00 1-8.
- Breetzke, G.** (2016) Examining the spatial periodicity of crime in South Africa using Fourier analysis *South African Geographical Journal.*, 98, 275-288.
- Du Rand G and **Booyesen I** (2016) Culinary mapping and tourism development in South Africa's Karoo region. *African Journal of Hospitality, Tourism and Leisure* 54.

- Engelbrecht C.J and **Landman WA** (2016) Interannual variability of seasonal rainfall over the Cape south coast of South Africa and synoptic type association. *Climate Dynamics*, 47, 295-313
- Fairhurst, U.J., Hattingh, P.S., Sumner,P.D. and Booyesen, I.** (2016). A history of Geography at the University of Pretoria. In Visser, G., Donaldson, R. and Seethal, C. (eds). *The origin and growth of Geography as a discipline at South African Universities*, Sun: Stellenbosch, pp 33-54.
- Gordon L, Elliott T, **Wright CY**, Deghaye N and Visser W (2016) Modelling the healthcare costs of skin cancer in South Africa. *BMC Public Health*, 16, 1-9.
- Hausmann NS** (2016) Soil movement by burrowing mammals: a review comparing excavation size and rate along body size gradients. *Progress in Physical Geography*.
- Hausmann NS**, Kalwij JM and Bezuidenhout S (2016) Some ecological side-effects of chemical and physical bush clearing in a southern African rangeland ecosystem. *South African Journal of Botany*, 102, 234-239.
- Hedding DW, **Hansen CD**, Nel W, **Loubser M**, le Roux JJ and Meiklejohn KI (2016) Rock Mass Loss on a Nunatak in Western Dronning Maud Land, Antarctica. *Antarctic and Alpine Research*, 48, 1-8.
- Henrico I, **Combrinck L** and Eloff C (2016) Accuracy comparison of Pléiades satellite ortho-images using GPS device based GCPs against TerraSAR-X-based GCPs. *South African Journal of Geomatics (formerly South African Journal of Surveying and GeoInformation)*, 5, 358-372.
- Hlela SBP, **Coetzee SM** and **Cooper A** (2016) Evaluating a Public Sector Organisation for SDI Readiness – The Case of a South African Government Department. *South African Journal of Geomatics (formerly South African Journal of Surveying and Geo-Information)*, 5, 95-117.
- Inkepe R and **Hall KJ** (2016) Using morphospaces to understand tafoni development. *GEOMORPHOLOGY*, 261, 193-199.
- Kaszta Z, Van De Kerchove R, Ramoelo A, Cho A, Modonsela S, **Mathieu R** and Wolff E (2016) Seasonal Separation of African Savanna Components Using Worldview-2 Imagery: A Comparison of Pixel-and Object-Based Approaches and Selected Classification Algorithms. *Remote Sensing*, 8, 1-19.
- Louw MA, le Roux PC and **Hausmann NS** (2016) Effects of ecosystem engineers in arid environments on soil and vegetation. . *South African Journal of Botany* 103, 322.
- Lucas R, Norval M and **Wright CY** (2016) Harmful health consequences of solar ultraviolet radiation and photoprotection in Africa: a systematic review. *Photochemical and Photobiological Sciences*, 15, 10-23.
- Lucas R, Norval M and **Wright CY** (2016) Solar ultraviolet radiation in Africa: a systematic review and critical evaluation of the health risks and use of photoprotection. *Photochemical and Photobiological Sciences*, 15, 10-23.

- Main RS, **Mathieu R**, Kleynhans W, Wessels KJ, Naidoo L and Asner G (2016) Hyper-Temporal C-Band SAR for Baseline Woody Structural Assessments in Deciduous Savannas. *Remote Sensing*, 8.
- Mashaba ZO, Chirima G, **Botai OJ**, **Combrinck L** and **Munghemezulu C** (2016a) Evaluating spectral indices for winter wheat health status monitoring in Bloemfontein using Lsat 8 data. *South African Journal of Geomatics (formelry South African Journal of Surveying and GeoInformation)*, 5, 227-243.
- Mashaba ZO, **Combrinck L**, **Botai OJ**, **Munghemezulu C** and Botha R (2016b) Design of a web-based GNSS data management system at HartRAO: preliminary results. *South African Journal Of Geology.*, 119, 117-124.
- Muchuru S, **Botai JO**, Botai CM, **Landman WA** and Adeola AM (2016a) Variability of rainfall over Lake Kariba catchment area in the Zambezi river basin, Zimbabwe. *Theoretical and Applied Climatology* 124, 325-338.
- Muchuru S, **Landman WA** and DeWitt D (2016b) Prediction of inflows into Lake Kariba using a combination of physical and empirical models. *International Journal of Climatology.*, 36, 2570 - 2581.
- Mufwaya C, Muchuru. S. (2016) Spatial and temporal characteristics of rainfall in a data-scarce region: case of Kinshasa and Bas-Congo in Democratic Republic of Congo. *Hydrological Sciences Journal-Journal Des Sciences Hydrologiques*, 61 2024-2032.
- Munghemezulu C**, **Combrinck L**, **Botai OJ** and Mashaba ZO (2016a) Mapping GPS multipath: a case study for the lunar laser ranger timing antenna at HartRAO. *South African Journal of Geomatics (formelry South African Journal of Surveying and Geo-Information)*, 5, 142-155.
- Munghemezulu C**, **Combrinck L**, **Botai OJ** and Quick J (2016b) Analysis of the performance of hydrogen maser clocks at the Hartebeesthoek Radio Astronomy Observatory. *South African Journal of Geomatics (formelry South African Journal of Surveying and GeoInformation)*, 5, 325-339.
- Munghemezulu C**, **Combrinck WL**, **Botai J** and Botha R (2016c) Design of the timing system for the new Lunar Laser Ranger proposed for the Matjiesfontein Space Geodetic Observatory in the Great Karoo, South Africa: preliminary results. *South African Journal Of Geology*, 119, 91-98.
- Naidoo L, **Mathieu R**, Main RS, Wessels KJ and Asner G (2016) L-band Synthetic Aperture Radar imagery performs better than optical datasets at retrieving woody fractional cover in deciduous, dry savannahs. *International Journal of Applied Earth Observation and Geoinformation*, 52, 54-64.
- Nel W, Hauptfleisch A, **Sumner PD**, Boojhawon R, Rughooputh SDDV and Durmea KR (2016) Intra-event characteristics of extreme erosive rainfall on Mauritius. *Physical Geography*, 3–4, , 264–275.

- Norval M, Coussens AK, Wilkinson RJ, Bornman L, Lucas RM and **Wright CY** (2016) Vitamin D status and its consequences for health in South Africa. *Int J Environ Res Public Health*
- Ratnam JV, Behera SK, Doi T, Ratna SB and **Landman WA** (2016) Improvements to the WRF seasonal hindcasts over South Africa by bias correcting the driving SINTEX-F2v CGCM fields. *J. Journal of Climate*, 29, 2815-2829.
- Pretorius S.N., Weepener, H. L., Le Roux, J.J., Sumner, P.D. (2016). SWAT and OBIA based sediment yield analysis in the Tsitsa Catchment of the Eastern Cape Province. In Donaldson, R., Visser, G., Kemp, J. and de Waal, J. (Eds). *Proceedings of the Centenary Conference of the Society of South African Geographers*, SunMedia: Stellenbosch, pp 315-323.
- Rautenbach V, Coetzee SM** and Jooste DF (2016) Results of an evaluation of augmented reality mobile development frameworks for addresses in augmented reality. *Spatial Information Research*, 24, 211-223.
- Schmitz PMU** (2016) The Use of Supply Chains and Supply Chain Management in the Production of Forensic Maps Using Data from a Fraud Case. *South African Journal of Geomatics (formerly South African Journal of Surveying and Geo-Information)*, 5, 156-174.
- Shirvani A and **Landman WA** (2016) Seasonal precipitation forecast skill over Iran. . *International Journal of Climatology*, 36, 1887-1900.
- Stander JH, **Dyson LL** and Engelbrecht C (2016) A snow forecasting decision tree for significant snowfall over the interior of South Africa. *South African Journal Of Science*, 112, 1-10.
- Sumner P.** 2016. Mountain geomorphology of the Golden Gate Highlands National Park. *35th International Geological Congress Field Guide*, 16pp.
- Sumner, P.**, Nel, W., Boojhawon, R., Rughooputh, S., Dhurmea, J., Le Roux, J. and Anderson, R. (2016). Rainfall erosivity and soil erosion risk assessment in tropical island environments: a case study of Mauritius. In Meadows, M. and Lin, J-C. (eds) *Geomorphology and Society, Advances in Geographical and Environmental Sciences*, Springer: Japan, pp 217-230.
- Tsela PL, Combrinck L** and Ngcobo BL (2016) A spatiotemporal analysis of the effect of ambient temperatures on the thermal behaviour of the Lunar Laser Ranging optical telescope at Hartebeesthoek Radio Astronomy Observatory. *South African Journal of Geomatics (formerly South African Journal of Surveying and GeoInformation)*, 5, 373-392.
- Tsela PL, Combrinck WL**, Botha RC and Ngcobo BL (2016) A proposed mathematical model of thermal variations on the HartRAO Lunar Laser Ranging telescope for enhanced test of Earth-Moon system dynamics. *South African journal of Geology*, 119, 83-90.

Tsela PL, Combrinck WL, Botha RC and Ngcobo BL (2016) Thermal analysis of the LLR optical telescope tube assembly based in Hartebeesthoek Radio Astronomy Observatory. *Acta Geodaetica et Geophysica*, 51, 393-403.

Wessels KJ, Van den Bergh F, Roy D, Salmon B, Steenkamp K, MacAlister B, Swanepoel D and Jewitt D (2016) Rapid Land Cover Map Updates Using Change Detection and Robust Random Forest Classifiers. *Remote Sensing*, 8, 1-24.

Wright CY, Albers PN, Oosthuizen MA and Naidoo M (2016a) Geographical differences in primary schoolchildren's key sun-related behaviours: an exploratory, feasibility study. *South African Geographical Journal.*, 98, 199-216.

Wright CY, Albers PN, Reeder AI and Mathee A (2016b) Sunbeds and skin cancer risk: Quantifying a baseline estimate of sunbed facilities in South Africa prior to implementation of sunbed regulations. *Pan African Medical Journal.* 26:188.

Wright CY, Karsten A, Wilkes M, Singh A, Du Plessis J, Albers PN and Karsten P (2016c) Diffuse reflectance spectroscopy versus Mexameter® MX18 measurements of melanin and erythema in an African population. *Photochemistry and Photobiology.* 2016;92(4):632-636.

Wright CY, Reeder AI and Albers PN (2016d) Knowledge and practice of sun protection in schools in South Africa where no national sun protection programme exists. *Health Education Research.* 31(2). 247-259.

Conference Presentation in January 2016- October 2017:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference / workshop	Name of Conference/workshop
Barend van der Merwe	A bibliometric study of the role of artificial intelligence in geomorphology	Oral	25-28 July 2017	SSAG Conference 2017
Wright, CY	Working towards assessing occupational carcinogenic exposures in South Africa	Oral	28-31 August 2017	EPICOH, SCOM and MODERNET
Sumner, PD	Soil erosion on Round Island, Mauritius	Oral presentation	June 2016	IGU Geomorphology and Society Joint Commission Symposium, Taiwan
Davis, N.C.	Inclusive business models great expectations and ambiguous outcomes in the South African	Oral	25-28 Sept 2016	SSAG Centennial Conference 2016

	Land restitution context.			
Davis, N.C.	Inclusive Business Models: Ambiguity Emerging	Oral	Johannesburg, Premier Hotel, 7 October 2016.	High Level Parliamentary Round Table Discussion on Land Restitution and Land Administration.
Breetzke, G. D.	Examining neighbourhood-level resilience to crime in New Zealand	Oral	20-23 June 2016	Presentation at the 25 th Symposium on Environmental Criminology and Crime Analysis (ECCA)
Breetzke, G. D.	Drones, GIS and crime: Opportunities and challenges	Oral	17-18 November 2016	Drones Conference
Barend van der Merwe	Barchan shape as an aid to process explanation: An historical overview	Oral	25-28 Sept 2016	SSAG Centennial Conference 2016
Hansen, Loubser and Rudolph	Observations on frost mounds in the Jutulssessen, Antarctica	Poster	27/07/2016	SANAP Symposium
Tizora P , Le Roux A, Mans G, Cooper A	Understanding of land use change to model potential future land use in the Western Cape Province	Oral	4-6 July 2016	SAPI Conference 'Planning Africa 2016'
Tsela P , Combrinck L and Ngcobo B.	Prototyping a thermal monitoring system for the one-metre aperture Lunar Laser Ranger tube assembly based at the Hartebeesthoek Radio Astronomy Observatory	Oral	October 9-14, 2016	20th International Workshop on Laser Ranging, GFZ Helmholtz Centre, Potsdam, Telegrafenberg
Rautenbach V , Coetzee S and Coltekin A	Investigating the use of 3D geovisualizations for urban design in informal settlement upgrading in South Africa	Oral	12–19 July 2016	XXIII ISPRS Congress, Prague, Czech Republic
Sibolla B , van Zyl T and Coetzee S	Towards the Development of a Taxonomy for	Oral	12–19 July 2016	XXIII ISPRS Congress, Prague, Czech Republic

	Visualisation of Streamed Geospatial Data			
Rautenbach V, Coetzee S and Hankel M	Exploratory user study to evaluate the effect of street name changes on route planning using 2D maps	Poster	12–19 July 2016	XXIII ISPRS Congress, Prague, Czech Republic
Adam Iwaniak, Iwona Kaczmarek, Jaromar Łukowicz, Marek Strzelecki, Serena Coetzee , Witold Paluszyński	Semantic metadata for heterogeneous spatial planning documents	Oral	7-9 September 2016	First international conference on smart data and smart cities, Split, Croatia
Gertrud Schaab, Serena Coetzee , Christian Stern and Victoria Rautenbach	Geomatics & Participation Summer School 2016 – Developing mobile mapping apps to encourage citizen participation in nature conservation	Oral	July 2017	28th International Cartographic Conference, Washington DC, USA
Bengt Rystedt, Ferjan Ormeling, Aileen Buckley, Serena Coetzee , Vit Voženilek, David Fairbairn and Ayako Kagawa	International Map Year: Results and Implications	Oral	July 2017	28th International Cartographic Conference, Washington DC, USA

Research Master Dissertations completed in January 2016- October 2017:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Univ</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
A Hauptfleisch	Intra-storm attributes and climatology of extreme erosive events on Mauritius, 2004-2008	UP	MSc	PD Sumner	W Nel (UFH)
D Wilken	Value of classified Class F Fly ash as an ameliorant for degraded surface coal mined soils	UP	MSc	W Truter	PD Sumner
N Mararakanye	A comparative study of gully erosion contributing factors in two tertiary catchments in	UP	MSc	PD Sumner	

	Mpumalanga, South Africa				
Erika Pretorius	Analysis of vegetation structure in a trans-frontier savanna region using in-situ observation and SPOT imagery	UP	MA Geography	n/a	n/a
Adeyemi Adeniyi	Analysis of impervious surfaces and surface temperature over Tshwane metropolitan using in-situ and remotely sensed data	UP	MSc	Joel Botai (GGM) and Abel Ramoelo (CSIR)	
Nondimizo Dlamini	Investigating the characteristics of expansive soils through remote sensing and in situ measurements	UP	MSc	Joel Botai (GGM) and Moses Cho (CSIR).	
Lauren Hankel	Rapid distributed processing of medium velocity geospatial datastreams into contextualised 3D visualisations : evaluating the cloud computing paradigm	UP	MSc	Serena Coetzee (GGM) and Graeme McFerren (CSIR Meraka Institute).	
Quinton Jacobs	Evaluating human-processed forecasts provided to the aviation industry in South Africa	UP	MSc	WA Landman	
Jared Jacobson	Assessing OpenGL for 2D rendering of geospatial data		MSc	Serena Coetzee (GGM) and Derrick Kourie (Computer Science)	
Noh Tewolde	Evaluating a semantic approach to address data interoperability		MSc	Serena Coetzee	
Gareth Denis	Fur Seals as geomorphic agents on Sub-Antarctic Marion Island	UP	MSc	Natalie Haussmann	T McIntyre
Melissa Burgess	Evaluation of Fire Danger and Fire Potential Indices for South Africa: Case studies in Mpumalanga and the Western Cape	UP	MSc	Serena Coetzee	
Zinhle Olga Mashaba	Modelling dryland winter wheat yield using remotely sensed imagery and agrometeorological parameters	UP	MSc	Joel Botai	WL Combrinck & JG Chirima

Wesley Walford	Evaluating the use of neutral networks to predict river flow gauge values	UP	MSc	Serena Coetzee	
Carel Greyling	Distribution and characteristics of palaeo-mass movements in the northern and central Drakensberg, South Africa	UP	MSc	Paul Sumner	
Samy Katumba	Empirical tests using search engine optimisation techniques to compare the effectiveness of two metadata vocabularies for geospatial data discovery on the Web	UP	MSc	Serena Coetzee	
Phumzile Maluleke	Estimating a dynamically adjusted carrying capacity output for Limpopo Province using seasonal forecast and remote sensing products	UP	MSc	Willem Landman	
Steven Phakula	Modelling intra-seasonal rainfall characteristics over South Africa	UP	MSc	Willem Landman	
Anzel Swart	Assessment of the Baseline Meteorological and Air Quality Condition over Uubvlei, Oranjemund, Namibia	UP	MSc	George Djolov	Joel Botai

Master Dissertations of limited scope completed in January 2016- October 2017:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
M de Bruin	Geomorphological aspects and forensics of rhino poaching.	UP	MA	P Schmidt	PD Sumner
T Bean	Soil erosion phenomena on Round Island, Mauritius	UP	MSc	PD Sumner	R Boojhawon (Mauritius)
Mahlatse Modiba	Assessing the determinants of public participation in the EIA process	UP	MSc (Environment and Society)	Natalie Haussmann	Nerhene Davis
Julia Amukwa	Documenting and addressing power outages caused by bird nests: sociable weavers in Namibia	UP	MSc (Environment and Society)	Natalie Haussmann	Peter le Roux
Sichimwa, Clement	Co-management of tourism in Zambia: The Case of Mukuni village	UP	MSc (Environmental)	Nerhene Davis	Felicity Fairer Wessels

			Ecology)		
Muwandera, Violet	Adaptation to climate variability: Assessing the strategies of smallholder cattle farmers in the Tshwane region.	UP	MSc (Environmental Management)	Nerhene Davis	Coleen Vogel
Botha, Izelque	Determinants of environmental disposition amongst households in terms of e-waste management in the City of Tshwane. (2017)	UP	MA (Environment and Society)	Nerhene Davis	
Ericca Mokhanya.	A political ecology approach to understanding the patterns of firewood collection in Omusati Region, Namibia. (2017).	UP	MSc (Environmental Management)	Nerhene Davis	Francis Nsubuga
Suzanne van Allemann	A laboratory simulation of the potential ground water contamination associated with burial materials.	UP	MSc (Environmental management)	Matheau Dippenaar	Jana Olivier

PhD Theses completed in January 2016- October 17:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>Shepherd Muchuru</i>	<i>Predictability of seasonal rainfall and inflows for water resource management at Lake Kariba</i>	<i>University of Pretoria</i>	<i>PhD</i>	<i>WA Landman</i>	<i>OJ Botai</i>
<i>Eugene Poolman</i>	<i>A probabilistic impact-focused early warning system for flash floods in support of disaster management in South Africa</i>	<i>University of Pretoria</i>	<i>PhD</i>	<i>CJdeW Rautenbach</i>	<i>CH Vogel</i>
Christien Engelbrecht	Dynamics of climate variability over the all-year rainfall region of South Africa	University of Pretoria	PhD	WA Landman	
Asmerom Beraki	ECHAM4.5 global circulation model as a seasonal forecasting system for southern Africa: coupled vs. uncoupled	University of Pretoria	PhD	WA Landman	
Ivan Henrico	Geometric accuracy improvement of VHR satellite imagery during	University of Pretoria	PhD	WL Combrinck	

	orthorectification with the use of ground control points				
Adekunle Isioye	An investigation of Ground-Based GNSS Atmospheric Remote Sensing Techniques for Weather and Climate Monitoring in Nigeria	<i>University of Pretoria</i>	<i>PhD</i>	<i>WL Combrinck</i>	<i>RC Andrew</i>
Modest Luhunga	Evaluation of climate change impacts on rain-fed crop production in the Wami-Ruvu basin of Tanzania	<i>University of Pretoria</i>	<i>PhD</i>	<i>GG Djolov</i>	<i>OJ Botai</i>
Victoria Rautenbach	The use of geovisualisation for urban design: The case of informal settlement upgrading in South Africa	<i>University of Pretoria</i>	<i>PhD</i>	<i>Serena Coetzee</i>	<i>Arzu Coltekin</i>

Short description of the curriculum presented:

The Department of Geography, Geoinformatics and Meteorology (GGM) offers four undergraduate programmes: BSc Meteorology, Geoinformatics, Geography, and Environmental Science. Three honours programmes are offered, Meteorology, Geoinformatics, and Geography and Environmental Science (BSocSciHons and BScHons). Masters programmes replicate the honours but with a greater diversity in the environmental field through the Centre for Environmental Studies (CFES). The CFES offers eight programmes two of which are housed in GGM: MA and MSc Environment and Society, and MSc Air Quality Management.

Student Numbers (January 2016- November 2017):

Level	2016	2017
First year	386	339
Second year	284	300
Third year	324	330
Honours	50	51
Masters	47	48
Doctoral	36	35

The name and contact details of your SSAG person for any further (and future) information:

Dr Caradee Wright, Email: cwright@mrc.ac.za; Tel: 082 677 4037; South African Medical Research Council, 1 Soutpansberg Road, Pretoria; Extraordinary Lecturer at University of Pretoria, Department of Geography, Geoinformatics and Meteorology.

University of the Free State: Department of Geography

Head/Chair of Department: Dr Charles Barker

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr Charles Barker	GIS, Fluvial geomorphology	barkerch@ufs.ac.za	051 401 2554

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Bloemfontein				
Dr Charles Barker	Senior Lecturer	GIS, Fluvial geomorphology	barkerch@ufs.ac.za	051 401 2554
Dr Ruth Massey	Senior Lecturer	Urban Geography and Climate change	masseyrt@ufs.ac.za	051 401 2183
Eldalize Kruger	Lecturer	Environmental Management	krugere@ufs.ac.za	051 401 2185
Tobeka Mehlomakhulu	Lecturer	Rural Development	mehlomakulutc@ufs.ac.za	051 401 3521
Adriaan van der Walt	Lecturer	GIS	vanderwalta@ufs.ac.za	051 401 9653
Anneri Pretorius	Lecturer	Environment and Conservation	Coetzeea1@ufs.ac.za	051 401 9532
Ernestina Nkooe	Lecturer	Urban and Human Geography	NkooeES@ufs.ac.za	051 401 3762
Elizabeth Rudolph	Lecturer	Physical Geography	RudolphEM@ufs.ac.za	051 401 7104

Dr Jay le Roux	Senior Lecturer	Physical Geography	LeRouxJJ@ufs.ac.za	051 401 3570
Qwa Qwa Campus				
Dr Samuel Adelabu	Senior Lecturer	GIS, Remote sensing	adelabusa@qwa.ufs.ac.za	058 718 5487
Prof Geoffrey Mukwada	Associate Prof	Environmental Sustainability	mukwadag@qwa.ufs.ac.za	058 718 5476
Dr Okello Tom	Senior Lecturer	Tourism	Okellotw@qwa.ufs.ac.za	058 718 5478
Sekhele Ntesbohiseng	Junior Lecturer	Physical Geography	sekhelenm@qwa.ufs.ac.za	058 718 5474
Alex Adjei	Lecturer	Tourism	Adjei2@qwa.ufs.ac.za	058 718 5477
Merle Naidoo	Lecturer	Environmental Sustainability	naidoom@qwa.ufs.ac.za	058 718 5478
Pululu Mahasa	Lecturer	Physical Geography	mahasaps@qwa.ufs.ac.za	058 718 5036
Dr Mellisa Hansen	Lecturer	Sustainability Science and Tourism	hansenmm@qwa.ufs.ac.za	058 718 5473

Professional and support staff

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Bloemfontein Campus				
Sandra Brits	Administrator		britss@ufs.ac.za	2184
Nolene van Dyk	Administrator		vandykn@ufs.ac.za	2255
Qwa Qwa Campus				
Nthabising Mokhethine	Administrator		mokhethine@qwa.ufs.ac.za	5475

Departmental News

- Departmental staff have been busy with various research activities, including those linked to the AfroMontane Research Institute on the Qwaqwa Campus. The Afromontane Research Unit (ARU) has recently made inroads in climate-change research. This has been achieved through work published by Professor Geoffrey Mukwada and Professor Desmond Manatsa, whose research could make it possible to predict El Nino Southern Oscillation (ENSO) several months before its occurrence.

Professor Manatsa is an ARU postdoctoral fellow currently collaborating with Professor Mukwada on an ongoing climate-change research project. The two experts noted that ENSO is one of the most important climate phenomena on earth, due to its ability to change the global atmospheric circulation, which in turn, influences temperature and precipitation across the world.

“This is a tremendous breakthrough, because humanity as a whole has been looking for answers regarding the origins of climate-related hazards which are worsening, yet becoming more frequent and difficult to predict. In some cases, floods and droughts occur in the same season, and within the same geographical area. These extreme climate events are becoming more frequent, often leading to loss of life and threatening national economies and livelihoods,” said Professor Mukwada, coordinator of the ARU sub-theme on Living and Doing Business In Afromontane Environments.

This work was published in a high-profile journal, Nature Scientific Reports.

- The Southern African Association of Geomorphology (SAAG) Conference was hosted 25-28 July 2017 at the University of Swaziland with the theme: “Southern African Geomorphology: Pure and Applied”. The conference was held in conjunction with the Erosion Focus Group of LaRSSA (the Land Rehabilitation Society of Southern Africa), and The Vetiver Network International (TVNI). Both of these organisations brought valuable practical aspects to the solution of landscape and landform problems, in line with the theme of the SAAG conference of Southern African Geomorphology: Pure and Applied. This year, the SAAG conference received contributions from a vast array of stakeholders including government officials and decision-makers, professional practitioners from several sectors in southern Africa and further abroad, as well as astute academics and students from several universities.

This conference offered stakeholders in Geomorphology and land rehabilitation the opportunity to share success stories but also failures in southern Africa (and further afield). This conference also offered geomorphological purists to share their cutting-edge research methodologies and results, on which applied geomorphology can, and is, often built. Sharing experiences in this regard enabled government, practitioners, academics and the wider industry to verify current best practice and identify needs for future research. The conference focussed on academic papers on the one hand, while ensuring that sound scientific, practical solutions are presented for the benefit of all stakeholders present.

Heartfelt thanks to the organisations which donated funds to make the conference possible. Dr Jay le Roux of the UFS (the outgoing president of SAAG) handed the

reigns over to Prof David Hedding of UNISA (the current president of SAAG). The new Council and President Elect (Christel Hansen from Rhodes University) were elected during the General Meeting.

- A number of staff members from the Bloemfontein Campus attended the Society of South African Geographer's (SSAG) Biannual Conference in Stellenbosch. The conference was hosted by Stellenbosch University.
- Dr Ruth Maassey continued with delivery on the ESRC-NRF Newton grant for collaborative research (Higher Education) in South Africa (2016 - 2019). Project title: The appropriateness, usefulness and impact of current urban planning curriculum in South African Higher Education. In collaboration with the University of Birmingham in the UK.
- A number of staff members were promoted and/or received NRF ratings.

2016-17 dated publications:

Manatsa, D. and Mukwada, G., (2017). A connection from stratospheric ozone to El Niño-Southern Oscillation. *Nature (Climate Science) Scientific Reports*, 7.

<https://dx.doi.org/10.1038%2Fs41598-017-05111-8>. (see also <https://www.ufs.ac.za/templates/archive.aspx?news=10304&cat=1>)

Mutana, S. and Mukwada, G., (2017). An Exploratory Assessment of Significant Tourism Sustainability Indicators for a Montane-Based Route in the Drakensberg Mountains. doi:10.3390/su9071202

Manatsa, D., Mukwada, G. and Makaba, L., (2017). ENSO shifts and their link to Southern Africa surface air temperature in summer. *Theoretical and Applied Climatology*, pp.1-12. DOI 10.1007/s00704-017-2112-y

Mukwada, G. and Manatsa D. (2017). Acacia mearnsii management in a South African national park: SWOT analysis using hot topics in biological invasion as a guide. *Journal of Mountain Science*. 14 (1): 205-218.

Le Roux JJ (2017) Sediment yield potential in South Africa's only large river network without a dam: implications for water resource management. *Land Degradation and Development* (in print) DOI: 10.1002/ldr.2753.

Van der Walt, A.J., 2016, 'Omgewingsrapportering deur middel van koerante in Suid-Afrika: 'n Vergelykende studie', *Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie* 35(1), a1379. <http://dx.doi.org/10.4102/satnt.v35i.1379>

Van der Walt, A.J & Barker, C.H., 2017. "n Ruimtelike analitiese ondersoek na seisoenale reënval- en temperatuurpatrone oor Suider-Afrika', *Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie* 36(1), a1469. <https://doi.org/10.4102/satnt.v36i1.1469>. Conference Abstract

Gunter, A. and Massey, R. 2017 Renting Shacks: Tenancy in the informal housing sector of the Gauteng Province, South Africa. *Bulletin of Geography. Socio-economic Series* 37 (2017) 25–34.

Massey, R., and Pretorius, A., 2017: The Green Box project: environmental education in a crate. *Journal of Geography Education in South Africa* 2(1) 8 -16.

Massey, R. 2017: The effect of informal settlement upgrading on women's social networks: layout versus location. *Urban Forum* 28(2) 205 - 217.

Cloete, J. and Massey, R. 2017: Seshego: An unexpected suburb. *South African Geographical Journal* 99(2) 152 – 165.

Pretorius, A., Kotzé, E., and Kruger, E. 2016. Tweeting and Environmental Awareness: Social media's contribution. *Proceedings of the Centenary Conference of the Society of South African Geographers, Stellenbosch, 25-28 September 2016, 158-169.*

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/ workshop	Name of Conference/workshop
Sam Adewale Adelabu	Integration of Multispectral and ancillary data for mapping <i>Seriphium plumosum</i> in a mountainous terrain using ensemble algorithms	Oral	20 – 23 June 2017	Earth Observation (EO) Summit 2017 Montreal, Canada
Sam Adewale Adelabu and Olga Molaudzi	Development of Fire Moisture Index for Fire Danger Assessment in a mountainous area using Remote Sensing	Oral	27-28 September 2017	Disaster Management Institute of Southern Africa (DMISA) Conference 2017, Port Elizabeth, South Africa
Mukwada, G.	Geospatial and temporal analysis of drought in a mountainous environment: The	Oral	19-21 October 2017	4th World Conference on Climate Change

	case of Lesotho			
Mukwada, G.	Spatiotemporal analysis of the impact of climate change on the state of vegetation cover in the Namahadi Catchment Area in South Africa	Oral	1-3 June 2017	1st International Conference on Natural Hazards and Disaster Management, Osaka, Japan
Mukwada, G.	Spatiotemporal analysis of drought prone montane areas using gridded Standardized Precipitation Index (SPI) data: A case study of the Maluti Drakensberg Mountains of South Africa	Oral	22 – 26 February 2017.	AfroMont-Mt Kilimanjaro Mountain Research Conference, Moshi, Tanzania
Mukwada, G. and Makaba, L.	An assessment of the mountain farmer's perceptions and adaptation strategies towards climate change, a case study of subsistence farmers in Qwaqwa	Oral	22 – 26 February 2017.	AfroMont-Mt Kilimanjaro Mountain Research Conference, Moshi, Tanzania
Mahasa, P. S., Palamuleni, L. G. and Ruhiiga, T. M	Remote Sensing and Evapotranspiration Mapping: Implications for the Upper Orange	Oral	May 4th – 5th, 2017.	International Conference on Environmental Science and Development (ICESD), Putrajaya,

	River Basin, South Africa - Part 3			Malaysia
Mahasa, P. S., Palamuleni, L. G. and Ruhiiga, T. M	Irrigation Implications for the Upper Orange River through Remote Sensing and Evapotranspiration	Oral	June 26th – 29th, 2017.	The 3rd International Conference on Water Resource and Environment (WRE 2017), Qingdao, China
Mahasa, P. S., Palamuleni, L. G. and Ruhiiga, T. M	Water Demand Management in the Upper Orange River Basin, South Africa	Oral	August 23rd – 25th, 2017	International Conference on Disaster Risk Management for Sustainable Development (DRMSD 2017), Rochester Institute of Technology, Dubai (RIT, Dubai University). Dubai Silicon Oasis
Sekhele, NM.	Assessing environmental and socio- economic effects of livestock grazing in the Clarens Nature Reserve	Oral	18 – 22 June 2017	South African Geographers Student Conference University of Mpumalanga, South Africa
Okello, T.W	Interdisciplinary Research in Climate Change: The Case of Sub- Saharan Africa	Oral	05-06, October 2017	International Conference on Regional Challenges to Multidisciplinary Innovation
Adriaan van der Walt	'n Ruimtelike analitiese ondersoek na	Presentation	27-28 October 2016	SA Akademie vir Wetenskap en Kuns se

	seisoenale reënval- en temperatuurpatrone oor Suider-Afrika			Studentesimposium.
Adriaan van der Walt	A spatial analytical investigation of seasonal rainfall and temperature patterns over southern Africa	Presentation	25-28 September 2016	SSAG bi-annual conference
Tobeka Mehlomakhulu, Anneri Pretorius & Adri Brits	Forgotten places: Setting the context for a forgotten relocation camp	Presentation	25-28 September 2016	SSAG bi-annual conference
Pretorius, A., Kotzé, E., and Kruger, E.	Tweeting and Environmental Awareness: Social media's contribution.	Presentation	25-28 September 2016	SSAG bi-annual conference

Research Master Dissertations completed in 2016-17:

Student's Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Molaudzi OD	Development of fire potential index over Golden Gate Highland National Park using Remote Sensing	UFS-QwaQwa	Msc.	Dr. SA Adelabu	
Matela T	Vulnerability and adaptation to climate variability: A case study of emerging farmers in the eastern free	UFS - QwaQwa	Msc.	Prof. G. Mukwada	

	state, South Africa				
Zondo S	Value Chain Analysis in the proposed Witsieshoek Community Conservation Area (WCCA) in the eastern free state of South Africa	UFS - QwaQwa	Msc.	Prof. G. Mukwada	
Juries, IK	A Spatial Analysis of Female Street Traders in the Bloemfontein Central Business District	UFS - Bloemfontein	MA	Dr Massey	
P. A. Rakgoromeng	An assessment on Sustainable Rural Livelihoods: Case Study of Diyatalawa Farm, Qwaqwa	UFS - Bloemfontein		Mrs Mehlomakhulu	

PhD Theses completed in 2016-17:

Student's Name	Title of thesis	Institution	Qualification	Supervisor	Co-supervisor
Chitongo L	The efficacy of Small holder Tobacco Farmers on Rural Development in Zimbabwe	UFS-QwaQwa	PhD	Prof. G. Mukwada	
Makwara E	Institutional reform and participation in Integrated water resource	UFS-QwaQwa	PhD	Prof. G. Mukwada	

	management: The case of TURWI River Basin Zimbabwe				
--	--	--	--	--	--

Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7):

BA/BSc

First Year: Introduction to Physical Geography, Introduction to Human Geography and Cartography

Second Year: Urban Development, Environmental Studies, Process geomorphology and geomorphologic hazards, Geographic Information Systems (GIS)

Third year: Applied urban development and spatial transformation, Environmental management and analysis, Environmental geomorphology, Geographic Information Systems (GIS)

Postgraduate:

Honors level:

Geomorphology, Rural Development, Urban Development, Research methodology, Philosophical principles in Geography, GIS, Environmental Management (2 semesters), Research report

Student Numbers (2016-17):

Level	2016	2017
First year	1 st semester: 379 2 nd semester: 100	1 st semester: 481 2 nd semester: 426
Second year	1 st semester: 175 2 nd semester: 124	1 st semester: 186 2 nd semester: 191
Third year	1 st semester: 159 2 nd semester: 229	1 st semester: 125 2 nd semester: 130
Honours	1 st semester: 21 2 nd semester: 18	1 st semester: 26 2 nd semester: 26
Masters	1 st semester: 7 2 nd semester: 6	1 st semester: 9 2 nd semester: 12
Doctoral	1 st semester: 4 2 nd semester: 2	1 st semester: 5 2 nd semester: 10

The name and contact details of your SSAG person for any further (and future) information:

Sandra Brits

BritsS@ufs.ac.za (051) 401 2184

University of South Africa: Department of Environmental Science

Head/Chair of Department: Prof Willie Nel

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Prof Willie Nel	Horticulture	Nelwaj@unisa.ac.za	011 471 2324

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Prof Mearns, K	Full Professor	Sustainable tourism and the Environmental Management of Tourism	mearnkf@unisa.ac.za	0114712973
Dr Chitakira, M	Senior Lecturer	Environmental management	chitam1@unisa.ac.za	011 471-2983
Mr Jordaan, M	Lecturer	Remote Sensing of the environment	Jordam@unisa.ac.za	011 471-3222
Ms Baker, M	Lecturer	Environmental management Sustainable development of tourism	Bakermisp@unisa.ac.za	011 471 2926
Mrs Van Niekerk, E	Lecturer	Environmental geology	Vniekhj@unisa.ac.za	011 471 2325
Dr McKay, T	Senior Lecturer	Adventure Tourism Geography of Education	mckaytjm@unisa.ac.za	011 670 9461
Mrs. Van den Berg, U	Lecturer	Environmental management	vdberu@unisa.ac.za	11 471 3093

2016-17 dated publications:

- Nel, R. **Mearns, K.F. & Jordaan, M.** (2017). Trajectory analysis of informal Sand Forest harvesting using Markov chain, within Maputaland, Northern KwaZulu-Natal *Ecological Informatics*, 42, 121-128.
- Nortje, G.P. & **Mearns, K.** (2017). Tourists' perceptions of off-road driving in the Makuleke Contractual Region of Kruger National Park. *African Journal of Hospitality, Tourism and Leisure*, 6 (4), 1-15.
- Grobler, J.J. & **Mearns, K.F** (2017). Applying water quality as a management tool for the wildlife lodge industry in South Africa and Botswana. In R. Hay (ed.) *Conference Proceedings of BEST EN Think Tank XVII: Innovation and Progress in Sustainable Tourism*. Townsville, Australia: James Cook University, 18-29.
- Mearns, K.F.** & Boshoff, D. (2017). Utilising sustainable tourism indicators to determine the environmental performance of the Sun City Resort, South Africa. *African Journal for Physical Activity and Health Sciences*, June (Supplement), 89-114.
- Grobler, H. & **Mearns, K.** (2017). Rainwater harvesting at Forest Lodge in Phinda Private Game Reserve KwaZulu Natal, South Africa. In Glen, N. (ed.) *The Responsible and Sustainable Tourism Handbook*, Southern & East Africa 5, 86-91.
- Nel, R. **Mearns, K.F. & Jordaan, M.** (2017). Modelling informal Sand Forest harvesting using a Disturbance Index from Landsat, in Maputaland (South Africa) *Ecological Informatics*, 39, (3) 1-9.
- Firman, C., Jonker, C.Z., **Mearns, K.** & Stoffberg, H. (2017). The Assessment of Energy Efficiency through the Thermal Insulation of Residential Windows in Sandton, Gauteng, South Africa. *The International Journal of Science and Technoledge*, 5(3)65-75.
- Nsubuga F.W.N., Botai, J. O., Olwoch, J. M., Rautenbach, C. J., Kalumba, A. M., Tsela, P., Adeola, A. M., Sentongo, A. A. & **Mearns, K. F.** (2017). Detecting changes in surface water area of Lake Kyoga sub-basin using remotely sensed imagery in a changing climate. *Theoretical and Applied Climatology*. 127 (1), 327-337.
- Burgoyne, C. & **Mearns, K.** (2017). Managing stakeholder relations, natural resources and tourism: A Case study from Ololosokwan, Tanzania. *Tourism and Hospitality Research*, 17 (1), 68-78.
- Leso, L. K., Elansary, H. O. **Mearns, K.** & Yessoufou, K. (2017) Ethnobotany at a local scale: diversity of knowledge of medicinal plants and assessment of plant cultural importance in the Polokwane local municipality, South Africa, *Botany Letters*, 164:1, 93-102
- Nel, R., **Mearns, K.F. & Jordaan, M.** (2016). Towards understanding the effects of informal harvesting of Sand Forest in Maputaland, South Africa. *Proceedings of the Centenary*

Conference of the Society of South African Geographers, 25-28 September 2016, Stellenbosch, South Africa, ISBN: 978-0-7972-1610-5, 147-156.

Mearns, K. (2016). The Air Transportation Industry's response towards mitigating climate change: the case of IATA. *The Responsible and Sustainable Tourism Handbook, Southern & East Africa 4*, 90-99.

Machete, F., Hongoro, C., Nhamo, G., & **Mearns, K. F.** (2016) The use of environmental accounting to determine energy savings in Mpumalanga Hotel, South Africa. *Journal of Environmental Accounting and Management*, 4 (4) 413-422.

Gossow, C., Buys, A. & **Mearns, K.** (2016). A Psycho-Social Economic Analysis of Green Jobs in South Africa. Addressing Recent Socio-Economic Developments. In G Nhamo, & V Mjimba (Eds.) *Sustainability, Climate Change and the Green Economy*, Africa Institute, Pretoria, ISBN: 9780798305013, 34-51.

Hunter, C. & **Mearns, K.F.** (2016) Assessing the sustainability reporting of a JSE company on the Travel and Leisure Board, 2010-2012. In *BEST EN Think Tank XVI: Corporate Responsibility in Tourism: Standards Practices and Policies: Conference proceedings*, Berlin, Germany, 12-15 July 2016 ISBN:978-0-9944984-6-5, 161-180.

Mearns, K.F. (2016) Reviewing 24 years of empowering communities by the Africa Foundation. In *BEST EN Think Tank XVI: Corporate Responsibility in Tourism: Standards Practices and Policies: Conference proceedings*, Berlin, Germany, 12-15 July 2016 ISBN:978-0-9944984-6-5, 152-160.

Donaldson, R., Rule, S. & **Mearns, K.** (2016). The rise and demise of geography at Vista University. In G. Visser, R Donaldson and C. Seethal (Eds.) *The Origin and Growth of geography as a Discipline at South African Universities*. Sun Media, ISBN: 9781928357254, 419-434.

Mearns, K. and Grobler, H. (2016). Managing Water for Tourism in the Phinda Private Nature Reserve, KwaZulu-Natal, South Africa, *Athens: ATINER'S Conference Paper Series, No: WAT2016-2022., 4th Annual International Forum on Water*, , Athens, Greece 11 July-14 July 2016, ISSN 2241-2891, 1-23.

Dreyer, R, **Du Plessis, R.** & **K Mearns** (2016) Waste characterisation and review of the waste management practices at Phinda Private Game Reserve (KZN) *Conference Proceedings of WasteCon 2016, "The Changing Face of Waste Management"* ISBN: 978-1-920017-66-8, 239-246.

Breedt, A., **Du Plessis, R.** & **K Mearns** (2016) Waste characterisation and management at Mnemba Island Lodge (Zanzibar) *Conference Proceedings of WasteCon 2016, "The Changing Face of Waste Management"* ISBN: 978-1-920017-66-8, 329-338.

- Mearns, K.** (2016) Climate change and tourism: some industry responses to mitigate tourism's contribution to climate change. *African Journal of Hospitality, Tourism and Leisure*, 5 (2), 1-11.
- Yessoufou, K., **K. Mearns**, H.O. Elansary & G.H. Stoffberg (2016) Assessing the phylogenetic dimension of Australian Acacia species introduced outside their native ranges. *Botany Letters*, 163(1), 33-39.
- McKay, T** & Subramoney, J., 2017: Fast Food Choices, lessons for the hospitality industry: An exploratory study in Johannesburg, South Africa, *African Journal of Tourism, Hospitality and Leisure*, 6(4).
- McKay, T.**, 2017. The South African Adventure Tourism Economy: An urban phenomenon. *Bulletin socio economic series*, 37:63-76.
- Ahmed, AAQ and **McKay, T.**, 2017: Saccharification of Lignocellulosic Materials by Cellulolytic and Xylanolytic *Paenibacillus illinoisensis* CX11, *Asian Journal of Applied Sciences* 5(2), 259-266.
- McKay, T**, Simpson, Z., Patel, N., 2017: Spatial politics and infrastructure development: Analysis of historical transportation data in Gauteng (1975 – 2003) *Miscellanea Geographica* 21(1), 35-43.
- Ahmed, AAQ, **McKay, T**, Babalola, OO., 2017: Cellulase- and xylanase- producing bacterial isolates with the ability to saccharify wheat straw and their potential use in the production of pharmaceuticals and chemicals from lignocellulosic materials, *Waste and Biomass Valorization* DOI 10.1007/s12649-017-9849-5.
- McKay TJM** and Milaras, M A., 2017: Public lies, private looting and the forced closure of Grootvlei Gold Mine, *South Africa Journal for Transdisciplinary Research in Southern Africa* 13(1): 1-12 doi.org/10.4102/td.v13i1.347
- Ahmed, AAQ, Babalola OO and **McKay, T.**, 2016: Lignin degradation by two isolated *Bacillus* spp. and their co-culture potential in the production of platform chemicals from lignin. *Proceedings of the CHEMTECH '16 International Conference*, Istanbul, Turkey 17-19 Nov 2016.
- Milaras, M and **McKay, T.**, 2016: A scaffolded Soil Science curriculum: A practical project approach, *Proceedings of the Biannual Conference of the Society of South African of Geographers*, Stellenbosch, 25-29 Sept 2016.
- McKay, T**, 2016: The uneven geography of South Africa's adventure tourism sector, *Proceedings of the Biannual Conference of the Society of South African of Geographers*, Stellenbosch, 25-29 Sept 2016.
- AAQ Ahmed and **T McKay.**, 2016: *Paenibacillus Illinoisensis* CX11: in press A Cellulase- and Xylanase- Producing Bacteria for Saccharification of Lignocellulosic Materials,

Proceedings of the ICEEE 2016: International Conference on Ecological and Environmental Engineering, Dec 05-06, 2016 in Miami, USA.

Maistry, N and **McKay, T.**, 2016: Promoting energy efficiency in a South African university *Journal of Energy in Southern Africa*, 27 (3):1-10.

McKay, T., 2016: The Geography of the South African Adventure Tourism Industry, *African Journal of Tourism, Hospitality and Leisure*. 5(3).

McKay, T J M., 2016: Academic success, language and the four year degree: A case study of a 2007 cohort *South African Journal of Higher Education* 30(4): 190-209.

McKay, T J M., 2016: Do tutors matter? Assessing the impact of tutors on academic performance of first year students. *Journal of Student Affairs in Africa*, 4(1): 53-64.

Sehlabi, R & **McKay, T**: 2016: Municipalities, Commercial Composting and Sustainable Development: The Case of Johannesburg, South Africa, *Environmental Economics* 7(1): 53-59.

Baker, M.S.P. & K. Mearns., 2017: Applying Sustainable Tourism Indicators (STIs) to measure the sustainability performance of two tourism ventures in the Namib Desert, *African Journal of Hospitality, Tourism and Leisure*. Vol.6 (2) – (2017). ISSN: 2223-814x.

Ncube, L, Zhao, B, van Niekerk, H.J., 2017. An Evaluation of the Effects of Historical Coal Mining Activities on Water Quality in the Elitheni Colliery, Eastern Cape Province, South Africa, *Asia Journal of Applied Sciences*, 5(5): 878-891. DOI: <https://doi.org/10/10.24203/ajias>

Ncube, L, Zhao, B, Brutsch, MO, **van Niekerk, H.J.**, 2017. Response of Swiss chard and soil properties to co-application of different fertilisers with effective microorganisms, *Applied ecology and Environmental Research* 15(4):1009-1022. DOI: http://dx.doi.org/10.15666/aeer/1504_10091022

Ncube, L, Zhao, B, Liu, K, **van Niekerk, H.J.**, 2016. Application of acid base accounting to predict post-mining drainage quality in coalfields of the Main Karoo Basin and selected Sub-basin, World academy of Science, Engineering and Technology, *International Journal of Geotechnical and Geology Engineering*, 3 (12); 2016. DOI [dai.waset.org/1307-6892/60382](http://dx.doi.org/10.1007/978-94-007-6038-2_13)

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
T McKay	The uneven geography of South Africa's adventure tourism sector,	Oral	25-29 Sept 2016	The Biannual Conference of the Society of South African of Geographers

T McKay	Encounters with Jaws: An exploration the shark cage diving industry Gansbaai, South Africa, the Great White Shark capital of the world	Oral	21-25 August 2016	International Geographical Union 33rd International Congress Beijing, China
T McKay	Academic success, language, and the four year degree: A case study of a 2007 cohort	Oral	25-27 May 2016	South African National First Year Experience Conference
T McKay	Student funding and student success: A case study of a South African institution of higher education	Oral	24 – 27 July 2017	Scholarship of Teaching and Learning (SOTL) in the South
M.S.P. Baker	Women in academia: barriers faced by women in becoming NRF rated researchers at Unisa.	Oral	28 September 2016	University of South Africa: Young Academics Closing Ceremony
Ncube L, Zhao B, Liu K., van Niekerk H.J	Application of acid base accounting to predict post-mining drainage quality in coalfields of the Main Karoo Basin and selected Sub-basin	Oral	21 st October 2016	6 th Mintek Analytical Science Symposium; The Environment
Ncube L, Zhao B, Liu K., van Niekerk H.J	Application of acid base accounting to predict post-mining drainage quality in coalfields of the Main Karoo Basin and selected Sub-basin	Poster	19-20 December 2016	World academy of Science, Engineering and Technology

Research Master Dissertations completed in 2016-17:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co- supervisor</i>
Ms K.C. Foma	Utilizing Geospatial Data to define the impact on the environment caused by urbanization: Nelson Mandela	UNISA	MSc	M Jordaan	WAJ Nel

	Bay as a case study				
Mrs C Laubscher	Geospatial analysis as a tool for facilitating improved adaptive conservation management in fire regimes: Munyawana Game Reserve	UNISA	MSc	M Jordaan	K Mearns
Mr M Gasela	Evaluating the performance of Machine Learning algorithms in mapping land use and land cover changes in a heterogeneous mining landscape	UNISA	MSc	M Jordaan	
Danie Boshoff	Utilising sustainable tourism indicators to determine the Environmental Performance of Sun City Resort	UNISA	MSc Environmental Management	Prof K Mearns	
Louis Heunis	The quantification of medical waste from the point of generation to the point of disposal: Case studies of three private hospitals in Pretoria	UNISA	MSc Environmental Management	Prof K Mearns	
Coline Laubscher	Geospatial Analysis as a tool for facilitating improved Adaptive Conservation Management in Fire regimes: Mun-ya-wana	UNISA	MSc Environmental Management	Mr M Jordaan	Prof K Mearns

	Game Reserve.				
Kentridge K Makhanya	An evaluation of a development induced relocation process in the Ingquza hill Local Municipality	UNISA	MSc Environmental Management	Dr De Waal	Prof K Mearns
Ryan Nel	Modelling the trends of informal Sand Forest harvesting using remote sensing, within Maputaland, Northern KwaZulu-Natal	UNISA	MSc Environmental Science	Prof K Mearns	Mr M Jordaan
Maria M Wessels	Carbon and water footprint for a soft drink manufacturer in South Africa	UNISA	MSc Environmental Science	Prof K Mearns	Prof H Stoffberg

PhD Theses completed in 2016-17:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
M Aregbeshola	The Participation of Civil Society Organisations in Environmental Decision-making Process - a study of selected megaprojects in South Africa	UNISA	PhD Environmental Management	Prof K Mearns	
J Muzirambi	Perceptions of Local Community Participation in Wildlife and	UNISA	PhD Environmental Management	Prof K Mearns	

	Tourism Management: Phinda Private Game Reserve, Umkhanyakude District, KwaZulu-Natal, South Africa				
N Glen	Sustainable tourism implementation for small accommodation establishments in South Africa.	UNISA	PhD Environmental Management	Prof K Mearns	

Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7): We offer a few soil science modules and some 1st year Geology modules

Postgraduate (NQF level 8): We offer two Honours degrees. One in Environmental management and one in Environmental Monitoring and Modelling.

Postgraduate (NQF level 9): We offer full MSc programmes in Environmental Management and Environmental Science.

Postgraduate (NQF level 10): We offer PhD programmes in Environmental Management and Environmental Science.

The name and contact details of your SSAG person for any further (and future) information: Melissa Baker Bakermisp@unisa.ac.za

University of South Africa: Department of Geography

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Prof SE Mini	Urban studies	minise@unisa.ac.za	(011) 471 2348

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	Qualification	E-mail	Office Telephone number
Prof Horn, AC	Professor	Urban and Social Geography	D.Phil	hornac@unisa.ac.za	(011) 471 2168
Prof Mini, SE	Professor	Urban studies	PhD	minise@unisa.ac.za	(011) 471 2348
Prof Nicolau, MD	Professor (Seconded to Director of School of Ecological and Human Sustainability)	Citizen driven socio-economic change, poverty and quality of life, migration studies	PhD	nicolmd@unisa.ac.za	(011) 670 9492
Prof Hedding, DW	Associate Professor	Geomorphology	PhD	heddidw@unisa.ac.za	(011) 471 2120
Prof Gunter, A	Associate Professor	Urban Geography	D.Phil	gunteaw@unisa.ac.za	(011) 471 3390
Dr Pretorius, RW	Senior Lecturer	Teaching and learning in Geography	PhD	pretorw@unisa.ac.za	(011) 471 3680
Mr Vlok, AC	Senior Lecturer	Remote sensing / GIS / Geographical analysis	MA	vlokac@unisa.ac.za	(011) 471 3120
Dr Du	Senior Lecturer	Hydro	D.Phil	duplea@unisa.ac.za	(011) 471

Plessis, A		Geography			2877
Dr Dirsuweit, T	Lecturer	Urban Geography; Geographies of Gender ; Food Studies ; Political Geography	PhD	dirsutc@unisa.ac.za	(011) 471 2752
Dr Nenwiini, SC	Lecturer	Climatology	PhD	nenwisc@unisa.ac.za	(011) 471 2525
Mr Anderson, R	Lecturer	Geomorphology	MSc	anderri@unisa.ac.za	(011) 417 3541
Mrs De Jager, AE	Lecturer	Teaching and learning in Geography; Urban geography, services provision, Tourism, quality of life	MSc	djageae@unisa.ac.za	(011) 471 2022
Mrs Coetzee, R	Lecturer	Environmental Geography; ODEL within the context of geography and e-learning	MA	coetZR@unisa.ac.za	(011) 471 3437
Mrs Carow, S	Lecturer	GIS	MSc	sanetpc@unisa.ac.za	
Ms Lombard, A	Lecturer	Environmental and Tourism Geography	MA	Lombae1@unisa.ac.za	(011) 471 2352
Ms Pienaar, R	Lecturer	Geography of education Physical geography	BA (Hon)	pienar@unisa.ac.za	(011) 471 2243
Mr Greyling, C	Junior Lecturer	Geomorphology	MSc	egreyla1@unisa.ac.za	(011) 670 9464

Mr Calvert, DR	Junior Lecturer	Geomorphology	MSc	calvedr@unisa.ac.za	(011) 471 2364
Mr Khanye, B	Junior Lecturer	Settlement Geography	BA (Hon)	khanyb@unisa.ac.za	(011) 471 2065
Mrs Khotoo, A	Junior Lecturer	Human Geography	BA (Hon)	khotoa@unisa.ac.za	(011) 471 2749
Mr Ramasunga, P	Junior Lecturer	Land and agrarian reform, livelihoods, renewable energy, human settlement and land use	BES (Hon)	ramasp@unisa.ac.za	(011) 471 2106
Mr Tshabalala, S	Junior Lecturer	Transport geography	B.SoSci (Hon)	Tshabas1@unisa.ac.za	(011) 471 3109
Mr Schoeman, RC	Junior Lecturer	Urban Geography	BA (Hon)	Eschoerc@unisa.ac.za	(011) 471 2364
Ms Mulibana, L	Junior Lecturer	Urban Geography	BA (Hon)	mulibl@unisa.ac.za	(011) 670 9471
Fixed Term Appointments for 2017 or part thereof					
Mr Manuel, K	Science Foundation	Urban Geography	BA (Hon)	manuek@unisa.ac.za	(011) 471 2097
Ms Moolman, T	Lecturer	Education Geography	MA	moolmt@unisa.ac.za	(011) 471 2352
Ms Gonsalves, M	Junior Lecturer	Environmental Geography	BSc (Hon)	gonsam@unisa.ac.za	(011) 471 2053
Mr Mashimbye, N	Junior Lecturer	GIS and Geomorphology	BSc (Hon)	mashinc@unisa.ac.za	(011) 471 2107

Professional and support staff

Name (Title, Surname, Initials)	Position	E-mail	Office Telephone number
Ms Steenkamp, HE	Departmental Administrator	steenhe@unisa.ac.za	(011) 471 3689

Mr Thenga, L	Administrative assistant	thengla@unisa.ac.za	(011) 471 2520
Ms Kuhlase, S	Administrative assistant	kuhlasv1@unisa.ac.za	(011) 471 3549
Ms Lotz, CE	Technical assistant	potgice@unisa.ac.za	(011) 471 3153

Staff Activities

In 2017, the Department of Geography had many highlights and achieved long-standing goals. Two staff members awarded their PhDs, Rudi Pretorius and Shandu Nenwiini both completed their qualification, additionally, Carl Greyling and Rhett Calvert were awarded their MSc. We have a number of staff who will be submitting work for their qualifications within the next few months. We welcome the arrival of Mrs Sanett Carow who will be heading up our GIS development. David Hedding and Rhett Calvert both obtained their drone pilots licence to operate the commercial drone for research purposes. The Department also hosted a number of activities during the year, Dr Jiri Panek from Palacky University, Czech Republic presented a paper entitles: GeoParticipation: Bringing emotions into community mapping and spatial visualisation. We presented an exhibition at the Sasol TechnoX in Secunda with GIS workshops, Drone flight demonstrations, weather station and rock exhibitions. The Department jointly hosted the World Environment Day presentation with the Department of Environmental Science, The theme for this year was 'Connecting people to nature- in the city and on the land, from the poles to the equator' presented by Dr Werner Fourie and Ms Hildegard Rohr from I @ Consulting. Prof Simphiwe Mini was appointed the Chair of the Department for the period 2018 to 2020.

Awards and Achievements

- Dr Rudi Pretorius was awarded a PhD from UNISA
- Dr Shandu Nenwiini was awarded a PhD from North West University
- Mr Carl Greyling was awarded an MSc from University of Pretoria
- Mr Rhett Calvert was awarded an MSc from UNISA
- Prof Ashley Gunter was promoted to Associate Professor
- Prof Andre Horn was re-awarded a C2 NRF rating
- Prof David Hedding was awarded a VisionKeepers grant for ongoing research and collaboration in New Zealand.

Promotions from 2018

The following academics were considered for promotion and are awaiting Unisa Management endorsement of their promotion from 1 January 2018:

- Mr Carel Greyling from Junior Lecturer to Lecturer
- Mr Rhett Calvert from Junior Lecturer to Lecturer
- Dr Shandu Nenwiini from Lecturer to Senior Lecturer
- Dr Teresa Dirsuweit from Lecturer to Senior Lecturer
- Dr Rudi Pretorius from Senior Lecturer to Associate Professor
- Prof Melanie Nicolau from Associate Professor to Full Professor

2017 dated publications:

Moyo, B., **Dirsuweit, T.**, and Cameron, A., 2017: The limits of public participation in environmental impact assessment processes: the case of indigenous communities in Mapela, Limpopo Province. *Transformation: Critical Perspectives on Southern Africa*, 94(1), 395-410.

Du Plessis, A., 2017. *Freshwater Challenges of South Africa and its Upper Vall River: Current state and outlook*. Springer: London.

Gunter, A. and Massey, R., 2017. Renting Shacks: Tenancy in the informal housing sector of the Gauteng Province, South Africa. *Bulletin of Geography. Socio-economic Series*, 37(37), pp.25-34.

Gunter, A. and Raghuram, P., 2017. Internationalization, Localization, and the Eduscape of Higher Education in the Global South. In Riemsdijk, M. and Wang, Q., (eds) *Rethinking International Skilled Migration*, Routledge: London.

Gunter, A. and Raghuram, P., 2017. International study in the global south: linking institutional, staff, student and knowledge mobilities, *Globalisation, Societies and Education*, 15(6).

Peck, L. and **Hedding, D.**, 2017. Developing a Weather Impact Index for OR Tambo International Airport, South Africa, *Weather and Forecasting*, 32(5-6), 1-7.

Ansorge, I., Skelton, P., Bekker, A., de Bruyn, N., Butterworth, D., Cilliers, P., Cooper, J., Cowan, D., Dorrington, R., Fawcett, S., Fietz, S., Findlay, K., Froneman, P., Grantham, G., Greve, M., **Hedding, D.**, Hofmeyr, G., Kosch, M., le Roux, P., Lucas, M., MacHutchon, K., Meiklejohn, I., Nel, W., Pistorius, P., Ryan, P., Stander, J., Swart, S., Treasure, A., Vichi, M., and van Vuuren. B., 2017. Exploring South Africa's southern frontier: A 20-year vision for polar research through the South African National Antarctic Programme. *South African Journal of Science*, 113(5-6), 1-7.

Bean, T.A., Sumner, P.D., Boojhawon, R., Tatayah, V., Khadun, A.K., **Hedding, D.W.**, Rughooputh, S.D.D.V. and Nel, W., 2017. Bedrock-incised gully erosion phenomena on Round Island, Mauritius. *Catena*, 151, 107-117.

Breetzke, G.D. and **Hedding, D.W.**, 2017. The changing demography of academic staff at higher education institutions (HEIs) in South Africa. *Higher Education*, 1-17.

Filho, W., Brandli, L., Becker, D., Skanavis, C., Kounani, A., Sardi, C., Papaioannidou, D., PAÇO, P., Azeiteiro, L., de Sousa, L., Raath, S., **Pretorius, R.**, Shiel, C., Vargas, V., Trencher, G., Marans, R., 2017. Sustainable Development Policies as Indicators and Pre-Conditions for Sustainability Efforts at Universities: fact or fiction?, *International Journal of Sustainability in Higher Education*

Wilson, G. and **Pretorius, R.W.**, 2017. Utilising Work-Integrated Learning to Enhance Student Participation and Engagement in Sustainability Issues in Open and Distance Learning. In *Handbook of Theory and Practice of Sustainable Development in Higher Education* (pp. 245-257). Springer International Publishing.

Conference Presentation in 2017:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Nicolau, MD.	Community Asset Mapping Programme as a tool to create sustainable small businesses the case of Koffiekraal, North West Province, South Africa	Paper	6-7 September	5th International Conference on Sustainable Development, Rome, Italy
Hedding, DW.	Unmanned aerial vehicles (UAVs): applications for geomorphological research and use in South Africa	Paper	25-28 July	Southern African Association of Geomorphologists Conference
Hedding, DW.	Genesis and identification of pronival ramparts: implications for studies in New Zealand	Paper	12-17 February	International Symposium on the Cryosphere in a Changing Climate
Horn, A.	Population change; school desegregation and community – a case study on the fringe of a post-apartheid city: Pretoria	Paper	6-11 August	IGU Urban Commission Annual Meeting: Urban challenges in a complex world – Digital cities and spatial justice
Pretorius, R.W.	Towards an integrated disciplinary narrative and an enhanced role of Geography in Education for Sustainability: Reflections on South African Higher Education.	Paper	8 November	Sustainability and Humanities: Linking social values, theology and spirituality towards sustainability
Pretorius, R.W.	Empowerment for sustainability in a community context: Lifelong learning and story of the Big 5 Community Tourism Forum, Koffiekraal/Brakkuil (South Africa)	Paper	2-4 March	World Symposium on Life Long Learning for Sustainable Development
Schoeman, R., Manuel, K., Ndlovu, N., and Gunter, A.	Wikiwalks South Africa: Developing Archaeological and Geographical open source resources	Poster	19-22 June	South African Geographical Society Student Conference
De Jager, A.	Boundaries and watersheds with reference to the Rietvlei Nature	Paper	3 November	Annual Postgraduate Student Science Symposium

	Reserve (City of Tshwane)			
Mini, S.	Urban Governance in Post-apartheid South Africa: Urban Governance Systems in Political Space and Social-economic Relations.	Paper	19-21 October	IGU Local Governance in the New Urban Agenda.
Long, D., Gunter, A., and Mini, S.	De-colonisation of the curriculum, the construction of knowledge in the global south	Paper	27-29 August	RGS-IGB Conference
Mittelmeier, J., Rogaten, J., Chissale, A., Melis Cin, F., Long, D., Gunter, A. , Madge, C., Prinsloo, P., Raghuram, P., Reedy, K., and Rienties, B.	Understanding International Distance Student Transition Experiences: Evidence from a South African University	Paper	4-6 October	8th ANIE Annual Conference
Mittelmeier, J., Rogaten, J., Chissale, A., Melis Cin, F., Long, D., Gunter, A. , Madge, C., Prinsloo, P., Raghuram, P., Reedy, K., and Rienties, B.	Learning design in diverse institutional and cultural contexts: Suggestions from a participatory workshop with higher education leaders in Africa	Paper	4-6 October	8th ANIE Annual Conference
Rogaten, J., Mittelmeier, J., Chissale, A., Melis Cin, F., Long, D., Gunter, A. , Madge, C., Prinsloo, P., Raghuram, P., Reedy, K., and Rienties, B.	Inclusivity, integration and international distance education: Evidence of best practice from a South African context	Paper	14-16 June	Promote Inclusion, Transform Lives Conference, Dundee Scotland.

Research Master Dissertations completed in 2017:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
T Fitzgerald	The Socio-Economic Impact of Displacement: Gentrification and the Point Precinct Durban	UNISA	MSc	Prof A Gunter	-
DR Calvert	An investigation of rainfall characteristics,	UNISA	MSc	Prof DW	-

	erosivity and soil erosion on Round Island, Mauritius			Hedding	
J Chinyemba	Undocumented immigration in Zambia: A case study of Lusaka City	UNISA	MSc	Prof C E P Seethal	-
ST Ndawo	Community-driven road safety in Blaauwbosch, Newcastle, KwaZulu Natal.	UNISA	MSc	Prof MD Nicolau	-

PhD Theses completed in 2017:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
R Pretorius	Repositioning Geography in Education for Sustainably: The South African Context.	UNISA	PhD	Dr J Fairhurst	Prof M Nicolau
Mamabolo	The Impact of the Implementation of Government Policy on the Spatial Distribution of Emerging Farmers in Mopani District in the Limpopo Province of South Africa	UNISA	PhD	Dr A Harmse	Mrs r Coetzee

Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7):

Geography can be taken as a major for a BA or BSc at **NQF levels 5, 6 and 7**: Undergraduate (NQF levels 5, 6 and 7)

Geography at Unisa is a major in a number of generic degrees at Unisa. In addition, many of the individual Geography modules are compulsory in a variety of vocational programmes. The Department is the coordinator of the multi-inter and trans disciplinary undergraduate degrees in Environmental Management. The Department is privileged to offer one (GGH3708) of the six signature modules offered at Unisa. The purpose of these modules is the address the overall graduateness of the Unisa student.

Major combinations:

NQF Level: 5: GGH1501, GGH1502, GGH1503 (BSc major students must complete all three modules, while BA major students only need to complete GGH1501 and GGH1502).

NQF Level: 6: Select any FOUR of GGH2601, GGH2602, GGH2603, GGH2604, GGH2605 and GGH2606.

NQF Level: 7: Select any FIVE of GGH301W, GGH302X, GGH303Y, GGH3043, GGH3054, GGH3076 and GGH3708.

NQF Level: 8:, HRGGH81, HRGGH82, GGH4802, GGH4804, and GGH4805.

Know Your World: Introduction to Geography - GGH1501

Semester module

NQF Level: 5

Credits: 12

Purpose: The nature and scope of geography as a science; representation of the earth on maps and map use; sustainable development as a geographical concept; a selection of world spatial patterns and processes from the following themes: climate, ecosystems and biomes, landforms, minerals and soils, energy and water resources, population, HIV-AIDS, development and wealth, culture, and globalisation. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site and the World Wide Web.

World Issues: A Geographical Perspective - GGH1502

Semester module

NQF Level: 5

Credits: 12

Purpose: Global change and global problems, resource use and exploitation in both the physical and human resource systems; the conservation and sustainable development of the human resource base; techniques used for environmental monitoring. A selection of issues from the following: population problems, poverty, quality of life, urban problems, food, conflict and war, the energy crisis, air pollution, water pollution, land degradation, biodiversity, and the problem of waste. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Our Living Earth - GGH1503

Semester module

NQF Level: 5

Credits: 12

Purpose: To gain insight into some of the underlying scientific principles of the world we live in, and its sustainability. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site.

The African Challenge: People and Environment - GGH2601 (GGH201T)

Semester module

NQF Level: 6

Credits: 12

Purpose: The challenge for development against the background of the natural and human environment in Africa. Distribution, growth and diversity of the population; impacts of HIV-AIDS; geopolitical evolution; economic development; urbanization; food production and agriculture; the use and exploitation of land and natural vegetation; climate and drought; desertification. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

The Geography of Services Provision - GGH2602 (GGH202U)

Semester module

NQF Level: 6

Credits: 12

Purpose: Spatial dimensions of basic services provision; sustainable development; needs assessment; provision and

accountability; public participation and conflict management; accessibility; aspects of locational analysis; optimal location of services; South African case studies. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

The Interpretation of Maps, Aerial Photographs and Satellite Images - GGH2603 (GGH203V)

Semester module

NQF Level: 6

Credits: 12

Purpose: The nature of geographical data; map types; map elements; fundamentals of the use of aerial photographs and satellite images; measurements on maps and aerial photographs; the analysis of point, line and area patterns; the identification and interpretation of topographical features, landscapes and cultural phenomena; thematic mapping; the basics of Geographical Information Systems (GIS). Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

People and The Natural Environment: Use and Impact (Geography) - GGH2604 (GGH204W)

Semester module

NQF Level: 6

Credits: 12

Purpose: The current environmental dilemma and reasons for it; the development of environmental awareness; use and exploitation of the natural environment by people with reference to the: biosphere, atmosphere, pedosphere, hydrosphere and lithosphere; transformation towards sustainability. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Environmental Politics (Geography) - GGH2605 (GGH205X)

Semester module

NQF Level: 6

Credits: 12

Purpose: The political perspective on the environment, including the following topics and phenomena: appropriate concepts and definitions; political theories and environmental conflict; the role of environmental social movements, nongovernmental organisations, political parties, and the business sector; institutional politics, policy and green administration; environmental politics on the global scale. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Geography of Tourism - GGH2606 (GGH206Y)

Semester module

NQF Level: 6

Credits: 12

Purpose: Global, national and local tourism resources (natural, human and cultural); spatial patterns of tourism resources; spatiotemporal interactions in the tourism system; environmental, economic and socio-cultural impacts of tourism; sustainable tourism development; strategic importance of tourism for South Africa; destination image of South Africa. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

State of the Environment in Southern Africa – GGH3701 (GGH301W)

Semester module

NQF Level: 7

Credits: 12

Purpose: Sustainable development in Southern Africa. Geographical phenomena underlying this challenge are climate, vegetation, soil and water resources, people, and the evolution of the politicospatial, social and economic landscapes. Issues which are addressed are: the constraints, problems and management of the natural and human environments, the conservation of Southern Africa's ecological and cultural heritage linked to sustainability and tourism; and problems relating to politicospatial accommodation, regionalisation and local government in South Africa. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Spatial Economic Development – GGH3702 (GGH302X)

Semester module

NQF Level: 7

Credits: 12

Purpose: Spatial economic development in South Africa in terms of the following: theories; primary, secondary, tertiary and quaternary activities; uneven spatial development; the infrastructure of transportation and communication; spatiotemporal evolution of the economy; spatial development planning. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Introduction to Geographical Information Systems - GGH3703 (GGH303Y)

Semester module

NQF Level: 7

Credits: 12

Purpose: Origin, nature and theoretical foundations of GIS; generic GIS applications; collection, input, storage, retrieval and management of spatial data; data analysis and modeling; output, display and communication of geo-referenced data; spatial decision support systems; applying basic GIS functionalities. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Development of Urban Space – GGH3704 (GGH3043)

Semester module

NQF Level: 7

Credits: 12

Purpose: Urban spatial patterns, socio-economic structure of the city; the urban environment; movement in urban space; urban planning and management; local economic development planning; spatial data management for urban development; the marketing of urban areas; current issues in urban areas. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Environmental Evaluation and Impact Assessment – GGH3705 (GGH3054)

Semester module

NQF Level: 7

Credits: 12

Purpose: Overview of environmental assessment; South African case studies; approaches to and a framework for environmental evaluation and impact assessment in transitional and developing countries; the role of legislation, politics, stakeholders and interest groups; procedures and techniques for impact assessment; application in terms of practical examples; future perspectives. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Ecotourism – GGH3707 (GGH3076)

Semester module

NQF Level: 7

Credits: 12

Prerequisite: TRT101X (Prerequisite applies to BCom Tourism Management students only.)

Purpose: Ecotourism in terms of the following: concepts; sustainable (responsible) tourism; specialist travel markets; resources (also in South Africa); environmental impacts; policy and regulation; planning, development and management of ecotourism destinations; the ecotourism business; communities and ecotourism destinations; ecotourism projects in South Africa. Students registering for this module are required to have regular access to a computer to download or read essential study material from the myUnisa module site.

Environmental Awareness and Responsibility - GGH3708

Semester module

NQF Level: 7

Credits: 12

Purpose: Environmental principles are presented in a generic fashion to encourage the development of a value system in terms of their environmental awareness and responsibility. The module uses a strong interdisciplinary focus and will make use of a variety of global case studies to enable students to understand how human activities impact on the environment. Students must reflect constructively on these impacts, and develop a value system and a sense of responsibility in this regard. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

Postgraduate (NQF level 8):

NQF level 8: Bachelor of Science Honours in Geography

Geography in action: from problem identification to methodology - HPGGH80

Year module

NQF Level: 8

Credits: 24

Purpose: To develop a student's ability to identify a real life geographical scenario that justifies research and to present an acceptable research proposal on the identified scenario. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

The geographer as a researcher - HRGGH81

Year module

NQF Level: 8

Credits: 24

Co-requisite: HPGGH80 (Students are however advised to complete HPGGH80 before they register for HRGGH81.)

Purpose: To guide students to, undertake the research on their chosen geographical scenario, and to report on their research findings. Learners can provide personal reflections on how the research experience has contributed to their own sense of citizenship and employability. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be

presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

Geographical Information Systems - GGH4801

Year module

NQF Level: 8

Credits: 24

This module is only available to students registered prior to the 2013 academic year. Last year of registration for the module is 2014

Purpose: Nature of GIS (definitions, geographical concepts, functional elements, components); GIS data structures (raster and vector); GIS data acquisition (data sets, quality); Preprocessing (format conversion, data reduction and generalization, error detection and editing, merging, edge matching, rectification and registration, interpolation, photo interpretation); GIS data management (basic principles, efficiency, conventional database management systems, spatial database management); GIS data manipulation and analysis (reclassification and aggregation, geometric operations, centroid determination, data structure conversion, spatial operations, measurement, statistical analysis, modeling); Output (types, hardware components); Remote sensing and GIS (historic overview, technology, image processing, interfacing remote sensing and GIS applications); GIS implementation and application (application areas, needs, project management); Cartography for GIS.

The geography of everyday living in human settlements - GGH4802

Year module

NQF Level: 8

Credits: 24

Purpose: The purpose of this module is to guide students to explore various factors that impact life in human settlements to enable them to make informed contributions related to everyday living in human settlements. The module forms part of an honors programme that provides learning experiences and opportunities to develop capacity to investigate various geographical problems related to how resource use and environmental change could impact on quality of life in various contexts. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

The Geography of Tourism - GGH4803

Year module

NQF Level: 8

Credits: 24

This module is only available to students registered prior to the 2013 academic year. Last year of registration for the module is 2014.

Purpose: Tourism as a geographical phenomenon; Factors, influencing tourism; spatiotemporal patterns of international tourism; Tourism maps and destination images; Tourism resources in various environments; Tourism and economic development - a national and regional perspective; Sustainable tourism; Theoretical aspects of the use of GIS in tourism.

Geographic perspectives of environmental change - GGH4804

Year module

NQF Level: 8

Credits: 24

Purpose: In this module, a student's capacity to deal with environmental change from a geographical perspective will be developed. A holistic approach will be followed that acknowledges the spatio-temporal patterns and interrelationships of natural and anthropogenically-induced phenomena. This module contributes to the Honours Program in Geography by elucidating the landscape responses to environmental change and how these responses impact the natural and built environments. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

The geography of people-resource interactions in the Global South - GGH4805

Year module
NQF Level: 8
Credits: 24

This module guides students in developing their own voice on issues related to the interaction between people and resource use in different regions of the Global South. They should develop the capacity to make informed contributions to future resource use in a variety of local contexts.

The Honours in Geography is supported by this module with its unique regional perspective on resource use and the implications thereof, with a strong focus on people and their roles in different spatiotemporal contexts. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

The geographer as a researcher - HRGGH81 (final year of offer is 2018)

Year module
NQF Level: 8
Credits: 24

Co-requisite: HPGGH80 (Students must have completed HPGGH80 before they register for HRGGH81.)

Purpose: To guide students to, undertake the research on their chosen geographical scenario, and to report on their research findings. Learners can provide personal reflections on how the research experience has contributed to their own sense of citizenship and employability. Students registering for this module are required to have regular access to a computer and the Internet in order to download or read essential study material from the myUnisa module site and the World Wide Web. This module will be presented online, and no study material will be posted for this module. Formative assessment must be completed online and summative assessment for this module comprises a non-venue based e-portfolio.

The geographer as a researcher - HRGGH82

Year module
NQF Level: 8
Credits: 48

Purpose: To guide students to, undertake a proposal and research on their chosen geographical scenario, and to report on their research findings. This module is done under supervision from an academic. Learners can provide personal reflections on how the research experience has contributed to their own sense of citizenship and employability.

Postgraduate (NQF level 9):

NQF Level 9: Master of Science in Geography

NQF level 10 : PhD in Geography

Full thesis.

1. Student Numbers (2017):

Level	2017
First year	6 635
Second year	4 698
Third year	2 836
Honours	116
Masters	30
Doctoral	36

The name and contact details of your SSAG person for any further (and future) information:

Prof Ashley Gunter: (011) 471 3390; email gunteaw@unisa.ac.za

University of Johannesburg: Department of Geography, Environmental Management and Energy Studies

Head/Chair of Department: Prof. Hoogendoorn

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Hoogendoorn G [Prof]	Tourism Geography	ghoogendoorn@uj.ac.za	0115594628

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Block EK [Ms]	Lecturer	Human Geography & Environmental Education	eblock@uj.ac.za	0115592173
Booyzen A [Mr]	Lecturer	GIS and Remote sensing	arnob@uj.ac.za	0115593889
Greenberg D [Ms]	Junior Lecturer	Physical and Environmental Geography	dgreenberg@uj.ac.za	0115592428
Gregory J [Mr]	Lecturer	Urban Geography	jamesg@uj.ac.za	0115594452
Kambule N [Mr]	Energy studies: Assistant lecturer and coordinator	Energy Studies	nkambule@uj.ac.za	0115594423
Kelso CJ [Dr]	Lecturer	Environmental History Climate vulnerability	ckelso@uj.ac.za	0115592432
Kotze NJ [Prof]	Associate Professor	Urban Geography	nicok@uj.ac.za	0115593810
Modley L	Lecturer	Environmental Management	Lee-annm@uj.ac.za	0115593928

[Ms]				
Mugwena T [Ms]	Lecturer	GIS and Remote Sensing	thendom@uj.ac.za	0115593645
Rabumbulu M [Ms]	Lecturer	Geomorphology	mrabumbulu@uj.ac.za	0115593302
Rampedi I [Dr]	Senior Lecturer	Environmental Management	isaacr@uj.ac.za	0115592429
Rogerson J [Prof]	Associate Professor	Urban Geography	jayner@uj.ac.za	0115592439
Schoeman DC [Ms]	Lecturer	Physical Geography, GIS, Cartography, Mapwork, Waste Management	theas@uj.ac.za	0115593226
Tesfamichael SG [Dr]	Lecturer	GIS and Remote Sensing	sgtesfamichael@uj.ac.za	0115593927
Dr. K. Yessoufou [Dr]	Senior Lecturer	Environmental Management	kowiyouy@uj.ac.za	0115592434

Professional and support staff

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Komane I [Ms]	<i>Technician</i>	N/A	ikomane@uj.ac.za	0115593739
Scott M [Ms]	<i>Secretary</i>	N/A	mscott@uj.ac.za	0115592433
Shayna-Ann	<i>Student Assistant</i>	N/A	geography@uj.ac.za	0115594669

Cuthbertson				
Annie-Estelle	<i>Senior Tutor</i>	N/A	tutorgeography@uj.ac.za	0115594153

Departmental News

- Dr Kowiyou Yessoufou was awarded **2017 Young African Researchers Award** for the authenticity and quality scientific research in the field of Water, Energy and Environmental Management by the academy of scientific research field (ASRT) of Egypt.
- The department trained Gauteng primary and high school teachers in map work skills, and Further Education and Training teachers in Geographical Information Systems (GIS) during the first semester. A total of 321 teachers were issued certificates during an award ceremony held on 28 September 2017. The details are:
 - An Introduction to GIS, NQF Level 7, 30 credits, 14 weeks: 63 candidates;
 - Advanced Map Work Skills, NQF Level 5, 10 credits, 8 weeks: 80 candidates; and
 - Basic Map Work Skills, NQF Level 5, 8 credits, 7 weeks: 178 candidates.
- The department in alliance with sponsors from the private sector awarded top students in;

Top student 2016	Award	Award winner
Environmental Management - Masters	Terence Payne Floating Trophy and Medal	Respinah Taferei
Energy Studies -Honours	Eskom Award	Patience Stampu
Geography -Honours	Golder Associates	Arno Booyzen

	Africa Award	
Environmental Management - Undergradraduate	Cabanga Concepts Award	Modiegi Monaledi
Geography - Undergradraduate	Departmental Floating Trophy	Daniel Mentjies

Terence Payne Floating Trophy and Medal: Respinah Taferei



Eskom Award: Patience Stampu



Golder Associates Africa Award: Arno Booyzen



Cabanga Concepts Award: Modiegi Monaledi



2016-17 dated publications:

2016	Journal Article	Urbani izziv	The revitalisation of parks and open spaces in downtown Johannesburg
2016	Journal Article	Local economy	Creative industries and urban regeneration - The Maboneng precinct, Johannesburg
2016	Journal Article	African Journal of Hospitality, tourism and Leisure (AJHTL)	Retrofitting hotels: evidence from the Protea Hospitality Group of hotels within Gauteng, South Africa
2016	Journal Article	Cornell International Law Journal	Who is in Charge? State Power and Agency in Sino-African Relations
2016	Journal Article	Local economy	South Africa's small towns: A review on recent research

2016	Journal Article	Local economy	Local economic development agencies - Pushing boundaries and addressing change: The case of South Africa's Aspire (Amathole District Economic Development Agency) during its maturation phase
2016	Journal Article	International Journal of Sustainability in Higher Education	Using energy profiles to identify university energy reduction opportunities
2016	Journal Article	Theoretical and Applied Climatology	Spatiotemporal trends in mean temperatures and aridity index over Rwanda
2016	Journal Article	Journal of Environment & Development	Globalization, Land Grabbing, and the Present-Day Colonial State in Uganda: Ecolonization and Its Impacts
2016	Journal Article	South African Geographical Journal	Human activity and vegetation change around Mkuze Game Reserve, South Africa
2016	Journal Article	Gender, place and culture: a journal of feminist geography	'Gender hates men': untangling gender and development discourses in food security fieldwork in urban Malawi
2016	Journal Article	Society & Natural Resources	Making Space for Community Use Rights: Insights From "Community Economies" in Newfoundland and Labrador
2016	Journal Article	Habitat International	Nigerian households' cooking energy use, determinants of choice and some implications for human health and the environmental sustainability
2016	Journal Article	Africa Insight	The association between Energy saving and Guest Comfort in selected Guest Houses in Mpumalanga

			Province, South Africa
2016	Journal Article	Tourism Travel International	Woman's Self-Determination in Cooperative Tourism Microenterprises
2016	Journal Article	Climate Change and Tourism	Climate Change Threats to two Low Lying South African coastal towns : Risks and perceptions
2016	Journal Article	Transactions of the Royal Society of South Africa	Economic costs of the 2012 floods on tourism in the Mopani District Municipality, South Africa
2016	Journal Article	Bulletin of Geography. Socio-economic Series	Disjunct perceptions? Climate change threats in two-low lying South African coastal towns
2016	Journal Article	Local Economy	Heritage tourism in the global South: Development impacts of the Cradle of Humankind World Heritage Site, South Africa
2016	Journal Article	International Journal of Image and Data Fusion	Discrimination of Artemisia afra from surrounding land cover types using field spectroradiometer data
2016	Journal Article	Remote Sensing	Examining the Spectral Separability of Prosopis glandulosa from Co-Existent Species Using Field Spectral Measurement and Guided Regularized

			Random Forest
2016	Journal Article	International Journal of Image and Data Fusion	Discrimination of Artemisia afra from surrounding land cover types using field spectroradiometer data
2016	Journal Article	Remote Sensing	Spectral discrimination of prosopis glandulosa (mesquite) in arid environment of south africa: testing the utility of in situ hyperspectral data and guided regularized random forest algorithm
2016	Journal Article	The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences	Wetland assessment using unmanned aerial vehicle (uav) photogrammetry
2016	Journal Article	Journal of Arid Environments	Combining Akaike's Information Criterion and discrete return LiDAR
2016	Journal Article	Indiana University Press	The Global Transformation of Materials and the Emergence of Informal Urban Mining in Accra, Ghana
2016	Journal Article	African Journal of Hospitality, Tourism and Leisure	Environmental Values and Behaviours of Adventure Tourism Operators: The case of the Tsitsikamma, South Africa

2016	Journal Article	Gender & Behaviour	Gender Relationships in Forest Resource Utilization and Conservation in Nigeria: Implications for Environmental Sustainability
2016	Journal Article	Singapore Journal of Tropical Geography	Bringing globalization to the countryside: special economic zones in India
2016	Journal Article	South African Journal of Geomatics (formelry South African Journal of Surveying and Geo-Information)	Unmanned aerial vehicle (UAV) photogrammetry produces accurate high-resolution orthophotos, point clouds and surface models for mapping wetlands
2016	Journal Article	South African Journal of Geomatics (formelry South African Journal of Surveying and Geo-Information)	Assessing the potential of remote sensing to discriminate invasive seriphium plumosum from grass
2016	Journal Article	African Journal of Hospitality, tourism and Leisure (AJHTL)	Youth tourism festivals in South Africa: the case of Plett Rage
2016	Journal Article	Geography Compass	Pharmaceuticals and the global south: a healthy challenge for development theory?
2016	Journal Article	Environment and Planning A	'Rhino poaching is out of control!' Violence, race and the politics of hysteria in online conservation
2016	Journal Article	PLoS Neglected Tropical Diseases	What is next for NTDs in the era of the sustainable development goals?
2016	Journal Article	Tourism	Adventure tourism in South Africa: challenges and prospects

2016	Journal Article	Tourism	Hotel chains of the global South: the internationalization of South African hotel brands
2016	Journal Article	Tourism	Data challenges and solutions in the calculation of tourism climate index (TCI) scores in South Africa
2016	Journal Article	Urban Forum	Instagrammers, urban renewal and the Johannesburg inner city
2016	Journal Article	Journal of Public Administration	Solid waste management in South Africa: a case of Alice in Nkonkobe local municipality, eastern Cape province
2016	Journal Article	Journal of Energy in Southern Africa	Promoting energy efficiency in a South African university
2016	Journal Article	New Media and Society	Nature 2.0: exploring and theorizing the links between new media and nature conservation
2016	Journal Article	Area	Environmentally induced displacements in the ecotourism-extraction nexus
2016	Journal Article	African Affairs	Green violence: rhino poaching and the war to save Southern Africa's peace parks
2016	Journal Article	Urbani Izziv	Intra-urban spatial differentiation of tourism: evidence from Johannesburg, South Africa

2016	Journal Article	Development Southern Africa	Mining waste management: extending sustainability options across economic, social and environmental boundaries
2016	Journal Article	Bulletin of Geography	Tourist guides' perceptions of cultural heritage tourism in South Africa
2016	Journal Article	Journal of Geophysical Research - Atmospheres	Sub-micrometer aerosols and excess CO as tracers for biomass burning air mass transport over southern Africa
2016	Conference Proceeding	28th Annual Conference of the Southern African Institute of Management Studies: Managing in Resource Restricted Times - Make Every Day Matter (SAIMS 2016)	South African tourism advertisements in magazines: a changing phenomenon
2016	Conference Proceeding	23rd Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS Archives 2016) (Commission I - Vol XLI-B1)	Wetland assessment using unmanned aerial vehicle (UAV) photogrammetry
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	Tracking the policy environment for creative industries in South Africa
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	The impact of mine construction on noise levels in Chaneng: a rural village in Northwest province
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	The contribution of urban poultry farming to food security and employment in Jos, Nigeria

2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	An explorative study on household recycling behaviour in the city of Johannesburg
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	The influence of weather on South African tourism experiences: American perspectives
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	Environmental history and vulnerability: lessons from the past
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	Life history: an alternative methodology for vulnerability research?
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	Tourism geographies of the past: the uneven rise and fall of beach apartheid in South Africa
2016	Conference Proceeding	Centenary Conference of the Society of South African Geographers (SSAG 2106)	A mineralogical study of South African lunette dunes sediments using XRF: a case study of the western Free State pan-field
2016	Conference Proceeding	16th BEST EN Think Conference: Corporate Responsibility in Tourism - Standards, Practices and Policies	Assessing the sustainability reporting of a JSE company on the Travel and Leisure Board, 2010-2012
2016	Book Chapter	The Origin and Growth of Geography as a Discipline at South African Universities (Book title)	From the Randse Afrikaanse Universiteit to the University of Johannesburg: an inclusive South African university (Chapter title)
2017	Journal Article	Tourism and Hospitality Research	Managing stakeholder relations, natural resources and tourism: A case study from Ololosokwan, Tanzania

2017	Journal Article	PLoS ONE	The first initiative of DNA barcoding of ornamental plants from Egypt and potential applications in horticulture industry
2017	Journal Article	Journal of Sustainable Tourism	Climate suitability for tourism in South Africa
2017	Journal Article	Ecological Economics	The PES Conceit: Revisiting the Relationship between Payments for Environmental Services and Neoliberal Conservation
2017	Journal Article	Journal of Ecotourism	Fly-fishing as ecotourism in South Africa: a case study
2017	Journal Article	International Development Planning Review	Unequal citizenship in unequal cities: participatory urban governance in contemporary South Africa
2017	Journal Article	Bulletin of Geography. Socio-economic Series	'Kicking Sand in the Face of Apartheid': Segregated Beaches in South Africa
2017	Journal Article	African Journal of Hospitality, tourism and Leisure (AJHTL)	Gap year tourism: International debates, South African issues
2017	Journal Article	African Journal of Hospitality, tourism and Leisure (AJHTL)	Conservation volunteer tourism in the Hartbeespoort region, South Africa: an exploratory study
2017	Journal Article	Ecology and Evolution	Integrating biogeography, threat and evolutionary data to explore extinction crisis in the taxonomic group of cycads

2017	Journal Article	Review of African Political Economy	Assembling effective industrial policy in Africa: an agenda for action
2017	Journal Article	South African Journal of Science (SAJS)	A case study from the southern Cape linefishery 1: The difficulty of fishing in a changing world
2017	Journal Article	South African Journal of Science (SAJS)	A case study from the southern Cape linefishery 2: Considering one's options when the fish leave
2017	Journal Article	African Journal of Hospitality, tourism and Leisure (AJHTL)	Urban Food Markets: A New Leisure Phenomenon in South Africa
2017	Journal Article	Tourism Review International	City tourism in south africa: diversity and change
2017	Journal Article	Tourism Review International	A case study into the preparedness of white-water Tourism to severe climatic events in southern africa
2017	Journal Article	Tourism Review International	Festival processes, innovation, and locality response: Evidence from south africa's rage youth festival
2017	Journal Article	Botany Letters	Ethnobotany at a local scale: diversity of knowledge of medicinal plants and assessment of plant cultural importance in the Polokwane local municipality, South Africa

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Jayne Rogerson	Green commercial property development in South Africa	Paper	23 to 27 May 2016	International Conference for Academic Disciplines. Harvard University, Boston, USA.
Jayne Rogerson	Tourism Geographies of the past	Paper	30 May to 4 June 2016	Canadian Association of Geographers Conference, Dalhousie. University, Halifax, Canada.
Morais, D.B. and Ferreira, B. and Hoogendoorn, G. and Wang, Y.	“Co-construction of knowledge through participatory action research: methods used in the People-First Tourism project.”	Paper	June 2016	Travel and Tourism Research Association annual international conference. Vail, United States of America.
Jayne Rogerson	Capital city tourism – the case of Pretoria South Africa	Paper	22-25 August 2016	International Geographical Union Conference. Beijing, China
Jayne Rogerson	Tourism planning of the past: Apartheid on the beaches of South Africa	Paper	South Africa, 25-28 September 2016	conference paper at Centenary Conference of the Society of South African Geographers. September Stellenbosch,

Jayne Rogerson	The tourism space economy of South Africa Since the global financial crisis	Poster	4-9 April 2017	Association of American Geographers. Boston, USA,
Hoogendoorn, G. and Gregory, J.J.	"Instagrammers and the Johannesburg inner-city."	Paper	September 2016	the Society of South African Geographers biannual conference. Stellenbosch, South Africa,
Hoogendoorn, G.* and Fitchett, J.M. 2016:	"Tourism and climate change: a review of adaptation for South Africa."	Paper	September 2016	the Society of South African Geographers biannual conference. Stellenbosch South Africa.
Giddy, J.K. and Fitchett, J.M. and Hoogendoorn, G.	"American tourists experiences of weather in Southern Africa"	Paper	September 2016	the Society of South African Geographers biannual conference. Stellenbosch, South Africa.
Arno Booyzen	Estimation Of Canopy Height In A Complex Vegetation Environment Using Sentinel-1 Sar	Oral	22-25 September 2016	Society of South African Geographers Student Conference 2016
Thendo Mugwena	Mapping ecological processes using spatial components to aid in the implementation of corridors	Oral	25-28 September 2016	The Society of South African Geographers 10th Biennial Conference

Schoeman, D.C. & J. Schmidt.	Household recycling behaviour in the City of Johannesburg	Oral	25-28 September 2016	SSAG Centennial Conference
Isaac Tebogo Rampedi *, Daniel Sarel Boshoff, Olusola Oluwayemisi Ololade.	Assessing the sustainability of small scale renewable energy projects in South Africa by means of EIA quality review	Oral	27–28 January 2017	The 6th World Sustainability Forum. Section: Environmental Management, Social Development and Economic Development. Cape Town, South Africa
Isaac Tebogo Rampedi *, Edwynn Walter Louw, Jayne Margaret Rogerson.	Effectiveness of biodiversity offset strategies in South Africa: Current perceptions and views in the mining industry	Oral	27–28 January 2017	The 6th World Sustainability Forum. Section: Environmental Management, Social Development and Economic Development. Cape Town, South Africa
Isaac T. Rampedi; Bradley K. Thorpe & Jana Olivier	Assessing the quality of EIA Scoping Statements for selected hazardous waste management activities in South Africa	Oral	30-31 January 2017	National Conference the South African Institute of Environmental Health .The Lord Charles Hotel, Somerset West. Cape Town
Hoogendoorn, G. and Giddy, J.K.	“Does this look like a slum? Investigating tourist perceptions of inner city Johannesburg.”	Paper	April 2017	Annual Meeting of the Association of American Geographers. Boston, United States of America.

Rabumbulu, M	Mineralogical and geochemical study of fringing lunette dune sediments from the western Free State Panfield, South Africa.	Oral	3-6 April 2017	South African Society for Quaternary Research (SASQUA) Johannesburg, South Africa.
Schoeman, D.C.	Formalising waste pickers in the City of Johannesburg, South Africa	Oral	5-9 April, 2017	AAG Annual Meeting, Boston, Massachusetts, USA
Kelso, C.,	The use of newspapers and archival sources to reconstruct rainfall on the South African Highveld.	Oral	3-6 April 2017,.	South African Society for Quaternary Research (SASQUA) Johannesburg, South Africa
Arno Booyzen	Estimation of canopy height and canopy cover in a complex vegetation environment using Sentinel-1 SAR	Oral	8-12 May 2017	The 37th International Symposium on Remote Sensing of Environment (ISRSE-37)
Sanders, S. & T. Schoeman	An investigation into educators' training in Geographic Information Systems	Oral	4-6 July 2017	at 2017 International Conference on Education and Distance Learning, Maldives

Dr Kowiyou Yessoufou	Integrating biogeography, threat and evolutionary data to explore extinction crisis in the taxonomic group of cycads	Oral	23-29 July 2017	Conference: XIX International Botanical Congress Shenzhen, CHINA
Dr Kowiyou Yessoufou	NA	Workshop	7-11 August 2017	National Institute for Mathematical and Biological Synthesis, University of Tennessee, USA
Mrs E. Block	Unmasking Soweto renewal: a case study of two unique streets	Powerpoint presentation	September 2016	SSAG 100 years, conference, Stellenbosch
Jayne Rogerson	Changing employment in the evolving South African accommodation sector, research paper	Paper	26-29 September 2017	Sustainable Human Resource Management in Africa. UJ Colloquium (UJ, Strathclyde and Moi Universities

Research Master Dissertations completed in 2016-17:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Gregory, James Jenkins	Creative Industries in Johannesburg: Geography, operational characteristics and linkages to urban regeneration	UJ	Master of Arts (MA) Geography	Prof CM Rogerson	N/A
Harmer, Devin Lawrence	Matric rage, South Africa's youth Festival: Establishment and organisation	UJ	Master of Arts (MA)	Prof CM Rogerson	N/A

			Geography		
Monama, Tshegofatso Elia	An Evaluation of Urban Heat Island in Tshwane Metropolitan Area using Remote Sensing Techniques.	UJ	Master of Science (MSc) Geography	Prof F Ahmed	N/A
Masekame ni Masilu Daniel	Performance Evaluation and emission characterisation of domestic coal combustion I optimized braziers (<i>imbaulus</i>)	UJ	Master of Philosophy (MPhil) Energy Studies	Prof HJ Annegam	N/A
Msebi, Lumkile	Search for intermediate states in rare earth nucleus 150Sm	UJ	Master of Philosophy (MPhil) Energy Studies	Dr PL Masiteng	Dr SB Bvumbi Dr P Jones (iThemba Labs)

Master Dissertations of limited scope completed in 2016-17:

Student's Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Bengu, Thato Silindile	An assessment of the biological integrity of three tributaries of the Klipspruit in the Soweto Township, Gauteng.	UJ	Master of Science (MSc) Environmental Management	Dr JC van Dyk	Ms LA Modley
Bolingo, Cheda	A critical evaluation of the effectiveness of cumulative impact assessments in eia reports dealing with power transmission lines in South Africa.	UJ	Master of Science (MSc) Environmental Management	Dr IT Rampedi	N/A
Makhale, Ndivhewafhi Oscar	An investigation on attitude and behaviours of residents towards recycling of municipal solid waste in Olievenhoutbosch, Centurion, in the Gauteng Province.	UJ	Master of Science (MSc) Environmental Management	Prof G Hoogendoorn	Dr IT Rampedi

Manzini, Lungile Glodine	Greenhouse gas emissions assessment for electricity generation from coal: an Eskom power station.	UJ	Master of Science (MSc) Environmental Management	Mrs T Schoeman	Mrs K Chiloane
Morudu, Mpho Godwin	Municipal solid waste management in the city of Polokwane municipality: assessment of the current status, problems and challenges	UJ	Master of Science (MSc) Environmental Management	Prof G Hoogendoorn	Dr IT Rampedi
Mothibedi, Refilwe Thato	The implementation of National Environmental Policy at Local Government level. A comparison between the City of Johannesburg, City of Tshwane and Ekurhuleni Metropolitan Municipality	UJ	Master of Science (MSc) Environmental Management	Prof J Rogerson	N/A
Mphephu, Tshinyadzo Sydney	Sustainable natural resource utilisation: A case study of ethnobotanically important plant taxa in the Thulamela Local Municipality, Limpopo Province.	UJ	Master of Science (MSc) Environmental Management	Dr IT Rampedi	N/A
Muhali, Mulalo David	Environmental Resource Utilization: A case study of traditionally useful wild plant species in the Makhado Local Municipality in South Africa.	UJ	Master of Science (MSc) Environmental Management	Dr IT Rampedi	N/A
Mushawemhuka, William John	Investigating adaptation of nature based tourism to climate change: Case study of Hwange (Zimbabwe).	UJ	Master of Science (MSc) Environmental Management	Prof J Rogerson	N/A

Rampersad, Preesha	A critical evaluation of selected mining Environmental Impact Assessment in the Limpopo province in South Africa	UJ	Master of Arts (MA) Environmental Management	Dr IT Rampedi	N/A
Schmidt, Julian	A comparative study of household recycling behaviour in the city of Johannesburg.	UJ	Master of Science (MSc) Environmental Management	Mrs DC Schoeman	N/A
Tafirei, Respinah	An integrative approach towards setting conservation priority for cycad species at a global scale.	UJ	Master of Science (MSc) Environmental Management	Dr K Yessoufou	Dr IT Rampedi

PhD Theses completed in 2016-17:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
McKay, Tracey Jill Morton	The Adventure Tourism Industry of South Africa: Organisation, Space and Structure.	UJ	Philosophiae Doctor (PhD) Geography	Prof CM Rogerson	N/A
Ngie, Adeline	An investigation into the potential application of multi- and hyperspectral remote sensing for the spectral characterization of maize cultivars,	UJ	Philosophiae Doctor (PhD) Environmental Management	Prof F Ahmed	N/A

	quantification of some stress factors, and yield prediction in the Free State province of South Africa.				
Van der Merwe, Clinton David	The Organisation, Geography and Local Development Impacts of Heritage Tourism in South Africa	UJ	Philosophiae Doctor (PhD) Geography		Prof CM Rogerson

Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7):

- Introduction to Human Geography (1A)
- Climatology and Geomorphology (1B)
- Pedography and Biogeography (2A)
- Economic and Population Geography (2B)
- Geo-Informatics (3A)
- Urban Geography and the South African City (3B)

Postgraduate (NQF level 8):

- Ethics, Justice and the South African Environment
- Energy Studies
- Geographic Information Systems (GIS)
- Geography Philosophy and Methodology
- Geomorphology
- Strategic Environmental Planning

- Tourism Geography
- Urban Geography

Postgraduate (NQF level 9):

- Environmental Management 1: The Biosphere and Environmental Studies
- Environmental Management 2: Techniques, Analyses and Skills
- Masters dissertation in geography

Postgraduate (NQF level 10):

- PhD Thesis

Student Numbers (2016-17):

Level	2016	2017
First year	160	145
Second year	156	134
Third year	96	152
Honours	22	24
Masters	11	38
Doctoral	8	16

University of Fort Hare: Department of Geography and Environmental Science

The Department of Geography and Environmental Science (DGES) is relatively growing with 274 undergraduates, 60 postgraduate students registered fulltime and part-time at both Alice and East London campuses. The DGES consist of 6 academic members of staff, 1 senior laboratory technician and 1 administrative support staff (shared by DGES, GIS and Geology). These members are shown in the picture below:



Staff members, Ms Moko (insert), from left to right (front row): Mrs Khululwa Xoxo (senior lab assistant), Mr Tineyi Pindura, Ms. Zoleka Mzitshi, Dr Raj Pillay, Dr Kalumba (HoD) (insert). Back row from left to right: Dr Sonwabo Mazinyo, Prof Werner Nel and Dr Bheki Magagula

The Department is committed to academic excellence. Its undergraduate degree programme is carefully balanced between Physical, Human Geography, GIS & RS and Environmental Studies, with emphasis on their integration, particularly through field studies. The postgraduate programme is strongly conceptually and deductively informed, thereby providing a rich theoretical foundation for empirical research.

Academic members of staff bring strategic skills and talents to the Department, including local and international academic training, professional education qualifications, multi-faceted lecturing and learning experiences, dedicated commitment to research, and an exceptional drive towards social justice and community development.

The Department's principal objective is to build and sustain a strong, vibrant and critical cohort of postgraduate students, dedicated to challenging established modes of thinking and research in selected Geographical and Environmental niche areas.

East London Offering

The DGES commenced offering postgraduate degree programmes at the East London campus since the beginning of the 2007 academic year. Since then, many students have graduated with BSc Honours, MPhil (Environmental Studies), MSc and PhDs. Lectures and seminars at the East London campus are conducted in six block week sessions during the academic year.

Research Activities

Members of staff are actively engaged in research varying from Geomorphology, Climatology, climate change, environmental management, GIS and RS, sustainability science, and rural development. All these are efforts by the academic staff members in the Department to contribute in the production of knowledge. Most of the research findings are published in various academic peer reviewed journals, in addition to the postgraduate dissertations. Dr Pillay is involved in a District Municipal project on Waste management through recycling in the Amathole and Cacadu District Municipalities in South Africa. He is also engaged in a Provincial project on School GIS and Curriculum reconfiguration in Eastern Cape Province.

Staff Research Interests

Prof Nel is a C2 rated researcher with research interests in Geomorphology, specifically: Mountain and Polar geomorphology, Climatology with specific focus on micro- and synoptic climatology, climate/surface process interaction and climate change. Prof Nel is currently working within 2 international projects. These are Landscape and Climate Interaction in a changing sub-Antarctic environment. This is a SANAP/NRF funded project. Rainfall characteristics and distribution and its implications for erosion on Mauritius and Round Island. This project is collaboration between five institutions, which are UNISA, University of Pretoria, Mauritian Wildlife Foundation, University of Mauritius and the Mauritius Meteorological Services.

Dr Mazinyo, has specialised in climate change, food security and sustainable food production. His research interest is on water security, conservation, environmental economics, natural resource management, rural development and atmospheric science.

Ms. ZAF Mzitshi's research interest is on Gender and Rural Geography, social justice and development.

Dr. Magagula's research interest is on Geomorphology and Environmental Studies (Management).

Dr Pillay's research interest lies in waste management, thematic cartography and its application in socio-economic mapping, economic and industrial Geography; as well as curriculum development and infrastructural support with specific focus on Secondary School GIS.

Dr Kalumba's research interest lies in environmental sustainability, urban greening, environmental remote sensing, coastal dynamics analysis, climate change, industrial development and phytoremediation.

Research Funding/Awards

Postgraduate Programmes and Supervision

The Department offers both thesis and taught masters, and doctoral postgraduate programmes in various fields of Geography and Environmental Management. In the currently academic year (i.e., in 2018), the PhD enrolment in the Department stands at 13 students, meanwhile there are 9 MSc, and 11 MPhil students.

Of the 13 PhD students, two of them have completed their respective theses and graduating this year (2018). Furthermore, 8 of the remaining 11 PhD students have successfully defended their respective research proposals and busy with fieldwork. A sizeable number of masters' students are due to graduate in September 2018.

Ms. ZAF Mzitshi is the academic staff member due to complete her PhD thesis by the end of this year (2018). Ms. Mzitshi's PhD thesis is entitled "Changes in Rural Geographic Spaces: The Case of Selected Rural Areas in the Eastern Cape". She is supervised by Prof. Cecil Seethal (University of South Africa).

Website: <http://www.ufh.ac.za/faculties/science/departments/geography>

University of Mpumalanga: School of Biology and Environmental Science Staff

Name	Position	Area of specialisation	E-mail	Telephone number
HEAD OF SCHOOL				
Associate Prof	Head of School	Zoologist	<i>Daniel.Parker@Ump.ac.za</i>	013 0020223

Parker				
HEAD OF DIVISION				
ACADEMIC STAFF				
Associate Prof Pakama Siyongwana	Associate Prof	Human Geographer	Pakama.siyongwana@ump.ac.za	0130020221
Dr Chingombe, W	Senior Lecturer	Physical Geography, Remote sensing and GIS, Water resources, water pollution, Hydro- climatology and catchment management	Wisemen.chingombe@ump.ac.za	0130020221
Mr Nsukwini, S	nGAP Lecturer	Human Geography	Sakhile.nsukwini@ump.ac.za	013 002 0191

Departmental News

The department hosted a successful students' geography conference in June 2017 which served as a catalytic agent to market the University as well as the newly born department in the Lowveld (refer to the report below).

2016-2017 dated publications:

Journal articles

Wisemen Chingombe and Phillip Taru. 2018. Rural geotourism as an option for development in Phuthaditjhaba: Golden Gate National Park area, South Africa, African Journal of Hospitality, Tourism and Leisure, Volume 7 (1). ISSN: 2223-814X, Open Access- Online @ <http://www.ajhtl.com>

Happwell Musarandega and **Wisemen Chingombe**. 2017. A Comparative Case of the Implications of Various Approaches to Climate Change Adaptation in Bangladesh, India, South Africa, and Zimbabwe, Africanus: Journal of Development Studies. DOI: <https://doi.org/10.25159/0304-615X/2407>

Sakhile Nsukwini and Urmilla Bob. 2016. The socio-economic impacts of ecotourism in rural areas: a case study of Nompondo and the Hluhluwe-iMfolozi Park (HiP). African Journal of Hospitality, Tourism and Leisure, Volume 5 (3). ISSN: 2223-814X, Open Access- Online @ <http://www.ajhtl.com>

Short description of the curriculum presented in 2017:

Undergraduate (NQF levels 5, 6 and 7):

First Year - GOG101: (NQF level 5)

GOG 101 -Introduction to Physical Environmental Systems (Dr Wisemen Chingombe)

GOG 102- Introduction to Human Environment (Prof Pakama Siyongwana)

Second Year – (NQF level 6)

GOG 201 Physical Processes and GIS (Dr Wisemen Chingombe)

GOG 202 Economic and Development Environment (Prof Pakama Siyongwana)

Third Year – (NQF levels 7)

GOG 302 Urban Social Geography (Prof PQ Siyongwana)

GOG 301 Climatology and Remote Sensing (Dr Wisemen Chingombe)

Student Numbers (2016-17):

Level	2016	2017
First year	00	90
Second year	00	
Third year	00	

North-West University, Potchefstroom Campus: Department of Geo-and Spatial Sciences

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr Dirk Cilliers	Strategic environmental management tools. Spatial analysis.	Dirk.cilliers@nwu.ac.za	018 299 1589

2. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr. Roelof Burger	Senior lecturer	GIS and climate modelling	Roelof.burger@nwu.ac.za	018 299 4269
Mr Theuns de Klerk	Senior lecturer	GIS	Theuns.deklerk@nwu.ac.za	018 299 1583
Prof Stuart Piketh	Professor and Director School of Geo and Spatial Sciences	Climatology and climate modelling	Stuart.piketh@nwu.ac.za	018 299 1582
Mr. Manna Stander.	Lecturer	Human Geography	Manna.Stander@nwu.ac.za	018 299 1587
Ms Carli Steenkamp	Lecturer	EIA and Environmental Planning	Carli.steenkamp@nwu.ac.za	018 299 1523
Associate Prof Luke Sandham	Associate Professor	EIA effectiveness in South Africa	Luke.sandham@nwu.ac.za	018 299 1585
Dr Joseph Adesina	Temporary appointment	Aerosols Climatology Air quality	Joseph.Adesina@nwu.ac.za	018-299-1511
Dr Livhu NemaKonde	Senior Lecturer	Disaster risk management	24539155@nwu.ac.za	018-299-1671
Dr Christo Coetzee	Senior Lecturer	Disaster risk management	Christo.Coetzee@nwu.ac.za	018-299-1630
Mrs Leandri Kruger	Jnr Subject Specialist	SIA, Disaster Risk Reduction and Resilience	20768222@nwu.ac.za	018 299 1006

Prof Dewald van Niekerk	Professor	Disaster risk management	Dewald.VanNiekerk@nwu.ac.za	018-299-1634
Associate members in the Research Unit for Environmental Science and Management				
Prof Harold Annegarn	Professor	Air pollution		
Prof Francois Retief	Professor	Environmental Assessment	Francois.retief@nwu.ac.za	018 299 1586
Prof Angus Morrison-Saunders	Extraordinary professor, visiting from Murdoch University, Perth	Environmental and Sustainability Assessment	A.Morrison-Saunders@murdoch.edu.au	
Dr Jenny Pope	Extraordinary senior lecturer, visiting from Integral Sustainability, Perth	Environmental and Sustainability Assessment	jenny@integral-sustainability.net	
Dr Alan Bond,	Extraordinary fellow, visiting from University of East Anglia	Environmental and Sustainability Assessment	alan.bond@uea.ac.uk	

3. Information about the professional and support staff in the Department

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Ms Vernice Botha	Secretary	Administrative support	Vernice.swarts@nwu.ac.za	018-299-1511
Mr Gustav Havenga	GIS assistant	GIS support	gustavhavenga@gmail.com	018-299-1511

4. Department News

The African Centre for Disaster Studies became part of the Department of Geography and Environmental Management. Two lecturers were promoted to senior lecturers (Dr Coetzee and Dr Nemakonde). The Department is currently in the process of merging with the Geography departments on the Mafikeng campus and the Vaal Campus.

Dr Jan-Albert Wessels left the Department at the end of 2017 with promotion to associate professor at Unisa. He also obtained a Y2 rating from the NRF from 2018.

5. 2016-17 dated publications:

- Cilliers, D. P., & Retief, F. (2017). The extent and status of environmental management frameworks (EMFs) in South Africa, 2006–2015. *South African Geographical Journal*, 1-18.
- Schoeman, C.B., Cilliers, D.P., Retief, F.P. (2017). 'Environmental management and land use management in South Africa: Complexities, challenges and opportunities for integrated strategic planning in developing countries'. In C.B. Schoeman (Ed.) *Transportation Land Use and Integration: applications in developing countries*
- Kruger, L. 2016. Timing of agricultural production in hazard prone areas to prevent losses at peak risk periods: A case of Malawi, Madagascar and Mozambique. *Jamba: Journal of Disaster Risk Studies* 8(2), Art, #179, 9 pages.
- Mathews, J.A., Kruger, L. & Wentink, G. 2017. Climate-smart agriculture for sustainable agricultural sectors: The case of Mooifontein. *Jamba: Journal of Disaster Risk Studies* (Accepted).
- R. Alberts, J.A. Wessels, A. Morrison-Saunders, M.P. McHenry, A. Rita Sequeira, H. Mtegha, D. Doepel. 2017. Complexities with extractive industries regulation on the African continent: What has 'best practice' legislation delivered in South Africa? *The Extractive Industries and Society* 4 (2017) 267–277.
- Van Rensburg, D and Wessels, JA (not published). Investigating Western Australia's rehabilitation fund as a fiscal policy solution for South African abandoned mines. *SAIMM Journal* paper 16-032.
- Sandham LA & Retief FP, 2016. The contribution of Geography to Environmental Assessment (EA) practice and research. *South African Geographical Journal*. 98 (3): 450-460. <http://dx.doi.org/10.1080/03736245.2016.1208585>
- Book Chapter: Sandham LA and Van Brakel J. 2016. Geography at Potchefstroom University for Christian Higher Education and the North-West University, pp 95-116. In Visser, G; Donaldson, R & Seethal, C (eds.) *The Origin and Growth of Geography as a Discipline at South African Universities: Early 1900s to 2016*. Sun Media: Stellenbosch. ISBN 978-1-928357-25-4

6. Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Cilliers, DP	A land use suitability	Oral presentation	4 – 6 September	EUGEO 6th annual conerence, 4 – 6

	approach to disaster risk management: the case of the Greater Taung Local Municipality			September, Brussels, Belgium
Matandirotya N, Cilliers D.P, Burger R, Piketh S	Application of remote sensing techniques to characterise heat loss in low-income housing	Oral presentation	27 August -1 September	Joint Assembly 2017 conference for International Association for the Physical Sciences of the Oceans (IAPSO)- International Association of Meteorology and Atmospheric Sciences (IAMAS)- International Association of Geomagnetism and Aeronomy (IAGA),Cape Town, South Africa
Komape, D.M., Siebert, S.J., Van den Berg, J., Cilliers, D., Khanyi, H., Lloyd Evans, D., Snyman, S.J	Distribution of wild relatives of <i>Saccharum</i> species hybrids in sugarcane cultivation regions of South Africa	Oral presentation	8 – 11 January	43rd Annual Congress of the South African Association of Botanists, University of the Western Cape, Cape Town
Sandham, L.A and Kruger, L.	Practitioner perspectives of SIA status in South Africa.	Paper presented	4-7 April 2017	37th annual conference of the International Association for Impact Assessment (IAIA). Montreal, Canada

L A Sandham, JJ Chabala and HH Spaling	. PRA for public participation in South Africa	Paper presented	4-7 April 2017	37th annual conference of the International Association for Impact Assessment (IAIA). Montreal, Canada
Kruger, L., Mathews, J.A., Wentink, G	Climate-smart Agriculture for sustainable agricultural sectors: The case of Mooifontein	Paper Presented	13-15 July 2017.	Sustainable Development Conference. 2017. Bangkok, Thailand
Douglas, Anneli; Wessels, Jan- Albert; Fairer- Wessels, Felicity; Retief, Francois; Morrisson- Saunders, Angus; Pope, Jenny; Hughes, Mike	Understanding sustainable tourism development and responsible tourism practices in the Kruger National Park: measuring visitor perceptions and experiences against sustainability assessment outcomes.	Paper Presented	12 – 16 March 2017	2017. 15th Savanna Science Network Meeting, , Skukuza, Kruger National Park.
Wessels, JA	. Strengthening the ECO industry: Talent, Skill and Knowledge requirements.	Paper Presented	August 2017	International Association for Impact Assessment (South African Chapter - IAIAAs) Conference “Inspiring Integrated Environmental Management”,

				Rawsanville, Goudini Spa
Douglas, Anneli; Wessels, Jan-Albert; Fairer-Wessels, Felicity; Retief, Francois; Morrison-Saunders, Angus; Pope, Jenny; Hughes, Mike	EIA follow-up: Measuring Kruger National Park visitor experiences against EIA expectations	Paper Presented	August 2017	International Association for Impact Assessment (South African Chapter - IAIAAsa) Conference "Inspiring Integrated Environmental Management", Rawsanville, Goudini Spa

7. Research Master Dissertations completed in 2016-17:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>J.A. Mathews</i>	Building resilience to climate risk in the agricultural sector through adaptation education using a climate-smart approach: The case of the Mooifontein region, North-West province.	<i>NWU</i>	<i>Ma. Development and Management</i>	<i>L Kruger</i>	<i>G Wentink</i>
<i>D. Van Der Merwe</i>	Disaster risk due to fracking in the fragile ecosystems of the Nama Karoo: A	<i>NWU</i>	<i>Ma. Development and Management</i>	<i>L Kruger</i>	<i>C Coetzee</i>

	Disaster Risk Management Perspective.				
<i>J Chabalala</i>	<i>Participatory Rural Appraisal tools, to improve Public Participation in South African EIA</i>	<i>NWU</i>	<i>MSc Geography and Environmental Management</i>	<i>L A Sandham</i>	<i>HH Spaling</i>

8. Master Dissertations of limited scope completed in 2016-17:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>B E Smith</i>	<i>The value of stakeholder engagement prior to the EIA process: Transnet case studies</i>	<i>NWU</i>	<i>M Env Management</i>	<i>L A Sandham</i>	

9. PhD Thesis's completed in 2016-17:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>

10. Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7):

Geography can be taken in a BSc programme with various other majors including:

Geology, Zoology, Botany, Computer Science and Tourism.

Geography is a sub-major in the Urban and Regional Planning curriculum (B Art et Scien).

Geography can also be taken in B Social Sciences and B A programmes with a number of other majors including Psychology, Public Management, History, and Philosophy.

Postgraduate (NQF level 8):

B Sc Honours in Environmental Sciences: Geography and Environmental Management (N648P).

This programme is focused on three themes i.e. Environmental management, GIS and Remote sensing, and Air pollution.

Bachelor of Science Honours in Environmental Sciences: Waste Management (N649P)

This programme is focused on two main themes i.e. Environmental management, and Solid waste management.

Postgraduate Diploma in Disaster Risk Management (N501P)

Postgraduate (NQF level 9):

MSc in Geography and Environmental Management (N829P)

Master of Environmental Management (N824P)

M.Sc. in Environmental Sciences with Disaster Risk Science (N801P)

Postgraduate (NQF level 10):

PhD in Geography and Environmental Management (N909P)

PhD in Science with Disaster Risk Science (N901P)

11. Student Numbers (2016-17):

Level	2016	2017
First year	245	235
Second year	126	130
Third year	118	90
Honours	14	32
Masters	50	52
Doctoral	7	12

University of KwaZulu-Natal: Geography – three campuses Westville and Howard College in Durban Centre and Pietermaritzburg

Academic Leader: Prof T R Hill

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Assoc Prof Hill, T R	Biogeography	hillt@ukzn.ac.za	033 260 5235

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr J. Odindi	Senior Lecturer	Environmental Science, GIS and Remote Sensing	Odindi@ukzn.ac.za	0332605539
Prof O. Mutanga	Professor	Environmental Science, GIS and Remote Sensing	MutangaO@ukzn.ac.za	0332605579
Dr R. Lottering	Lecturer	Environmental Science, GIS and Remote Sensing	Lottering@ukzn.ac.za	0332605877
Prof T. Hill	Associate Professor	Biogeography	Hillt@ukzn.ac.za	0332605235
Dr, Finch, JM	Lecturer	Palaeoecology, global change, biogeography	finchj@ukzn.ac.za	0332606374
Mrs D Trotter-Boardman	Lecturer	Environmental Management	TrotterD2@ukzn.ac.za	0332605089
Dr A. Nel	Senior Lecturer	Political Ecology	NelA@ukzn.ac.za	0332606377
Mr N. Ngidi	Lecturer	Urban	NgidiN10@ukzn.ac.za	0332606568

		Geography		
Prof B Maharaj	Prof	Urban Development, Local Economic Development, Mega events, development and displacement, Xenophobia, Diaspora	maharajb@ukzn.ac.za	0312601027
Dr Bass, O	Senior Lecturer	Cities and culture, mega-events, aspects relating to geography discipline in SA	bass@ukzn.ac.za	0312607320
Dr S. Pillay	Senior Lecturer	Environmental geology and geochemistry of fluvial systems, wetlands, estuarine systems and coastal lakes	Pillays2@ukzn.ac.za	0312607654
Dr N. Njoya,	Lecturer	Environmental Science, GIS and Remote Sensing	njoya@ukzn.ac.za	0312603161
Mr S. Nkomo,	Lecturer	Rural Development, Sustainable Land Management, EIA	Nkomos1@ukzn.ac.za	0312601149
Prof S. Proches	Professor	Biodiversity, Biogeography, biological Invasions	Prochess@ukzn.ac.za	0312601278
Dr S. Desai	Senior	Rural	Desai@ukzn.ac.za	0312602955

	Lecturer	Development		
Dr S. Pillay	Senior Lecturer	Coastal Geomorphology	Pillays2@ukzn.ac.za	0312607654
Dr F. Ahmed	Lecturer	Sustainable Development, Ecological Geopolitics, Environ. Conflicts Political Ecology, Feminist Studies	Ahmedf1@ukzn.ac.za	0312603523
Dr Michael Gebreslasie	Associate Professor	Environmental Science, GIS and Remote Sensing	gebreslasie@ukzn.ac.za	0312608276
Dr E. Sieben	Lecturer	Wetlands, Vegetation, Biogeography, Environmental Monitoring	siebene@ukzn.ac.za	0312608140
Dr S. Munien	Lecturer	Development, Energy-related studies, socio-environmental systems	munien@ukzn.ac.za	0312607653

Professional and support staff

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Mrs Sherriff, S	AAO	N/A	sherriffs@ukzn.ac.za	031 260 2416
Mrs S. Ramroop	AAO	N/A	ramroopsh@ukzn.ac.za	033 260 5341
Mr Prievan Deby	AAO	N/A	DebyP@ukzn.ac.za	033 260 7322

Departmental News

Brij Maharaj has been appointed Section Editor for the 2nd Edition of the International Encyclopedia of Human Geography to be published by Elsevier.

Trevor Hill has been appointed into the Editorial Boards of Society and Natural Resources, and Journal of Geography Education in southern Africa.

Brij Maharaj and Trevor Hill co-edit South African Geographical Journal

John Odindi and Onesimo Mutanga were nominated by the Department of Science and Technology and the South African National Space Agency (SANSA) as part of the 52 outstanding researchers on the African continent.

Şerban Procheş delivered his inaugural lecture entitled ‘Mapping the antiquity, pervasiveness and uniqueness of life on Earth’.

Prof Marc Epprecht, Head of Department of Glocal Development Studies, Queens University, Canada spent some time at PMB Campus.

Louise Collins, Maynooth University, Ireland spent time in Geography (PMB) collected data for her PhD on exploring queer legal geographies and how people resist homophobia in everyday practice.

2016-17 dated publications:

Abdel-Rahman A., **Mutanga O.**, **Odindi J.**, Adam A., Odindo A., Ismail R. (2017). Estimating Swiss chard foliar macro- and micronutrient concentrations under irrigation water sources using ground-based hyperspectral data and four partial least (PLS)-based (PLS1, PLS2, SPLS1 and SPLS2) regression algorithms. *Computers and Electronics in Agriculture*, 132, 21–33.

Adam, A., Deng, H., **Odindi, J.**, Abdel-Rahman, E. M., and **Mutanga, O.** (2017). Detecting the early stage of *Phaeosphaeria* Leaf Spot infestations in maize crop using in situ hyperspectral data and guided regularized random forest algorithm. *Journal of Spectroscopy*, Article ID 6961387, pp. 1-8. 8 DOI:<https://doi.org/10.1155/2017/6961387>.

Benallack, K., Green, A., Humphries, M., Cooper, A., Dladla, N., **Finch, J.** (2016). The stratigraphic evolution of a large backbarrier lagoon system with a non-migrating barrier. *Marine Geology* 379, 64-77.

Birkett, C.K., **Hill, T.R.**, Zuma, K.D. & Everson, T.M., 2016: Bringing rain to the land: Rainfall simulation as a participatory teaching aid to understanding erosion. *Journal of Environmental Protection*, 7, 1305-1316.

Bollaert, E. and **Maharaj, B.** 2017. Experiences of a hidden population: Life stories of refugees in Pietermaritzburg. *African Geographical Review* doi.org/10.1080/19376812.2017.1354227

Bwalya, J.B. and **Maharaj, B.** 2017. Not to the highest bidder: The failure of incumbency in the Zambian 2011 elections. *Journal of Contemporary African Studies*, doi/full/10.1080/02589001.2017.1369014

Chemura, A., & **Mutanga, O.** (2017). Developing detailed age-specific thematic maps for coffee (*Coffea arabica* L.) in heterogeneous agricultural landscapes using random forests applied on Landsat 8 multispectral sensor. *Geocarto International*, 32, 759-776

Chemura, A., **Mutanga, O.**, & Dube, T. (2017). Integrating age in the detection and mapping of incongruous patches in coffee (*Coffea arabica*) plantations using multi-temporal Landsat 8 NDVI anomalies. *International Journal of Applied Earth Observation and Geoinformation*, 57, 1-13

Chivasa, W., **Mutanga, O.**, & Biradar, C. (2017). Application of remote sensing in estimating maize grain yield in heterogeneous African agricultural landscapes: a review. *International Journal of Remote Sensing*, 38, 6816-6845

Chomba, M.J., **Hill, T.R.**, Nkhata, B.A. & Forster, J.J., 2017: Paradigms for water allocation in river basins: a society-science-practice perspective from Southern Africa. *Water Policy*, 19 (3), 637-639.

Cockburn, J., Rouget, M., Slotow, R., Roberts, D., Boon, R., Douwes, E., O'Donoghue, S., Downs, C., Mukherjee, S., Musakwa, W., **Mutanga, O.**, Mwabvu, T., **Odindi, J.**, Odindo, A., Proches, Ş., Ramdhani, S., Ray-Mukherjee, J., Sershen, N., Schoeman, M., Smit, A., Wale, E. and Willows-Munro, S. (2016). How to build science-action partnerships for local land-use planning and management: lessons from Durban, South Africa. *Ecology and Society* 21(1):28. <http://dx.doi.org/10.5751/ES-08109-210128>. Impact factor 4.644.

Ebhuoma, O., Lethumusa Magubane, and **Michael Gebreslasie** (2017). Modeling Malaria control intervention effect in KwaZulu-Natal, South Africa using intervention time series analysis. *Journal of Infection and Public Health*, 10, 334 -338.

Ebhuoma, O. and **Michael Gebreslasie** (2016). Remote sensing-Driven Climatic/Environmental Variables for Modelling Malaria Transmission in Sub-Saharan Africa. *International Journal of Environmental Research and Public Health* 13, 584; doi:10.3390/ijerph13060584

Finch, J.M., Marchant, R., Mustaphi, C. (2017). Ecosystem change in the South Pare Mountain bloc, Eastern Arc Mountains of Tanzania. *The Holocene* 27, 796-810.

Gairola, S., Serban Proches, **Michael Gebreslasie**, and Duccio Rocchini (2016). Remote sensing object-oriented approaches coupled with ecological informatics to map invasive plant species. *South African Journal of Geomatics*, 5 (3).

Gandiwa, P., **Finch, J.M.** & **Hill, T.R** 2016: Vegetation structure and composition in the semi-arid Mapungubwe Cultural Landscape. *Global Journal of Environmental Science and Management*, 2 (3), 235-248.

Goble, B.J., **Hill, T.R.** & Phillips, M.R., 2017: An Assessment of Integrated Coastal Management Governance and Implementation Using the DPSIR Framework: KwaZulu-Natal, South Africa. *Journal of Coastal Management*, 45 (2).

Gomes, M., Humphries, M.S., Kirsten, K.L., Green, A.N., **Finch, J.M.**, de Lecea, A.M. (2017). Diatom-inferred hydrological changes and Holocene geomorphic transitioning of Africa's largest estuarine system, Lake St Lucia. *Estuarine, Coastal and Shelf Science* 192, 170-180.

Hickman T, **Procheş Ş**, Ramdhani S. 2017. Patterns of diversity in two African-centered, aridity-adapted flightless weevil lineages (Coleoptera: Curculionoidea). *Zootaxa*, 4323: 593–599.

Hlahla, S., Goebel, A. & **Hill, T.**, 2016: Green Economy: a Strategy to Alleviate Urban Poverty and Safeguard the Environment? KwaZulu-Natal, South Africa. *Urban Forum*, 27 (1), 113-127.

Hoogakker, B.A.A., R. S. Smith, J. S. Singarayer, R. Marchant, I. C. Prentice, J. R. M. Allen, R. S. Anderson, S. A. Bhagwat, H. Behling, O. Borisova, M. Bush, A. Correa-Metrio, A. de Vernal, **J. M. Finch**, B. Fréchette, S. Lozano-Garcia, W. D. Gosling, W. Granoszewski, E. C. Grimm, E. Gröger, J. Hanselman, S. P. Harrison, **TR Hill**, B. Huntley, G. Jiménez-Moreno, P. Kershaw, M.-P. Ledru, D. Magri, M. McKenzie, U. Müller, T. Nakagawa, E. Novenko, D. Penny, L. Sadori, L. Scott, J. Stevenson, P. J. Valdes, M. Vandergoes, A. Velichko, C. Whitlock, & C. Tzedakis. 2016: Terrestrial biosphere changes over the last 120 kyr and their impact on ocean $\delta^{13}\text{C}$. *Climate of the Past Discussions*, 11(2):1031-1091.

Humphries, B.D., Ramesh, T., **Hill, TR** & Downs, C.T., 2016: Habitat Use and Home Range of Black-Backed Jackals (*Canis mesomelas*) on Farmlands in the Midlands of KwaZulu-Natal, South Africa. *African Zoology*, 51 (1), 37-45.

Humphries, M., Benitez-Nelson, C., Bizimis, M., **Finch, J.M.** (2017). An aeolian sediment reconstruction of regional wind intensity and links to larger scale climate variability since the last deglaciation from the east coast of southern Africa. *Global and Planetary Change* 156, 59-67.

Humphries, M., Green, A., **Finch, J.M.** (2016). Evidence of El Niño driven desiccation cycles in a shallow estuarine lake: The evolution and fate of Africa's largest estuarine system, Lake St Lucia. *Global and Planetary Change* 147, 97–105.

Jombo, S., Adam, E. and **Odindi, J.** (2017). Quantification of landscape transformation due to the Fast Track Land Reform Programme (FTLRP) in Zimbabwe using remotely sensed data. *Land Use Policy*, 68, 287-294.

Jorgenson, P.W, **Trotter, D.C.**, & **Hill, TR**, 2016: Ecosystem services assessments in local municipal decision making in South Africa: justification for the use of a business-based approach. *Journal of Environmental Planning and Management*, 59 (2), 263-279.

Kapwata, T. and Michael Gebreslasie (2016). Random forest variable selection in spatial malaria transmission modelling in Mpumalanga Province, South Africa. *Geospatial Health* 2016, Vol. 11:434, 251- 262.

Kasiringua E, Kopij G, **Procheş Ş.** 2017. Daily activity patterns of ungulates at water holes during the dry season in the Waterberg Plateau National Park, Namibia. *Russian Journal of Theriology*, in press.

Kganyago, M., **Odindi, J.**, Adjorlolo, C., and Mhangara, P., 2017. Selecting a subset of spectral bands for mapping invasive alien plants: a case of discriminating *Parthenium hysterophorus* using field spectroscopy data. *International Journal of Remote Sensing*, 38, (20), 5608–5625 <https://doi.org/10.1080/01431161.2017.1343510>.

Kiala, Z., **Odindi, J.** and **Mutanga, O.** (2017). Potential of interval partial least square regression in estimating leaf area index. *South African Journal of Science*, 113(9/10), Art. #2016-0277, 9 pages. <http://dx.doi.org/10.17159/sajs.2017/20160277>.

Kiala, K., **Odindi, J., Mutanga, O.,** Peerbhay, K. (2016). Comparison of partial least squares and support vector regressions for predicting leaf area index on a tropical grassland using hyperspectral data. *Journal of Applied Remote Sensing* 10(3), 036015 (2016), doi: 10.1117/1.JRS.10.036015

Lodder, J., **Hill, T.R. & Finch, J.M.,** in press. A 5000-yr record of Afromontane vegetation dynamics from the Drakensberg Escarpment, South Africa. *Accepted by Quaternary International*.

Lottering, R., & Mutanga, O. 2016: Optimising the spatial resolution of WorldView-2 imagery for discriminating forest vegetation at a subspecies level in KwaZuluNatal, South Africa. *Geocarto International*, 31, 870-880.

Lottering, R., & Mutanga, O. 2016: Optimising the spatial resolution of WorldView-2 pan-sharpened imagery for predicting levels of *Gonipterus scutellatus* defoliation in KwaZulu-Natal, South Africa. *ISPRS Journal of Photogrammetry and Remote Sensing*, 112, 13-22.

Lottering, R., Mutanga, O. & Peerbhay, K. 2016: Detecting and mapping levels of *Gonipterus scutellatus* induced vegetation defoliation and leaf area index using spatially optimised vegetation indices. *Geocarto International*.

Lyons, K., Westoby, P. & **Nel, A.** 2017. Reforming global carbon markets or re-imagining alternative climate solutions and sustainabilities? An analysis of selected NGO strategies in Uganda. *Journal of Political Ecology* 24: 324-341

Maharaj, B. 2017. Contesting Displacement and the Struggle for Survival: The Case of Subsistence Fisher Folk in Durban, South Africa. *Local Economy* (in press)

Maharaj, B. 2017. Durban's FIFA 2010 Beachfront 'Beautification'. In N. Wise and J. Harris (eds.), *Sport, Events, Tourism and Regeneration International Cases and Interdisciplinary Perspectives*. Routledge, pp. 40-53.

Maharaj, B. and Ramutsindela, M. 2017. Social change and (re)radicalization of geography in South Africa. In L.D. Berg and U. Best (eds.) *Placing Critical Geography: International Histories of Critical Geographies*. Ashgate

Makori, D. M., Fombong, A. T., Abdel-Rahman, E. M., Nkoba, K., Ongus, J., Irungu, J., Mosomtai, G., Makau, S., **Mutanga, O., Odindi, J.,** Raina, S. and Landmann, T. 2017. Predicting Spatial Distribution of Key Honeybee Pests in Kenya Using Remotely Sensed and Bioclimatic Variables: Key Honeybee Pests Distribution Models. *ISPRS International Journal for Geo-Information*, 6, (66), 1-20.

Matongera, T.N., **Mutanga, O.,** Dube, T., & Sibanda, M. (2017). Detection and mapping the spatial distribution of bracken fern weeds using the Landsat 8 OLI new generation sensor. *International Journal of Applied Earth Observation and Geoinformation*, 57, 93-103

Matongera, T., Mutanga, O., **Lottering, R.,** & Dube, T., 2016: Detection and mapping of bracken fern weeds using remotely sensed data: A review of progress and challenges. *Geocarto International*.

Manyangadze, T., Moses J. Chimbari, **Michael Gebreslasie,** Pietro Ceccato, and Samson Mukaratirwa (2016). Modelling the spatial and seasonal distribution of suitable habitats of schistosomiasis intermediate host snails using Maxnet in Ndumo area, KwaZulu-Natal, South Africa. *Parasites and Vectors*. (2016) 9-572. DOI 10.1186/s13071-016-1834-5.

Manyangadze, T., Moses J. Chimbari, **Michael T. Gebreslasie**, and Samson Mukaratirwa (2016). Risk factors and micro-geographical heterogeneity of *Schistosoma haematobium* in Ndumo area, uMkhanyakude district, KwaZulu-Natal, South Africa. *Acta Tropica* 159, 176-184

Meadows, M.E. and **Finch, J.M.** (2016). The history and development of Quaternary Science in South Africa. *South African Geographical Journal* 98, 472-482.

Moodley D, **Procheş Ş**, Wilson, JRU. 2017. Assessing and managing the threat posed by *Epipremnum aureum* in South Africa. *South African Journal of Botany* 109: 178–188.

Mohamed, A. A., **Odindi, J.** and **Mutanga, O.** (2017). Land Surface Temperature and Emissivity Estimation for Urban Heat Island assessment using medium and low resolution space-borne sensors: A review. *Geocarto International*, 99, (1), 52–6 DOI: 0.1080/10106049.2016.1155657.

Mushore, T. D., **Odindi, J.**, Dube, T., Matongera, T., **Mutanga, O.** (2017). Remote sensing applications in monitoring urban growth impacts on in-and-out door thermal conditions: A review. *Remote Sensing Applications: Society and Environment*, 8, 83-93.

Mushore, T., **Odindi J.**, Dube, T and **Mutanga, O.** (2017). Understanding the relationship between urban outdoor temperatures and indoor air-conditioning energy demand in Zimbabwe. *Sustainable Cities and Society*, 34, 97-108.

Mushore, T.D., **Mutanga, O.**, **Odindi, J.**, & Dube, T. (2017c). Linking major shifts in land surface temperatures to long term land use and land cover changes: A case of Harare, Zimbabwe. *Urban Climate*, 20, 120-134

Mushore, T., **Odindi, J.**, Dube, T and **Mutanga, O.** (2017). Prediction of future urban surface temperatures using medium resolution satellite data in Harare metropolitan city, Zimbabwe. *Building and Environment*, 122, 397-410.

Mushore, T., **Mutanga, O.**, **Odindi, J.** and Dube, T. 2017. Assessing the potential of integrated Landsat 8 thermal bands, with the traditional reflective bands and derived vegetation indices in classifying urban landscapes *Geocarto International*, 32 (8), 886–899. doi.org/10.1080/10106049.2016.1188168.

Munien, S. 2016. Assessing community needs in relation to rural tourism potential in South Africa: a case study of Ndwedwe Municipality. *African journal of Hospitality, Tourism and Leisure*, 5(3) Open Access- Online @ [http://: www.ajhtl.com](http://www.ajhtl.com)

Mzinyane, T., Jan van Aardt, Fethi Ahmed, and **Michael T. Gebreslasie**. (2016). Predicting Soil nitrogen content using narrow-band indices from Eucalyptus grandis canopies as proxies. *South Africa Journal of Plant and Soil*. 2015 1-9

Nel, A. 2017. Contested carbon: Carbon forestry as a speculatively virtual, falteringly material and disputed territorial assemblage. *Geoforum*, 81: 144-152

Nel, A. 2017. A Critical Reflection of Social Equity in Ugandan Carbon Forestry. In. Paladino, S and Fiske, S. (eds). *The Carbon Fix: Forest Carbon, Social Justice, and Environmental Governance*. London: Routledge: 302-319

Nkambule, S.S., Buthelezi, H.Z. & **Munien, S.** 2016, ‘Opportunities and constraints for community-based conservation: The case of the KwaZulu-Natal Sandstone Sourveld grassland, South Africa’, *Bothalia* 46(2), a2120. <http://dx.doi.org/10.4102/abc.v46i1.2120>.

Nzoooma M. Shimaponda-Mataa, Enala Tembo-Mwase, **Michael Gebreslasie**, Thomas N.O. Achia, and Samson Mukaratirwa (2017). Modelling the influence of temperature and rainfall on malaria incidence in four endemic provinces of Zambia using semiparametric Poisson regression. *Acta Tropica* 166, 81-91.

Nzoooma M. Shimaponda-Mataa, Enala Tembo-Mwase, **Michael Gebreslasie**, and Samson Mukaratirwa (2016). Knowledge, attitudes and practices in the control and prevention of malaria in four endemic provinces of Zambia. *Southern African Journal of Infectious Disease* 2016, 1(1):1-11. <http://dx.doi.org/10.1080/23120053.2016.1205330>

Odindi, J., Mutanga, O., Abdel-Rahman, E. M., Adam, E and Bangamwabo, V (2017). Determination of urban land-cover types and their implication on thermal characteristics in three South African coastal metropolitans using remotely sensed data. *South African Geographical Journal*, 99: (1), 52-67, DOI: 10.1080/03736245.2015.1117015

Odindi, J., Mutanga, O., Rouget, M. & Hlanguza, N. (2016). Mapping alien and indigenous vegetation in the KwaZulu-Natal Sandstone Sourveld using remotely sensed data. *Bothalia - African Biodiversity and Conservation* 46(1) 1-9. <http://dx.doi.org/10.4102/abc.v46i1.2103>.

Oelofse, M., Birch-Thomsen, T., Magid, J., de Neergaard, A., van Deventer, R. & **Hill, T.**, 2016: The impact of black wattle encroachment of indigenous grasslands on soil carbon, Eastern Cape, South Africa. *Biological Invasions*, 18 (2), 445-456.

Ojoyi, M., **Mutanga, O., Odindi, J.**, Kahinda, M. J., and Abdel-Rahman, E. (2017). Implications of land use transitions on soil nitrogen in dynamic landscapes in Tanzania. *Land Use Policy*, 64, 95-100.

Ojoyi, M., **Mutanga, O.**, Kahinda, J., **Odindi, J.**, and Abdel-Rahman, E. (2017). Scenario-based approach in dealing with climate change impacts in Central Tanzania. *Futures*, 85: 30–41 DOI: 10.1016/j.futures.2016.11.007.

Ojoyi MM., **Odindi J., Mutanga O.** & Abdel-Rahman EM. (2016). Analysing fragmentation in vulnerable biodiversity hotspots in Tanzania from 1975 to 2012 using remote sensing and fragstats. *Nature Conservation*, 16: 19–37. doi: 10.3897/natureconservation.16.9312

Omer, G., **Mutanga, O.**, Abdel-Rahman, E.M., Peerbhay, K., & Adam, E. (2017). Mapping leaf nitrogen and carbon concentrations of intact and fragmented indigenous forest ecosystems using empirical modeling techniques and WorldView-2 data. *ISPRS Journal of Photogrammetry and Remote Sensing*, 131, 26-39

Padayachee AL, Irlich UM, Faulkner KT, Gaertner M, **Procheş Ş**, Rouget M, Wilson JR. 2017. Aliens and the city life: How do invasive species travel to and through urban environments? *Biological Invasions*, in press.

Peerbhay, K., Mutanga, O., **Lottering, R.** & Ismail, R. 2016: Mapping *Solanum mauritianum* plant invasions using WorldView-2 imagery and unsupervised random forests. *Remote Sensing of Environment*, 182, 39-48.

Peerbhay, K., Mutanga, O., **Lottering, R.**, Bangamwabo, V., & Ismail R., 2016: Detecting bugweed (*Solanum mauritianum*) abundance in plantation forestry using multisource remote sensing. *ISPRS Journal of Photogrammetry and Remote Sensing*, 121, 167-176.

Perry, E.C. and **Munien, S.** 2016. Safety and security concerns in relation to open leisure spaces in residential areas in Durban. *African journal of Hospitality, Tourism and Leisure*, 5(3) Open Access-Online @ [http://: www.ajhtl.com](http://www.ajhtl.com)

Perera SJ, **Procheş Ş**, Ratnayake-Perera D, Ramdhani S. 2017. Vertebrate endemism in south-eastern Africa numerically redefines a biodiversity hotspot. *Zootaxa*, in press.

Rajah, P., **Odindi, J.**, Abdel-Rahman, E. and **Mutanga, O.** (2017). Determining the optimal phenological stage for predicting common dry bean (*Phaseolus vulgaris*) yield using field spectroscopy. *South African Journal of Plant and Soil*, 34(5): 379–388

Reddy, N., **Michael Gebreslasie**, Riyad Ismail (2017). Hybrid partial least squares and random forest approach to modelling forest structural attributes using multispectral remote sensing data. *South African Journal of Geomatics*, 6 (3).

Sánchez Goñi, M. F., Desprat, S., Daniau, A.-L., Bassinot, F. C., Polanco-Martínez, J. M., Harrison, S. P., Allen, J. R. M., Anderson, R. S., Behling, H., Bonnefille, R., Burjachs, F., Carrión, J. S., Cheddadi, R., Clark, J. S., Combourieu-Nebout, N., Mustaphi, Colin. J. Courtney, Debusk, G. H., Dupont, L. M., **Finch, J. M.**, Fletcher, W. J., Giardini, M., González, C., Gosling, W. D., Grigg, L. D., Grimm, E. C., Hayashi, R., Helmens, K., Heusser, L. E., **Hill, T.**, Hope, G., Huntley, B., Igarashi, Y., Irino, T., Jacobs, B., Jiménez-Moreno, G., Kawai, S., Kershaw, A. P., Kumon, F., Lawson, I. T., Ledru, M.-P., Lézine, A.-M., Liew, P. M., Magri, D., Marchant, R., Margari, V., Mayle, F. E., McKenzie, G. M., Moss, P., Müller, S., Müller, U. C., Naughton, F., Newnham, R. M., Oba, T., Pérez-Obiol, R., Pini, R., Ravazzi, C., Roucoux, K. H., Rucina, S. M., Scott, L., Takahara, H., Tzedakis, P. C., Urrego, D. H., van Geel, B., Valencia, B. G., Vandergoes, M. J., Vincens, A., Whitlock, C. L., Willard, D. A., and Yamamoto, M.: The ACER pollen and charcoal database: a global resource to document vegetation and fire response to abrupt climate changes during the last glacial period, *Earth Syst. Sci. Data*, 9, 679-695, <https://doi.org/10.5194/essd-9-679-2017>, 2017.

Sangeetha, S.K., V. Sivakumar, M. Josipovic, **M. Gebreslasie** (2017). SO2 seasonal variation and assessment of Ozone Monitoring Instrument (OMI) measurements at Sharpeville (27.86°E; 26.68°S) a South African ground-based station (2017). *International Journal of Remote Sensing* Volume 38 (23), 6680-6696.

Shoko, C., & **Mutanga, O.** (2017a). Examining the strength of the newly-launched Sentinel 2 MSI sensor in detecting and discriminating subtle differences between C3 and C4 grass species. *ISPRS Journal of Photogrammetry and Remote Sensing*, 129, 32-40

Sibanda, M., **Mutanga, O.**, Rouget, M., & Kumar, L. (2017b). Estimating Biomass of Native Grass Grown under Complex Management Treatments Using WorldView-3 Spectral Derivatives. *Remote Sensing*, 9, 55

Sieben, E.J.J. & Le Roux, P.C. 2017. Functional traits, spatial patterns and species associations: what is their combined role in the assembly of wetland plant communities ? *Plant Ecology* 218: 433-445. Not published under UKZN address.

Sieben, E.J.J., Kotze, D.C., Job, N.M. & Muasya, A.M., 2017. The sclerophyllous wetlands on quartzite substrates in South Africa: Floristic description, classification and explanatory environmental factors. *South African Journal of Botany* 113: 54-61.

Sieben, E.J.J., Collins, N.B., Kotze, D.C., Mofutsanyana, S.S. & Janks, M., 2017. Temperate grassy wetlands of South Africa: Description, classification and explanatory environmental factors. *South African Journal of Botany* 113: 68-76

Sieben, E.J.J., Glen, R.P. & Muasya, A.M., 2017. The wetland flora of South Africa: occurrence patterns, frequency and dominance across a diverse landscape. *Aquatic Botany* 142: 112-118, DOI: [10.1016/j.aquabot.2017.03.003](https://doi.org/10.1016/j.aquabot.2017.03.003)

Singh, S., Dent, M. & **Hill, T.** 2016: Perceptions, outcomes and attitudes experienced by scholars on stream bio-monitoring through the implementation of the mini-SASS method, using a social learning lens: KwaZulu-Natal, South Africa. *Journal of Geography Education for southern Africa*, 2, 8-24.

Sithole, B., Birch-Thomsen, T., Mertz, O., **Hill, T.**, Bruun, T. and Thenya, T., 2016: Collaborative education across continents: lessons from a partnership on sustainable resource management education. Chapter in Adriansen, H.K., Madsen, L.M. and Jensen, S. (eds). *Higher Education and Capacity Building in Africa. The geography and power of knowledge under changing conditions*.

Strachan, K.L., **Finch, J.M.**, **Hill, T.R.** & Barnett, R.L., Morris, C.D. & Frenzel. P., 2016: Environmental controls on the distribution of salt-marsh foraminifera from the southern coastline of South Africa. *Journal of Biogeography*, 43, 887-898.

Strachan, K.L., **Hill, T.R.**, **Finch, J.M.**, Barnett, R.L., & Frenzel. P., 2017: Distribution of Salt-Marsh Foraminifera in Two South African Estuaries and the Application as Sea-Level Indicators. *Journal of Coastal Research*, 33 (3), 619-631.

Woodborne, S., Gandiwa, P., Hall, G., Patrut, A., **Finch, J.M.** (2016). A regional stable carbon isotope dendro-climatology from the South African summer rainfall area. *PLOS One*. 11(7): e0159361. doi:10.1371/journal.pone.0159361

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
A.Chemura, O. Mutanga, J. Odindi and D. Kutywayo	Mapping spatial variability in foliar nitrogen in coffee (coffee Arabica) plantations with multispectral level Sentinel-2 MSI data	Oral	October 23-27, 2017	The 38 Asian Conference on Remote Sensing. New Delhi
Kiala, S., Mutanga, O. and Odindi, J.	Exploring the utility of Auto-Sklearn and remotely sensed sentinel – 2 image	Oral	September 27–29, 2017	First Regional Centre for Mapping of Resources for Development, Nairobi.

	data for mapping Perthenium weed in a heterogeneous landscape.			
Otunga, C., Odindi, J. Mutanga, O., and Adjorlolo, C	Evaluating the red-edge channel for improving C3 (<i>Festuca Spp.</i>) and other co-occurring C3/C4 grass species determination based on high resolution multi-spectral satellite data.	Oral	September 27–29, 2017	First Regional Centre for Mapping of Resources for Development, Nairobi.
Adjorlolo C., Mashiyi N., Mangara P., Kganyago M., and Odindi J.	An evaluation of sentinel-2 based LAI and canopy leaf chlorophyll products for agro-ecological applications.	Oral	May 8 – 12, 2017	The 37 th International Symposium on Remote Sensing of Environment, Tswane (Pretoria).
Odindi, J. and Mutanga, O.	Urban Land-Cover Types, Thermal Characteristics and Implication to Climate Change in three South African Coastal Cities using Remotely Sensed Data	Oral	October, 24-28	11 Conference of the Association of African Remote Sensing of the Environment, Kampala, Uganda
Nel, A.	Conservation in conflict and militarized areas.	Oral	November 2017	BIOSEC Workshop, University of Sheffield, UK
Nel, A.	Decolonization and the Politics of Wildlife in Africa.	Oral	September 2017	PE-3C Political Ecologies of Conflict,

				Capitalism and Contestation conference, 7-9 July 2016, Hotel Wageningse Berg, Wageningen, The Netherlands.
Nel, A.	Convened a double session on 'Conservation and/as unending war in eastern Africa' along with Connor Joseph Cavanagh (Noragric, Norwegian University of Life Sciences)	Oral	July 2016	Point Sud International Conference at the Stellenbosch Institute of Advanced Study, South Africa

Research Master Dissertations completed in 2016-17:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Kganyago, M. L. (2016)	An evaluation of hyperspectral and multispectral data for mapping invasive species in an African Savanna	UKZN	MSc	J. Odindi	P. Mhangara
Mashalane, M. J. (2017)	Integrating remote sensing and geostatistics in mapping Seriphium plumosum (Bankrupt Bush) invasion	UKZN	MSc	J. Odindi	C. Adjorlolo
Kiala, Z. Z. (2016)	The use of multi-temporal hyperspectral data in modelling	UKZN	MSc	O. Mutanga	J. Odindi

	leaf area index on a tropical grassland				
<i>C. Muller (2016)</i>	Mapping and distribution modelling of the Critically Endangered Orchid <i>Disa barbata</i> (L.f) Sw.	<i>UKZN</i>	<i>MSc</i>	<i>T R Hill</i>	B Bytebier
<i>N. Ngolyi (2017)</i>	The use of palynological evidence to reconstruct natural landscapes and historical climate-human-environment relationships in Mapungubwe Hill, Limpopo Basin	<i>UKZN</i>	<i>MSc</i>	<i>J M Finch</i>	<i>T R Hill</i>
<i>S. Singh (2017)</i>	The use of periphyton as an indicator of water quality, KZN.	<i>UKZN</i>	<i>MSc</i>	<i>T R Hill</i>	
<i>J. Gillham (2017)</i>	Assessing the impact of erosion and sediment yield from different land uses in farming and forestry systems and their effect on water resources in selected catchments of South Africa.	<i>UKZN</i>	<i>MSc</i>	<i>T R Hill</i>	
<i>I. Summers (2017)</i>	An Assessment of the Land Use Management	<i>UKZN</i>	<i>MSc</i>	<i>T R Hill</i>	

	Practices, Vegetation Composition and Palatability of Farms in the Murraysburg Region, Nama Karoo.				
Gray, R (2017)	Port Inefficiencies versus Expansion: A case study of the Port of Durban.	UKZN	MSc	B Maharaj	
Maharaj, S. (2017)	From Green Lung to logistics Park: a Critical Assessment of the Rezoning of the Clairwood Racecourse.	UKZN	MSc	B Maharaj	
Sharma, T. (2017)	Memory, nostalgia and Reality: A Socio-historical Perspective of the Grey Street Complex.	UKZN	MSc	B Maharaj	
Gounden, S (2017)	Assessment of the functional health status of the Melville Wetland System, Kwadukuza, South Africa	UKZN	MSc	S Pillay	
Shozi, M.	Assessing the	UKZN	MSc	J Finch	L Pillay

(2016)	distribution of sedimentary heavy metals in the Msunduze River Catchment, KwaZulu-Natal, South Africa				
S. Hlathswayo (2017)	Quantifying live forest above ground biomass of a randomly mixed natural forest plantation using GIS and Remote Sensing	UKZN	MSc	O. Mutanga	R. Lottering
T. Matongera	Remote sensing applications for monitoring the spatial distribution of bracken fern (<i>Pteridium</i>) in Cathedral Peak: Drakensburg, South Africa	UKZN	MSc	O. Mutanga	R. Lottering
Thandi Kapwata	Modelling malaria transmission in Mpumalanga province using Regression Random Forests	UKZN	MSc	M.T. Gebreslasie	
Nadira Kercival	Analysis of the Socio-economic impact of land use change in the uMhlanga area using GIS	UKZN	MSc	M.T. Gebreslasie	
Dianne Sennoga	Review of the environmental training and awareness practices within selected Durban businesses	UKZN	MSc	M.T. Gebreslasie	F Ahmed

Meryle Jagarnath	Identifying opportunities for Low carbon Emission Zones in South Africa: A case study of Durban	UKZN	MSc	M.T. Gebreslasie	T Tirusha
Nomdeni Simphiwe Ngwenya	An investigation into the co-benefits of climate mitigation and adaptation for the waste sector in the eThekweni Municipality	UKZN	MSc	M.T. Gebreslasie	T Tirusha
Kaveesh Roopcharan	An investigation to the co-benefits of reducing acidifying air pollutants from climate change	UKZN	MSc	M.T. Gebreslasie	T Tirusha
Priyanka Singh	Quantitative comparison between ground based and satellite based aerosol estimations	UKZN	MSc	M.T. Gebreslasie	
Nicole Reddy	analysis of structural attribute of a plantation forest using high spatial resolution imagery	UKZN	MSc	M.T. Gebreslasie	T Tirusha

PhD Theses completed in 2016-17:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>K. Strachan (2016)</i>	Sea-level reconstruction using	UKZN	PhD	J M Finch	T R Hill

	Foraminifera for the coastline of South Africa				
Gordon, S (2017)	Understanding hostility towards ‘barbarians’: A quantitative analysis of attitudes towards foreign nationals in post-apartheid South Africa.	UKZN	PhD	B Maharaj	
Romano Lottering (2017)	Optimising the spatial resolution of remotely sensed data for detecting and mapping <i>Eucalyptus</i> plantations defoliated by <i>Gonipterus scutellatus</i>	UKZN	PhD	O Mutanga	
Gala Omer (2017)	Remote Sensing of Endangered Tree Species in the Fragmented Dukuduku Indigenous Forest of KwaZulu-Natal, South Africa	UKZN	PhD	O Mutanga	
D. Moodley (2017)	Assessing the invasiveness of alien aroid climbers in South Africa, using modeling techniques and ecological assessments.	UKZN	PhD	Ş Procheş	J R U Wilson
Nzooma	Spatial and	UKZN	PhD	Samson	M. T.

Shimaponda	Temporal Malaria transmission model in Zambia			Mukaratirwa	<i>Gebreslasie</i>
Tawanda Manyangaze	Modelling spatial and temporal variation of Schistosomiasis under changing climatic conditions: Case of UMkhanyakude Health District in KwaZulu-Natal	UKZN	PhD	Moses J. Chimbari	M. T. Gebreslasie

Short description of the curriculum presented:

Qualification	Campus	2015	2016	2017
Bachelor of Science (Environmental Science)	Pietermaritzburg	138	113	117
Bachelor of Science (Environmental Science)	Westville	365	331	306
Bachelor of Science Honours (Environmental Science)	Pietermaritzburg	6	7	9
Bachelor of Science Honours (Environmental Science)	Westville	15	12	13
Bachelor of Science Honours (Ecological Sciences)	Pietermaritzburg	7	9	7
Bachelor of Science Honours (Geography and Environmental Management)	Pietermaritzburg	18	13	11
Bachelor of Science Honours (Geography and Environmental Management)	Westville	11	12	12
Bachelor of Social Science (Geography and Environmental Management)	Howard College	789	771	788
Bachelor of Social Science (Geography and Environmental Management)	Pietermaritzburg	369	353	385

Student Numbers (2016-17):

Level	2016	2017
First year	955	896
Second year	623	635
Third year	488	523
Honours	44	43
Masters	83	89
Doctoral	24	30

The name and contact details of your SSAG person for any further (and future) information: *T R Hill (hillt@ukzn.ac.za)*

Walter Sisulu University: Department of Biological and Environmental Science (BES)

Head/Chair of Department: Miss VN Majiza

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Ms Majiza VN	Zoology	<i>vmajiza@wsu.ac.za</i>	047 502 2380

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone Number
Dr Musampa CM	Senior Lecturer	Philosophy	<i>cmusampa@wsu.ac.za</i>	047 502 2520
Dr Soviti MK	Lecturer	Water quality and Geographical Information Systems	<i>msoviti@wsu.ac.za</i>	047 502 2518
Ms Magayiyana Z	Lecturer	Environmental Impact Assessment (EIA), Tourism and Physical Geography	<i>zmagayiyana@wsu.ac.za</i>	047 502 1964
Ms Betek CKE	Lecturer	Rural development	<i>cbetek@wsu.ac.za</i>	047 502 2478
Ms Thomas S	Lecturer	Resource management	<i>stthomas@wsu.ac.za</i>	047 502 2059
Mrs Abraham A	Lecturer	Applied environmental science, Waste	<i>aabraham@wsu.ac.za</i>	047 502 2524

		management and EIA		
Mr Bango A	Lecturer	Climate change and Terrestrial resources management	<i>abango@wsu.ac.za</i>	047 502 2640
Mr Ntshanga ABC	Senior Laboratory Assistant	Waste management and EIA	<i>antshanga@wsu.ac.za</i>	047 502 2526
Mr Mngeni A	Lecturer	Mining, EIA and Environmental law	<i>amngeni@wsu.ac.za</i>	047 502 2085
Mr Mangaliso RN	Laboratory Assistant	Climate change and disaster management	<i>rmangaliso@wsu.ac.za</i>	047 502 2086

Departmental News

The Department of Biological and Environmental Science is one of the most vibrant departments in the Faculty of Natural Sciences. It offers undergraduate and postgraduate programmes in Pest Management, Biological and Environmental Sciences. Its main focus areas include developmental biology, physiology, ecology, systematics, Geographic Information Systems, Environmental Impact Assessment, conservation and management of biodiversity particularly as it relates to the flora and fauna of the Eastern Cape.

The Department also has a Mentorship program in which the postgraduate students assist their junior counterparts in research skills and help them to achieve their goals. It also provides an open platform for undergraduate students to express their fears or concerns and provides the necessary advice. The postgraduate students also affiliate to the Faculty Postgraduate Association which provides them with opportunities to develop holistically by engaging in extra-curricular and/or community upliftment programmes such as Career Exhibitions, Environmental Awareness Campaigns, National Science Week, Wetlands Week and other related National events.

2016-17 dated publications:

- a. Ntombini Avele Sbabalwe & Mngeni Asabonga (2017) **The Impacts of Illegal Sand Mining: A Case Study of Mbizana**. LAP Lambert Academic Publishing.
- b. Bango Andisiwe & Xelelo Zanele (2017) **Protected Area and Community Relations in the Sub-Sahara Africa: A case study of Dwesa-Cwebe Nature Reserve in the Eastern Cape**, South Africa. 3rd World Congress on New Technologies (NewTech'17).

- c. Fikile Xaki & Magaiyana Zendy (2017) **Impacts of Human Settlement Development on Highland View Wetland in Bizana, South Africa**. World Academy of Science, Engineering and Technology, *International Journal of Environmental and Ecological Engineering*.
- d. Ngunga Afikile & Betek Kunseh (2017) **Methods Used by Farmers to Enhance Soil Fertility for Crop Cultivation**. LAP Lambert Academic Publishing.

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Fikile Xaki	Impacts of Human Settlement Development on Highland View Wetlands in Bizana, South Africa.	Oral	18-19 May 2017	World Academy of Science, Engineering and Technology
Andisiwe Bango	Protected Areas and Community Relations in the Sub-Sahara Africa: a Case of Dwesa-Cwebe Nature Reserve, Eastern Cape, South Africa.	Oral	06-08 June 2017	World Congress on New Technologies
Afikile Ngunga	Assessing Methods used by Farmers to Enhance Soil Fertility for Crop Cultivation: A Case Study of Brooks Nek, Eastern Cape South Africa.	Oral	05-07 October 2016	2 nd UNIVEN-WSU International Conference
Aphiwe Dyomfana	Use and Management of Natural Springs.	Oral	05-07 October 2016	2 nd UNIVEN-WSU International Conference
Zanele Xelelo	Protected Areas and Community Relations: a Case of Dwesa-Cwebe Nature Reserve, Eastern Cape, South Africa.	Oral	18-22 June 2017	Society of South African Geographers
Siyanda Nkwenkwe	The Effects of Climate Change on Rainfall Patterns and Rural Livelihoods.	Oral	18-22 June 2017	Society of South African Geographers
Nelisa Tembani	Assessing alternative adaptation strategies for traditional building structures to Climate Change.	Oral	18-22 June 2017	Society of South African Geographers
Avela Sbabalwe Ntombini	The Impacts of Illegal Sand Mining: A Case Study of Mbazana.	Oral	05-07 October 21016	2 nd UNIVEN-WSU International Conference
Aviwe Simane	The Impacts of Urbanization on Agricultural Resources: A Land-Use Planning Perspective: A Case Study of Ugie Selected Areas, Eastern Cape, South Africa.	Oral	18-22 June 2017	Society of South African Geographers
Loyiso Gabada	Environmental Threats posed by Invasive Alien Plant Species on Nduli Nature Reserve, Mthatha, Eastern Cape, South Africa.	Oral	18-22 June 2017	Society of South African Geographers

Bahle Titi	Handling of Medical Waste on selected Rural Areas of Butterworth, Eastern Cape.	Oral	18-22 June 2017	Society of South African Geographers
Ziyanda Kohliso	Physical Environmental Impacts of Dolerite Open-Cast Mining at Mdlankomo, Eastern Cape, South Africa.	Oral	18-22 June 2017	Society of South African Geographers
Zintle Saliwa	Evaluation of Compliance of Solid Waste Management to the Municipal by-laws in Cala, Sakhisizwe Local Municipality, Eastern Cape, South Africa.	Oral	18-22 June 2017	Society of South African Geographers
Seyisi Esonasipho	The Effects of Industrial Waste on the Water Quality of King Williams Town.	Oral	18-22 June 2017	Society of South African Geographers
Ncamisane Zanele	Investing the Impacts of Land Use Change from Farmlands to residential settlements in Cala, Eastern Cape South Africa.	Oral	18-22 June 2017	Society of South African Geographers
Mngceke Ethe	The Impact of Rapid Population Growth on the environment (water, forest and land resources).	Oral	18-22 June 2017	Society of South African Geographers
Bekwa Sithethelele	Assessment of the Social Impacts of Sone Quarry, Gotyibeni, Tsolo.	Oral	18-22 June 2017	Society of South African Geographers
Zozo Thobakazi	Assessing the viability of water conservation measures in the Umzimkhulu Municipality.	Oral	18-22 June 2017	Society of South African Geographers
Paya Viwe	Response of MacroInvertebrate Communities to Anthropogenic activities in Wetlands: King Sabatha Dalindyebo Municipality.	Oral	18-22 June 2017	Society of South African Geographers
Vika Vukile	Investigating the Impact of Illegal Sand Mining: A Case Study of Inxu River, Tsolo.	Oral	18-22 June 2017	Society of South African Geographers

Research Master Dissertations completed in 2016-17:

Student's Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Musitu C	An Assessment of Campus Sustainability Practices: A Case Study of WSU Campuses, Eastern Cape	Walter Sisulu University	Master of Science in Geography	Dr CM Musampa	Ms Z Magayiyana

Polasi LT	Household Water Security & Demand in the Matatiele Local Municipality, Eastern Cape, South Africa	Walter Sisulu University	Master of Science in Geography	Dr CM Musampa	Ms Z Magayiyana
-----------	---	--------------------------	--------------------------------	---------------	-----------------

Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7): Environmental Survey Techniques, Physical Environment, Human Environment, Atmosphere and Terrain Analysis, Environment and Development, Soil Science, Geographical Information Systems, Terrestrial Resources Management, Rural Resources Management, Tourism and Ecotourism, Research Methodology, Environmental Impact Assessment.

Postgraduate (NQF level 8): Advanced Geographical Information Systems, Advanced Research Methods, Research Paper, Geomorphology, Applied Environmental Science, Applied Meteorology and Climate Change, Water Resources Management, Philosophy and Methodology, Agricultural Geography, Development, Population Geography, Settlement Geography.

Postgraduate (NQF level 9): Dissertation.

Student Numbers (2016-17): Environmental Sciences

Level	2016	2017
First year	74	78
Second year	38	48
Third year	40	32
Honours	14	24
Masters	17	30

The name and contact details of your SSAG person for any further (and future) information:

Mr Andisiwe Bango

abango@wsu.ac.za

047 502 2640



**University of the Witwatersrand,
Johannesburg. School of Education, Faculty
of Humanities, Division of Social & Economic
Sciences, Department of Geography.**

The Geography team from the Wits School of Education are a highly motivated group of teacher educators who value quality teaching and are making a contribution to knowledge of the subject and its teaching through their research. The team comprises four full-time academic staff: Dr Clinton David van der Merwe (Subject Leader); Dr Paul Goldschagg; Dr Lee Rusznyak; and Ms Muofhe Thenga. Geography and Social Science are taught to undergraduate student teachers (prospective primary and secondary school teachers) in both the Bachelor of Education (BEd) and Postgraduate Certificate of Education (PGCE) programmes. Students who specialise in Geography and Social Science, study academic modules in environmental resources and their management, settlement, population studies, development, political geography, Earth Sciences, hazards and disaster management, applied climatology, and mapwork, remote sensing and GIS. Students also complete pedagogy modules where they learn principles of teaching Social Science and Geography. Students are prepared for classroom practice with strong knowledge bases in content knowledge, pedagogical content knowledge (PCK), and 24 weeks in supervised and assessed teaching practice in a diverse set of classroom contexts at various schools in Gauteng.



Left to Right: Clinton van der Merwe; Muofhe Thenga; Lee Rusznyak; and Paul Goldschagg.

Research

The team adopts a research-led approach to their teaching, and all staff are actively involved in contributing to knowledge production through research, either in the form of journal publications or in postgraduate research degrees. Our recent publication output has steadily increased, with more than **30 publications** in various national and international journals (and book chapters) since 2012. *Please visit our website for details of publications.*

Postgraduate Studies and Supervision

In recent years, the department has successfully supervised two PhD students and three MSc students to successful completion of their postgraduate studies in fields of geography, the teaching of geography and environmental management, and tourism geography.

Dr Joseph Seabi (PhD, 2014) – *Chronic Aircraft Noise Exposure Effects on Children's Learning and Development*, University of the Witwatersrand,

Johannesburg. Supervised by Dr Paul Goldschagg, co-supervised by Prof Kate Cockcroft.

Dr Ludo Mphatiwe (PhD, 2015) *An investigation into the topic specific pedagogical content knowledge of Botswana Social Science teachers: The case of water resources and their management*, University of the Witwatersrand, Johannesburg. Supervised by Dr Lee Rusznyak, co-supervised with Prof. Marissa Rollnick.

Hope Masilo (MSc., 2016): *Heritage Tourism in South Africa: the case of Lilies Leaf Farm and the Hector Pieterse Memorial and Museum*, University of the Witwatersrand, Johannesburg. Supervised by Clinton van der Merwe, co-supervised with Dr Gijsbert Hoogendoorn (School of Geography, Archaeology and Environmental Studies from 2012 to 2014) and then co-supervised with Dr Cheryl Chamberlain (GAES) in 2015.

Lianda Dzikiti (MSc., 2017): *Visiting Friends and Relatives (VFR) Travel: Expenditure Patterns of Zimbabweans Travelling Between South African and Zimbabwe*. School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg. Co-supervised by Dr Clinton van der Merwe with Dr Cheryl Chamberlain (GAES).

Mercia Southon (MSc., 2017): *Exploring the perceived impact of flooding on tourism accommodation establishments in the Limpopo Province, South Africa*. School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg. Co-supervised by Dr Clinton van der Merwe with Dr Cheryl Chamberlain (GAES).

In Progress...

Ms Muofhe Thenga is working on her PhD in the area of education for sustainable development.

Research interests

The team of geographers has research interests in education for sustainable development, environmental management, heritage tourism and geographical knowledge for teachers.

Awards

Lee was the recipient of the 2016 Faculty of Humanities Individual Teaching & Learning Award for Undergraduate Teaching. Clinton was a recipient of the NRF Thuthuka Award (2013 to 2015) and the NRF Sabbatical Support Grant (2016).

Service to the Profession

Clinton currently serves as one of the DBE NSC Geography 12 (Paper 1) Examiners, and is a Ministerial Appointment to the South African Geographical Names Council (SAGNC). He has been part of the team to launch the *Journal of Geography Education for Southern Africa* (JoGESA) – see the Southern African Geography Teachers’ Association (SAGTA): www.sagta.org.za. Muofhe has served as one of the DBE NSC Geography Paper 1 & 2 examiners from 2008 to 2013.

Other news:

It is with sadness that we bid Dr van der Merwe farewell as he returns to the classroom in 2018. Clinton has been appointed the Head of Humanities at the Oprah Winfrey Leadership Academy for Girls (OWLAG) but will remain an Honorary Research Associate of the Wits School of Education. We wish him all the best in his teaching career at OWLAG and look forward to working with him in the future. We welcome Dr Dianne Long to the Geography Department, as our new Geography Lecturer at the WSoE in 2018.

Website: <https://www.wits.ac.za/education/divisions/social-and-economic-sciences/>

University of Zululand: Department of Geography and Environmental Studies

Head of Department: Mr. Amos Mthembu

Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr NB Mbatha	Lecturer	Atmospheric Physics and Chemistry	<i>MbathaNB@unizulu.ac.za</i>	035 9026400
Dr I Moyo	Lecturer	Political and Urban Geography and Migration	<i>Moyol@unizulu.ac.za</i>	035 9026340
Mr Mthembu, A.T.	Lecturer	Demographics and Community Health; Cultural and Physical Environments	<i>mthembua@unizulu.ac.za</i>	035 9026329
Mrs Ndimande, N.P.	Lecturer	Rural Geography and Environmental Management	<i>ndimanden@unizulu.ac.za</i>	035 9026330
Mr Xulu, S.	Lecturer	Environmental Management, Atmospheric Science and GIS	<i>sifisoxulu@gmail.com</i>	035 9026331
Mr M Maya	Lecturer	Environmental Management and GIS	<i>MayaM@unizulu.ac.za</i>	035 9026762
Prof Jury, M.R.	Research Fellow	Atmospheric Science	<i>mark.jury@upr.edu</i>	

Professional and support staff

Name (Title, Surname, Initials)	Position	Area of subject specialisation (if applicable)	E-mail	Office Telephone number
Mrs Khumalo, D.	Secretary		<i>khumalod@unizulu.ac.za</i>	035 902 6318
Mr L.C. Shongwe	Senior Laboratory Assistant	Human geography and environmental management	<i>ShongweL@unizulu.ac.za</i>	035 902 6332

Departmental News

The Department of Geography welcomed Mr L.C. Shogwe who joined the Department in the beginning of the year.

2016-17 dated publications:

1. Jury, M R, 2016, Convective outbreak over the Red Sea and downstream easterly waves, *Earth Interactions*, doi:10.1175/EI-D-16-0009.1
2. Jury, M R, 2016, Determinants of bi-modal rains over southeast Ethiopia, *Dynamics Atmos. Oceans*, 76, 63-71.
3. Chiao, S, and Jury, M.R. 2016, Southern Caribbean Hurricane Regional Observations and WRF Model Simulations, *Intl J Marine Science*, 6, 39, 1-13, doi:10.5376/ijms.2016.06.0039
4. Jury, M.R., 2016: Multiple drivers of intense coastal upwelling at Cape Town, *J Coastal Research*, doi:10.2112/JCOASTRES-D-16-00040.1
5. Jury, M.R., 2016, Climate influences on Vaal River flow, *Water SA*, 42, 232-242.
6. Jury M R, 2016, Large-scale features of Africa's diurnal climate, *Physical Geography*, 37, 120-131.
7. Jury, M R, 2016, Summer climate of Madagascar and monsoon pulsing of its vortex, *Meteorol Atmos Physics*, 128, 117-129
8. Jury, M.R. 2016, Characterizing surface water deficits in the upper Limpopo valley, *Water SA*, 42, 63-71.

9. Moyo I, Nshimbi C . 2017, Of Borders and Fortresses: Attitudes Towards Immigrants from the SADC Region in South Africa as a Critical Factor in the Integration of Southern Africa. *Journal of Boarderland Studies*.
<https://doi.org/10.1080/08865655.2017.1402198>
10. Moyo, I, Nicolau, M.D and Gumbo, T. 2016. Johannesburg (South Africa) inner city immigrant traders: pathways from poverty? *Urban Forum*, 27 (3):329-345 DOI 10.1007/s12132-016-9277-9.
11. Moyo, I and Nicolau, M.D. 2016. Remittances and development: Zimbabwean migrant teachers in South Africa and their impact on their Zimbabwean families. *African Population Studies*, 30 (2):2506-2019.
12. Nshimbi, C.C and Moyo, I. 2016. Visible and invisible bordering practices: the EU–African migration conundrum and spatial mobility of borders. *World Journal of Science, Technology and Sustainable Development*, 13 (4):300-314
13. Moyo, I. 2016. The Beitbridge-Mussina interface: towards flexible citizenship, sovereignty and territoriality at the border. *Journal of Borderlands Studies*. DOI 10.1080/08865655.2016.1188666.
14. Moyo, I. 2016. Changing migration status and shifting vulnerabilities: A research note on Zimbabwean migrants in South Africa. *Journal of Trafficking, Organised Crime and Security (Special Issue)*, Vol 2, No 2: 108-112.
15. Nshimbi, C.C and Moyo, I. 2016. Human trafficking legislation in the Southern African development community region: An overview. *Journal of Trafficking, Organised Crime and Security (Special Issue)* Vol 2, No 2: 157-170.
16. Moyo, I. 2017. *African immigrant traders in Johannesburg inner city: a deconstruction of the threatening other*. London: Palgrave Macmillan.
17. Nshimbi, C.C. and Moyo, I (Eds). 2017. *Migration, Cross-border Trade and Development in Africa: Exploring the role of non-state actors in the SADC region*. Series: Palgrave Studies of Sustainable Business in Africa.
18. Nshimbi, C.C and Moyo, I. 2016. *Europe: whither the fortress around the Mediterranean and Africa?* In: *World Sustainable Development Outlook 2016 – Europe at a Crossroads and the Impact of Globalization*. World and association for Sustainable Development and Greenleaf: London.
19. Moyo I, Nshimbi C and Gumbo, T. 2017. *Migration, logics of inclusion and exclusion, and xenophobia: The case of African migrants in post-apartheid South Africa*. In: H.H Magidimisha, N.E. Khalema, T. Chirimabmowa, T. Chimedza (Eds), *Crisis, Identity, and Migration in Postcolonial Southern Africa*, 91-110. London: Springer.
20. Nshimbi, C.C, Moyo, I and Gumbo, T. 2017. *Between Neoliberal Orthodoxy and Securitisation: Prospects and Challenges for a Borderless Southern African Community*. In: H.H Magidimisha, N.E. Khalema, T. Chirimabmowa, T. Chimedza (Eds), *Crisis, Identity, and Migration in Postcolonial Southern Africa*, 167-186. London: Springer.
21. Nshimbi C.C and Moyo I. 2017. *History, trends and dynamics of cross border movements and trade in the Southern African Development Community (SADC) region*.

In: Nshimbi, C.C. and Moyo (Eds), Migration, Cross-border Trade and Development in Africa: Exploring the role of non-state actors in the SADC region. Series: Palgrave Studies of Sustainable Business in Africa, 1-14. London: Palgrave

22. Moyo, I. 2017. Zimbabwean cross-border traders in Botswana and South Africa: perspectives on SADC regional integration. In: Nshimbi, C.C. and Moyo (Eds), Migration, Cross-border Trade and Development in Africa: Exploring the role of non-state actors in the SADC region. Series: Palgrave Studies of Sustainable Business in Africa, 43-62. London: Palgrave.
23. Mercandalli, S, Nshimbi, C.C and Moyo, I. 2017. Mozambican labour migrations, remittances and development: evidence, practices and implications for policy. In: Nshimbi, C.C. and Moyo (Eds), Migration, Cross-border Trade and Development in Africa: Exploring the role of non-state actors in the SADC region. Series: Palgrave Studies of Sustainable Business in Africa, 15-42. London: Palgrave
24. Moyo, I and Nshimbi, C.C. 2017. *Cross border movements and trade: A tenacious lasting reality in the Southern African Development Community (SADC) region*. In: Nshimbi, C.C. and Moyo (Eds), Migration, Cross-border Trade and Development in Africa: Exploring the role of non-state actors in the SADC region. Series: Palgrave Studies of Sustainable Business in Africa, 191-208. London: Palgrave
25. N. Bègue, N. Mbatha, H. Benchérif et al: Statistical analysis of the mesospheric inversion layers over two symmetrical tropical sites: Reunion (20. 8° S; 55. 5° E) and Mauna Loa (19. 5°N; 155. 6°W), *Annals Geophysicae*, 35, 1177-1194, 2017.
26. L. Vaz Peres, H. Bencherif, N. Mbatha et al: Measurement of total column ozone using Brewer Spectrophotometer, TOMS and OMI Satellite Instrument over Southern Space Observatory- SSO (29.26S, °53.48°W), Brazil, *Annals Geophysicae*, 35, 25-37, 2017.

Conference Presentation in 2016-17:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Dr I. Moyo	Regional integration, securitised nationalism and the fate of peace in Africa.	Oral	23-25 April 2017	Geographies of Peace Conference, Bolivia
Dr I. Moyo	Cross border migration and human smuggling between Zimbabwe and south Africa: reflections on migration and regional peace.	Oral	23-25 April 2017	Geographies of Peace Conference, Bolivia

Dr I. Moyo	Borders and national security: Towards neoliberal transnationalism and non-post-colonial borders?	Oral	6-7 July 2017	Symposium on African borders, University of Cape Town
Dr I Moyo	A Way Forward in Border Studies?	Oral	3-6 September 2017	Workshop on Borders, Joensuu, Finland
Dr NB Mbatha	Stratosphere-Troposphere Exchange over Irene as observed by ozonesonde satellites and models	Oral	21-22 September 2017	33 rd Annual Conference of the South African Society for Atmospheric Science, Polokwane, Polokwane
Dr NB Mbatha	Influence of stratospheric ozone in the troposphere of southern Africa: Wavelet Approach	Oral	22 Aug – 1 st Sep 2017	IAPSO-IAMAS-IAGA Joint Assembly, Cape Town

PhD Thesis's completed in 2016-17:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Hector Chikoore	Drought in southern Africa: Structure, characteristics and impacts.	University of Zululand	PhD	Prof MR Jury	Prof OM Ndwandwe

Short description of the curriculum presented:

Undergraduate (NQF levels 5, 6 and 7):

Geography 1 (SGES100)

- Earth Science
- Atmospheric Science

- Environmental Management
- Cultural Environment
- Tourism

Geography 2 (SGES200)

- Global Landforms
- Cartography and Thematic Mapping
- Demographics and Community Health
- Sustainable Development
- Hydrometeorology

Geography 3 (SGES300)

- Urban Geography
- Recreation Geography
- Land Use and Resource Management
- Environmental Management
- Environmental Research
- Atmospheric processes and pollution
- Climate dynamics, weather variability and prediction

Postgraduate (NQF level 8):

Bachelor of Arts (Honours) – BA Hons

Bachelor of Science (Honours) – BSc Hons

Postgraduate (NQF level 9):

Master of Arts – MA

Master of Science – MSc

Postgraduate (NQF level 10):

Doctor of Science – PhD

Student Numbers (2016-17):

Level	2016	2017
First year	520	530

Second year	241	280
Third year	130	131
Honours	11	8
Masters	3	6
Doctoral	2	3

Any other information not included above, that you would like to include in the newsletter:

- (a) Mr S. Xulu and M. Maya attended a 3 day writing workshop from 2 to 4 May 2017 at the University of Zululand. The workshop was organized by the UZ Research Office.
- (b) Three honours students, Philani Phungula, Zwelakhe Maseko and Ziphozethu Bukhosini attended the 48th Geography Students Conference at the University of Mpumalanga, from the 18th to 23rd June 2017. They presented papers of their research projects. The students were accompanied by Dr I Moyo and Mrs NP Ndimande.

The name and contact details of your SSAG person for any further (and future) information: Mr A.T. Mthembu, mthembua@unizulu.ac.za, 035 9026329.

SSAG 48th Geography Students Conference Report

The 48th SSAG Geography Students Conference was held at the University of Mpumalanga (UMP) in Mbombela, from June 19-21, 2017. The conference was organized by a team in the School of Biology and Environmental Science, together with the assistance of support staff from UMP. The theme of the Conference was '**Geography and the Environment for Sustainable Development**'.

The conference began with the opening ceremony at which the Vice-Chancellor of UMP, Professor Thoko Mayekiso delivered the welcome message to all delegates. During the official opening Prof Luke Sandham gave a background of the Society of South African Geographers (SSAG) and the relevance of geography in South Africa and more particularly in Mpumalanga province. The opening session included a Keynote address by Professor Ramutsindela entitled: "*Defending the Kruger through guns and money: emergent society-nature relations in South Africa's protected areas*". In addition, on the one hand, Professor Werner Nel delivered his keynote speech titled: '*Climate change, the Anthropocene and the polar regions*', and Dr Tracy MacKay presented a talk on: '*Sustainable cities*'.

Over the two working days of the conference, the students presented 192 papers and posters which covered a wide range of sub-themes in geography and environmental sciences including among others; food security, urban dynamics, GIS and development, tourism studies, geography of enterprise and development, rural issues and environmental dynamics. There were 185 students who participated in the conference (excluding their accompanying Lecturers, UMP academics and invited guests). Students were from all South African universities (except

Sol Plaatjie and Universities of Technology) and University of Swaziland (refer to the group photo below).



*Group
photo
(NB
not all*

delegates came for the group photo)

On the 20th June, Dr T.S. Madzivhandila of UMP facilitated a discussion on the important topic “Decolonizing Geography”.

Dr Tracy MacKay presented the awards to the winning students in different categories namely; **A. Shabalala**; winner GIS category; UFS, Honours; J. Pauls; Human Geography category; Rhodes University, Honours; **S. Sibiya**; Physical Geography category; Rhodes University, Honours; **R. Kruger**; Human Geography category; Stellenbosch University, MSc.; **NG. Xulu**; Physical Geography category; University of Venda, MSc; **MA Arogoundaole**; Best Poster category; University of KwaZulu-Natal (also refer to the picture below.

Through the academic exchanges and communications on geography that took place over the two working days, the conference highlighted the relationship between geography and the environment, and between physical and human geography, and further emphasised the role these two play in enhancing development.



Winners of best awards

Students spent a day on field excursion visiting Kruger National Park, Pilgrims Rest and the Potholes and Pilgrim's Rest where students and staff were able to experience the physical and human geography of the area.



Visit at the Potholes (See below and above pictures)



Good moments during the conference illustrated below







During the conference dinner Prof Ric Bernard presented a talk on the progress of UMP since opening its doors in 2014 and vote of thanks was delivered by the Dean of the Faculty of Agriculture and Natural Sciences Prof Moses Mbewe.

Conference outcomes

- Gave participants an opportunity to share their research activities with their peers.
- Created a platform for participants to debate on critical issues in geography discipline.
- Helped the students to refine their honours and masters research projects.
- Afforded the participants to network amongst themselves and the academics.
- Field work accorded the participants opportunity to understand issues in their environment.
- Cultivated the spirit of research in geography.
- For the host university it was an opportunity to consolidate their efforts in setting up a geography department.
- It was a catalytic agent in marketing the university.

Conclusion

The conference was a success and this is attested by the good comments we received from the conference delegates and guests.

Acknowledgements

The organizing committee for the conference would like to acknowledge first, the financial support rendered by the National Institute for the Humanities and Social Sciences through the SSAG, Sanlam, Standard Bank, Ngwenyama Lodge, Esri South Africa, Sivukile Company, secondly, University of Mpumalanga Vice Chancellor and MANCO for blessing the idea to host the conference on the campus, the Dean and the Faculty of Agriculture and Natural Sciences for facilitating the use of their venues.

