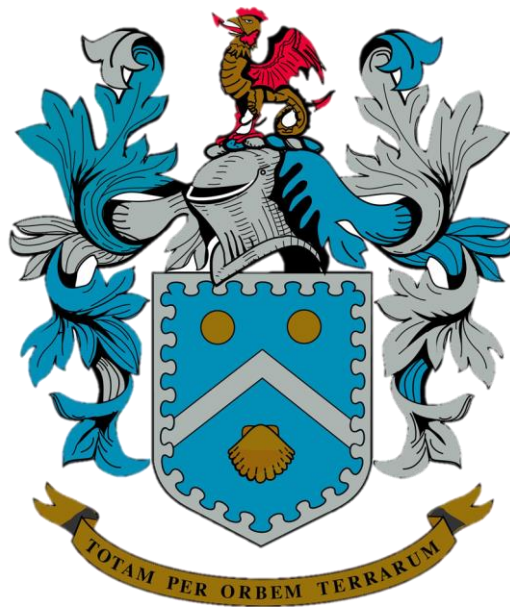


# SOCIETY OF SOUTH AFRICAN GEOGRAPHERS (SSAG)



## 2018-2019 NEWSLETTER

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

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## OBITUARY OF PROF UJ FAIRHURST



**Prof UJ Fairhurst**  
**11 July 1935 to 2 July 2019**

I am honored to present a commendation of the life of a departed academic and friend. With the passing of Prof Joan Fairhurst on 2 July 2019, South African Geography lost a truly passionate geographer and a successful academic. She passed away from complications related to Mantel Cell Lymphoma that was only diagnosed on 11 June 2019.

How does one sum up her life as an academic and a professional? The one word that comes to mind is ‘star’. Professor Joan Fairhurst academic star starting rising when she graduated with her Bachelor of Arts Degree at the University of Cape Town in 1954. She continued her studies at UCT and obtained the Secondary Teacher’s Diploma in 1955, after which she entered the teaching profession. From 1972 until 1987, Prof Fairhurst held a variety of positions at different teacher training colleges. In 1975, she completed the Higher Education Diploma (with specialization in pre-primary education). In 1978, she completed her BA (Honours) in Geography at the University of South Africa, and in 1983 completed her Masters’ Degree in Geography at the same institution. In 1987, Prof Fairhurst joined the Department of Geography at the University of Pretoria. Under the supervision of Prof PS Hattingh she completed her D Litt et Phil at the University of Pretoria in 1992 with a thesis entitled “*Time-Space perspective on the daily lives of economical active single mothers: A South African Urban study*”. Her thesis was considered to be ground breaking research in the discipline of Geography and more specifically within the field of the Geography of Gender.

She was an extremely hard worker – a perfectionist, meticulous in every detail. Her intellect, hard work and ability to interact with the ideas of others made her an academic star, in her academic career she sought and gained all the glittering accolades that academics seek and these included over 100 publications and the presentation of over 80 conference papers across the world. Her students at the University of Pretoria flourished under her dedicated supervision by benefiting from her knowledge, insight, wisdom and care as a mentor and role model.

Prof Fairhurst, academic star shone even brighter after she retired as an Emeritus Professor of the University of Pretoria in 2001. Retirement was not going to prevent her from giving back to the discipline of Geography, and she held a variety of contract positions after her retirement, the most notable include:

- The appointment as visiting professor to serve as Head of Department of Geography and Geo-Information Sciences at the University of Venda
- The appointment as Deputy Director and then Director of the Institute for Women’s and Gender Studies at the University of Pretoria
- Various contract geography teaching positions at Universities of Pretoria, Witwatersrand and Johannesburg
- She was appointed as an Academic Associate in the Department of Geography, at Unisa
- She remained a very active and efficient language editor of numerous geography books, dissertations and theses
- The supervision to completion of 4 doctoral students in Geography (Unisa) in the last five years of her life.

Among the many contributions she made to the academic society, the most noteworthy would be the transformation of Geography in South Africa and this included her role as a council member of the *South African Geographical Society* where she actively campaigned and helped drive the creation of the present *Society of South African Geographers*. This

was accomplished by negotiating the merger of the *South African Geographical Society* and the *Society for Geography*. Prof Joan Fairhurst was identified as the President elect and went on to serve as the President of the newly created society in its formative years.

Prof Fairhurst was in her heart and soul a geographer and during her retirement she continued to campaign for her discipline within the midst of the growing popularity of environmental sciences and environmental management in favour of Geography. Prior to her retirement she was part of the research team that investigated the *State of the Discipline of Geography* at academic institutions in South Africa. She continued this research directly and indirectly including numerous efforts to ensure that the integrity of the discipline of Geography remained intact within the today's multi-inter-trans disciplinary environment. She continued to campaign for the retention of the core principles of geography within school and university curriculums and these efforts will form part of her continued academic legacy. The University of South Africa recognised Prof Fairhurst achievements in 2014 when she was presented with the Unisa Geography Alumni Award for her "*distinguished leadership as a Geographer in academia*".

While Prof Fairhurst was clearly an academic giant and she was proud of her achievements, she possessed the essential academic quality of always questioning her own work, always re-examining her own assumptions, her reasoning and her conclusions. Like a true intellectual, she was committed to her intellectual craft and devoted her life to her craft. One thing is clear, Prof Fairhurst was widely and deeply respected for her intellect and it is also common to hear praise of her personal qualities as well. Not only did she appear as a star in the academic world, she appeared as such in the world of her students and we should considered ourselves blessed for having known such a bright star, however briefly.

Logic reminds us that the better the life commended, the greater the loss to those left behind. Aligned to the analogy of an academic star we should focus on the light she shone and the way her endeavors shaped our discipline, and in this way Professor Joan Fairhurst memory and legacy will be honored for generations of geographers to come.

**Prepared by Prof Melanie Nicolau**

## UNIVERSITY OF THE WESTERN CAPE

1. **Name of Department:** Department of Geography, Environmental Studies and Tourism

2. **Head/Chair of Department:** Dr Mark Boekstein

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr Boekstein, M.S.	Tourism	mboekstein@uwc.ac.za	021 959 2329

### 3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr Rink B.M.	Senior Lecturer	Mobilities; place making; urban change; sexuality & space; tourism geographies	brink@uwc.ac.za	021 959 2626
Dr Grenfell	Senior Lecturer	Fluvial geomorphology	sgrenfell@uwc.ac.za	021 959 2668
Prof Crush, J	Extraordinary Professor			
Prof Tevera, D.S.	Professor	Migration; Urban food security; African urbanism and urban spaces	dtevera@uwc.ac.za	021 959 2160
Prof Brooks, S.	Associate Professor		sbrooks@uwc.ac.za	
Mr M. Dyssel	Lecturer	Urban-ecological challenges; Conservation & resource uses; Environmental Management	mdyssel@uwc.ac.za	021 959 2426
Ms Carolissen, M	Lecturer	Geomorphology, climatology	mcarolissen@uwc.ac.za	021 959 3597

### 4. 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
Mr Frenchman, D	Senior technical officer	Computers/GIS	dfrenchman@uwc.ac.za	021 959 2155

### 5. Department News

#### 6. 2018-19 dated publications:

Rink, Bradley. (2019). Queer bodies and the construction of tourism destination space. In C. Palmer & H. Andrews (Eds.), *Tourism and Embodiment* (pp. 41-53). London: Routledge. <https://www.routledge.com/Tourism-and-Embodiment/Palmer-Andrews/p/book/9781138573550>

Rink, Bradley. (2019). Conspicuous Queer Consumption: Emulation and Honour in the Pink Map. In Posel D. & Van Wyk I. (Eds.), *Conspicuous Consumption in Africa* (pp. 183-199). Johannesburg: Wits University Press.

- Rink, Bradley. (2019). Place ballet in a South African minibus taxi rank. In D. Agbiboa (Ed.), *Transport, transgression and politics in African cities: The rhythm of chaos* (pp. 81-98). London: Routledge.
- Rink, Bradley and Crow, Justin. (2019). Horse/power: human–animal mobile assemblage in the contemporary city. *Contemporary Social Science*. <https://doi.org/10.1080/21582041.2019.1655164>
- Ramsawmy, Sharon, Rink, Bradley, and Anderson, Pippin. (2019). Rural and gated: Narratives of lifestyle migration to Grotto Bay Private Residential Estate, South Africa. *South African Geographical Journal*, <https://doi.org/10.1080/03736245.2019.1631209>
- Rink, Bradley. (2019). Liminality at-sea: Cruises to nowhere and their metaworlds. *Tourism Geographies*. <http://dx.doi.org/10.1080/14616688.2019.1637450>
- Rink, Bradley and Klaas, Lwando. (2019). Flying, health, and the city: Sensing aeromobility and risk in an informal settlement. *Cities & Health*, <http://dx.doi.org/10.1080/23748834.2019.1598925>
- Grenfell MC, R Aalto, SE Grenfell, WN Ellery. (2019). Ecosystem engineering by hummock-building earthworms in seasonal wetlands of eastern South Africa: Insights into the mechanics of biomorphodynamic feedbacks in wetland ecosystems. *Earth Surface Processes and Landforms* 44 (1), 354-366
- Grenfell S, Fortune F, Mamphoka MF, Sanderson N. (2019) Coastal wetland resilience to climate change: modelling ecosystem response to rising sea level and salinity in a variable climate. *Anthropocene Coasts* 2, 1-20
- Crush, J., Hovorka, A., and Tevera, D. (2018) Farming the city: The broken promise of urban agriculture, In: B. Frayne, J. Crush and C. McCordic (eds). *Food and Nutrition Security in Southern African Cities*, pp.101-117.
- Kativhu, T., Mazvimavi, D., Tevera, D. and Nhapi, I. (2018) Implementation of Community Based Management (CBM) in Zimbabwe: The dichotomy of theory and practice and its influence on sustainability of rural water supply systems', *Physics and Chemistry of the Earth, Parts A/B/C*, 106, 73-82.
- Crush, J., Tawodzera, G., Chikanda, A., Ramachandran, S. and Tevera, D. (2018). *Migrants in Countries in Crisis: South Africa Case Study: The Double Crisis–Mass Migration From Zimbabwe And Xenophobic Violence in South Africa*, Southern African Migration Programme (SAMP), Kingston.
- Kanosvamaha, T. and Tevera, D. (2019). Urban agriculture in Mitchells Plain, Cape Town: Examining the linkages between urban gardeners and supporting actors, *South African Geographical Journal*. <https://doi.org/10.1080/03736245.2019.1648313>
- Dyssel, M. (2018). Embankment and Encampment: Revisiting the relationships between urban rivers and homelessness in Cape Town. (2018). Conference proceedings paper. University of the Free State & Taylor Francis

## 7. Conference Presentation in 2018-19:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
S Grenfell	Coastal wetland resilience to climate change: modelling ecosystem response to rising sea level and salinity at De Mond, Cape Agulhas	Oral	October 2018	South African National Wetlands Indaba, Kimberley, South Africa
F Fortune	The influence of climatic variability on surface water extent in dryland wetlands	Oral	October 2018	South African National Wetlands Indaba, Kimberley, South Africa
MF Mamphoka	Estimating the potential for natural ecosystem	Poster	October 2019	South African National Wetlands

	recovery at the Pietersielieskloof wetland, Western Cape			Indaba, Kimberley, South Africa
MF Mamphoka	Estimating the potential for natural ecosystem recovery at the Pietersielieskloof wetland, Western Cape	Oral	July 2019	SSAG Student Conference, Johannesburg
B Rink	Capturing the <i>amaphela</i> : Informal and shared mobilities in South African townships	Oral	November 2018	Marshrutka Project Conference on Spatial dynamics of informal and shared mobilities, Technical University of Berlin, Germany
B Rink	Mobilising theory through practice: Authentic learning in teaching mobilities.	Oral	March 2018	#MobPed2018, Wilfred Laurier University, Waterloo, Canada
B Rink	Animated stillness: place ballet and city-making in a South African mini-bus taxi rank	Oral	February 2018	African Centre for Cities International Urban Conference, Cape Town
B Rink	Encountering the city through mobility and mobile methods	Oral	June 2019	ECAS 2019 Africa: Connections and Distruptions, session on <i>Encountering Publics in African Cities</i> , University of Edinburgh, Scotland
D Tevera	Local and transnational connections in situations of spatial fluidity: Urban informal food system in Gweru, Zimbabwe	Oral	June 2018	African Studies Association (VAD e.V.) Conference, Leipzig University, Germany
D Tevera	The dreaded Musina-Beitbridge Border: Border experiences of Zimbabwe Informal Cross Border Traders	Oral	June 2018	African Studies Association (VAD e.V.) Conference, Leipzig University, Germany
D Tevera	Urban food systems and food security in Southern Africa	Oral	July 2018	Workshop on Urban Food Security in the Global South, Ruhr-University, Bochum, Germany
D Tevera	Urban Agriculture in Southern Africa: What are the potentials and pitfalls? What can we learn from the experiences of urban farmers?	Oral	July 2018	Public open lecture at Prinzessinnengarten, Moritzplatz, Berlin, Germany

D Tevera	Informality, cross-border mobility and regional integration in southern Africa: Do we need to worry?	Oral	September, 2018	Nordic Africa Days 2018, Uppsala, Sweden
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D Tevera, J Crush, G Tawodzera, and A Chikanda.	The Owners of Xenophobia: Zimbabwean Informal Enterprise and Xenophobic Violence in South Africa	Oral	September, 2018	Nordic Africa Days 2018, Uppsala, Sweden
D Tevera	Migration, borders and development: Informal cross border traders and mobile precarity	Oral	September 2018	Workshop and Conference on the EU-Africa Migration Conundrum in a Changing Global Order, Centre for the study of Governance Innovation (GovInn), University of Pretoria
D Tevera	African migration drivers	Oral	November 2018	Workshop on African Migration - the Role of Human Mobility for a Continent in Transition, Scalabrini Institute for Human Mobility in Africa, Cape Town
D Tevera	Crisis and urban landscapes of informal food enclaves: The experience of the city of Gweru in Zimbabwe	Oral	July 2019	International Conference of The Hungry Cities Partnership & the Commonwealth Geographical Bureau on Contemporary Issues in Food and Food Security: Maputo, Mozambique
T P. Kanosvamhira	Organisation of urban agriculture in Mitchells Plain, Cape Town.	Oral	July 2019	SSAG Student Conference, Johannesburg
T.P Kanosvamhira	Urban agriculture uptake in Southern African Cities: Bottom up approach from the Cape Flats	Oral	July 2019	International Conference of The Hungry Cities Partnership & the Commonwealth

				Geographical Bureau on Contemporary Issues in Food and Food Security: Maputo, Mozambique
M. Dyssel	Reflections on the backyard ecologies of the dwellings of UWC students	Oral	11-14 September 2018	URBIO (Urban Biodiversity) Conference. Theme: Urban Biodiversity & Food Security, Cape Town
M. Dyssel	Embankment and Encampment: Revisiting the relationships between urban rivers and homelessness in Cape Town.	Oral	1-5 October 2018	Biennial Conference of the Society of South African Geographers, University of the Free State, Bloemfontein and Qwa Qwa
S. Diergaardt & M. Dyssel	Adaptation and coping strategies of subsistence farmers in the Richtersveld, South Africa./ 'Aanpassing- en hanteringstrategieë van bestaansboere in die Richtersveld, Suid Afrika'	Poster	25 & 26 October 2018	Research symposium of the 'Akademie vir Wetenskap en Kuns'. 25 & 26 October 2018, Pretoria
J. Goeiman	<i>Transforming Human Settlements in the National Space Economy: Critical perspectives on Chapter 8 of the National Development Plan</i>	Oral	5-7 October 2018	SSAG Student Conference, Bloemfontein
M. Boekstein	Cape town as Africa's gateway for tourist flights to antarctica: Past, present and potential future	Oral	12-14 June 2019	ATLAS Africa conference, Kampala, Uganda

### 8. Research Master Dissertations completed in 2018-19:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
F Fortune	The impact of climate change and climate variability on	UWC	MA	Dr S Grenfell	

	coastal wetland ecosystem dynamics				
S Dlikilili	Investigating the groundwater dependence and response to rainfall variability of vegetation in the Touws River and catchment using remote sensing	UWC	MA	Dr S Grenfell	Dr M Grenfell
S Williams	Perceptions of wetland ecosystem services in a region of climatic variability	UWC	MA	Dr S Grenfell	M Carolissen
S Lugogo		UWC	MA	Prof. Brooks	
T Kanosvami hira	Organization of urban agriculture in Mitchells Plain, Cape Town	UWC	MA	Prof. D Tevera	

**9. Master Dissertations of limited scope completed in 2018-19:**  
**Not applicable as this type of dissertation is not offered**

**10. PhD Thesis's completed in 2018-19:**

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
FS Mamba	Drought, urban resilience and urban food security in kaKhoza, Manzini, Swaziland	UWC	PhD	Prof. D Tevera	
A Chigwenya	Informality and Right to the City: Contestations for Safe and Liveable Spaces in Masvingo City, Zimbabwe	UWC	PhD	Prof. D Tevera	
D Chikodzi	Unusual waterscapes and precarious rural livelihoods: Occurrence, utilisation and conservation of springs in the	UWC	PhD	Prof. D Tevera	Prof D Mazvimavi

	Save Catchment, Zimbabwe				
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**11. Short description of the curriculum presented:**

**Undergraduate** (NQF levels 5, 6 and 7):

**BA, Geography & Environmental Studies major:**

1st year

GES 111 Introduction to Human Geography

GES 121 Introduction to Physical Geography

2nd year

GES 225 Space, Place and Mobility in Southern Africa

GES 226 Environmental Processes and Landscapes in Southern Africa

3rd year

GES 311 Contemporary Environmental Issues

GES 321 Problematizing the City in Africa

GES 323 Geographical Info Systems

GES 328 Political Geography of Land

GES 329 Understanding Rivers of Southern Africa

**BA, Tourism major:**

1st year

All students wishing to major in tourism take GES 111 and GES 121 in the first year

2nd year

TOU 223 Introduction to Tourism and Economic Development

TOU 224 Tourism, Culture and the Environment

3rd year

TOU 311 Tourism Planning

TOU 322 Analytical Techniques for Tourism

TOU 321 Tourism Marketing

TOU 341 Contemporary Issues and Debates in Niche Tourism

**Postgraduate** (NQF level 8):

**BA (Hons), Geography & Environmental Studies major:**

GES701: Research Project (compulsory)

GES 711 History and Philosophy of Geography, Research Methods

GES 731 Environmental Management

GES 732 African Urbanism

GES 738 Geographical Information Systems

GES 740 Critical Geographies of Nature and Land

TOU 741 Advanced Tourism and Development

TOU 742 Theoretical Perspectives on Tourism

**Postgraduate** (NQF level 9):

**MA, Geography & Environmental Studies:**

GES801 Masters Thesis

**Postgraduate** (NQF level 10):

**PhD, Geography & Environmental Studies:**

GES901 Geography Doctoral

**12. Student Numbers (2018-19):**

Level	2018	2019
First year	704	709

Second year	572	556
Third year	690	739
Honours	73	75
Masters	23	24
Doctoral		8

**13. Any other information not included above, that you would like to include in the newsletter:** None

**14. The name and contact details of your SSAG person for any further (and future) information:** Anthea Roberts, aroberts@uwc.ac.za , 021 959 2421

## UNIVERSITY OF VENDA

### 1. Name of Department: Department of Geography and Geo-information Sciences

### 2. Head/Chair of Department: DR NS Nethengwe

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr. NS Nethengwe	Remote Sensing & GIS; Disaster management; Gully Extration, soil erosion, Green economy.	<i>nthaduleni.nethengwe@univen.ac.za</i>	+27 (0) 15 962 8593

### 3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Prof Odhiambo BDO	Associate Professor	Geomorphology, Geology, Remote Sensing & GIS	<i>beneah.odhiambo@univen.ac.za</i> <i>odhiambobdo@gmail.com</i>	015 962 8587
Dr Nelwamondo, T	Senior Lecturer	Eco-Tourism; Settlement Development and Urbanization	<i>tshililo.nelwamondo@univen.ac.za</i>	015 962 8582
Dr Chikoore, H	Senior Lecturer	Meteorology and Climate Science	<i>hector.chikoore@univen.ac.za</i>	015 962 8586
Dr Mudau, NV	Lecturer	Rural Geography	<i>virginia.mudau@univen.ac.za</i>	015 962 8591
Mr. Mokgoebo, MJ	Lecturer	Biogeography	<i>matjutla.mokgoebo@univen.ac.za</i>	015 962 8581
Mr Kori, E	Lecturer	Geomorphology	<i>edmore.kori@univen.ac.za</i>	015 962 8565
Ms Netshisaulu, KH	Lecturer	Population and Demography	<i>khathu.mathivha@univen.ac.za</i>	015 962 8590
Mr Dondofema, F	Chief Technician	GIS and Remote Sensing, Ecology	<i>farai.dondofema@univen.ac.za</i>	015 962 8044

### 4. 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

### 5. Department News

The Department of Geography and Geo-information Sciences secured the University Staff Doctoral Programme (USDP) funding from the Department of Higher Education on *Climate Risk, Resilience and Sustainable Development*, partnering with UCT (ACDI) (main co-ordinator) and UFH. Other international partner institutions are the universities of Arizona and Penn State in the United States of America. This specific programme is to support university staff members at UNIVEN, UFH and UCT for the Doctoral programme. Four PhD staff members from the Departments of Geography and Geo-Information Sciences, Hydrology and Water Resources and Mining and Environmental Geology have been granted a scholarship under the University Staff Doctoral Programme (USDP). Dr. NS Nethengwe is the Univen coordinator in the project. The scholars will be able to:

- spend as semester abroad in the United States of America;
- participate in an annual summer school programme;
- receive funding of ZAR 70 000, primarily to support tuition and research costs;

- develop professional collaborations; and
- receive interdisciplinary and inter-institutional co-supervision and expert advice.

The Department of Geography and Geo-information Sciences also participated in the Limpopo Basin Curriculum Innovation Network (LBCIN). The network was composed of University of Venda, University of Limpopo, Southern African Wildlife College, Universidade Eduardo Mondlane, Pedagogical University of Mozambique, University of Mpumalanga, and Rhodes University. Within the LBCIN the institutions of higher learning were able to share ideas and research outputs on climate change resilience in the Limpopo Basin in order to facilitate development, reviewed and incorporated aspects of climate change into their curricula. Seed funding of R 80,000 was allocated for the project. The LBCIN team is currently writing a peer reviewed paper for publication into an upcoming journal.

### **Publications 2018-2019 (updated):**

- Munyai, R.B., Musyoki, A, & Nethengwe, N.S., 2019. An assessment of flood vulnerability and adaptation: a case study of Hamutsha-Muongamunwe village, Makhado municipality. *Jamba: Journal of Disaster Risk Studies*, 11(2): e692.
- Kimambo, O.N., Chikoore, H and J.R. Gumbo, 2019. Understanding the effects of changing weather: A case of flash flood in Morogoro on January 11, 2018. *Advances in Meteorology*, doi.org/10.1155/2019/8505903
- Kimambo, O.N., Gumbo, J.R. and H Chikoore, 2019. The occurrence of cyanobacteria blooms in freshwater ecosystems and their link with hydro-meteorological and environmental variations in Tanzania. *Heliyon*, doi.org/10.1016/j.heliyon.2019.e01312
- Odhiambo, B.D.O., Kataka, M.O., and Muhuma., 2019: The Use of Remote Sensing to Map Landslides Prone Areas in Limpopo Province, South Africa; a contributing paper to the *Global Assessment Report (GAR)*, Geneva May, 2019.
- Kataka, M.O., Matiane, A.R., Odhiambo B.D.O., 2018: Chemical and mineralogical characterization of highly and less reactive coal from Northern Natal and Venda-Pafuri coalfields in South Africa, *Journal of African Earth Sciences*, Vol. 137, p.278 – 285.
- Chineka, J, Musyoki, A, Kori, E and H. Chikoore, 2019. Gender mainstreaming: A lasting solution to disaster risk reduction. *Jamba: Journal of Disaster Risk Studies*, 11, doi.org/10.4102/jamba.v11i3.723

#### *Conference proceedings*

ON Kimambo, JR Gumbo and **H Chikoore**, 2018. Harmful algal blooms occurrence and perception in the Upper Ngerengere Catchment, Morogoro, Tanzania. *Proceedings of ICSMNR2018 15-17 October 2018, Polokwane, South Africa, [ISBN 978-0-620-82267-1]*

### **6. Conference Presentation in 2018-19:**

<b>Name of presenter (s)</b>	<b>Title of presentation</b>	<b>Form of presentation</b>	<b>Date of conference/workshop</b>	<b>Name of Conference/workshop</b>
Chikoore, H, 2018.	Understanding drought and its impacts over southern Africa using satellite and reanalysis data.	Oral	5-8 November 2018, Gaborone, BOTSWANA	<i>Paper presented at the International Data Week Conference, , Gaborone, BOTSWANA</i>
Dr NS Nethengwe, Dr H Chikoore	Dr. H. Chikoore; "Climate Change in Mopani District: Implications for Fire Regimes"	Oral	26 Feb to 1 Mar 2019.	The 6 <sup>th</sup> National Annual Fire Safety and Prevention Seminar at Tzaneen Lodge, Tzaneen during

and Mr F Dondofema	Mr Dondofema's paper was entitled "Using geospatial tools in citizen science to assess vulnerability to fire hazards in Mopani District"			
Dr H Chikoore and Mr F Dondofema	Participants	Oral	16 July 2019	Land Use and Disaster Management Seminar at Tzaneen Lodge, Tzaneen
Prof BDO Odhiambo	Participant		7 to 12 July 2019	The 14 <sup>th</sup> Annual AfricaArray Workshop; University of Witwatersrand, Johannesburg, South Africa
Ms Nethisaulu and Dr VN Mudau	Attendees			Attended Integrated Teaching & Learning, Community Engagement & Research Workshop; an Training on use of Blackboard.
Mr E. Kori	Attendee		25 to 31 August, 2019	Will attend Biodiversity Workshop in Poland.

#### **7. Research Master Dissertations completed in 2018 - 2019:**

<b>Student</b>	<b>Supervisors</b>	<b>Status</b>
Dlamini, N (Masters)	Dr H. Chikoore Dr NS Nethengwe Dr MM Bopape (SAWS)	Completed. Graduating Sept 2019
Sikhwari, T (Masters)	Dr NS Nethengwe Dr H Chikoore Dr C Sigauke	Completed. Graduating Sept 2019
Ngwenya, SB (Masters)	Dr NS Nethengwe Dr H Chikoore Dr MM Bopape (SAWS)	Completed. Graduating Sept 2019
Muofhe, TP (Masters)	Dr H Chikoore Dr NS Nethengwe Dr MM Bopape (SAWS)	Completed. Graduating Sept 2019
Ncube, TM (Masters)	Dr H Chikoore Dr MM Bopape (SAWS)	Completed. Graduating Sept 2019
Nembilwi, N (Masters)	Dr H Chikoore Mr E Kori	Completed. Graduating Sept 2019
Mphidi M (Masters)	Prof BDO Odhiambo Mr Mokgoebo M.J.	Completed. Graduating Sept 2019
Bvindi, A	Dr. NS Nethengwe Prof. BDO Odhiambo	Graduated in May 2019.

#### **8. PhD Thesis's completed in 2018-2019:**

Student	Supervisors	Status
Uhunamure, E.S	Dr H. Nethengwe Dr Tinarwo	Completed Graduating Sept 2019

#### 9. Student Numbers (2018-19):

Level	2018	2019
First year		
Second year	215	295
Third year	104	147
Honours	38	46
Masters	10	16
Doctoral	4	2

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

##### Mopani Project Fieldwork, 30 Oct – 3 Nov 2018

Dr NS Nethengwe, Dr H Chikoore, Mr F Dondofema and three Masters student assistants (M Singo, N Nembilwi and E Mmbadi) undertook fieldwork in Hoedspruit and Giyani during 30 Oct-3 Nov 2018 as part of the Fire and Climate Change work packages of the Mopani Project. The student assistants administered questionnaires to a total of 25 respondents in rural communities of Maruleng Local Municipality. Heads of households responded to questions of drought impacts and water availability whilst. Preliminary findings show high spatial variability of impacts and levels of vulnerability. Key informant interviews were also held with officials from the Fire Department, Working for Fire who provided useful detail about fire management in the municipality. The AWARD NGO also provided information about their involvement with communities.



*Univen staff and student assistants with firefighters at the Hoedspruit Fire Station (left) and interacting with Working for Fire staff at Maruleng Municipality (right)*

##### Cape Town Student Conference, 25 Nov – 1 Dec 2018

Staff and Honours students of the Department of Geography and Geo-Information Sciences participated in student practicals in Cape Town during 25 Nov – 1 Dec 2018. The following were the main activities of students on practical in Cape Town:

- The students were introduced to the operations of the World Meteorological Organization (WMO) Cape Point Global Atmosphere Watch Station through a PowerPoint lecture, including the regional station network whilst a demonstration of observing equipment was also made. Students were also shown the long-term data available for research on air quality in South Africa.
- Students visited the SKA Control Center and were introduced to the MeerKAT project and how they can benefit from it. Students also undertook practicals on observations using the SAAO Telescope at the Observatory.
- Students were also led through a university town to apply the university town concept and also to observe the urban design of the City of Cape Town

- d) They also observed and got explanations of the vegetation biomes of the Cape and Table Mountain.
- e) The students were also introduced to a historic and still working fishing community at Hout Bay. The village is a port for rich marine life dominated by tuna whilst it is also a popular Tourism attraction for both domestic and international tourists.
- f) They had a rare opportunity to visit the ENCA Weather Center at their weather studios in Cape Town where key aspects of Broadcast Meteorology were explained by TV Meteorologist Joel Guy.



*Honours Students at the WMO Global Atmosphere Watch Station at Cape Point*

### **USDP Project Summer School,**

A University Staff Doctoral Program (USDP) summer school was held during 28 Jan – 1 Feb 2019, University of Cape Town. Four PhD scholars and four promoters (and coordinators) participated in the summer school.

This specific programme is for university staff members at UNIVEN, UFS and UCT. The USDP offers applicants with opportunity to:

- Spend as semester abroad in the United States of America;
- Participate in an annual summer school programme;
- Receive funding of ZAR 70 000, primarily to support tuition and research costs;
- Develop professional collaborations; and
- Receive interdisciplinary and inter-institutional co-supervision and expert advice.



Scholars Ms KH Netshisaulu (GGIS), Ms N Rembuluwani (MEG), Mr N Nemapate (MEG), Mr TR Nkuna (HWR) and promoters Prof JO Odiyo, Prof J Ogola, Dr NS Nethengwe (Coordinator) and Dr H Chikoore

### **ReSiDer Project:**

**Remote Sensing for Urban and Rural Development & Resilience (ReSiDer);** Univen

Coordinator: Dr. NS Nethengwe

The South African universities (University of Venda, University of Cape Town and University of Fort Hare) and the university of KULeuven (Belgium) applied successfully for a Remote Sensing for Urban

and Rural Development & Resilience (ReSiDeR) project - a 4-year research project funded by VLIR-UOS ([www.vlir-uos.be](http://www.vlir-uos.be)) in Belgium in 2018.

As part of ReSiDeR, this project brings together South African and KULeuven to offer two PhD scholarships for university staff members at UFH and UNIVEN. The PhD fellows are expected to spend 50% of their time at KULeuven, Belgium and 50% of their time in South Africa. The starting date would be mid-September 2019. USDP: Univen, UCT, UFH and two partner universities (University of Arizona and Penn State University) in the USA. For this project, the Department of Geography and Geo-information Sciences, congratulates Mr. Tshilidzi Manyanya who leaves for KU Leuven University in Belgium for the PhD Programme in September 2019.

**The 14<sup>th</sup> Annual Africaarray Workshop Held From 7<sup>th</sup> To 12<sup>th</sup> July 2019 At University of Witwatersrand, Johannesburg, South Africa**

The *AfricaArray* Program is an innovation formed to promote, strengthen and maintain a workforce of highly trained African geoscientists and researchers for Africa. This a 20-year initiative, involving scientists working on different continent and world-wide linked projects on areas; research; shared training programs and collection and observational geoscientific data; and is also committed to enhancing the diversity of the geosciences workforce in Africa, Japan and the U.S (see picture below of the participants to 2019 Workshop).



- 11. The name and contact details of your SSAG person for any further (and future) information: Prof. BDO Odhiambo; [beneah.odhiambo @univen.ac.za](mailto:beneah.odhiambo@univen.ac.za) and [odhiambobdo@gmail.com](mailto:odhiambobdo@gmail.com)**

## UNIVERSITY OF JOHANNESBURG

1. Name of Department: Geography Environmental Management and Energy Studies

2. Head/Chair of Department: Prof. G. Hoogendoorn

NAME	AREA OF SPECIALISATION	E-MAIL	OFFICE TELEPHONE NUMBER
Prof Hoogendoorn, G	Tourism Geography	<a href="mailto:ghoogendoorn@uj.ac.za">ghoogendoorn@uj.ac.za</a>	0115594628

### 3. Information about the Geographers in the Department

NAME	RANK/ POSITION	AREA OF SPECIALISATION	E-MAIL	OFFICE TELEPHONE NUMBER
Block EK [Ms]	Lecturer	Human Geography & Environmental Education	<a href="mailto:eblock@uj.ac.za">eblock@uj.ac.za</a>	0115592173
Mr Mushawemhuka WJ [Mr]	Lecturer	Tourism and Climate change GIS & Remote sensing	<a href="mailto:williamj@uj.ac.za">williamj@uj.ac.za</a>	0115593889
Greenberg D [Ms]	Lecturer	Physical & Environmental Geography	<a href="mailto:dgreenberg@uj.ac.za">dgreenberg@uj.ac.za</a>	0115594799
Ms Stockigt L [Ms]	Lecturer	Human Geography	<a href="mailto:lstockigt@uj.ac.za">lstockigt@uj.ac.za</a>	0115594452
Kambule N [Dr]	Lecturer	Energy Studies	<a href="mailto:nkambule@uj.ac.za">nkambule@uj.ac.za</a>	0115594423
Kelso CJ [Dr]	Senior Lecturer	Environmental History & Climate vulnerability	<a href="mailto:ckelso@uj.ac.za">ckelso@uj.ac.za</a>	0115592432
Langerman K [Dr]	Senior Lecturer	Energy Studies	<a href="mailto:klangerman@uj.ac.za">klangerman@uj.ac.za</a>	0115592428
Modley L [Dr]	Lecturer	Environmental Management & Water and Sediment Quality	<a href="mailto:Lee-annm@uj.ac.za">Lee-annm@uj.ac.za</a>	0115593928
Mugwena T [Ms]	Lecturer	GIS & Remote Sensing	<a href="mailto:thendom@uj.ac.za">thendom@uj.ac.za</a>	0115593645
Rabumbulu M [Ms]	Lecturer	Geomorphology	<a href="mailto:mrabumbulu@uj.ac.za">mrabumbulu@uj.ac.za</a>	0115593302
Rampedi I [Dr]	Associate professor	Environmental Management	<a href="mailto:isaacr@uj.ac.za">isaacr@uj.ac.za</a>	0115592429
Schoeman DC [Ms]	Lecturer	Physical Geography, GIS, Cartography, Mapwork &	<a href="mailto:theas@uj.ac.za">theas@uj.ac.za</a>	0115593226

		Waste Management		
Sinthumule I [Dr]	Senior Lecturer	Transfrontier Conservation, Environmental conservation & society, Border studies, Environmental geography, Land reform & Political ecology	<a href="mailto:isinthumule@uj.ac.za">isinthumule@uj.ac.za</a>	0115593810
Tesfamichael SG [Dr]	Associate professor	GIS & Remote Sensing	<a href="mailto:sgtesfamichael@uj.ac.za">sgtesfamichael@uj.ac.za</a>	0115593927
Yessoufou K [Dr]	Senior Lecturer	Environmental Management	<a href="mailto:kowiyouy@uj.ac.za">kowiyouy@uj.ac.za</a>	0115592434
Chris Curtis [Prof]	Professor		<a href="mailto:cjcurtis@uj.ac.za">cjcurtis@uj.ac.za</a>	0115594745

#### 4. Information about the professional and support staff in the Department

NAME	POSITION	AREA OF SUBJECT SPECIALISATION	E-MAIL	OFFICE TELEPHONE NUMBER
Ambani A [Ms]	Senior Tutor	N/A	<a href="mailto:tutorgeography@uj.ac.za">tutorgeography@uj.ac.za</a>	0115594153
Mofokeng L [Ms]	Administrative officer	N/A	<a href="mailto:leratom@uj.ac.za">leratom@uj.ac.za</a>	0115592433
Mbuelo M [Ms]	Student Assistant	N/A	<a href="mailto:geography@uj.ac.za">geography@uj.ac.za</a>	0115594669

#### 5. Department News

- The GEMES department welcomed a new professor, **Prof C Curtis**; a senior lecturer, **Dr I.N. Sinthumule** and an administrative officer, **Ms L Mofokeng**.
- Two staff members were promoted from senior lecturers to associate professors. The GEMES department congratulate **Associate Professor Solomon** and **Professor Rampedi**.
- **Mrs Lee-Ann Modley** was elected as the Imvelisi lead for the Young Water Professionals of South Africa.
- Five students under the supervision of **Prof Solomon Tesfamichael** attended an international industry – academic Conference at AfricaGEO 2018. Of these five students, the work of two got selected for publication in the *South African Journal of Geomatics*.
- **Mrs Block** was also selected to be one of the judges for the International Geography Olympiad High School students' poster presentations also in Quebec City, Canada.
- **Thea Schoeman** from the GEMES 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 271 teachers were issued with certificates during an award ceremony on 9 July 2018.  
The details and pass rate of the programmes are:  
An Introduction to GIS, NQF Level 7, 30 credits, 14 weeks: 61 candidates (95.3% pass rate);

Advanced Map Work Skills, NQF Level 5, 10 credits, 8 weeks: 70 candidates (92.1% pass rate); and

Basic Map Work Skills, NQF Level 5, 8 credits, 7 weeks: 140 candidates (95.2% pass rate).

- The GEMES department, in alliance with sponsors from the private sector, awarded 2017's top students with the following awards:

<b>Award</b>	<b>Description</b>	<b>2017 Award winner</b>
Terence Payne Floating Trophy and Medal	Top Environmental Management Masters Student	Ms Shayna-Ann Cuthbertson
Eskom Award	Top Energy Studies Honours Student	Mr Joseph Ngqendesha
Golder Associates Africa Award	Top Geography Honours Student	Ms Modiegi Monaledi
Cabanga Concepts Award	Top Environmental Management Undergraduate Student	Ms GL Tau
Departmental Floating Trophy	Top Geography Undergraduate Student	Ms Rapelang Manganyi
GCS award	Top Undergraduate Geographic Information Systems Student	Ms Nthabiseng Letsatsi
Top Student: Basic Map Work	Top Student in the Teachers Training Short Programme	Ms Zodwa Hlahane
Top Student: Advanced Map Work	Top Student in the Teachers Training Short Programme	Ms Daphney Valoyi
Top Student: GIS	Top Student in the Teachers Training Short Programme	Ms Tasneem Seedat

- **Terence Payne Floating Trophy**



- **Cabanga Concepts Trophy**



- **Departmental Floating Trophy**



- **Eskom Floating Trophy**



- **Golder Associates Africa Award**



- **GCS Award**



- **Top GIS Student**



- **Top Advanced Mapwork**



**6. 2018 dated Journal publications:**

YEAR	JOURNAL TITLE	ARTICLE TITLE
2018	Bulletin of geography: socio-economic series	Suburban creativity: the geography of creative industries in Johannesburg
2018	African Journal of Hospitality, tourism and Leisure (AJHTL)	Perspectives on second homes, climate change and tourism in South Africa
2018	Geography Teacher	The spatial influence of apartheid on the South African city
2018	Conservation and Society	Under pressure: conceptualising political ecologies of green wars
2018	Conservation and Society	From biopower to ontopower? Violent responses to wildlife crime and the new geographies of conservation
2018	Anatolia	A profile of commercial adventure tourism participants in South Africa
2018	International Journal of Applied Earth Observation and Geoinformation	Retrieval of narrow-range LAI of at multiple lidar point densities: application on <i>eucalyptus grandis</i> plantation
2018	Theoretical and Applied Climatology	Spatio-temporal trend analysis of projected precipitation data over Rwanda
2018	Sustainability	Bonding and bridging forms of social capital in wildlife tourism microentrepreneurship: an application of social network analysis
2018	Current Issues in Tourism	Tourism and climate change: a review of threats and adaptation strategies for Africa
2018	GIScience and Remote Sensing	Field spectroradiometer and simulated multispectral bands for discriminating invasive species from morphologically similar cohabitant plants
2018	Journal of Transport Geography	Commuting patterns and urban form: evidence from Poland

2018	African Journal of Hospitality, tourism and Leisure (AJHTL)	Community perception towards biodiversity conservation and eco-tourism in imperiled landscapes of erstwhile closed areas of western Rajasthan, India
2018	Science of the Total Environment	Utility of ASTER and landsat for quantifying hydrochemical concentrations in abandoned gold mining
2018	South African Journal of Geomatics (formelry South African Journal of Surveying and Geo-Information)	Estimation of maize grain yield using multispectral satellite data sets (SPOT 5) and the random forest algorithm
2018	Geo Journal	Environmental attitudes and adventure tourism motivations
2018	Global Networks	Global value chains and the rise of the global south: unpacking twenty-first century polycentric trade
2018	Global Networks	South-North and South-South production networks: diverging socio-spatial practices of Indian pharmaceutical firms
2018	Cambridge Journal of Regions, Economy and Society	Globalisation, uneven development and the north-south 'big switch'
2018	African Sociological Review	Vulnerability and resilience of female farmers in Oku, Cameroon, to climate change
2018	Energy for Sustainable Development	A review and identification of persistent and emerging prepaid electricity meter trends
2018	African Journal of Ecology	Is high species richness at intermediate disturbance level valuable for phylogenetic conservation? a test on bird species in South-East Botswana
2018	African Journal of Hospitality, tourism and Leisure (AJHTL)	Evaluating the quality of environmental impact reporting for proposed tourism-related infrastructure in the protected areas of South Africa: a case study on selected EIA reports
2018	BMC Complementary and Alternative Medicine	Effective antioxidant, antimicrobial and anticancer activities of essential oils of horticultural aromatic crops in northern Egypt
2018	African Journal of Hospitality, tourism and Leisure (AJHTL)	Creative industries in central Johannesburg: entrepreneurs, organisation and locational choice
2018	Current Zoology	Predicting the effect of climate change on a range-restricted lizard in southeastern Australia
2018	Journal for Nature Conservation	A case for reconsidering the conservation status of former closed areas in arid landscapes of western India
2018	ZooKeys	Re-evaluation of the discriminatory power of DNA barcoding on some specimens of african cyprinidae (subfamilies cyprininae and danioninae)
2018	Aerosol and Air Quality Research	Size distribution of ultrafine particles generated from residential fixed-bed coal combustion in a typical brazier
2018	South African Journal of Geomatics (formelry South African Journal of Surveying and Geo-Information)	Modelling the relationship between groundwater depth and NDVI using time series regression with distributed lag models
2018	Bulletin of Geography	Nature-based tourism operators' perceptions and adaptation to climate change in Hwange National Park, Zimbabwe
2018	Bulletin of Geography	Accommodating business travellers: the organisation and spaces of serviced apartments in Cape Town, South Africa

2018	Energy and Environment	Household cooking fuel use patterns and determinants across southern Africa: evidence from the demographic and health survey data
2018	African Journal of Hospitality, tourism and Leisure (AJHTL)	Stakeholder perspectives on tourism development in the greater Mapungubwe transfrontier
2018	South African Journal of Geomatics (formelry South African Journal of Surveying and Geo-Information)	Assessing the effect of band selection on accuracy of pansharpened imagery: application to young woody vegetation mapping
2018	Urban Geography	Ethical concerns around inner city walking tours
2018	International Journal of Biometeorology	An analysis of factors affecting tourists' accounts of weather in South Africa
2018	International Development Planning Review	The potential role of tourism microentrepreneurship in the prevention of rhino poaching
2018	Review of African Political Economy	The land–water nexus: a critical perspective from South Africa
2018	Applied Environmental Education and Communication	Understanding the role of socio-demographic and geographical location on pro-environmental behavior in Nigeria
2018	Agriculture (Switzerland)	Urban fish farming in Jos, Nigeria: contributions towards employment opportunities, income generation, and poverty alleviation for improved livelihoods
2018	Clean Air Journal	A critical review of health risk assessments of exposure to emissions from coal-fired power stations in South Africa
2018	Tourism Analysis	Development and validation of the tourism e-microentrepreneurial self-efficacy scale
2018	Evidence-Based Complementary and Alternative Medicine	Bioactivities of traditional medicinal plants in Alexandria
2018	BMC Complementary and Alternative Medicine	Bioactivity of essential oils extracted from <i>cupresses macrocarpa</i> branchlets and <i>corymbia citriodora</i> leaves grown in Egypt
2018	AoB PLANTS	Functional traits partially mediate the effects of chronic anthropogenic disturbance on the growth of a tropical tree
2018	ZooKeys	Analysis of temporal diversification of African cyprinidae (teleostei, cypriniformes)
2018	Geocarto International	Remote sensing-based assessment of veld fire trends in multiple interwoven land tenure systems in Zimbabwe
2018	Biotropica	Recurrent fruit harvesting reduces seedling density but increases the frequency of clonal reproduction in a tropical tree
2018	Tourism Recreation Research	Does perception of authenticity attract visitors to agricultural settings?
2018	Current Issues in Tourism	The influence of the environment on adventure tourism: from motivations to experiences
2018	Development and Society	Conservation, displacement and social injustice at the South African section of greater Mapungubwe transfrontier

## 7. Conference Presentation in 2018:

2018	Insight into nature-based experiences and perceptions of conservation: postgraduate students' visit to a South African national park	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Assessing the implications of South Africa's integrated national electrification programme's restricted electricity supply connections	01st International Conference on Industrial Engineering and Operations Management (IEOM 2018 - South Africa)
2018	Living in apartment blocks in Marshalltown: housing satisfaction in downtown Johannesburg	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Climatic sensitivity and snow-based tourism in Africa: an investigation of tripadvisor reviews on Afriski, Lesotho	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Analysis of potential impact of climate variability and extreme weather events on crop yield in small-scale farming: a case study of Lwamondo village	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Land degradation in Lesotho - induced by agricultural practices or climate variability; the perception of Maseru district farmers	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Household energy use models and their application to South African energy interventions	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Trolley pushers in the city of Johannesburg	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	The greater Mapungubwe transfrontier: a project in limbo?	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Local inhabitants' knowledge, attitudes and perceptions of the establishment and management of the Vhembe biosphere reserve, Limpopo province, South Africa	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Quantifying $Al_2O_3$ and $Fe_2O_3$ concentrations in abandoned mine tailings using field spectroradiometer data	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Training of Gauteng high school teachers in mapwork skills	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)

2018	Insight into nature-based experiences and perceptions of conservation: postgraduate students' visit to a South African national park	Biennial Conference of the Society of South African Geographers: Geography and Community - Research, Learning, Impact (SSAG 2018)
2018	Monitoring land use and land cover change in the Keiskamma catchment area (South Africa) using landsat imagery	AfricaGEO Conference: Developing Geomatics in Africa - Data Fusion-Driving Value and Policy (AfricaGEO 2018)
2018	Comparison of support vector machine and maximum likelihood classification in and around granite quarries	AfricaGEO Conference: Developing Geomatics in Africa - Data Fusion-Driving Value and Policy (AfricaGEO 2018)
2018	Multi-source remote sensing data for natural habitat mapping in India	AfricaGEO Conference: Developing Geomatics in Africa - Data Fusion-Driving Value and Policy (AfricaGEO 2018)
2018	The impact of power outages on small businesses in the city of Johannesburg	10th International Conference on Education, Business, Humanities and Social Sciences (EBHSSS 2018)
2018	Comparison of land-sat and ASTER in land cover change detection within granite quarries	04th International Conference on Geographical Information Systems Theory, Applications and Management (GISTAM 2018)
2018	A survey on selected households within the Ekurhuleni metropolitan municipality to participate in solid waste management and recycling	24th Institute of Waste Management of Southern Africa: Implementing the Waste Hierarchy (WasteCon 2018)
2018	Calculating health effects of coal-fired power station emissions	Conference of the National Association for Clean Air (NACA 2018)
2018	?Effective visualisation of annual air quality trends in priority areas	Conference of the National Association of Clean Air (NACA 2018)

#### 8. Research Master Dissertations completed in 2017-18:

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Greenberg, Desire Ann	Development, Geography and Organisation of Serviced Apartments in South Africa.	UJ	Master of Science (MSc) Geography	Prof JM Rogerson	
Mahlasi, Craig	Remote sensing of water quality in inland water bodies.	UJ	Master of Arts (MA) Geography	Prof SG Tesfamichael	
Ramashapa, Marungwane Chieftainess	Evaluating the impact of the 2014 – 2015 drought on the informal economy: A case study of Swazi-inn market and Leralla market, Tembisa.	UJ	Master of Science (MSc) Geography	Prof G Hoogendoorn	

**9. Master Dissertations of limited scope completed in 2017-18:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
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	Mrs 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	Prof IT Rampedi	
Cuthbertson, Shayna-Ann Mary	The greening of buildings in South Africa: The case of green roofs.	UJ	Master of Science (MSc) Environmental Management (with distinction)	Prof J Rogerson	
Gwebu, Duduzile	Evaluation the quality of environmental management plans associated with environmental impact assessments: A case study on mining projects in South Africa	UJ	Master of Science (MSc) Environmental Management	Dr IT Rampedi	
Khotoo, Anisa	Electricity saving Measures and power outage mitigation measures used in households in Johannesburg, South Africa.	UJ	Master of Arts (MA) Environmental Management	Mrs DC Schoeman	
Mabaso, Thembeke	Investigating the potential of generating electrical energy from digester carbon waste sources at ERWAT waste water treatment facilities in the Ekurhuleni district municipality.	UJ	Master of Science (MSc) Environmental Management	Mrs LA Modley	Dr IT Rampedi Mr J Topkin (ERWAT )

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	Prof IT Rampedi
Makhubele, Muriel Gilani	Evaluation of the Waste Recycling Practices of Primary School Learners in Mamelodi, Gauteng Province.	UJ	Master of Science (MSc) Environmental Management	Dr IT Rampedi	
Matsie Tshegofatso	Assessing the spatio-temporal dynamics of wetlands vegetation at Klipriviersberg Nature Reserve, South Africa.	UJ	Master of Science (MSc) Environmental Management	Prof SG Tesfamichael	
Moeletsi, Refilwe Suzan	Remote sensing of land cover change within granite quarries.	UJ	Master of Science (MSc) Environmental Management	Prof SG Tesfamichael	
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	Prof 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 Arts (MA) Environmental Management	Prof J Rogerson	
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	Prof IT Rampedi	
Muhali, Mulalo David	Environmental Resource Utilization: A case study of traditionally useful wild plant species in the Makhado Local	UJ	Master of Science (MSc) Environmental Management	Prof IT Rampedi	

	Municipality in South Africa.				
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	
Ndenda, Sheltah	An update of the predisposition of alien mammals to invasion in South Africa.	UJ	Master of Science (MSc) Environmental Management (with distinction)	Dr K Yessoufou	
Nyakudya, Petronella	Management of e-waste: A case study of manufacturers in Gauteng.	UJ	Master of Science (MSc)	Mrs DC Schoeman	
Rampersad, Preesha	A critical evaluation of selected mining Environmental Impact Assessment in the Limpopo province in South Africa.	UJ	Master of Arts (MA)	Prof IT Rampedi	
Schmidt, Julian	A comparative study of household recycling behaviour in the city of Johannesburg.	UJ	Master of Science (MSc) Environmental Management	Mrs DC Schoeman	
Sinugo, Phumudzo Steven	Stakeholders' knowledge, attitude and perceptions on environmental conservation: A case study of the Vhembe biosphere reserve.	UJ	Master of Science (MSc)	Mrs E Block	Prof IT Rampedi

#### 10. PhD Thesis's completed in 2017-18:

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Lawrence, Faith	Local Economic Development Agencies in South Africa: Evolution, Organisation and Progress.	UJ	Philosophiae Doctor (PhD)  Geography	Prof CM Rogerson	
Maponga, Robert	An Assessment of Wildfire Trends, Hazard Zones, Stakeholder Perceptions, Preparedness and Modelling of	UJ	Philosophiae Doctor (PhD)  Environmental Management	Prof F Ahmed	

	Wildfires in Mazowe, Zimbabwe.				
McKay, Tracey Jill Morton	The Adventure Tourism Industry of South Africa: Organisation, Space and Structure.	UJ	Philosophiae Doctor (PhD)  Geography	Prof CM Rogerson	
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	

### **11. 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
- Geo-Informatics: Geographic Information Systems (GIS)
- Geo-Informatics: Remote Sensing and Image
- Geography Philosophy and Methodology
- Geomorphology
- Strategic Environmental Planning
- Tourism 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

### **12. Student Numbers (2017-18):**

<b>Level</b>	<b>2017</b>	<b>2018</b>
First year	145	150
Second year	134	128
Third year	152	122
Honours	24	22
Masters	38	30
Doctoral	16	12

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

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

## RHODES UNIVERSITY

1. **Name of Department:** Department of Geography

2. **Head/Chair of Department:**

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Prof. Meiklejohn, K.I.	Geomorphology Environmental Change, Applied Remote Sensing	<i>i.meiklejohn@ru.ac.za</i>	046-603 8024

3. **Information about the Geographers in the Department**

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Prof. Ellery, W.N.	Professor	Wetlands, Geomorphology	<i>f.ellery@ru.ac.za</i>	046-603 7453
Ms McGregor, G.K.	Lecturer	GIS, Biogeography	<i>g.k.mcgregor@ru.ac.za</i>	046-603 8322
Ms Irvine, P.	Lecturer	Urban Geography, Small Town Geographies	<i>p.irvine@ru.ac.za</i>	046-603 8053
Ms Memela, S.	Lecturer	Human Geography, Migration	<i>s.memela@ru.ac.za</i>	046-603 8320
Ms Dlongolo, Z.	Augmented Programme Lecturer	Human Geography	<i>z.dlongolo@ru.ac.za</i>	N.A.
Temporary Academic Staff				
Dr Lemahieu, A.	Replacement Lecturer	Cosatal Environments	<i>a.lemahieu@ru.ac.za</i>	N.A.
Emeritus Academic Staff				
Prof. Fox, R.C.	Emeritus Professor	Human Geography, Geographical Simulations	<i>r.fox@ru.ac.za</i>	N.A.
Prof. Lewis, C.A.	Emeritus Professor	Periglacial and Glacial Geomorphology	<i>c.lewis@ru.ac.za</i>	N.A.
Prof. Rowntree, K.	Emeritus Professor	Fluvial Geomorphology, Catchment Management	<i>k.rowntree@ru.ac.za</i>	N.A.
Adjunct Academic Staff				
Prof. Boelhouwers, J. (Uppsala)	Visiting Professor	Periglacial Geomorphology	N.A.	N.A.
Prof. Foster, I (Northampton)	Visiting Professor	Sediment dynamics and tracing	N.A.	N.A.
Prof. Hall, K. (UNBC)	Visiting Professor	Rock Weathering, Periglacial Geomorphology	N.A.	N.A.

Prof. Hooke, J.	Emeritus Professor	Fluvial Geomorphology	N.A.	N.A.
Prof. Kepe, T.	Visiting Professor	Political Ecology, Land Reform	N.A.	N.A.
Prof. Nel, E.	Visiting Professor	Local Economic Development	N.A.	N.A.
Mr Cobbing, B.	Research Associate	GIS	N.A.	N.A.
Dr Pyle, D.	Research Associate	Meteorology, Climate Change, Meteorological Hazards	N.A.	N.A.
Dr van der Waal, B.	Research Associate	Fluvial Geomorphology, Sediment Dynamics	N.A.	N.A.

#### 4. 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
Vacant	Geotechnical Specialist	N.A.	N.A.	046-603 7454
Mr Gumede, M.	Departmental Administrator	N.A.	<i>m.gumede@ru.ac.za</i>	046-603 8319
Mr Ngoepe, A.	Principle Technical Assistant	N.A.	<i>a.ngoepe@ru.ac.za</i>	046-603 8864
Mr Singata, S.	Senior Technical Assistant	N.A.	<i>s.singata@ru.ac.za</i>	046-603 7455

#### 5. Department News

Research and teaching in the Department reflects the diversity of the discipline of Geography. Current activities include: the wild honeybush industry; land and agrarian reform; human mobility; the role of tertiary institutions on Grahamstown; the social dynamics of small towns; spatial dynamics related to heritage conservation; the impacts of dams on societies and river systems; soil erosion and sediment transfer; wetlands and their importance to society and the natural environment; applications of Geographical Information Systems (GIS) and Remote Sensing; Antarctic Geomorphology and Biogeomorphology; and climate change. Not only is our research academically diverse, but spatially extensive, with projects extending from the Nordic Arctic to Antarctica. An aspect that the Department is extremely proud of is our training of postgraduate students and exposing them to the international research community. All those who have been involved in such interactions have shown that Rhodes University, and the Department of Geography, are conducting research that is internationally relevant and of an international standard.

Dr Bennie van der Waal received a Universities UK International (UK) Rutherford Fund Strategic Partner Grant to visit the Department of Geography and Earth Sciences at Aberystwyth University between July and September 2018. Visiting Prof. Thembele Kepe, Chair of Geography in Toronto University, visited the Department during May and August. Visiting Prof. Ian Foster (Northampton University) continued his supervisory role and research in the Tsitsa Catchment during October.

Professor Ian Meiklejohn was the South African and International Geographical Union (IGU) delegate at the Scientific Committee for Antarctic Research (SCAR) Open Science Conference

and Delegates Meeting from 12 to 26 June 2018. This was his third meeting as South African and second as IGU delegate. He was also part of the council of the Antarctic Permafrost and Soils working group (ANTPAS) of SCAR and the International Permafrost Association. Much of their work was summarised in a Nature Communications article published in 2019.

Ms. Gillian McGregor has continued her work, with students on wild honeybush (*Cyclopia intermedia*) resource utilisation and was responsible for resource utilisation guidelines published by the Western Cape government. The crop grows in the mountainous regions of the Langkloof in the Eastern Cape, as well as in the mountains of Western Cape.

Dr Bennie van der Waal chairs the sediment community of practice (COP) which advises on erosion and sediment related issues in a multidisciplinary/multi-institutional Ntabelanga and Laleni Ecological Infrastructure Project (NLIEP) funded by the Department of Environmental Affairs (DEA). Researchers from the Geography Department are playing a key role in landcover, burning practices, and river sediment sources and loads.

Emeritus Professor Kate Rowntree continues her leadership of a team that is addressing community engagement in catchment restoration through a Water Research Commission (WRC) project.

The Landscape Processes in Antarctic Ecosystems group led by Professor Ian Meiklejohn completed their field work during the 2017/18 Austral Summer in Antarctica. The project has contributed to over 20 peer-reviewed articles, and eleven Rhodes' Masters and PhD degrees since 2012. In addition, four students involved in, and funded by, the project from Fort Hare and the University of Pretoria completed their degrees during the same period. Two of the students are now appointed as lecturers in South African Universities, and a further two from a predecessor to this project, are Associate and Full Professor respectively.

The Department of Geography was well represented at the 2018 Annual Geography Students Conference, hosted by the University of the Free State. Natasha Moore (MSc student) won the prize for the best Masters Presentation in GIS and Remote Sensing.

## 6. **2018-19 dated publications:**

### Peer Reviewed Subsidy-Earning Journal Research Publications

Bate, G.C., Matcher, G.F., Venkatachalam, S., **Meiklejohn, I.** & Dorrington, R.A. 2019.

Microalgae in Two Freshwater Lakes and an Estuary as a Result of Groundwater Contamination from Households. *Transactions of the Royal Society of South Africa*, 1-11.

Biskaborn, B.K., Smith, S.L., Noetzi, J., Matthes, H., Vieira, G., Streletskiy, D.A., Schoeneich, P., Romanovsky, V.E., Lewkowicz, A.G., Abramov, A., Allard, M., Boike, J., Cable, W.L., Christiansen, H.H., Delaloye, R., Diekmann, B., Drozdov, D., Eitzelmlüller, B., Grosse, G., Guglielmin, M., Ingeman-Nielsen, T., Isaksen, K., Ishikawa, M., Johansson, M., Johannsson, H., Joo, A., Kaverin, D., Kholodov, A., Konstantinov, P., Kröger, T., Lambiel, C., Lanckman, J.-P., Luo, D., Malkova, G., **Meiklejohn, I.**, Moskalenko, N., Oliva, M., Phillips, M., Ramos, M., Sannel, A.B.K., Sergeev, D., Seybold, C., Skryabin, P., Vasiliev, A., Wu, Q., Yoshikawa, K., Zheleznyak, M. & Lantuit, H. 2019. Permafrost Is Warming at a Global Scale. *Nature Communications*, 10, 264, 1-11.

Bouveroux, T., **Melly, B.**, **McGregor, G.** & Plon, S. 2018. Another dolphin in peril? Photo-identification, occurrence, and distribution of the endangered Indian Ocean humpback dolphin (*Sousa plumbea*) in Algoa Bay, *Aquatic Conservation – Marine and Freshwater Ecosystems*. 28, 723-732.

Favis-Mortlock, D., Boardman, J., **Foster, I.** & Greenwood, P. 2018. 'Local gradient' and between-site variability of erosion rate on badlands in the Karoo, South Africa. *Earth Surface Processes and Landforms*, 43, 871-883.

Grenfell, M.C., Aalto, R., Grenfell, S.E. & **Ellery, W.N.** 2019. Ecosystem engineering by hummock-building earthworms in seasonal wetlands of eastern South Africa: Insights into the mechanics of biomorphodynamic feedbacks in wetland ecosystems. *Earth Surface Processes and Landforms*, 44, 354-366.

- Inkpen, R. & **Hall, K.** 2019. Universal Shapes? Analysis of the Shape of Antarctic Tafoni. *Geosciences*, 9, 154.
- Hrbáček, F., Vieira, G., Oliva, M., Balks, M., Guglielmin, M., de Pablo, M.Á., Molina, A., Ramos, M., Goyanes, G., **Meiklejohn, I.**, Abramov, A., Demidov, N., Fedorov-Davydov, D., Lupachev, A., Rivkina, E., Láska, K., Kňázková, M., Nývt, D., Raffi, R., Strelin, J., Sone, T., Fukui, K., Dolgikh, A., Zazovskaya, E., Mergelov, N., Osokin, N. & Miamin, V. 2018. Active Layer Monitoring in Antarctica: An Overview of Results from 2006 to 2015. *Polar Geography*. 41, p.1-15.
- Kepe, T.** & Hall, R. 2018. Land Redistribution in South Africa: Towards Decolonisation or Recolonisation? *Politikon*. 45, p.128-137.
- Mahlatsi, M.L.S.** 2018. The peasants revolt: analysing the role of the democratic state in the struggle for land and environmental justice in Xolobeni, Eastern Cape, South Africa. *Journal of Public Administration*, 53, 615-631.
- Matcher, G.F., Froneman, P.W., **Meiklejohn, I.** & Dorrington, R.A. 2018. Distinct responses of bacterial communities to agricultural and urban impacts in temperate southern African estuaries. *Estuarine Coastal and Shelf Science*, 200, 224-233.
- Melly, B., McGregor, G., Hofmeyr, G.J.G. & Plon, S.** 2018. Spatio-temporal distribution and habitat preferences of cetaceans in Algoa Bay, South Africa. *Journal of the Marine Biological Association of the United Kingdom*, 98, 1065-1079.
- Memela, S. & Maharaj, B.** 2018. Refugees, Violence and Gender: the Case of Women in the Albert Park Area in Durban, South Africa. *Urban Forum*, 29, 429-443.
- Mokwe-Ozonzeadi, N., **Foster, I.**, Valsami-Jones, E. & McEldowney, S. 2018. Trace metal distribution in the bed, bank and suspended sediment of the Ravensbourne River and its implication for sediment monitoring in an urban river. *Journal of Soils and Sediments*, 19, 946-963.
- Pulley, S., Foster, I., Collins, A.L., Zhang, Y. & Evans, J.** 2018. An analysis of potential controls on long-term <sup>137</sup>Cs accumulation in the sediments of UK lakes. *Journal of Paleolimnology*, 60, 1-30.
- Pulley, S., Collins, A.L. & van Der Waal, B.** 2018. Variability in the mineral magnetic properties of soils and sediments within a single field in the Cape Fold mountains, South Africa: Implications for sediment source tracing. *Catena*, 163, 172-183.
- Pulley, S., Ellery, W.N., Lagesse, J., Schlegel, P.K. & McNamara, S.J.** 2018. Gully erosion as a mechanism for wetland formation: An examination of two contrasting landscapes. *Land Degradation & Development*, 29, 1756-1767.
- Pulley, S., van Der Waal, B., Rowntree, K. & Collins, A.L.** 2018. Colour as reliable tracer to identify the sources of historically deposited flood bench sediment in the Transkei, South Africa: A comparison with mineral magnetic tracers before and after hydrogen peroxide pre-treatment. *Catena*, 160, 242-251.
- Rudolph, E.M., Meiklejohn, I., Hansen, C.D., Hedding, D.W. & Nel, W.** 2018. Rock glaciers in the Jutulssessen, Dronning Maud Land, East Antarctica. *Polish Polar Research*. 39, 1-17.
- Staebe, K., **Meiklejohn, K.I.**, Singh, S.M. & Matcher, G.F. 2019. Biogeography of Soil Bacterial Populations in the Jutulssessen and Ahlmannryggen of Western Dronning Maud Land, Antarctica. *Polar Biology*, 42, 1445-1458.

#### Peer Reviewed Non-Subsidy-Earning Journal Research Publications

- Murata, C., Perry, A. & **Denison, J.** 2018. Dynamics of Water Access and Allocation Among Competing Needs within the Homestead: Quantifying multiple water uses in Rural Eastern Cape. *Africanus: Journal of Development Studies*, 5(2),1-29.

#### Books/Chapters/Monographs

- Foster, I.** & Boardman, J. 2018. Monitoring and assessing land degradation: New approaches. In: Holmes, P.J. and Boardman, J. (eds.). *Earthscan Studies in Natural Resource Management: Southern African Landscapes and Environmental Change*. London: Routledge. 249-274. ISBN: 9781138688957.

**Kepe, T.** 2018. Meanings, alliances and the state in tensions over land rights and conservation in South Africa. In: Mollett, S. and Kepe, T. (eds.). *Routledge Studies in Sustainable Development: Land Rights, Biodiversity and Conservation and Justice: Rethinking Parks and People*. London: Routledge. 17-30. ISBN: 9781138217720.

**Lewis, C.A.** 2018. *Full Cry! Hunting in Britain, Ireland, France and South Africa: Essays by a hunting correspondent*. Machynlleth: Coch-y-Bonddu Books. ISBN: 9781904784852.

Mollett, S. & **Kepe, T.** 2018. Introduction: land rights, biodiversity conservation and justice - rethinking parks and people. In: Mollett, S. and Kepe, T. (eds.). *Routledge Studies in Sustainable Development: Land Rights, Biodiversity and Conservation and Justice: Rethinking Parks and People*. London: Routledge. 1-13. ISBN: 9781138217720.

**Rowtree, K., Van Der Waal, B.** & Smith-Adao, L.B. 2018. Fluvial system response to environmental change. In: Holmes, P.J. and Boardman, J. (eds.). *Earthscan Studies in Natural Resource Management: Southern African Landscapes and Environmental Change*. London: Routledge. 112-135. ISBN: 9781138688957.

#### Other Publications

**Lewis, C.A.** 2018. The Brecon Boys' Grammar School Bell-Ringing Society and an introduction to the history of ringing in the School's catchment area. Part 2 - The Brecon Boys' Society. *The Ringing World*, 5605, 929-930.

**Lewis, C.A.** 2018. The Brecon Boys' Grammar School Bell-Ringing Society and an introduction to the history of ringing in the School's catchment area, Part 1 - Early ringing in the Brecon area. *The Ringing World*, 5604, 906-907.

#### **7. Conference Presentation in 2018-19:**

<i>Name of presenter (s)</i>	<i>Title of presentation</i>	<i>Format of presentation</i>	<i>Date of conference/workshop</i>	<i>Name of Conference/workshop</i>
<b>Ellery, S.G.</b>	The origin of bedrock depression wetlands in the southern Cape of South Africa: A changing perspective.	Oral	May 2018	Society of Wetland Scientists Annual Meeting, Denver, USA.
<b>Ellery, W.N.</b>	Controls on wetland distribution in southern Africa: Understanding the role of geomorphology.	Oral	May 2018	Society of Wetland Scientists Annual Meeting, Denver, USA.
<b>Ellery, W.N.</b>	Controls on wetland distribution in southern Africa: The case of the Krom River wetland.	Oral	October 2018	National Wetlands Indaba, Kimberly, South Africa.
<b>Hansen, C.D.</b>	Comparison of the Frost Environment of Three Disparate Climatic Locations.	Poster	June 2018	Polar 2018 (SCAR & IASC), Davos, Switzerland.
<b>Hansen, C.D. &amp; Meiklejohn, K.I.</b>	A Comparison of the Frost Environment of Three Disparate Climatic Locations.	Poster	June 2018	Polar 2018 (SCAR & IASC), Davos, Switzerland.
<b>Meiklejohn, I.</b>	Geomorphology and Antarctic Ecosystems in Dronning Maud Land.	Poster	June 2018	Polar 2018 (SCAR & IASC), Davos, Switzerland.
<b>Meiklejohn, I.</b>	SCAR Report.	Oral	August 2018	SANAP Symposium, Hermanus, South Africa.

<b>Meiklejohn, I.</b>	Active layer and permafrost monitoring in Western Dronning Maud Land, Antarctica.	Oral	August 2018	SANAP Symposium, Hermanus, South Africa.
Monsanto, D., Emami-Khoyi, A., Teske, P.R., <b>Meiklejohn, I.</b> & van Vuuren, B.	Genetic Patterns at Fine Spatial Scales: Complex Findings in a Complex Landscape.	Poster	June 2018	Polar 2018 (SCAR & IASC), Davos, Switzerland.
<b>Shlegel, P.K., Huchzermeyer, N.H. &amp; van der Waal, B.W.Oral</b>	Wetland prioritisation for livelihoods: avoiding further degradation.		October 2018	National Wetlands Indaba, Kimberly, South Africa.
<b>van der Waal, B.W., Tooth, S., Ellery, W.N. &amp; Lisenby, P.</b>	Degraded riverine wetlands in the Tsitsa River catchment: a geomorphological approach for assessing rehabilitation options	Oral	October 2018	National Wetlands Indaba, Kimberly, South Africa.
<b>van der Waal, B.W., Tooth, S., Lisenby, P. &amp; Ellery, W.N.</b>	A geomorphological approach to the prioritisation of wetlands for sediment trapping: Tsitsa River catchment, South Africa.	Oral	September 2018	British Society for Geomorphology. Aberystwyth University, Wales, UK.

#### **8. Research Master Dissertations completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Ms L.J. Bannatyne	Developing a citizen technician based approach to suspended sediment monitoring in the Tsitsa River catchment, Eastern Cape, South Africa.	Rhodes University	MSc ( <i>Cum Laude</i> )	Dr B. van der Waal	Prof K. Rowntree
Mr S.G. Ellery	The origin of bedrock depression wetlands in the southern Cape of South Africa: a changing perspective.	Rhodes University	MSc	Prof W.N. Ellery	Prof J. Dunlevey (UL)
Ms N.K. Ellis	Aquatic habitat shift assessment in a groundwater-fed semi-arid stream: an investigation into the response of Karoo hydroecology to system variability.	Rhodes University	MSc	Prof K. Rowntree	
Ms D.L. Hodgson	Demographic change in the Upper Tsitsa Catchment: the integration of census and	Rhodes University	MSc	Prof R.C. Fox	

	land cover data for 2001 and 2011				
Mr N.H. Huchzermeyer	A baseline survey of channel geomorphology with particular reference to the effects of sediment characteristics on ecosystem health in Tsitsa River, Eastern Cape, South Africa.	Rhodes University	MSc	Prof K. Rowntree	
Ms J.T. Knox	Chemical weathering on selected nunataks in western Dronning Maud Land, Antarctica.	Rhodes University	MSc	Prof I. Meiklejohn	Prof S. Büttner
Ms J.V. Lagesse	Discontinuous gully erosion as a mechanism of wetland formation: a case study of the Kompanjiesdrif basin, Kromrivier, Eastern Cape, South Africa.	Rhodes University	MSc	Prof W.N. Ellery	Dr S. Pulley
Ms C.T. Masebe	Ground thermal regimes in Western Dronning Maud Land, Antarctica in 2016	Rhodes University	MSc	Prof I. Meiklejohn	
Mr S.J. McNamara	The influence of landscape dis-connectivity on the structure and function of the Krom River, Eastern Cape, South Africa	Rhodes University	MSc	Prof. W.N. Ellery	
Ms N.J. Moore	The remote sensing of fires and their effects on soil properties in the uKhahlamba Drakensberg Park	Rhodes University	MSc ( <i>Cum Laude</i> )	Prof. I. Meiklejohn	
Ms N. Nyamela	The suspended sediment yield and provenance of the Inxu river catchment, Eastern Cape.	Rhodes University	MSc ( <i>Cum Laude</i> )	Dr B. van der Waal	Prof K. Rowntree
Ms P.K. Schlegel	Spatial variation in modelled hydrodynamic characteristics associated with valley confinement in the Krom River wetland: Implications for the initiation of erosional gullies.	Rhodes University	MSc	Prof W.N. Ellery	
Ms N.F. Wilmot	Periglacial landforms of the Ahlmannryggen and Jutulsessen areas of western Dronning Maud land, Antarctica	Rhodes University	MSc	Prof. I. Meiklejohn	

**9. Master Dissertations of limited scope completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>Degree not offered at Rhodes University</i>					

**10. PhD Thesis's completed in 2018-19:**

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Dr C.D. Hansen	On high-altitude and high- latitude frost environments.	Rhodes University	PhD	Prof I. Meiklejohn	Prof W. Nel (UFH)
Dr J.A.N. Denison	An investigation into the performance of smallholder irrigation schemes in the Limpopo province, South Africa: success factors, typologies and implications for development.	Rhodes University	PhD	Prof K. Rowntree	Prof W. van Averbeke (TUT)

**11. Short description of the curriculum presented:**

Undergraduate (NQF levels 5, 6 and 7):

**First-year level courses in Geography**

Geography 1 consists of two first-year semester courses, namely Earth Science 101 (jointly taught by the Geography and Geology departments) and Geography 102 (Exploring Global Human Geographies), which are normally taught in the first and second semesters respectively. Students who take both Geography 1 and Geology 1 will have to take an additional semester course in an appropriate subject during the first semester to ensure that they have enough NQF credits for their degree. Each semester course may be obtained separately and, in addition, an aggregate mark of at least 50% will be deemed to be equivalent to a year-long course GOG 1, provided that a candidate obtains the required sub- minimum in each component. However, students wishing to major in Geography must normally obtain both semester-courses components separately. Supplementary examinations may be recommended in either course, provided that a candidate achieves a minimum standard specified by the Department.

These courses provide a sound foundation for the student majoring in Geography as well as foundations for the student studying Geography for one year. Practical work, including field work, tutorials are integral parts of both courses that reinforce themes covered in lectures and ensure that academic and geographic literacy are developed within the curriculum. Students reading for an "Environmental Law" degree (i.e. with Environmental Science and Law as majors) may complete EAR 101 and GOG 102 in their second year of study, as both these courses have timetable clashes with first-year Law modules.

A rating of at least 4 for Geography in the National Senior Certificate (or equivalent) is recommended for entry into Earth Science. Students may not register for Geography 102 unless they have met the subminimum requirements in both the theory and practical papers (35%) for EAR 101, or a rating of at least 4 in Geography in the National Senior Certificate (or equivalent).

**EAR 101**

First-year, first-semester course (15 credits at NQF level 5)

**Entrance requirements:** Level 4 NSC Geography, or Maths, or Physical Science, or Biology.

**Course description:** Introduction to Earth Systems. This course introduces the processes that have shaped the Earth and its environment over both geological and recent time scales. The interrelationships between the Earth, the atmosphere, and living organisms form key themes through the course. EAR 101 comprises five lectures/tutorials, plus one three-hour practical per week.

**DP requirements:** Over 80% lecture attendance; attendance and completion of ALL tutorials, assignments and practicals.

**Assessment:** Class record 50%, Examination 50%

**Supplementary exam:** 35%

**Subminimum for June:** 40% for aggregation with GOG 102

## **GOG 102**

First-year, second-semester course (15 credits at NQF level 5)

**Entrance requirements:** 35% EAR 101 or level 4 NSC Geography

**Course description:** Exploring Global Human Geographies. This course examines key concepts and understanding within Human Geography that serve as an introduction to the sub-discipline. Space and place are considered fundamental to an understanding of human societies and structures. Key themes include: modes of production and consumption; demography and migration; inequalities and development; globalisation; and exploration of urban and rural spaces within historical, political, economic, social and spatial contexts. GOG 102 comprises five lectures/tutorials, plus one three-hour practical per week.

**DP requirements:** Over 80% lecture attendance; attendance and completion of ALL tutorials, assignments and practicals.

**Assessment:** Class record 50%, Examination 50%

**Supplementary exam:** 40%

**Subminimum for November:** 40% for aggregation with EAR 101

## **Second-year level courses in Geography**

There are two independent second-year courses in Geography. GOG 201 is normally held in the first semester and GOG 202 in the second semester. Each course may be obtained separately and, in addition, an aggregate mark of at least 50% will be deemed to be equivalent to a year-long course GOG 2, provided that a candidate obtains the required subminimum in each component. No supplementary examinations will be offered for either course.

Practical work is an integral part of both courses and is related to the relevant lecture courses and to the development of research techniques.

Both GOG 102 and EAR 101 are required before a student may register for GOG 201 or GOG 202. At the discretion of the Head of Department, students who have an aggregated pass of at least 60% for GOG 1 (*i.e.* EAR 101 plus GOG 102) may be allowed to register for GOG 201 and GOG 202..

## **GOG 201**

Second-year, first-semester course (20 credits at NQF level 6)

**Entrance requirements:** EAR 101 50% and GOG 101 50% (or GOG 1 60%)

**Course description:** Space and place in Southern Africa 1. This course examines the key processes that determine the physical and human geography of southern Africa. Concepts, theories and examples from other regions will be used where appropriate to help us understand the southern African experience. Contemporary issues such as environmental change and associated problems of human development will be examined. Selected human and physical geographical perspectives are used to understand the rural and urban landscapes. The complementary course for GOG 201 is GOG 202, and it comprises five lectures/tutorials, plus one three-hour practical per week.

**DP requirements:** Over 80% lecture attendance; attendance and completion of ALL tutorials, assignments and practicals.

**Assessment:** Class record 50%, Examination 50%

**Supplementary exam:** None

**Subminimum for June:** 40% for aggregation with GOG 202

### **GOG 202**

Second-year, second-semester course (20 credits at NQF level 6)

**Entrance requirements:** EAR 101 50%, GOG 101 50% (or GOG 1 60%)

**Course description:** Space and place in Southern Africa 2. This course examines the key processes that determine the physical and human geography of southern Africa. Concepts, theories and examples from other regions will be used where appropriate to help us understand the southern African experience. Contemporary issues such as environmental change and associated problems of human development will be examined. Selected human and physical geographical perspectives are used to understand the rural and urban landscapes. The complementary course for GOG 202 is GOG 201, and it comprises five lectures/tutorials, plus one three-hour practical per week.

**DP requirements:** Over 80% lecture attendance; attendance and completion of ALL tutorials, assignments and practicals.

**Assessment:** Class record 50%, Examination 50%

**Supplementary exam:** None

**Subminimum for November:** 40% for aggregation with GOG 201

### **Third-year level courses in Geography**

There are two independent third year courses in Geography. GOG 301 is normally held in the first semester and GOG 302 in the second semester. Each course may be obtained separately and, in addition, an aggregate mark of at least 50% will be deemed to be equivalent to the year-long course GOG 3, provided that a candidate obtains the required sub-minimum in each component. Normally, both GOG 201 and GOG 202 are required before a student may register for either or both of the third year semester courses GOG 301 and GOG 302. At the discretion of the Head of Department a student with only an aggregated year-course GOG 2 may be allowed to register for either or both of the semester courses GOG 301 and GOG 302.

### **GOG 301**

Third-year, first-semester course (30 credits at NQF level 7)

**Entrance requirements:** GOG 201 50% and GOG 202 50%

**Course description:** African Geographical Studies. In this course students will develop a critical understanding of Africa from a Geographical perspective through topics that relate to the Continent's complex social, built and physical environments, environmental processes, resources, as well as social, cultural, economic, and political systems. The specific content of the course will depend on the research and teaching interests of the academic staff who are available at the time and will vary from year to year. The course comprises five lectures/tutorials and a three-hour practical per week, while a compulsory field weekend may be a component of the course.

**DP requirements:** Over 80% lecture attendance; attendance and completion of ALL tutorials, assignments and practicals.

**Assessment:** Class record 50%, Examination 50%

**Supplementary exam:** None

**Subminimum for June:** 40% for aggregation with GOG 302

### **GOG 302**

Third-year, second-semester course (30 credits at NQF level 7)

**Entrance requirements:** GOG 201 50% and GOG 202 50%

**Course description:** Geography in Theory and Practice. The aim of this course is to provide students with the theoretical background and related practical competencies in one or more sub-disciplines within Geography. Currently the course covers Geographic Information Systems and Remote Sensing. The course comprises five lectures/tutorials/practical preparation sessions and a three-hour practical per week, while a compulsory field weekend may be a component of the course.

**DP requirements:** Over 80% lecture attendance; attendance and completion of ALL tutorials, assignments and practicals.

**Assessment:** Class record 50%, Examination 50%

**Supplementary exam:** None

**Subminimum for November:** 40% for aggregation with GOG 301

Postgraduate (NQF level 8):

### **Honours Degrees**

The Department of Geography offers separate Honours degrees in Geography and Environmental Water Management (the latter in collaboration with the Institute for Water Resources). In all cases students are required to read four modules, submit a research project proposal, a research project, and present at least two seminars during the year. To pass the Honours degree, a candidate must achieve a pass (*i.e.* a minimum of 50%) for all four courses and their research project. At the start of the academic year all students will have to attend an induction programme and may include a compulsory field trip. Other field trips, which may be scheduled during a vacation, are also compulsory for several individual Honours modules and students will normally be expected to attend the annual Geography Students Conference. For all programmes, the modules offered may be subject to timetable and staffing constraints. Other appropriate modules may be taken if approved by the Head of Department. Entry into any module will be dependent on being able to provide evidence of appropriate prior knowledge to the Head of Department.

Part of the Geography degree may be taken in conjunction with modules in other departments. Where approximately 50% of a student's courses are examined in another department, a joint degree is awarded (for example, Honours in Geography/ Environmental Science). Any combined degree must be agreed to by both Heads of Department concerned.

Geography and Environmental Water Management Honours students may read for a BScHons, BAHons or a BSocScHons degree, depending on their undergraduate degree and curriculum. Humanities students are reminded of the alternative route to Honours. See Rules H.25(3) and H.25(4).

Each Honours degree is a year-long course (120 credits at NQF level 8)

Postgraduate (NQF level 9):

Suitably qualified students proceed to the research degrees of MSc, MA, and MSocSc under the direction of the staff of the Department in their respective fields of interest.

Postgraduate (NQF level 10):

Suitably qualified students proceed to the research degree of PhD in either the Faculty of Science or Humanities under the direction of the staff of the Department in their respective fields of interest.

### **12. Student Numbers (2017-18):**

<b>Level</b>	<b>2018</b>	<b>2019</b>
First year	140	150
Second year	70	55
Third year	38	45
Honours	13	16
Masters	13	15
Doctoral	8	9

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

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

Prof. Ian Meiklejohn: i.meiklejohn@ru.ac.za; 046-603 8024

## STELLENBOSCH UNIVERSITY

1. **Name of Department:** Department of Geography and Environmental Studies

2. **Head/Chair of Department:** Dr Manfred Spocter

Name	Area of specialisation	E-mail	Office Telephone Number
Dr Manfred Spocter	Small-town geographies; Suburban geographies; Geographies of naming; Public space geographies	<a href="mailto:mspocter@sun.ac.za">mspocter@sun.ac.za</a>	021808 3095

### 3. Information about the Geographers in the Department

Name	Rank/ Position	Area of specialisation	E-mail	Office telephone number
Kemp, Jaco, Dr	Senior lecturer	Earth Observation, Synthetic Aperture Radar, Photogrammetry	<a href="mailto:jkemp@sun.ac.za">jkemp@sun.ac.za</a>	021 808 9147
De Klerk, Helen, Prof	Senior lecturer	GIS, Spatial analysis, biogeography, species modelling, fire ecology	<a href="mailto:hdeklerk@sun.ac.za">hdeklerk@sun.ac.za</a>	021 808 9322
De Waal, Jan, Mr	Lecturer	Climate change; Flooding risk assessment; Urban risk research	<a href="mailto:janniedw@sun.ac.za">janniedw@sun.ac.za</a>	021 808 3108
Donaldson, Ronnie, Prof	Professor	Urban social geography and tourism studies	<a href="mailto:rdonaldson@sun.ac.za">rdonaldson@sun.ac.za</a>	021 808 3882
Du Plessis, Danie, Dr	CRUISE: Urban & Regional Planner/ Senior lecturer	Urban planning systems, Urban transformation, Spatial analysis and Modelling of cities and urban systems	<a href="mailto:ddp@sun.ac.za">ddp@sun.ac.za</a>	021 808 3126
Eichhoff, Jessica, Ms	CGA: GIS operator & social media coordinator	Cartography; Digital elevation modelling	<a href="mailto:eichhoffj@sun.ac.za">eichhoffj@sun.ac.za</a>	021 808 3112
Ferreira, Sanette, Prof	Professor	Tourism development in small towns, national parks and the winelands	<a href="mailto:slaf@sun.ac.za">slaf@sun.ac.za</a>	021 808 3105
Geyer, Manie, Prof	CRUISE: Urban & Regional Planner/ Director	Migration; Urban morphology; Urban systems	<a href="mailto:hsgeyer@sun.ac.za">hsgeyer@sun.ac.za</a>	021 808 3107

Geyer, Herman, Mr	CRUISE: Town & Regional Planner/ Lecturer	Complexity theory; Urban systems; Economic geography	<a href="mailto:hsgeyerjr@sun.ac.za">hsgeyerjr@sun.ac.za</a>	021 808 3107
Horn, Anele, Dr	CRUISE: Town and Regional Planner/ Lecturer	Urban & regional planning; Development frameworks; Urban growth management / monitoring	<a href="mailto:anelehorn@sun.ac.za">anelehorn@sun.ac.za</a>	021 808 9181
Munch, Zahn, Mrs	Lecturer	GIS; Spatial decision making	<a href="mailto:zmunch@sun.ac.za">zmunch@sun.ac.za</a>	021 808 9101
Mashimbye, Eric, Dr	Lecturer	Remote Sensing, Geoinformatics, Agronomy	<a href="mailto:ericm@sun.ac.za">ericm@sun.ac.za</a>	021 808 9702
Pauw, Theo, Mr	CGA: Technical officer, GIS & EO analyst	Remote Sensing: GEOBIA, classification, automation, radar, photogrammetry, pre- processing, GIS: Web-based GIS, cartography	<a href="mailto:theopauw@sun.ac.za">theopauw@sun.ac.za</a>	021 808 3112
Poona, Nitesh, Mr	Lecturer	Remote sensing; Spatial statistics and modelling	<a href="mailto:poona@sun.ac.za">poona@sun.ac.za</a>	021 808 9105
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.	<a href="mailto:garth@sun.ac.za">garth@sun.ac.za</a>	021 808 3112
Van Niekerk, Adriaan, Prof	Associate Professor and Director of CGA	GIT, Spatial decision support systems	<a href="mailto:avn@sun.ac.za">avn@sun.ac.za</a>	021 808 3101
Vermeulen, Divan, Mr	CGA: GIS & EO analyst	Object-orientated image classification	<a href="mailto:vermeulend@sun.ac.za">vermeulend@sun.ac.za</a>	021 808 3112
Visser, Gustav, Prof	Professor	Urban geography; tourism geography; sexuality and South African institutions and geography in higher education	<a href="mailto:gvisser@sun.ac.za">gvisser@sun.ac.za</a>	021 808 3103

Williams, Samantha, Dr	Lecturer	Natural Resources, Livelihoods and Governance	<a href="mailto:samanthawilliams@sun.ac.za">samanthawilliams@sun.ac.za</a>	021 808 4975
Willemse, Lodene, Ms	CRUISE: Lecturer	Urban and Human Geographer	<a href="mailto:lodene@sun.ac.za">lodene@sun.ac.za</a>	021 808 9103
Prins, Atman, Mr	CGA: GIS & EO analyst	Machine Learning classification; LiDAR data/ point clouds; Programming and scripting; Very high resolution drone imagery analysis	<a href="mailto:atman@sun.ac.za">atman@sun.ac.za</a>	021 808 3112
Southey, Tara, Dr	CGA: Technical Officer, GIS & EO analyst	Climate & Grapevine modelling in the context of climate change for adaption and mitigation; Water resource management; Machine Learning classification: Multi-temporal earth observation techniques;	<a href="mailto:tara@sun.ac.za">tara@sun.ac.za</a>	21 808 3112

#### 4. Information about the professional and support staff in the Department

Name	Position	Area of subject specialisation	E-mail	Office telephone number
Davids, Deidre Ms	Principal Departmental Officer	Postgraduate Coordinator	<a href="mailto:deidre@sun.ac.za">deidre@sun.ac.za</a>	021 808 3100
Liederman, Catherine Mrs	Secretary	Office administration	<a href="mailto:catherine@sun.ac.za">catherine@sun.ac.za</a>	021 808 3218
Regue, Yvette Mrs	Senior Departmental Officer	Office administration (CRUISE)	<a href="mailto:regue@sun.ac.za">regue@sun.ac.za</a>	21 808 3104

#### 5. Department News

1. Dr Manfred Spocter was elected to the SSAG Council with effect from January 2019.
2. Prof Ronnie Donaldson served on a quality assurance committee in September 2018 to review the University of Zululand's Department of Geography.



3. Dr Solene Baffi from France completed her two year post-doctoral fellowship and with host Prof Ronnie Donaldson in September 2018. Seen here is Solene brainstorming with the honours urban module students



### **15. 2018-19 dated publications:**

#### **Articles**

1. SA ADENIYI, WP DE CLERCQ, A VAN NIEKERK Assessing the relationship between soil quality parameters of Nigerian alfisols and cocoa yield Agroforestry Systems 93 (4), 1235-1250
2. GFH VAN GINKEL, BEKKER, M ADDISON, P ADDISON, A VAN NIEKERK Using machine learning to identify the geographical drivers of Ceratitis capitata trap catch in an agricultural landscape Computers and Electronics in Agriculture 162, 582-592
3. D HARRIS, A VAN NIEKERK Radiometric homogenisation of aerial images by calibrating with satellite data International Journal of Remote Sensing 40 (7), 2623-2647
4. G BEKKER, N BAARD, MF ADDISON, A VAN NIEKERK, P ADDISON The area-wide spatio-temporal distribution of Ceratitis capitata (Wiedemann)(Diptera: Tephritidae) in a heterogenous fruit production region of the Western Cape, South Africa African Entomology 27 (1), 97-113
5. B WATKINS, A VAN NIEKERK A comparison of object-based image analysis approaches for field boundary delineation using multi-temporal Sentinel-2 imagery Computers and Electronics in Agriculture 158, 294-302

6. G LOUW, A VAN NIEKERK Object-based land surface segmentation scale optimisation: An ill-structured problem *Geomorphology* 327, 377-384
7. T BANGIRA, SM ALFIERI, M MENENTI, A VAN NIEKERK Comparing Thresholding with Machine Learning Classifiers for Mapping Complex Water Remote Sensing 11 (11), 1351
8. H.S GEYER & N MOSIDI (2019). Differential demographic transitions for Women of different ethnicities in Gauteng, South Africa, 1996–2011. *Regional Science Policy & Practice*, 11(1), 159-171.
9. H. S. GEYER Jnr. (2019). Evaluating Ecological, Subcultural and Political Approaches to Neighbourhood Change and Neighbourhood Poverty. *Housing, Theory and Society*, 36(2), 189-205.
10. H GEYER & L QUIN (2019). Social diversity and modal choice strategies in mixed land-use development in South Africa. *South African Geographical Journal*, 101(1), 1-21
11. BORDELON LA, FERREIRA SLA. Going off-road: The Stellenbosch Winelands as a mountain biking destination. *African Journal for Physical Activity and Health Sciences (AJPHES)*. Formerly *African Journal for Physical, Health Education, Recreation and Dance (AJPHERD)* 2018;24(4):659-672.
12. FERREIRA, SLA & BEUSTER, L 2019. Stellenbosch Coffee Society, South Africa. *Urbani Izziv*. 30:64-81.
13. BORDELON, L & FERREIRA, SLA. 2019. Mountain biking is for middle-aged men: Subcultures, motivations, and experiences at the Cape Epic mountain bike race. *Journal of Sport & Tourism (RJTO)*. <https://doi.org/10.1080/14775085.2019.1654906>
14. BRAND A, GEYER HS, GEYER HS. Corridor development in Gauteng, South Africa. *Geojournal: an International Journal on Human Geography* 2017; 82(2):311-327.
15. DE KLERK HM, BURGESS ND, VISSER V. Probabilistic description of vegetation ecotones using remote sensing. *Ecological Informatics* 2018; 46:125-132.
16. DE SMEDT P , OTTAVIANI G, WARDELL-JOHNSON G, SYKORA K.V, MUCINA L. Habitat heterogeneity promotes intraspecific trait variability of shrub species in Australian granite inselbergs. *FOLIA GEOBOTANICA* 2018; 53:133-145.
17. DZUMBIRA W, GEYER HS, GEYER HS. Measuring the spatial economic impact of the Maputo Development Corridor. *Development Southern Africa* 2017; 34(5):635-651.
18. FERREIRA SLA. Tourism through the lens of a human geographer: a view from the South . *Tourism Geographies* 2018; 20(1):178-181.
19. GARCÍA MA, NICKRENT DL , MUCINA L. *Thesium nautimontanum*, a new species of Thesiaceae (Santalales) from South Africa. *PhytoKeys* 2018; 109:41-51.
20. GEYER HS, MOLAYI RSA. Job-Employed Resident Imbalance and Travel Time in Gauteng: Exploring the Determinants of Longer Travel Time. *Urban Forum* 2018; 29:33-50.
21. GEYER HS, NGIDI N, MANS G. Do social grants contribute to the jobless population growth in the former South African homelands. *Town and Regional Planning* 2018; 72:58-69.
22. GIBSON L , MUNCH Z, PALMER AR, MANTEL SK. Future land cover change scenarios in South African grasslands?implications of altered biophysical drivers on land management. *Heliyon* 2018; 4:e00693, 35 pages.
23. GWATE O, MANTEL SK, GIBSON L , MUNCH Z, PALMER AR. Exploring dynamics of evapotranspiration in selected land cover classes in a sub-humid grassland: A case study in quaternary catchment S50E, South Africa. *JOURNAL OF ARID ENVIRONMENTS* 2018; 157:66-76.
24. GWATE O, MANTEL SK, PALMER AR, GIBSON L , MUNCH Z. Measuring and modelling evapotranspiration in a South African grassland: Comparison of two improved Penman-Monteith formulations. *Water SA* 2018; 44(3):482-494.
25. HAMMER T, MACINTYRE PD, NGE F, DAVIS RW, MUCINA L, THIELE KR . The noble and the exalted: a multidisciplinary approach to resolving a taxonomic controversy within *Ptilotus* (Amaranthaceae). *AUSTRALIAN SYSTEMATIC BOTANY* 2018; 31:262-280.
26. HARRIS DJ, VAN NIEKERK A. Feature clustering and ranking for selecting stable features from high dimensional remotely sensed data. *International Journal of Remote Sensing* 2018; 39(23):8934-8949.

27. HARRIS DJ, VLOK J, VAN NIEKERK A. Regional mapping of spekboom canopy cover using very high resolution aerial imagery. *Journal of Applied Remote Sensing* 2018; 12(4):046022-1 - 046022-22.
28. HORN AJ, VAN EEDEN A. Measuring sprawl in the Western Cape Province, South Africa: An urban sprawl index for comparative purposes. *Regional Science Policy and Practice* 2018; 10:15-23.
29. HORN AJ, VAN EEDEN A. The application of an Urban Sprawl Index for comparative purposes in towns and cities in the Western Cape Province, South Africa. *South African Journal of Geomatics (formerly South African Journal of Surveying and Geo-Information)* 2018;7(3):257-267.
30. HORN AJ. Letting go: Evaluating spatial outcomes and political decision-making heralding the termination of the urban edge in Cape Town, South Africa. *Land Use Policy* 2018; 78:176-184.
31. KALUSOVÁ V, CHYTRY M, VAN KLEUNEN M, MUCINA L. Naturalization of European plants on other continents: The role of donor habitats. *Ecology* 2017; 114(52):13756-13761
32. KELLY PJ, GEYER HS. The Regulatory Governance of Retail Electricity Tariff Setting in South Africa. *Regional Science Policy and Practice* 2018; 10(3):203-220.
33. KGANTSI ME, GEYER HS, GEYER HS. Intra-metropolitan corridor development in the City of Johannesburg and the Social Welfare. *Regional Science Policy and Practice* 2018; 10:69-86.
34. LENGYEL A, LANDUCCI F, MUCINA L, TSAKALOS JL, BOTTA-DUKAT Z. Joint optimization of cluster number and abundance transformation for obtaining effective vegetation classifications. *Journal of Vegetation Science* 2018; 29:336-347.
35. LOGGENBERG K, POONA NK, STREVER AE, GREYLING BT. Modelling Water Stress in a Shiraz Vineyard Using Hyperspectral Imaging and Machine Learning. *Remote Sensing* 2018; 10(202):1-14.
36. MACINTYRE PD, VAN NIEKERK A, DROBOWOLSKI MP, TSAKALOS JL, MUCINA L. Impact of ecological redundancy on the performance of machine learning classifiers in vegetation mapping. *Ecology and Evolution* 2018; 8:6728-6737.
37. MATEVSKI V, CARNI A, CUSTEREVSKA R, KOSTADINOVSKI M, MUCINA L. Syntaxonomy and biogeography of dry grasslands on calcareous substrates in the Central and Southern Balkans. *Applied Vegetation Science* 2018; 21:488-513.
38. MOKHELE M, GEYER HS. A theoretical framework for airport-centric developments: The cases of OR Tambo and Cape Town International airports in South Africa. *African Journal of Science, Technology, Innovation and Development* 2018; 10(4):493-506.
39. MUCINA L, PODANI J, FEOLI E. David W Goodall (1914 - 2018): An ecologist of the century. *Community Ecology* 2018; 19(1):93-101.
40. MUCINA L. Vegetation of Brazilian campos rupestres on siliceous substrates and their global analogues. *Flora* 2018; 238:11-23.
41. MWATHUNGA EE, DONALDSON SE. Urban land contestations, challenges and planning strategies in Malawi's main urban centres . *Land Use Policy* 2018; 77:1-8.
42. OTTAVIANI G, TSAKALOS JL, KEPPEL G, MUCINA L. Quantifying the effects of ecological constraints on trait expression using novel trait-gradient analysis parameters. *Ecology and Evolution* 2018; 8:435-440.
43. ROUX DJ, GEYER HS. Demographic transitions in South Africa cities: An Analysis of household structures in the City of Tshwane. *Regional Science Policy and Practice* 2017; 9(3):165-182.
44. RUCH WCL, GEYER HS. Public capital investment, economic growth and poverty reduction in South African Municipalities. *Regional Science Policy and Practice* 2017; 9(4):269-285.
45. SMIT HAP, VAN DER MERWE JH. Military Environmental Literacy in the South African Army. *Scientia Militaria: South African Journal of Military Studies* 2018; 46(1):59-77.
46. SPOCTER MA. A toponymic investigation of South African gated communities. *South African Geographical Journal* 2018; 100(3):326-348.
47. STRONA G, STRINGER SD, VIELLEDENT G, SZANTOI S, ET AL . Small room for compromise between oil palm cultivation and primate conservation in Africa. *Proceedings of the National Academy of Sciences of the United States of America* 2018; 115(35):8811-8816.

48. TAKAWIRA-NYENYA R, MUCINA L, CARDINAL-MCTEAGUE WM, THIELE KR . Sansevieria (Asparagaceae, Nolinoideae) is a herbaceous clade within Dracaena: inference from non-coding plastid and nuclear DNA sequence data. *Phytotaxa* 2018; 376(2):254-276.
49. TSAKALOS JL, RENTON M, DROBOWOLSKI MP, FEOLI E, MACINTYRE PD, VENEKLAAS EJ, MUCINA L. Community patterns and environmental drivers in hyper-diverse kwongan scrub vegetation of Western Australia. *Applied Vegetation Science* 2018; 21:694-722.
50. TSENDBAZAR NE, HEROLD M, DE BRUIN S, LESIV M, FRITZ S, SZANTOI S, PEKEL J, ET AL . Developing and applying a multi-purpose land cover validation dataset for Africa. *REMOTE SENSING OF ENVIRONMENT* 2018; 219:298-309.
51. WILLEMSE L. A class-differentiated analysis of park use in Cape Town, South Africa. *Geojournal: an International Journal on Human Geography* 2018; 83:915-934
52. BUCHANAN G, BERESFORD AE, HEBBLEWHITE M, ESCOBEDO FJ, DE KLERK HM, SZANTOI S, ET AL . Free satellite data key to conservation. *Science* 2018; 361(6398):139-140.
53. STRONA G, SZANTOI S, VIELLEDENT G. Oil palms and primates can hardly co-exist in Africa. *The Science Breaker - Science Meets Society* 2018; 167:1-2.
54. BAFFI S, DONALDSON SE, SPOCTER MA. Transport and tourism: The MyCiti experience in Cape Town. 2018: 31 pp

### **Books**

1. DONALDSON R, 2018. SMALL TOWN TOURISM IN SOUTH AFRICA. The urban book series, Springer. Amsterdam

### **Chapters in books**

1. FERREIRA SLA (2019). Cape wine lands: Scapes, resorts, cathedrals and ego-wine estates. In Rogerson, J & Visser, G (Eds) *New research directions in tourism*. Routledge (Forth coming Dec 2019) [ISBN 978-3-030-29376-5]
2. FERREIRA, S.L.A. (2019). Managing a mature tourism destination: Kruger National Park. In Mkono, M. (Ed) *Positive Tourism in Africa* (Chapter 19) pp.230-245. London: New York
3. BAFFI S, TUROK I, VACCHIANI-MARCUZZO C. The South African Urban System. In: Rozenblat C, Pumain D, Velasquez E (eds.) *International and Transnational Perspectives on Urban Systems*, Springer, Singapore, China, 2018: 167-186.
4. BRINK A, SCHMIDT C, SZANTOI S. Introduction to remote sensing for conservation practitioners. In: Leidner AK, Buchanan G (eds.) *Satellite Remote Sensing for Conservation Action: Case Studies from Aquatic and Terrestrial Ecosystems*, Cambridge University, Edinburgh, United Kingdom, 2018: 26-53.
5. LÖTTER MC , MUCINA L, TICHÝ L, SIEBERT SJ, SCOTT-SHAW CR . Classification of the Eastern Scarp Forests. In: Pedrotti F (ed.) *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*, Springer, Switzerland, 2018: 125-226.
6. MUCINA L, ABBOTT A, TICHÝ L. Classification of Pondaland Scarp Forests. In: Pedrotti F (ed.) *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*, Springer, Switzerland, 2018: 91-124.
7. MUCINA L, DOLD AP , TICHÝ L, VAN NIEKERK A. Classification of the Albany Coastal Forests. In: Pedrotti F (ed.) *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*, Springer, Switzerland, 2018: 59-90.
8. MUCINA L, TICHÝ L, VAN NIEKERK A. Classifying subtropical forests of South Africa: Data sources and methods. In: Pedrotti F (ed.) *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*, Springer, Switzerland, 2018: 7-46.
9. MUCINA L, TICHÝ L. Forest classification: Data-analytical experiments on vertical forest layering and flattened data. In: Pedrotti F (ed.) *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*, Springer, Switzerland, 2018: 47-57.

10. MUCINA L. Classifying subtropical forests of South Africa: Rationale and objectives. In: Pedrotti F (ed.) Vegetation Survey and Classification of Subtropical Forests of Southern Africa, Springer, Switzerland, 2018: 1-6.
11. MUCINA L. Lessons for a forest vegetation survey. In: Pedrotti F (ed.) Vegetation Survey and Classification of Subtropical Forests of Southern Africa, Springer, Switzerland, 2018: 227-236.
12. WICH S, KOH LP, SZANTOI S. Classifying Land Cover on Very High Resolution Drone-Acquired Orthomosaics. In: Animone RL, Conroy GC (eds.) New Geospatial Approaches to the Anthropological Sciences, University of New Mexico Press, Sante Fe, Mexico, 2018: 121-136.

**6. Conference Presentation in 2018-19:**

<b>Name of presenter(s)</b>	<b>Title of presentation</b>	<b>Format of presentation</b>	<b>Date of conference/workshop</b>	<b>Name of conference/workshop</b>
van Niekerk, A	Application of machine learning in surveying production	Oral	28 May-1 June 2018	Hortgro Science Technical Symposium 2018
van Niekerk, A	An Earth observation approach towards mapping irrigated area and quantifying water use by irrigated crops in South Africa	Oral	4 September 2018	Water Research Commission Dialogue on Application of Earth Observation to determine Irrigated Areas and Water Use of irrigated crops in South Africa
Willemse, L & Mahlakanya, I	Changes in the quality of life of free-standing and backyard dwellers in the City of Johannesburg, City of Tshwane and Ekurhuleni	Presentation	14-17 October 2018	Planning Africa (SAPI conference)
Willemse, L & Mahlakanya, I	Changes in the quality of life of free-standing and backyard dwellers in the City of Johannesburg, City of Tshwane and Ekurhuleni	Presentation	1-3 October 2018	SSAG conference
Donaldson, S & McKay, T	Adventure tourism in a South African metro: Risk, policy and planning challenges	Presentation	1-3 October 2018	SSAG Conference, UFS, Bloemfontein

	relating to adventure tourism in Cape Town			
Baffi S, Donaldson S, Spocter M	Perceptions and Use of the Myciti Among Tourists Along the Atlantic Seaboard	Presentation	June 2018	Tourism Research Seminar, City of Cape Town
De Waal, J	Wastecon	Presentation	15-19 October 2018	Johannesburg, SA
Ferreira, S	Maintaining a mature destination: Kruger national park, South Africa.	Oral	1-3 October 2018	Society of South African Geographers University of the Free State,
Lombard, A & Ferreira, S	Toward resilient energy transition pathways in South Africa: Renewable energy development implications for rural areas of selected provinces.	Oral	10-14 April 2018	Annual meeting of the Association of American Geographers (AAG) New Orleans, Louisiana
Munch, Z	Evolution of embedding spatial thinking into a geospatial technology course.	Conference	30-31 October 2018	Somerset West; Scholarship of Teaching and Learning conference 30-31 October 2018
Spocter, M	Exclusion through the mundane: The naming of gated communities in South Africa	Oral presentation	9-11 May 2018	Beyond planetary apartheid, Lisbon, Portugal
Spocter, M	Privatisation of municipal golf courses in small towns in the Western Cape, South Africa	Oral presentation	9-11 May 2018	Beyond planetary apartheid, Lisbon, Portugal
Spocter, M	A toponymic investigation of South African gated communities	Oral presentation	1-5 October 2018	12th Biennial Conference of the Society of South African Geographers

Mistry, A & Spocter, M	Water-use practices in suburban gardens during water restrictions in the City of Cape Town	Oral presentation	1-5 October 2018	12th Biennial Conference of the Society of South African Geographers
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**7. Research Master Dissertations completed in 2018-19:**

<b>Student's Name</b>	<b>Title of dissertation</b>	<b>Institution</b>	<b>Qualification</b>	<b>Supervisor</b>	<b>Co-supervisor</b>
D Vermeulen	Efficacy of machine learning, earth observation and geomorphometry for mapping salt-affected soils in irrigated fields	US	MSc Geoinformatics	Prof A van Niekerk	
W Luck	Generating automated forestry geoinformation products from remotely sensed imagery	US	MSc(GIS)	Prof A van Niekerk	
K Loggenberg	A machine learning-remote sensing framework for modelling water stress in shiraz vineyards	US	MSc GeoInformatics	Mr N Poona	Dr A Strever
N Lushozi	Remote sensing approach for examining changes in water use in relation to climate variability and land cover change	US	MSc GeoInformatics	Mrs Z Munch	
D Jacklin	The Potential Use of Plant Species Within Critically Endangered Renosterveld for the Phytoremediation of Glyphosate and Fertilizer	US	MSc(GEO)	Mr J de Waal	Dr IC Brink

N Botha	Conservancies: case studies of private landowner conservation initiatives in the Western Cape, South Africa	US	MA(GEO)	Prof S Ferreira	
A Mistry	The 'eco-ness' of eco-estates in South Africa	US	MA(GEO)	Dr M Spocter	

**8. Master Dissertations of limited scope completed in 2018-19:**

<b>Student's Name</b>	<b>Title of dissertation</b>	<b>Institution</b>	<b>Qualification</b>	<b>Supervisor</b>	<b>Co-supervisor</b>
S Makhubu	The effect of housing density parameters on the property prices and the supply of housing in Stellenbosch.	US	MURS	Dr D du Plessis	
L Beuster	Urban greening in the Global South – Urban heat islands and the cooling capacity of green spaces, a South African case study.	US	MURS	Dr D du Plessis	
N Tsilolo	Youth Participation in Development Planning and Urban Management in Gauteng Province	US	MURS	Dr A Horn	
T Marginga	Analysing determinants of housing tenure A life cycle case study in the City of Tshwane Metropolitan	US	MURS	Mr H Geyer	
P Rammuki	The factors influencing the learner travelling time to school in the metropolitan municipalities of Gauteng	US	MURS	Ms L Willemse	
P Mulibana	Characteristics and patterns of in-migration and out-	US	MURS	Prof H Geyer	

	migration for Mpumalanga Province (2011-2016)				
M Chuene	Factors Influencing the Educational Attainment for Residents in Inxuba Yethemba, Mhlontlo, Buffalo City and Nelson Mandela Bay Municipalities in Eastern Cape	US	MURS	Ms L Willemse	
M Lepelle	TOD precincts spatial relationships: Comparing Different Station Precincts of the City	US	MURS	Mr H Geyer	
N Chabani	Urban Development in the City of Tshwane Region : A case study of the growing East	US	MURS	Dr D du Plessis	
S Letlape	Factors that are related to food insecurity in South Africa	US	MURS	Mr H Geyer	
L Jay	Regional lifetime fertility in the Eastern Cape Province, South Africa	US	MURS	Mr H Geyer	
H Duckitt	The effects of business clustering on the Main road corridor, City of Cape Town	US	MURP	Mr H Geyer	
L De Wet	A mobility study to determine cycling routes, walking parths and parking nodes that students can use as part of the Future Urban Campus Plan	US	MURP	Dr A Horn	
D Kisting	From private to public urban management: A	US	MURP	Dr A Horn	

	case study on Oranjemund, Namibia				
L Mbatha	Sustainable livelihoods of informal settlements in the City of Cape Town over years	US	MURP	Ms L Willemse	

**9. PhD Thesis's completed in 2018-19:**

<b>Student's Name</b>	<b>Title of thesis</b>	<b>Institution</b>	<b>Qualification</b>	<b>Supervisor</b>	<b>Co-supervisor</b>
N Magadzire	Using remotely sensed measures of ecological regime as predictors of the distribution of vegetation types, communities and species across the Cape Floristic Region	US	PhD Geoinformatics	Dr H de Klerk	Proj K.J. Esler Dr J. Slingsby
E Matthieu	A critical reflection on the formalisation of communal land rights in Namibia: why local contexts matter for bridging the dichotomies of tenure rights	US	PhD Geography & Environmental Studies	Prof R Donaldson	
T Bangira	Mapping surface water in complex and heterogeneous environments using remote sensing	US	PhD Geography & Environmental Studies	Prof A van Niekerk	
R Perold	Informal capacities: Exploring grounded architectural practice in transitions to sustainable urbanism in Cape Town	US & Hasselt University	PhD Geography & Environmental Studies	Proffs R Donaldson (US) & O Devish, G Verbeek (Hasselt University)	
I Yakubu	Residential mobility practices in low-income	US	PhD Geography & Environmental Studies	Dr M Spocter	Prof S Donaldson

	communities of Tamale, Ghana				
L Welman	Regional development of the greater Saldanha Bay region	US	PhD Geography & Environmental Studies	Prof S Ferreira	
A Horn	An analysis of an urban edge as urban growth management instrument: Cape Town, South Africa	US	PhD Geography & Environmental Studies	Prof S Donaldson	
D Du Plessis	The Impact of Spatial Planning on the Structure of South African Cities since 1994	US	PhD Geography & Environmental Studies	Prof H Geyer	
N Yamungu	Piecemeal planning: An analysis of local realities and adoption of urban planning approaches in Tanzanian small towns of Mlandizi and Sirari.	US	PhD Geography & Environmental Studies	Prof R Donaldson	Dr M Spocter

**10. Short description of the curriculum presented:**

The department's main foci on teaching and research in the fields of geospatial data analytics, small-town geographies, urban and regional planning, tourism geography, environmental studies, as well as the disaster and risk studies arenas.

**11. Student Numbers (2017-18):**

Level	2018	2019
First year	260	234
Second year	233	237
Third year	134	135
Honours	37	29
Masters	56	62
Doctoral	30	25

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

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

Ms Deidre Davids [deidre@sun.ac.za](mailto:deidre@sun.ac.za) and Dr Manfred Spocter [mspocter@sun.ac.za](mailto:mspocter@sun.ac.za)

## STELLENBOSCH UNIVERSITY

1. **Name of Department:** Military Geography, Faculty of Military Science

2. **Head/Chair of Department:** Dr I. Henrico

<i>Name (Title, Surname, Initials)</i>	<i>Area of specialisation</i>	<i>E-mail</i>	<i>Office Telephone Number</i>
Dr Henrico I.	Military Geography, Remote Sensing, GIS, Geoinformatics	<i>ivanh@ma2.sun.ac.za</i>	22 702 3158

3. **Information about the Geographers in the Department:**

<i>Name (Title, Surname, Initials)</i>	<i>Rank/Position</i>	<i>Area of specialisation</i>	<i>E-mail</i>	<i>Office Telephone number</i>
Cdr (Dr) Smit H.A.P.	Senior Lecturer	Military Geography, Environmental Geography, Physical Geography	<i>Hennies@ma2.sun.ac.za</i>	022 702 3110
Ms Mtshawu B.	Lecturer	Military Geography, GIS	<i>mtshawu@ma2.sun.ac.za</i>	22 702 3108

4. **Information about the professional and support staff in the Department:**

<i>Name (Title, Surname, Initials)</i>	<i>Position</i>	<i>Area of subject specialisation (if applicable)</i>	<i>E-mail</i>	<i>Office Telephone number</i>
Lt Ledwaba T.V.	Academic Assistant	Military Geography	<i>ledwabatv.tv@gmail.com</i>	022 702 3148
CO Mayoyo N.P.	Academic Assistant	Military Geography	<i>pricelessmayoyo@gmail.com</i>	022 702 3148
Lt Radebe B.	Academic Assistant	Military Geography	<i>radebe7.br.br@gmail.com</i>	022 702 3148
Lt Vukea M.M.	Academic Assistant	Military Geography	<i>matimuvukea@gmail.com</i>	23 702 3148

5. **Department News:**

The Military Geography Subject Group aspires to empower students with knowledge and skills that will assist them with decision making relevant to the African military milieu. The importance placed on military geographic education is seen in the fact that Military Geography is included as part of the subject matter in four of the six undergraduate academic programs presented at the Military Academy. A strong environmental component in the course instils the soldier with the necessary regard for the environment in which he or she will operate, so that the harmful effects of military operations on the environment may be limited and tactical advantages gained.

6. **2018-19 Dated Publications:**

- Smit, HAP & Bezuidenhout, J (eds) 2018. *Scientia Militaria – South African Journal of Military Studies*, 46(1) (2018)
- Bezuidenhout, J & Smit HAP (eds) 2018. *African Military Geosciences: Military History and the Physical Environment*. African Sun Media (2018)
- Smit, HAP & Bezuidenhout, J (eds) 2019. *Contemporary Military Geosciences in South Africa*, Stellenbosch. African Sun Media (Sun Press).
- Bezuidenhout J, Smit, HAP & Geysers AP 2019. The influence of Geographic Factors on the Distribution of Natural Radionuclides. In Smit, HAP & Bezuidenhout, J (eds). *Contemporary Military Geosciences in South Africa*, Stellenbosch. African Sun Media (Sun Press).
- Potgieter TD & Smit, HAP. 2018. Wasted geography: The British annexation of the Cape in 1795. In Bezuidenhout, J & Smit, HAP (eds). *African Military Geosciences: Military History and the Physical Environment*, Stellenbosch. African Sun Media (Sun Press).

- Smit HAP. 2018. A military environmental literacy model for the South African Army. *Proceedings of the Biennial Conference of the Society of South African Geographers*, Bloemfontein, 01–05 October 2018. Taylor & Francis.
- Smit HAP & Shaamhula, VL. 2018. A military environmental literacy questionnaire for use in South Africa and Namibia. *Proceedings of the Biennial Conference of the Society of South African Geographers*, Bloemfontein, 01–05 October 2018. Taylor & Francis.
- Smit HAP & JH van der Merwe. 2018. Military environmental literacy in the South African Army. *Scientia Militaria – South African Journal of Military Studies*, 46(1), pp. 59–77.
- Smit HAP. 2018. How green is your army? The military environmental narrative of the South African Army. *South African Geographical Journal*, 100(3), pp. 308–325.  
Peer Reviewed Conference Proceedings
- Mtshawu B. & Ramotsie T.J., 2018. An optimized bare soil index, based on existing indices using Landsat 8 data at surface reflectance. In Proceedings of the biennial conference of the Society of South African Geographers, University of the Free State. Conference held in Bloemfontein and QwaQwa, 1-5 October 2018. ISBN: 978 0 86886 852 3.  
Book Reviews
- Mtshawu B. 2018: Whitfield G., 2015. 50 Must-see geological sites in South Africa. Penguin Random House, Johannesburg. In: *Scientia Militaria*, South African Journal of Military Studies, Vol 47, Nr 1, 2018. doi: 10.5787/46-1-1231. ISSN 2224-0020 (online); ISSN 1022-8136 (print).

#### 7. Conference Presentation in 2018-19:

<i>Name of presenter(s)</i>	<i>Title of presentation</i>	<i>Format of presentation</i>	<i>Date of conference/workshop</i>	<i>Name of Conference/workshop</i>
Cdr (Dr) H.A.P. Smit	Key Note: “Green” militaries: The military-environment conundrum	Presentation	24-28 June 2019	The 13 <sup>th</sup> International Conference on Military Geosciences, Padua, Italy
Cdr (Dr) H.A.P. Smit	Italian prisoners of war in South Africa: circumstances and contributions	Presentation	24-28 June 2019	The 13 <sup>th</sup> International Conference on Military Geosciences, Padua, Italy
Dr I. Henrico	Suitability of the TanDEM-X 90 m DEM compared with the SRTM 30 m DEM on the calculation of a visibility analysis for military operations	Presentation	24-28 June 2019	The 13 <sup>th</sup> International Conference on Military Geosciences, Padua, Italy
Dr I. Henrico	Importance of remote sensing as part of the military geography curriculum at the South African Military Academy	Poster Presentation	24-28 June 2019	The 13 <sup>th</sup> International Conference on Military Geosciences, Padua, Italy

Ms B. Mtshawu	An evaluation and comparison of ordinary least squares and geographically weighted regression tools for predicting surface soil texture using remote sensing data	Presentation	24-28 June 2019	The 13 <sup>th</sup> International Conference on Military Geosciences, Padua, Italy
Ms B. Mtshawu	A blueprint for mapping bare-soil areas using Landsat 8 OLI/TIR data at surface reflectance	Poster Presentation	24-28 June 2019	The 13 <sup>th</sup> International Conference on Military Geosciences, Padua, Italy

#### **8. Research Master Dissertations completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Lundi Ncubukezi	Drivers of environmental management in the SANDF: A case study of Western Cape Units 2011-2015	Stellenbosch University	MMIL	Cdr (Dr) H.A.P. Smit	Dr JDS van der Merwe

#### **9. Master Dissertations of limited scope completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
None	None	None	None	None	None

#### **10. PhD Thesis's completed in 2018-19:**

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
None	None	None	None	None	None

#### **11. Short description of the curriculum presented:**

**Undergraduate (NQF levels 5, 6 and 7):** In the first year students are introduced to the natural world with all its internal processes, physical features, weather systems and climate. Topographic and cartographic skills are taught and refined so that students understand maps. Students are taught how to extract data from maps and how to represent this data in the form of figures, diagrams and reports. Second year geography students are exposed to a study of the natural environment, environmental issues and the impact that military operations have on the environment in general. Following a more specific approach students are also oriented in terms of the physical environment in which they will operate, particularly during peace keeping and safekeeping operations; in Sub-Saharan Africa. Knowledge of the Sub-Saharan African physical and human landscapes is of vital importance to the soldiers of the SANDF. Military Geography students are therefore also educated about cultural, historical, medical, economic, developmental, social and political issues facing Sub-Saharan Africa. Understanding these issues will enhance the soldier's insight of the broader context of happenings in the sub-continent. The final year focuses on the technological side of modern geography. During the first semester students are introduced to Geographic Information Systems (GIS). Here students are taught the

fundamental concepts of geographic information science and venture into spatial analysis. The module also has a strong hands-on component during which the students learn how to use ArcGIS to capture, store, retrieve, manipulate, query and display digital geographic data. In the final semester remote sensing skills are presented to the final year students as part of Military Terrain Analysis. Military Terrain Analysis focuses on terrain of military importance. After successfully completing the module the student will be able to interpret, analyse and evaluate the way terrain influences military activities in support of strategic and tactical decisions. Such students will also be proficient in the classification and interpretation of remotely sensed imagery.

**Postgraduate (NQF level 8):** Successful undergraduate military geography students who wish to continue with post-graduate studies, have the option to follow the Honours in Military Geography degree. Environmental management and political geography in South Africa and GIS are revisited in greater depth at this level. A module in geographic thought and methodology teaches the student how and where Geography fits into the world of the sciences and furthers the student’s understanding of geography. The honours students also undertake a research project in which they are introduced to the theoretical and practical world of scientific research writing.

**Postgraduate (NQF level 9):** A Masters in Military Geography is presented by arrangement with available staff. The Department specifically encourages research topics on military-related issues and is at present engaged in research on the impacts of geographic factors on the outcomes of war. In this degree students are taught the essence of environmentally responsible defence. The students are immersed in topics like military integrated environmental management, environmental considerations in military operations and sustainable military training area management, in order to grasp the concept of environmentally responsible defense. Finally a research thesis is written in which the master’s student draws upon all his/her acquired knowledge and geographic skills to conduct in depth scientific research on a military related geographic problem.

**Postgraduate (NQF level 10):** The Faculty of Military Science provides the opportunity for admission to a PhD in Military Science. Applicants must hold a Master’s Degree in Military Science (final mark 60%) or in any other similar field of study (final mark 60%) deemed appropriate by the PhD committee and Senate and successfully prepare a PhD research proposal for selection by the PhD committee, with a period of twelve months to prepare the proposal.

**12. Student Numbers (2017-18):**

Level	2018	2019
First year	38	36
Second year	34	33
Third year	0	6
Honours	3	4
Masters	3	3
Doctoral	1	1

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

None.

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

**Name:** Dr I. Henrico

**Email:** ivanh@ma2.sun.ac.za

**Tel No:** 022 702 3158

## NORTH-WEST UNIVERSITY

1. Name of Department: Geography and Environmental Management (Potchefstroom Campus)

2. Head/Chair of Department: Dirk Cilliers

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr Dirk Cilliers	Environmental management / Spatial analysis	<i>Dirk.cilliers@nwu.ac.za</i>	018 299 1589

### 3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr Claudine Roos	Senior lecturer	EMS & Waste management	<i>Claudine.roos@nwu.ac.za</i>	018 299 1477
Dr. Roelof Burger	Senior lecturer	GIS and climate modelling	<a href="mailto:Roelof.burger@nwu.ac.za">Roelof.burger@nwu.ac.za</a>	018 299 4269
Dr Theuns de Klerk	Senior lecturer	GIS	<a href="mailto:Theuns.deklerk@nwu.ac.za">Theuns.deklerk@nwu.ac.za</a>	018 299 1583
Prof Stuart Piketh	Professor and Director School of Geo and Spatial Sciences	Climatology and climate modelling	<a href="mailto:Stuart.piketh@nwu.ac.za">Stuart.piketh@nwu.ac.za</a>	018 299 1582
Mr. Manna Stander.	Lecturer	Human Geography	<a href="mailto:Manna.Stander@nwu.ac.za">Manna.Stander@nwu.ac.za</a>	018 299 1587
Ms Carli Steenkamp	Lecturer	EIA and Environmental Planning	<a href="mailto:Carli.steenkamp@nwu.ac.za">Carli.steenkamp@nwu.ac.za</a>	018 299 1523
Associate Prof Luke Sandham	Associate Professor	EIA effectiveness in South Africa	<a href="mailto:Luke.sandham@nwu.ac.za">Luke.sandham@nwu.ac.za</a>	018 299 1585
Dr Joseph Adesina	Temporary appointment	Aerosols Climatology Air quality	<a href="mailto:Joseph.Adesina@nwu.ac.za">Joseph.Adesina@nwu.ac.za</a>	018-299-1511
Dr Livhu NemaKonde	Senior Lecturer	Disaster risk management	<a href="mailto:24539155@nwu.ac.za">24539155@nwu.ac.za</a>	018-299-1671
Dr Christo Coetzee	Senior Lecturer	Disaster risk management	<a href="mailto:Christo.Coetzee@nwu.ac.za">Christo.Coetzee@nwu.ac.za</a>	018-299-1630
Prof Dewald van Niekerk	Professor	Disaster risk management	<a href="mailto:Dewald.VanNiekerk@nwu.ac.za">Dewald.VanNiekerk@nwu.ac.za</a>	018-299-1634
<b>Associate members in the Research Unit for Environmental Science and Management</b>				
Prof Harold Annegarn	Professor	Air pollution		
Prof Francois Retief	Professor	Environmental Assessment	<a href="mailto:Francois.retief@nwu.ac.za">Francois.retief@nwu.ac.za</a>	
Prof Angus Morrison-Saunders	Extraordinary professor, visiting from Murdoch University, Perth	Environmental and Sustainability Assessment	<a href="mailto:A.Morrison-Saunders@murdoch.edu.au">A.Morrison-Saunders@murdoch.edu.au</a>	
Dr Jenny Pope	Extraordinary senior lecturer,	Environmental and	<a href="mailto:jenny@integral-sustainability.net">jenny@integral-sustainability.net</a>	

	visiting from Integral Sustainability, Perth	Sustainability Assessment		
Dr Alan Bond	Extraordinary fellow, visiting from University of East Anglia	Environmental and Sustainability Assessment	<a href="mailto:alan.bond@uea.ac.uk">alan.bond@uea.ac.uk</a>	
Prof. J.C. Gaillard	Extraordinary professor from University of Auckland, NZ	Disaster risk management	<a href="mailto:jc.gaillard@auckland.ac.nz">jc.gaillard@auckland.ac.nz</a>	
Prof. Per Becker	Extraordinary professor from Lund University, Sweden	Disaster risk management	<a href="mailto:per.becker@risk.lth.se">per.becker@risk.lth.se</a>	

#### 4. 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	<a href="mailto:Vernice.swarts@nwu.ac.za">Vernice.swarts@nwu.ac.za</a>	018-299-1511

#### 5. Department News

Dr Theuns de Klerk obtained his PhD in 2019. The Department is in the process of merging with the Geography departments on the Mafikeng and Vaal campuses. To date all first and second year modules have been aligned across campuses.

#### 6. 2018-19 dated publications:

- Ashu, R.E.A. and Van Niekerk, D. (2019) Building national and local capacity for disaster risk management in Cameroon. *Disaster Prevention and Management*. (in press).
- Le Roux, T. & Van Niekerk, D. (2019) Challenges in stakeholders self-organising to enhance disaster communication. *Corporate Communication: An International Journal*. (in press).
- Chipangura, P., Van Niekerk, D., Van der Walldt, G. (2019) An exploration of the tractability of the objectivist frame of disaster risk in implementation in Zimbabwe. *Jambá: Journal of Disaster Risk Studies*. 11(1). a604. <https://doi.org/10.4102/jamba.v11i1.604>.
- Lunga, W., Bongo, P.P., Van Niekerk, D. and Musarurwa, C. (2019) Disability and disaster risk reduction as an incongruent matrix: Lessons from rural Zimbabwe. *Jambá: Journal of Disaster Risk Studies*. 11(1). a648. <https://doi.org/10.4102/jamba.v11i1.648>.
- Ashu, R.E.A. and Van Niekerk, D. (2019) A status quo analysis of disaster risk reduction policy and legislation in Cameroon. *Foresight*. <https://doi.org/10.1108/FS-06-2018-0060>.
- Khoza, S., Van Niekerk, D., and Nemaconde, L.D. (2019) Understanding gender dimensions of climate-smart agriculture adoption in disaster-prone smallholder farming communities in Malawi and Zambia. *Disaster Prevention and Management*. <https://doi.org/10.1108/DPM-10-2018-0347>
- Frisby, A.W., Siebert, S.J., Struwig, M. & Cilliers, D.P. (2019) 'Plant endemism in Griqualand West, South Africa', *South African Journal of Botany*, 124, 127-137.
- Cilliers, D. P. (2019) 'Considering flood risk in spatial development planning: A land use conflict analysis approach', *Jambá: Journal of Disaster Risk Studies*, 11(1), 1-9.
- Matandirotya, N.R., Cilliers, D.P., Burger, R.P., Language, B., Pauw, C. & Piketh, S.J. (2019) 'The potential for domestic thermal insulation retrofits on the South African Highveld', *Clean Air Journal*, 29(1) <https://doi.org/10.17159/2410-972X/2019/v29n1a1>.

- Gaillard, J.C., Van Niekerk D., Shoroma, L.B., Coetzee, C. and Amirapu, T. (2018) Wildlife hazards and disaster risk reduction. *International Journal for Disaster Risk Reduction*. 33. pp.55-63. <https://doi.org/10.1016/j.ijdr.2018.09.009>.
- Cilliers, D.P. (2018) 'Considering disaster risk in spatial planning', *Journal of Disaster Risk Studies* (in press).
- Snyman SJ, Komape DM, Khanyi H, van den Berg J, Cilliers D.P., Evans DL, Barnard S and Siebert SJ (2018) 'Assessing the Likelihood of Gene Flow From Sugarcane (*Saccharum* Hybrids) to Wild Relatives in South Africa', *Front. Bioeng. Biotechnol.* 6:72. doi: 10.3389/fbioe.2018.00072
- Belelie, M.D., Piketh, S.J., Burger, R.P., Venter, A.D., Naidoo, M. (2018) Characterisation of ambient Total Gaseous Mercury concentrations over the South African Highveld. *Atmospheric Pollution Research*. DOI 10.1016/j.apr.2018.06.001, Online publication complete: 8-JUN-2018
- Kollonige, D.E., Thompson, A.M., Josipovic, M., Tzortziou, M., Beukes, J.P., Burger, R.P., Martins, D.K., van Zyl, P.G., Vakkari, V. and L. Laakso (2018) OMI Satellite and Ground-Based Pandora Observations and Their Application to Surface NO<sub>2</sub> Estimations at Terrestrial and Marine Sites, *Journal of Geophysical Research: Atmospheres*, DOI: 10.1002/2017JD026518. First published: 29 January 2018
- Nkosi, N.C., Piketh, S.J., and Burger, R.P. (2018) Fine PM emission factors from residential burning of solid fuels using traditional cast-iron coal stoves. *Clean Air Journal*. <http://dx.doi.org/10.17159/2410-972X/2017/v27n2a7>
- Coetzee, C., & Van Niekerk, D. and Raju, E. (2018). Should all disaster risks be reduced? A perspective from the systems concept of the edge of chaos. *Environmental Hazards*, 1-12.
- Forbes-Genade, K., & van Niekerk, D. (2018). GIRRL power! Participatory Action Research for building girl-led community resilience in South Africa. *Action Research*, 1476750318756492.
- Kruger, L., & Forbes-Genade, K. (2018). Dewald Van Niekerk, Livhuwani David Nemakonde. *Handbook of Disaster Research*, 411.
- Terblanche-Greeff, A. C., Dokken, J. V., Van Niekerk, D., & Loubser, R. A. (2018). Cultural beliefs of time orientation and social self-construal: Influences on climate change adaptation. *Jàmá: Journal of Disaster Risk Studies*, 10(1), 16.
- Schuman, S., Dokken, J. V., van Niekerk, D., & Loubser, R. A. (2018). Religious beliefs and climate change adaptation: A study of three rural South African communities. *Jàmá: Journal of Disaster Risk Studies*, 10(1), 12.
- Jooste, B.S., Dokken, J., Van Niekerk, D. and Loubser, A. R. (2018) Challenges to belief systems in the context of climate change adaptation. *Jàmá: Journal of Disaster Risk Studies*. 10(1). <https://doi.org/10.4102/jamba.v10i1.508>.
- Kruger L & Sandham L A (2018). Social Impact Assessment: practitioner perspectives of the neglected status in South African SIA. *South African Geographical Journal*, 100 (3): 394–411. <http://dx.doi.org/10.1080/03736245.2018.1503090>
- Langerman, K. E., Pauw, C. J., Smith, H. J., & Piketh, S. J. (2018, April). Moving households to cleaner energy through air quality offsets. In 2018 International Conference on the Domestic Use of Energy (DUE) (pp. 1-8). IEEE.
- Formenti, P., D'Anna, B., Flamant, C., Mallet, M., Piketh, S. J., Schepanski, K., & Waquet, F. (2018, April). The Aerosols, Radiation and Clouds in southern Africa (AEROCLO-sA) field campaign in Namibia: overview of objectives, first research highlights and way forward. In EGU General Assembly Conference Abstracts (Vol. 20, p. 8883).
- Coetzee C., Van Niekerk, D., and Kruger, L. (2018) Building disaster resilience on the edge of chaos - A systems critique on mechanistic global disaster reduction policies, frameworks and models. In Kendra, J.M., Wachtendorf, T. and Knowles, S.G. *The new Environmental Crisis: Hazard, Disaster, and the challenges ahead*.
- Van Niekerk, D. Shoroma, L., and Wentink, G. (2018) Natural Hazards Governance in South Africa. In Cutter, S.L. *Oxford Research Encyclopaedia: Natural Hazards Science*. Oxford.

- Van Niekerk, D., NemaKonde, L., Kruger, L., and Genade, K. (2018) Community Based Disaster Risk Management. pp.411-429. In Rodríguez, H., Donner, W. and Trainor J.E. Handbook of Disaster Research. 2nd Edition. Springer. DOI: 10.1007/978-3-319-63254-4\_20.

#### **7. Conference Presentation in 2018-19:**

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Cilliers, D.P.	Understanding the effects of scale on EIA scoping	Poster and paper	29 April - 2 May 2019	39th Annual Conference of the International Associating for Impact Assessment, Brisbane, Australia
Roos, C., Alberts, R., Cilliers, D.P. & Retief, F.R.	Are we adding value? Perceived benefits of EA	Oral presentation and paper	29 April - 2 May 2019	39th Annual Conference of the International Associating for Impact Assessment, Brisbane, Australia
Kruger, L., Sandham, L.A. & Van Niekerk, D.	SIA and DRA commonalities: A South African regulatory comparison.	Oral presentation and paper	29 April - 2 May 2019	39th Annual Conference of the International Associating for Impact Assessment, Brisbane, Australia
NemaKonde L.D and van Niekerk D.	The effects of separating organisations for disaster risk reduction and climate change adaptation within the SADC member states.	Oral presentation and paper	17-19 October 2018	SADSDiR 4th Biennial Conference, Durban, South Africa
Coetzee, C and van Niekerk, D.	Can disaster risk be useful?	Session	15-21 July 2018.	Session hosted at the XIX ISA World Conference on Sociology. Power, Violence and Justice: Reflections, responses and responsibilities. RC39: Sociology of Disasters. Toronto, Canada.
Le Roux, T and van Niekerk, D	Challenges in enhancing disaster communication	Oral presentation and paper	5-7 July 2018	25th International Public Relations Symposium

	through spontaneous stakeholder communicative self-organisation.			(Bledcom). Bled, Slovenia.
Nemakonde L.D and van Niekerk D.	A normative model for integrating organisations for disaster risk reduction and climate change adaptation within SADC member states.	Oral presentation	26 - 28 March 2018	SADC DRR Conference, Pretoria, South Africa
Cilliers, D.P., Sandham, L.A. & De Swardt, L.	Spatial aspects of EIA effectiveness	Poster and paper	1 – 7 October 2018	SSAG Biennial conference, Bloemfontein
Stander, J.H., Sandham, L.A. & Visser, G.E	The geographies of arts festivals: Exploring the KKNK	Poster and paper	1 – 7 October 2018	14th SSAG Biennial conference, Bloemfontein
Matandirotya N, Cilliers D.P, Burger R, Piketh S	Assessing the Potential of Thermal Insulation Offset Opportunities on the South African Highveld	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Marvin. M. Qhekwana, Thapelo. A. Letsholo, Joseph. A. Adesina, Roelof. P. Burger, Gabi. Mkhathshwa, Stuart. J. Piketh	Characterising indoor PM4 loading of two contrasting houses in Kwazamokuhle, Mpumalanga	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Prince Chidhindi, Monray D Belelie, Roelof P Burger, Gabi Mkhathshwa and Stuart J Piketh	Assessing the application of AERMOD in modelling tall stack emissions on the Highveld	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Marvin M. Qhekwana, Thapelo A. F. Letsholo. Roelof P. Burger. Joseph A. Adesina and Stuart J. Piketh	Characterizing indoor PM4 loading of two contrasting houses in Kwazamokuhle, Mpumalanga	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Monray D. Belelie, Stuart J. Piketh, Roelof P. Burger	Use of CALPUFF to model the atmospheric dispersion of	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air

and Andrew D. Venter	mercury over the South African Highveld			
Farina Lindeque, Eunice V. van Schalkwyk, Roelof P. Burger and Stuart J. Piketh	Land Use Regression as a Tool to Quantify PM 2.5 Concentrations and Identify Suitable Offset Sites on the Highveld	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Ncobile Nkosi, Roelof P. Burger, Christiaan Pauw, Stuart J. Piketh	Estimating PM emissions from domestic burning of solid fuels in residential areas using Monte Carlo simulations	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
John Keir, Ilze Pretorius, Stuart J. Piketh and Roelof P. Burger	A Critical Comparison of Coal-Fired Large Boiler Gaseous Emission Inventory Estimations in South Africa	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Thapelo A. Letsholo, Marvin M. Qhekwana, Brigitte Language, Roelof P. Burger, Christiaan Pauw, Gabi Mkhantshwa and Stuart J. Piketh	Characterising Household Respirable Particulate Matter in Sharpeville, Gauteng	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Orlinda Mafika, Farina Lindeque, Christiaan Pauw, Roelof P. Burger and Stuart J. Piketh	Perceptions of Air Pollution in a Low-Income Community on the Highveld	Oral presentation and paper	30 October – 1 November 2018	2018 Conference of the National Association for Clean Air
Nisa Ayob, Roelof P. Burger and Stuart J. Piketh	Perceived benefits of hail nowcasts over the Gauteng Highveld	Oral presentation and paper	21 – 21 September 2018	2018 SASAS annual conference 2018
Henno Havenga, Roelof P. Burger and Stuart J. Piketh	The trends thermodynamic indices over Irene, Gauteng	Oral presentation and paper	21 – 21 September 2018	2018 SASAS annual conference 2018
Thabo Makgoale, Rebecca M. Garland, Roelof P.	The sensitivity of simulated temperatures in	Oral presentation and paper	21 – 21 September 2018	2018 SASAS annual conference 2018

Burger, Joe Botai, Francois A Engelbrecht and SE Bauer	climate models to aerosols over southern Africa			
Roos, C & Alberts, R.	Ten years later: Waste and the implementation of the National Waste Management Strategy instruments	Oral presentation and paper	16 – 18 October 2018	Wastecon 2018 24th Conference and Exhibition
Meyer, T. & Cilliers, D.P.	Public participation in strategic environmental assessment'	Oral presentation	16 – 19 May 2018	38th Annual Conference of the International Association for Impact Assessment
Khanyi, H., Snyman, S.J., Komape, D.N., Van den Berg, J., Cilliers, D.P., Lloyd Evans, D., Barnard, S. & S. Siebert	Assessing the likelihood of gene flow from sugarcane (Saccharum hybrids) to wild relatives in South Africa	Oral presentation	1 February 2018	Biosafety Symposium: Enabling sustainable biotech innovation
Komape DM, Siebert SJ, Van den Berg J, Cilliers D, Snyman SJ, Lloyd Evans D.	The importance of herbarium distribution records in the study of gene flow likelihood from sugarcane (Saccharum hybrids) to wild and weedy relatives in eastern South Africa.	Oral presentation	13–16 August 2018	Joint SANBI Biodiversity Information Management and Foundational Biodiversity Information Programme Forum
Orlinda Mafika, Farina Lindeque, Christiaan Pauw, Roelof P. Burger and Stuart J. Piketh	Perceptions of Air Pollution on the Highveld	Oral presentation	30 Sept – 6 Oct 2018	SSAG annual conference 2018
Sue-nique Davies, Roelof P. Burger and Henno Havenga	The evaluation of thermodynamic indices and thunderstorm occurrences over Gauteng South Africa	Oral presentation	30 Sept – 6 Oct 2018	SSAG 2018 Biennial Conference
Lindeque, L.F., Burger, R.P. and Piketh, S.J.	The health benefits of reduced residential solid	Oral presentation	1-5 October	SSAG 2018 Biennial Conference

	fuel burning on the Highveld			
Roelof Burger, S.J. Piketh, B. Language, F. Lindeque, C. Pauw, N. Nkosi and L. Muyemeki	Challenging the future of air pollution in southern Africa	Oral presentation	25-29 September 2018	Joint 14th iCACGP Quadrennial Symposium/15th IGAC Science Conference
Burger, R.P.	Improving thunderstorm identification and tracking to support weather modification projects	Oral presentation	April 24-27 2018	Annual Weather Modification Association meeting
Hiscutt, F, Burger, R.P. and P Kucera	Potential new technologies to assist cost-effective evaluation of seeding.	Oral presentation	April 24-27 2018	Annual Weather Modification Association meeting
Burger, R.P.	The Scientific basis of global warming	Invited presentation	17 October 2018	Panel discussion on the need for a holistic understanding of climate change with the title: "Climate, air quality, health and water: challenges facing South Africa in a changing world
Burger, R.P.	Targeting the Critical Window of Opportunity During Hygroscopic Seeding	Oral presentation	April 17-20	Annual Weather Modification Association meeting in Boise, Idaho, USA
Sandham, L A, and Labuschagne, C B	Environmental awareness among farmers in the North West Province, South Africa	Paper	6 – 10 August 2018.	IGU: Appreciating Difference / Apprécier la différence, International Geographical Union Regional Conference, Quebec, Canada,
Fourie, K.	The Challenge of Communicating Risk	Oral Presentation	17 - 18 April 2018	The Centre for the Study of Existential Risk (CSER) – Cambridge

				Conference on Catastrophic Risk 2018.
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**8. Research Master Dissertations completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>Van Staden, I</i>	<i>The perceived value of Environmental Assessment (EA) for the Government of South Africa</i>	<i>NWU</i>	<i>MSc</i>	<i>D.P Cilliers</i>	
<i>Keyser, N.</i>	<i>The implications of recent planning and environmental reform for the South African planning profession</i>	<i>NWU</i>	<i>M. Art et Scien</i>	<i>J. Cilliers</i>	<i>D.P. Cilliers</i>
<i>De Swardt, L.</i>	<i>The influence of location on Environmental Impact Assessment: examples from South Africa</i>	<i>NWU</i>	<i>MSc Geography and Environmental Management</i>	<i>L. Sandham</i>	<i>D.P. Cilliers</i>
<i>W. Pretorius</i>	<i>Vaalharts: Environmental aspects of agricultural land and water use practices</i>	<i>NWU</i>	<i>MSc Geography and Environmental Management</i>	<i>J.H. Stander</i>	<i>L.A. Sandham</i>
<i>Farina Lindeque</i>	<i>The health and economic benefits of interventions to reduce residential solid fuel burning on the Highveld</i>	<i>NWU</i>	<i>Msc Geography and Environmental Management</i>	<i>S.J. Piketh</i>	<i>R.P. Burger</i>
<i>Monray Belelie</i>	<i>Emissions of mercury from the South African power sector</i>	<i>NWU</i>	<i>Msc Geography and Environmental Management</i>	<i>S.J. Piketh</i>	<i>R.P. Burger</i>
<i>Henno Havenga</i>	<i>Synoptic drivers of severe hail storms over the South African Highveld</i>	<i>NWU</i>	<i>Msc in Geography and Environmental Managment</i>	<i>R.P. Burger</i>	<i>S.J. Piketh</i>

<i>Bianca Wernecke</i>	<i>The health and economic benefits of interventions to reduce residential solid fuel burning on the Highveld</i>	<i>NWU</i>	<i>Msc in Geography and Environmental Management</i>	<i>S.J. Piketh</i>	<i>R.P. Burger</i>
<i>Marubini Khwashaba</i>	<i>Vulnerability and resilience of local communities from the Mopani district municipality in a changing Climate</i>	<i>NWU</i>	<i>Msc in Geography and Environmental Management</i>	<i>F. Engelbrecht</i>	<i>R.P. Burger, D van Niekerk</i>
<i>Ncobile Nkosi</i>	<i>Quantifying particulate emissions from domestic burning in the kwaDela township</i>	<i>NWU</i>	<i>Msc in Geography and Environmental Management</i>	<i>S.J. Piketh</i>	<i>R.P. Burger</i>
<i>Ryno du Preez</i>	<i>Deployment, re-engineering and risk analysis of a C-band weather radar to build local capacity in South Africa</i>	<i>NWU</i>	<i>M Ing</i>	<i>S.J. Piketh</i>	<i>R.P. Burger</i>
<i>Vincent Junior Ngosi</i>	<i>Gendered Approach Toward Disaster Risk Reduction: Case Study of Chobe District, Botswana</i>	<i>NWU</i>	<i>Msc Environmental Science with Disaster Risk Science</i>		<i>K.Fourie</i>

**9. Master Dissertations of limited scope completed in 2017-18:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
<i>Pule Soaisa</i>	<i>Regulating sulphur dioxide emissions from platinum smelters in South Africa</i>	<i>NWU</i>	<i>M in Environmental Management</i>	<i>R.P. Burger</i>	<i>J.A. Wessels</i>
<i>Christopher Jones</i>	<i>Managing ambient air quality at the King Shaka</i>	<i>NWU</i>	<i>M in Environmental Management</i>	<i>R.P. Burger</i>	<i>J.A. Wessels</i>

	<i>International Airport</i>				
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**10. PhD Thesis's completed in 2017-18:**

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Macheka, Shadreck.	Migrants as a vulnerable group: The case of undocumented Zimbabwe migrants in Johannesburg, South Africa	NWU	Ph.D	D. van Niekerk	L. Nemakonde
Brazer, Jacob.	A model for multi-agency disaster response and incident command at local government level in South Africa	NWU	Ph.D	D. van Niekerk	C. Coetzee
Chipangura, Paul	Disaster "problem" framing: A Constructivist framework for disaster risk policy in Zimbabwe	NWU	Ph.D	D. van Niekerk	G. van der Waldt
Moyo, Nkosiyo	Building national resilience and decreasing vulnerability to disasters through gender mainstreaming: The case of Botswana.	NWU	Ph.D	D. van Niekerk	M. Abrahamsson

**11. Short description of the curriculum presented:**

Undergraduate (NQF levels 5, 6 and 7):

Postgraduate (NQF level 8):

Postgraduate (NQF level 9):

Postgraduate (NQF level 10):

**12. Student Numbers (2018-19):**

<b>Level</b>	<b>2017</b>	<b>2018</b>
First year	248	264
Second year	145	126
Third year	95	105
Honours	21	13
Masters	24	26

Doctoral	8	14
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**13. Any other information not included above, that you would like to include in the newsletter:**

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

**Dirk Cilliers**

**[Dirk.cilliers@nwu.ac.za](mailto:Dirk.cilliers@nwu.ac.za)**

## UNIVERSITY OF THE WITWATERSRAND

1. **Name of Department:** School of Geography, Archaeology and Environmental Studies

2. **Head/Chair of Department:**

Name	Area of specialisation	E-mail	Office Telephone Number
Prof Amanda Esterhuysen (acting)	Historical Archaeology	<a href="mailto:Amanda.Esterhuysen@wits.ac.za">Amanda.Esterhuysen@wits.ac.za</a>	+27117176053

### 3. Information about the Geographers in the Department

Name	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr Annika Herbert	Postdoctoral Fellow	Palaeoclimatology	<a href="mailto:Annika.Herbert@wits.ac.za">Annika.Herbert@wits.ac.za</a>	
Dr Serge Kubanza	Postdoctoral Fellow	Environmental Sustainability	<a href="mailto:Serge.Kubanza@wits.ac.za">Serge.Kubanza@wits.ac.za</a>	
Dr Cletah Shoko	Lecturer	Remote sensing, GIS, Geospatial modelling, surface hydrology, spatial ecology	<a href="mailto:Cletah.Shoko@wits.ac.za">Cletah.Shoko@wits.ac.za</a>	+27117176502
Dr Siân Butcher	Lecturer	Urban geography, economic geography	<a href="mailto:Sian.Butcher@wits.ac.za">Sian.Butcher@wits.ac.za</a>	+27117176573
Dr Raeesa Moolla	Lecturer	Air quality, climatology	<a href="mailto:Raeesa.Moolla@wits.ac.za">Raeesa.Moolla@wits.ac.za</a>	+27117176522
Dr Mary Evans	Senior Lecturer	Physical Geography		+27117176582
Dr Jennifer Fitchett	Senior Lecturer	Biometeorology: palaeoclimatology, climatology, phenology, tourism and climate change	<a href="mailto:Jennifer.Fitchett@wits.ac.za">Jennifer.Fitchett@wits.ac.za</a>	+27117176514
Dr Alex Wafer	Senior Lecturer	Informality, infrastructure, theory and method in the discipline	<a href="mailto:Alex.Wafer@wits.ac.za">Alex.Wafer@wits.ac.za</a>	+27117176517
Dr Elhadi Adam	Senior Lecturer	Remote Sensing	<a href="mailto:Elhadi.Adam@wits.ac.za">Elhadi.Adam@wits.ac.za</a>	+27117176532
Dr Stefania Merlo	Senior Lecturer	Archaeology, GIS and Remote Sensing	<a href="mailto:Stefania.Merlo@wits.ac.za">Stefania.Merlo@wits.ac.za</a>	+27117176509
Dr Melanie Samson	Senior Lecturer	critical human geography, political ecology, waste and value, feminist geography	<a href="mailto:Melanie.Samson@wits.ac.za">Melanie.Samson@wits.ac.za</a>	+27117176515
Prof Mulala Simatele	Associate Professor	Environmental Policy and Sustainability	<a href="mailto:Mulala.Simatele@wits.ac.za">Mulala.Simatele@wits.ac.za</a>	+27117176515
Prof Stefan Grab	Professor	Physical Geography	<a href="mailto:Stefan.Grab@wits.ac.za">Stefan.Grab@wits.ac.za</a>	+27117176512
Prof Jasper Knight	Professor	Climate change, Quaternary environments, geomorphology, sediment systems	<a href="mailto:Jasper.Knight@wits.ac.za">Jasper.Knight@wits.ac.za</a>	+27117176508

#### 4. Information about the professional and support staff in the Department

Name	Position	E-mail	Office Telephone number
Mrs Natanya Alexander	Senior Administrator	Natanya.Alexander@wits.ac.za	+27117176503
Ms Kerayamang Mafora	Postgraduate Administrator	Kerayamang.Mafora@wits.ac.za	+27117174700
Mr Thandizwe Nsimbi	Technician	Thandizwe.Nsimbi@wits.ac.za	+27117176520
Ms Wendy Phillips	Cartographer	Wendy.Phillips@wits.ac.za	+27117176504
Ms Yingisani Chabalala	GIS Technician	Yingisani.Chabalala@wits.ac.za	+27117176596

#### 5. Department News

The geography division of the school of Geography, Archaeology and Environmental studies hosted the Jubilee Students Conference of the Society of South African Geographers in May 2019. The event attracted 180 delegates, from universities across South Africa. Prof Francois Engelbrecht of the University of the Witwatersrand Global Change Institute delivered the opening plenary, providing students with a terrifying outlook on the future climate of South Africa.

Dr Merlo is involved with the provincial GIS association (GISSA Gauteng). She participates in their activities both in a personal professional capacity through participation in quarterly meetings and as a lecturer at Wits. In this capacity she has been invited to present on the curricular activities of the School and Wits in 2014, and to include our students' work in presentation related to their projects (2017). She has been involved in organising a professional information day for Wits students in collaboration with of the GISSA Gauteng education committee. This talk has been held annually in September since 2014. Dr Merlo served as alternate member of the Education sub-committee of SAGC (South African Geomatics Council) for 2017 and 2018, and as a member of the SASDI (South African Spatial Data Infrastructure) committees on Education and Standards from 2016 to 2019. Dr Merlo is also an external member of the Aliph Foundation panel for assessment of grants for the protection of heritage under threat.

Dr Fitchett was elected onto the council of the Society of South African Geographers in 2018, serving a three year term. She co-hosted the annual Society of South African Geographers Student conference in 2019 with Dr Alex Wafer. Dr Fitchett also co-hosted the 2017 South African Quaternary Association Conference. Dr Fitchett is a member of the editorial board of the International Journal of Biometeorology, and the African councillor for the Students and New Professionals Group of the International Society of Biometeorology.

Prof Grab has served on the board of directors for the Afromontane Research Unit at Free State University since 2016. Part of his commitment is providing expertise in governance of the unit. He also serves on the editorial board for Quaternary International and is Chief-Editor for the Arabian Journal of Geoscience. He also serves on the Atmospheric Circulation Reconstructions over the Earth (ACRE) international steering committee and leads the southern Africa and SW Indian Ocean division of ACRE. This programme has raised several R100k to support Wits University students through part-time employment opportunities.

Prof Knight was a member of the NRF ratings panel for Anthropology, Development Studies, Geography, Sociology and Social Work Specialist Committee (2014-7), and convened this panel in 2016 and 2017. He is a member of the Geological Society of London books editorial committee (2015-), the IAG/AIG Working Group DENUCHANGE (Denudation and Environmental Changes in Different Morphoclimatic Zones), 2017-2021, and is an editorial board member of Geomorphology (2018-present). He is a Research Associate for a consultancy company Climate Change Risk Management Ltd., and is a science advisor to Amnesty (South Africa).

Dr Evans is one of a very limited number of researchers in South Africa trained in the optically stimulated luminescence dating technique, and is the only one to provide high resolution OSL ages in the country. She represents Southern Africa in the international Trapped Charge Dating Association which is the professional association for luminescence and electron spin resonance dating. Dr Evans was part of the local organising committee of the 15th International Conference on Luminescence and Electron Spin Resonance Dating (LED) in 2017. She also serves on the executive committee of the South African Geography Teachers Association, providing support and guidance to Geography teachers around the country.

Dr Samson reviews applications for the Rockefeller Bellagio Academic Writing Residency, as well as articles for a range of international journals. She is the lead author of DEA's Guideline on Waste Picker Integration for South Africa. She is a research associate of Women in Informal Employment: Globalizing and Organizing (the leading international network of policy makers, mass based movements and academics focusing on the informal economy) and actively contributes to the WIEGO global waste programme. Samson advises national government, Packaging South Africa and waste picker organisations on waste picker integration and recycling.

#### 6. 2018-19 dated publications:

- Butchers, S.** (2019). Geographers and geographies of post-apartheid poverty. Knight, J. and Rogerson, C.M. *The Geography of South Africa*, Springer, pp. 241-252
- Butcher, S.** (2018). Making and governing unstable territory: corporate, state and public encounters in Johannesburg's mining land, 1909-2013. *Journal of Development Studies*, 54(12): 2186-2209.
- Shoko, C., Mutanga, O., Dube, T.** (2019). Remotely-sensed C3 and C4 grass species AGB variability in response to seasonal climate and topography. *African Journal of Ecology*, DOI: 10.1111/aje.12622
- Dube, T., Pandit, S., **Shoko, C.**, Ramoelo, A., Mazvimavi, D., Dalu, T. (2019). Numerical Assessments of Leaf Area Index in Tropical Savanna Rangelands, South Africa Using Landsat 8 OLI Derived Metrics and In-Situ Measurements. *Remote Sensing*, 11:7, 829.
- Zoë L. Fleming, Ruth M. Doherty, Erika von Schneidemesser, Christopher S. Malley, Owen R. Cooper, Joseph P. Pinto, Augustin Colette, Xiaobin Xu, David Simpson, Martin G. Schultz, Allen S. Lefohn, Samera Hamad, **Raeesa Moolla**, Sverre Solberg, Zhaozhong Feng 2018: Present day ozone distribution and trends relevant to human health. *Elementa: Science of the Anthropocene*. 6(1):12.
- M.D. Masekameni, **R. Moolla**, M. Gulumian and D. Brouwer: 2019. Risk Assessment of Benzene, Toluene, Ethyl Benzene, and Xylene Concentrations from the Combustion of Coal in a Controlled Laboratory Environment. *Journal of Environmental Research in Public Health*, 16: 95.
- Merlo, S.** (2019) Environmental mapping: past and present. In Knight, J. and Rogerson, C. *The geography of South Africa: contemporary changes and new directions*. Springer Publishers, pp. 15-26
- Thabeng, L., Merlo, S. and Adam, E.** (2019) High resolution remote sensing for the prospection of archaeological sites' markers: the case of dung deposits in the Shashi-Limpopo Confluence area (Southern Africa). *Journal of Archaeological Science*, 102: 48-60.
- Aina, Y. A., **Wafer, A.**, Ahmed, F., & Alshuwaikhat, H. M. (2019). Top-down sustainable urban development? Urban governance transformation in Saudi Arabia. *Cities*, 90, 272-281.
- Rasmussen, J. and **Wafer, A.** (2019). Becoming official/negotiating officialdom: Challenging registration regimes through fake and illegal ID documents. *African Studies* 78 (1), 74-90
- Hoogendoorn, G., Meintjies, D., Kelso, C. and **Fitchett, J.M.** (2019). Tourism as an incentive for rewilding: the conversion from cattle to game farms in Limpopo Province, South Africa. *Journal of Ecotourism*, DOI: 10.1080/14724049.2018.1502297.
- Fitchett, J.M., Grab, S.W. and Portwig, H.** (2019). Progressive delays in the timing of sardine migration in the South-West Indian Ocean. *South African Journal of Science*, 115(7/8): 61-66.
- Roffe, S.J., Fitchett, J.M., and Curtis, C.J.** (2019) Classifying and Mapping Rainfall Seasonality in South Africa: a review. *South African Journal of Science*, 101(2): 158-174
- De la Peña, P., Val, A., Stratford, D.J., Colino, F., Esteban, I., **Fitchett, J.M.**, Hodgskiss, T., Matembo, J. and Moll, R. (2019). Revisiting Mwulu's Cave: New Insights into the Middle Stone

- Age in the southern African Savannah Biome. *Archaeological and Anthropological Sciences*, 11(7): 3239-3266.
- Fitchett, J.M.** (2019). On defining droughts: response to ‘The ecology of a drought – workshop report. *South African Journal of Science*, 115(3/4), 25-27.
- Fitchett, J.M.** and Hoogendoorn, G. (2019). Exploring the Climate Sensitivity of Tourists to South Africa through TripAdvisor Reviews. *South African Geographical Journal*, 101(1): 91-109.
- Fitchett, J.M.** (2018). Recent emergence of CAT5 tropical cyclones in the South Indian Ocean. *South African Journal of Science*, 114(11/12): 83-88.
- Fitchett, J.M.** and Hoogendoorn, G. (2018). An analysis of factors affecting tourist’s accounts of weather in South Africa. *International Journal of Biometeorology*, 62(12): 2161-2172.
- Hoogendoorn, G. and **Fitchett, J.M.** (2018). Perspectives on second homes, climate change and tourism in South Africa. *African Journal of Hospitality, Tourism and Leisure*, 7(2): 1-18.
- Noström, E., Bringenspar, C., **Fitchett, J.**, **Grab, S.**, Rydberg, J. and Kylander, M. (2018). Late Holocene climate and vegetation dynamics in eastern Lesotho Highlands. *The Holocene*, 28(9), 1483-1494.
- Hoogendoorn, G. and **Fitchett, J.M.** (2018). Tourism and climate change: a review of threats and adaptation strategies for Africa. *Current Issues in Tourism*, 21(7): 742-759.
- Fitchett, J.M.** and **Ebhuoma, E.** (2018). Phenological cues intrinsic in indigenous knowledge systems for forecasting seasonal climate in the Delta State of Nigeria. *International Journal of Biometeorology*. 62(6): 1115-1119.
- Fitchett, J.M.** and **Fani, A.H.** (2018). Advance in Jacaranda blossom phenology in the South African Highveld Interior. *Proceedings of the Biennial Conference of the Society of South African Geographers, Bloemfontein* (1-5 October 2018), pp. 467-486.
- Stockigt, L., Hoogendoorn, G., **Fitchett, J.M.** and Saarienen, J. (2018). Climate sensitivity and snow-based tourism in Africa: An investigation of TripAdvisor reviews on Afriski, Lesotho. *Proceedings of the Biennial Conference of the Society of South African Geographers, Bloemfontein* (1-5 October 2018), pp. 207-225.
- Knight, J.** and **Fitchett, J.M.** (2019). Climate Change during the Late Quaternary in South Africa. In Knight, J. and Rogerson, C.M. *The Geography of South Africa*, Springer, pp. 37-45.
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#### **7. Conference Presentation in 2018-19:**

<b>Name of presenter (s)</b>	<b>Title of presentation</b>	<b>Format of presentation</b>	<b>Date of conference/workshop</b>	<b>Name of Conference/workshop</b>
<b>Sian Butcher</b>	Beyond privatised urbanism: negotiating land transformations in developer-driven 'affordable' suburbanisation, Gauteng, South Africa	Oral	3-7 April 2019	American Association of Geographers Annual Meeting, Washington DC.
<b>Sian Butcher</b>	Turning land into stand: governing township establishment in developer-driven 'affordable' suburbanisation, Gauteng, South Africa	Oral	1-5 October 2018	Biennial Conference of the Society of South African Geographers
Rubin, M., <b>Samson, M., Butcher, S.,</b> Joffe, A., <b>Merlo, S.,</b> Smith, L. and <b>Wafer, A.</b>	The infrastructures of urban inequality	Oral	3-5 September 2018	Southern Centre for Inequality Studies, Inaugural conference
<b>Moolla, R.</b> and Gxaba, S.	Risk assessment of BTEX concentrations on communities around an international airport in South Africa.	Oral	21-23 November 2018	World summit on climate change and global warming summit
<b>Johnson, R.S.</b> and <b>Moolla, R.</b>	Hotspot Monitoring of BTEX Concentrations at an International	Poster	12-16 March 2018	11th International Conference on Air Quality Science and Application

	Airport in South Africa.			
<b>Sian Butcher</b>	Itineraries of influence: meeting marxisms	Oral	1-3 February 2018	African Center for Cities Conference
<b>Stefania Merlo, S. Biagetti, A. Zerboni, M. Madella</b>	Toward a land use map of the Sahara	Oral	6-8 September 2018	European Association Archaeologists Annual Meeting, Barcelona
<b>Stefania Merlo and Fred Morton</b>	Expendable monumentality: stone walling and Ngwaketse expansion in Southern Botswana before 1824	Oral	6-8 September 2018	European Association Archaeologists Annual Meeting, Barcelona
<b>Melanie Samson</b>	Articulating the Relationship between Gender and Class	Oral	27 June 2019	28th Annual Conference of the International Association of Feminist Economists (IAFFE)
<b>Micheal Pillay, Jennifer.M.Fitchett</b>	An analysis of occurrences of tropical cyclone landfall south of the Tropic of Capricorn.	Poster	1-5 October 2018	Biennial Conference of the Society of South African Geographers
<b>Jennifer M. Fitchett, Heritage A. Fani</b>	Advance in Jacaranda blossom phenology in the South African Highveld Interior.	Poster	1-5 October 2018	Biennial Conference of the Society of South African Geographers
<b>Jennifer M. Fitchett</b>	South Indian Ocean Tropical Cyclones over the past 50 years: Changes in Frequency, Position and Intensity.	Oral	1-5 October 2018	Biennial Conference of the Society of South African Geographers
<b>Roffe, S.J., Fitchett, J.M. and Curtis, C.J.</b>	Efforts at mapping rainfall seasonality across South Africa over the past Century.	Oral	1-5 October 2018	Biennial Conference of the Society of South African Geographers
Stockigt, L., Hoogendoorn, G.,	Climate sensitivity and	Oral	1-5 October 2018	Biennial Conference of the Society of

<b>Fitchett, J.M.</b> and Saarinen, J.	snow-based tourism in Africa: An investigation of TripAdvisor reviews on Afriski, Lesotho.			South African Geographers
<b>van der Walt, A., Fitchett, J.M., and Curtis, C.J.</b>	Statistical classification of South African seasonal divisions on the basis of daily temperature data.	Oral	1-5 October 2018	Biennial Conference of the Society of South African Geographers
Friedrich, J., Stahl, J., <b>Fitchett, J.</b> and Hoogendoorn, G.	Beach Tourism and Climate along South Africa's coastline: a socio-economic analysis.	Oral	25-27 June 2018	5th International Conference on Climate, Tourism and Recreation
Larson, D.F., Elabed, G., <b>Fitchett, J.</b> and Murray, S.	The consequence of cyclone and seasonal crop risks for wealth and technology adoption in rural Mozambique.	Oral	14-17 March 2018	85th International Atlantic International Conference
Hoogendoorn, G. Meintjies, D., Kelso, C. and <b>Fitchett, J.M.</b>	Tourism incentives for rewilding: the conversion from cattle to game farms in Limpopo Province, South Africa.	Oral	5-9 May 2018	IGU African Studies Commission
<b>Fitchett, J.M.</b> and Hoogendoorn, G	Climatic Suitability for Tourism in Southern Africa: Tracking Sensitivity within the 'Ideal Climate' Zone.	Oral	5-9 May 2018	IGU African Studies Commission
<b>Fitchett, J.M.</b>	Exploring precipitation seasonality in South Africa during the LGM: Lessons from proxy evidence.	Oral	28-30 June 2018	SHeMax Conference
<b>Knight, J. and Fitchett, J.M.</b>	A first chronostratigraphic	Oral	28-30 June 2018	SHeMax Conference

	hic framework for the late Quaternary of Southern Africa.			
<b>Fitchett, J.M. and Knight, J.</b>	Exploring the climate of South Africa during the Extended LGM: lessons from proxy evidence.	Oral	25-31 July 2019	INQUA Congress, Dublin, Ireland
<b>Fitchett, J.M. and Mackay, A.W.</b>	Diatomite evidence for a southern African late Quaternary palaeolake at 3,400 m.asl.	Oral	25-31 July 2019	INQUA Congress, Dublin, Ireland
<b>Herbert, A. and Fitchett, J.M.</b>	Examining the use of a fossil pollen ratio on the Australian Last Glacial Maximum (LGM) record to determine rainfall seasonality.	Poster	25-31 July 2019	INQUA Congress, Dublin, Ireland
<b>Fitchett, J.M.</b>	Intensification of Indian Ocean Tropical Cyclones: Interrogating the 2019 Tropical Cyclones Idai, Kenneth and Fani.	Oral	21-22 June 2019	SAGTA Conference
<b>Jasper Knight</b>	Wind regimes and the formation of ventifacts along the South African coast	Oral	April 2018	EGU meeting, Vienna, Austria
Mike Smith	DEM-based analysis of glacial bedforms in Clew Bay, western Ireland	Poster	April 2018	EGU meeting, Vienna, Austria
<b>Jasper Knight</b>	Periglacial stratigraphy and dating from the Channel Islands (English Channel)	Oral	April 2019	EGU meeting, Vienna, Austria
<b>Jasper Knight</b>	Geodiversity and environmental	Poster	April 2019	EGU meeting, Vienna, Austria

	services in developing-world cities: examples of São Paulo and Johannesburg			
<b>Jasper Knight</b>	Developing a chronostratigraphic framework for the Quaternary of southern Africa	Poster	July 2019	INQUA Congress, Dublin, Ireland
<b>Jasper Knight</b>	Paraglacial relaxation and postglacial landscape change in Great Britain	Oral	July 2019	INQUA Congress, Dublin, Ireland
Helene Burningham	Late-Holocene coastal change in northwest Ireland	Oral	July 2019	INQUA Congress, Dublin, Ireland
Lynda Petherick	Regional climate event stratigraphies for Australia for the period 35-15 yr BP	Poster	July 2019	INQUA Congress, Dublin, Ireland

#### **8. Research Master Dissertations completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Mafule Moswane	<i>Food gardens and learning: Investigating food gardens as tools for academic instruction in Soweto, Johannesburg, South Africa</i>	University of the Witwatersrand	MSc	Dr Sian Butcher	
Sandiswa Sondzaba	<i>Imagining Alexandra: Conceptualizing and Building Alexandra during the Alexandra Renewal Project</i>	University of the Witwatersrand	MSc	Dr Sian Butcher	
Motshwae di Sepeng	<i>Examining the dynamics shaping water access for rural and peri-urban areas in the region of Moretele, North</i>	University of the Witwatersrand	MSc	Dr Sian Butcher	

	<i>West Province, South Africa</i>				
Kuni Mosweu	<i>A study of silcrete raw material acquisition in the Howiesons Poort at Klasies river using GIS catchment analysis techniques</i>	University of the Witwatersrand	MSc	Dr Stefania Merlo	Prof Sarah Wurz
Sanelisiwe Mahlangeni	<i>Perceptions of Environmental Sustainability in Tholeni Forrest, Eastern Cape</i>	University of the Witwatersrand	MSc	Dr Alex Wafer	
Seyco Manyake	<i>Informality, infrastructure and citizenship: a case-study of Kya Sands informal settlement</i>	University of the Witwatersrand	MSc	Dr Alex Wafer	
Jacques Mupenda	<i>Food Survival Strategies among Congolese refugees in Johannesburg</i>	University of the Witwatersrand	MSc	Dr Alex Wafer	
Richard Adom	<i>Small-scale agro-processing as a rural sustainable livelihood strategy in Eastern Cape</i>	University of the Witwatersrand	MSc	Dr Alex Wafer	
Priya Ramsaroop	<i>Best-practice in the post-mining re-settlement sector</i>	University of the Witwatersrand	MSc	Dr Alex Wafer	
Mahlogonolo Rangata	<i>Unnatural disaster: Assessing vulnerability to environmental hazards in Kya Sands Informal Settlement</i>	University of the Witwatersrand	MSc	Dr Alex Wafer	
Y Mansoor	<i>Assessment of BTEX Emissions on-board Public Buses Operating under Diesel and Methane/Diesel Dual Fuel Systems</i>	University of the Witwatersrand	MSc	Dr Raesa Moolla	
M Dubazana	<i>Inhalation Human Health Risk Assessment: Case Study of an South African International Airport</i>	University of the Witwatersrand	MSc	Dr Raesa Moolla	
F Makhani	<i>An Assessment of BTEX Concentrations from</i>	University of the Witwatersrand	MSc	Dr Raesa Moolla	

	<i>Specific Fuel Depots in South Africa</i>				
RS Johnson	<i>Analysis of Air Quality at International Airports in Gauteng, South Africa</i>	University of the Witwatersrand	MSc	Dr Raeesa Moolla	
Samantha Jones	<i>How can experiences of environmental education at the Maretlwane Wilderness School result in Transformative learning?</i>	University of the Witwatersrand	MA	Dr Melanie Samson	Dr Clinton van der Merwe
Lethabo Pholoto	<i>Theorizing the Relations between Space and Waste: Residents' Insights on Recycling Practices and Waste Pickers in Vaalpark, Sasolburg</i>	University of the Witwatersrand	MSc	Dr Melanie Samson	
Justice Ramagoma	<i>Coal fly ash waste management challenges in the South African power generation sector and possible recycling opportunities: a case study of Hendrina and Kendal power stations.</i>	University of the Witwatersrand	MSc	Dr Melanie Samson	
Maite Sekhwela	<i>The policy and practice of reclaimer integration in the City of Johannesburg</i>	University of the Witwatersrand	MSc	Dr Melanie Samson	
Meriska Singh	<i>Attempting Palaeoenvironmental Reconstructions in War-Torn Zones: The case of the Okavango Source Wetlands in Angola</i>	University of the Witwatersrand	MSc	Dr Jennifer Fitchett	
Gabriella Duncan	<i>Modelling the impact of land cover and forestry change on the hydrological characteristics of the Two Streams sub-</i>	University of the Witwatersrand	MSc	Prof Chris Curtis	Prof Trevor , Dr Jennifer Fitchett

	<i>catchment, Natal Midlands</i>				
Micheal Pillay	<i>A Southern Hemisphere Tropical Cyclone Climatology: Analysis of Variability Under a Changing Climate</i>	University of the Witwatersrand	MSc	Dr Jennifer Fitchett	
Ariel Prinsloo	<i>A case study of resource consumption in the sharing economy: Airbnb as tourist accommodation in Cape Town, South Africa.</i>	University of the Witwatersrand	MSc	Dr Siân Butcher	Dr Jennifer Fitchett
Emmah Mandishona	<i>Human utilisation and environmental quality of wetlands: the case of Harare, Zimbabwe</i>	University of the Witwatersrand	MSc	Prof Jasper Knight	
Peter Morrissey	<i>Environmental Reconstruction at Nahoon Point during MIS 5e: Contextualising Human Occupation using a Geoarchaeological Approach</i>	University of the Witwatersrand	MSc	Prof Jasper Knight	Prof Dominic Stratford
Kathleen Frances Vowles	<i>Faunal Occurrence at Naturally-Forming Waterholes in Shamwari Private Game Reserve, Eastern Cape, South Africa</i>	University of the Witwatersrand	MSc	Prof Stefan Grab	Prof Jasper Knight

**9. Master Dissertations of limited scope completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Nomcebo Siphesihle Buthelezi	<i>Delineating the Current and Potential Distributions of <i>Prosopis glandulosa</i> in the Square Kilometre Array South Africa, Karoo Site</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Prof Jasper Knight	

Anne Chipenda	<i>Effects of GIS learning on high school students' spatial cognitive abilities. A case study of 3 schools in Johannesburg</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Stefania Merlo	
Veneshree Naidoo	<i>Developing a mobile phone GIS-based application to track and predict efficiency on a road route</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Stefania Merlo	
Nkanyso Cele	<i>Spatial behaviour of reintroduced male buffaloes and their response to predators</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Stefania Merlo	F. Parrini, H. Yiu
Reneilwe Malatji	<i>A web-based GIS platform for monitoring water quality of the Jukskei River</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Stefania Merlo	Prof Chris Curtis
Ishwar Baht	<i>Spatial multilevel model of self-reported co-morbidities in Gauging</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Stefania Merlo	J. Ncnyanya
Sabelo Mguli	<i>Explaining clustering of burglary crime in the City of Johannesburg Metropolitan Municipality using Crime Pattern Theory</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Stefania Merlo	S. Salau
Akum Ernest Tanjeck	<i>Using Multispectral Remote Sensing for Mapping and Monitoring Water Quality at the Vaal Dam</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Dr Elhadi Adam	Prof Jasper Knight
Jonathan Tsoka	<i>An assessment of the physical drivers for farm</i>	University of the Witwatersrand	MSc GIS and Remote Sensing	Prof Jasper Knight	

	<i>dam distribution in Midlands KwaZulu Natal, using GIS and Remote Sensing</i>				
Nomathemba Dladla	<i>The Construct of State Practices: Excavating Municipal Relationships with Waste Pickers, the case of the City of Johannesburg.</i>	University of the Witwatersrand	MSc Urban Studies	Dr Melanie Samson	Claire Benit-Gbaffou
Grace Kadyamadare	<i>Assessment of waste separation by residential households as a tool for sustainable waste practices: a case study of the City of Johannesburg</i>	University of the Witwatersrand	MSc Environmental Science	Dr Melanie Samson	
Tadiwanashe Dube	<i>An evaluation of how the conceptualisation of waste influences separation at source behaviour and waste practices: A Case Study of Elizabeth Fry Village, Vorna Valley, Midrand South Africa</i>	University of the Witwatersrand	MSc Environmental Science	Dr Melanie Samson	

#### **10. PhD Thesis's completed in 2018-19:**

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Reuben Lungu Lembani	<i>Assessing the Effects of Land Use/Land Cover Changes on Carbon Storage of Natural Forest Ecosystems in Southern Africa: A Remote Sensing Approach</i>	University of the Witwatersrand	PhD	Prof Jasper Knight	Dr Elhadi Adam

<i>Delia Ah Goo</i>	<i>Gentrification in Johannesburg</i>	University of the Witwatersrand	PhD	Dr Alex Wafer	
<i>Muneebah Kara</i>	<i>Chinese migrants in post-apartheid small towns</i>	University of the Witwatersrand	PhD	Dr Alex Wafer	

### **11. Short description of the curriculum presented:**

#### **Undergraduate (NQF levels 5, 6 and 7):**

Geography I (GEOG1000) is for both those students intending to major in the discipline, and those taking it as a stand-alone course. The first year programme covers: (1) Physical geography and the processes that shape and modify the Earth's surface, and their relation to ecosystems and human activity; (2) An understanding of the history and nature of the human-environment relations, including discussion of the Anthropocene; (3) An understanding of concepts, definitions and contemporary debates in human geography, with specific emphasis on South Africa; and (4) An understanding of the concepts of atmospheric science, climate, weather, and hazards.

Geography II comprises of a mix of compulsory and optional courses. These are:

Thinking Geographically (GEOG2015). This course introduces student to key theoretical perspectives and methodological approaches within the discipline of geography.

Methods, Models and Geographical Information Systems (GEOG2013). This course aims to introduce student to key epistemological and ontological issues that relate spatial thinking and GIS, and tracks how changes in technology have led to Geographic Information Systems as we use them today.

Earth and Atmospheric Processes (GEOG2010). This course is based on interlinking components of global climate dynamics, geomorphological processes and landforms.

Climate Change and Society (GEOG2011). This course examines the relationships between climate changes that take place within the Earth system, and impacts of these changes on different aspects of the human world and societies.

Environmental Governance (GEOG2012). This course considers the relationships between unequal access to resources (including natural resources, knowledge, decision making processes, the law, etc), and unsustainable environmental outcomes.

Conservation Biogeography (GEOG2014). The course reviews the status of biodiversity on the planet and the motivations for species conservation; explores some of the key causes of biodiversity loss; reviews of the tools used in conservation practice, drawing on biogeographical and ecological theory as well as themes in community conservation.

Geography III offers a stream in human geography and a separate stream in physical geography. Students on the BSc programme can double major if they wish, by taking all courses in both streams. For a single major, students can pick and mix from all available courses.

The physical geography stream comprises:

Geographic Information Systems and Remote Sensing (GEOG3017). This course introduces students to the operations of Geographical Information Systems (GIS) and Remote Sensing

Climate and Environmental Change (GEOG3020). This course examines patterns of climate change through the Quaternary, and in particular during historical and recent times.

Advanced Atmospheric Science (GEOG3021). This course discusses atmospheric processes and the interactions of the atmosphere with other earth systems.

Environmental Monitoring and Modelling (GEOG3024). This course provides a broad introduction into the theory and methods of environmental data collection and the practice of environmental monitoring.

The human geography stream comprises:

Economic Geography (GEOG 3019). The course focuses on the relationship between power relations, identities and the spatialised economy, and the multiple aspects of economic geographies in post-colonial contexts (formal, informal, domestic).

Theory and Practice in Sustainability Science and Sustainable Development (GEOG3023). This course considers the theoretical background and practical skills in issues of Sustainability Science and Sustainable Development.

Urban Futures (GEOG3025). This course offers an historical and theoretical account of contemporary challenges in the governance of cities, as well as a set of intellectual tools for understanding and critically engaging with these challenges.

Food: Security, Politics and Culture (GEOG3026). This course investigates food and food security via its interdependent relations and with critical geographic approaches.

**Postgraduate (NQF level 8):**

The Geography Honours Programme involved two compulsory courses and three optional courses for 2018-2019

Compulsory Course:

GEOG4038 Research Project

GEOG4032 Advanced Research Methods

Optional Courses:

GEOG4015A Geographic Information Systems (Dr Stefania Merlo)

GEOG4033A Advanced GIS and Remote Sensing (Dr Elhadi Adam)

GEOG4034A Environmental Management Water Challenges in South Africa (Prof Chris Curtis)

GEOG4037A Environmental Policy and Practice (Prof Danny Simatele)

GEOG4039A Local and Regional Economic Development (Dr Siân Butcher)

GEOG4040A Chemistry in the Global Atmosphere Climate Change (Dr Jennifer Fitchett)

GEOG4035A Environmental Geomorphology and Geohazards (Prof Jasper Knight)

GEOG4042A Air Pollution and Synoptic Climatology (Dr Raeesa Moolla and Prof Fethi Ahmed)

GEOG4043A Integrated Environmental Management (Dr Melanie Samson)

Contact person: Dr Jennifer Fitchett ([Jennifer.Fitchett@wits.ac.za](mailto:Jennifer.Fitchett@wits.ac.za))

**Postgraduate (NQF level 9):**

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

1 year full time

Contact person: Dr Elhadi Adam ([Elhadi.Adam@wits.ac.za](mailto:Elhadi.Adam@wits.ac.za))

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

1 year full time or two years part time

Contact person: Dr Mary Evans ([Mary.Evans@wits.ac.za](mailto:Mary.Evans@wits.ac.za))

**Postgraduate (NQF level 10):**

**PhD in Geography**

2 years full time or 4 years part time

Contact person: Dr Mary Evans ([Mary.Evans@wits.ac.za](mailto:Mary.Evans@wits.ac.za))

**12. Student Numbers (2017-18):**

Level	2018	2019
First year	172	153
Second year	82	64
Third year	78	61
Honours	47	38
Masters	73	99
Doctoral	63	65

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

Dr Jennifer Fitchett: [Jennifer.Fitchett@wits.ac.za](mailto:Jennifer.Fitchett@wits.ac.za)

## UNIVERSITY OF ZULULAND

1. **Name of Department:** Geography and Environmental Studies

2. **Head/Chair of Department:** Mr Mthembu, A.T.

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Mr Mthembu, A.T.	Demographics and Community Health; Cultural and Physical Environments	<i>mthembua@unizulu.ac.za</i>	35 26329

### 3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Dr ML Mdoka	Senior Lecturer	Atmospheric Sciences, GIS and Environmental Management.	<i>MdokaML@unizulu.ac.za</i>	035 9026623
Dr NB Mbatha	Senior Lecturer	Atmospheric Physics and Chemistry	<i>MbathaNB@unizulu.ac.za</i>	035 9026400
Dr I Moyo	Senior Lecturer	Political and Urban Geography and Migration	<i>MoyoI@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>	

### 4. 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
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>	35 2 6332
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## 5. Department News

- (a) The Department of Geography welcomed Dr ML Mdoka who joined the Department in the beginning of 2018.
- (b) The Department of Geography and Environmental Studies at the University of Zululand hosted its second International Geographical Union Commission on African Studies (IGU CAS) conference from the 17th to 19th June 2019 at the Peermont Umfolozi Casino and Resort. A number of international academics attended the conference. The presentations covered relevant issues ranging from Africa and climate change, Natural resources management and governance, Environmental Justice in Africa and others. The theme of the conference was “Africa in the global imaginary: Towards internationally competitive research and science”  
The Mayor of the City of Umhlathuze, Honourable Mr Mduduzi Mhlongo gave an opening address. The Chairperson of the Commission is Dr Innocent Moyo (Department of Geography and Environmental Studies, University of Zululand). There were three key note speakers, Professor Sabelo Ndlovu from the University of South Africa and Professor Maano Ramutsindela from the University of Cape Town and also Professor Richard Grant from the University of Miami in the United States of America. The conference was a success.
- (c) The postgraduate students attended the South African Geographers Students Conference at the University of Witwatersrand. The conference was held from the 8<sup>th</sup> to 10<sup>th</sup> July 2019.



The members of the local organising committee of the International Geographical Union Commission on African Studies (IGU CAS) conference

- (d) On the 9<sup>th</sup> of July 2018, a Light Detection and Ranging (LiDAR) instruments (laboratory) was installed at the University of Zululand, behind the zoology building. A LiDAR is a state of the art instrument that uses the most powerful techniques for active remote sensing of the earth’s atmosphere. This instrument is housed in a white shipping container laboratory. The white

container lab was jointly designed by Dr Mbatha and Prof Sivakumar Ventaraman from the University of KwaZulu Natal (UKZN). The lab was constructed by the Council of Scientific and Industrial Research (CSIR). The LiDAR system uses laser pulses to measure atmospheric constituents such as aerosols particles, water vapour, clouds, ice crystals and traces gases in the Ozone layer. This makes it possible for LiDAR to provide profiles of these atmospheric components as a function of altitude and location. This is particularly necessary for weather forecasting, climate modelling, and environmental monitoring of air quality.



*Light Detection and Ranging (LiDAR) instrument.*

#### **6. 2018-19 dated publications:**

1. **Moyo, I.** 2018. Zimbabwean Dispensation, Special and Exemption Permits in South Africa: On Humanitarian Logic, Depoliticisation and Invisibilisation of Migrants. *Journal of Asian and African Studies*. doi.org/10.1177/0021909618776413.
2. **Moyo, I.** 2018. Resistance and Resilience by Informal Traders in Bulawayo, Zimbabwe: Beyond Weapons of the Weak. *Urban Forum*. <https://doi.org/10.1007/s12132-018-9333-8>
3. **Gumbo, T, Geyer, M, Moyo, I and Moyo, T.** 2018. Mapping spatial locational trends of informal economic enterprises using mobile geographic information data in the city of Harare, Zimbabwe. *Data Brief*, 20: 1692–1699. DOI: [10.1016/j.dib.2018.09.037](https://doi.org/10.1016/j.dib.2018.09.037).
4. **Moyo, I, Gumbo T and Nicolau, MD.**2018 African Migrant Traders' Experiences in Johannesburg Inner City: Towards the Migrant Calculated Risk and Adaptation Framework, *South African Review of Sociology*, 49:1, 53-71, DOI: 10.1080/21528586.2018.1496030.
5. **Moyo, I.** 2018. Theorizing borders in Africa: What implications for African integration? *Africa Insight*, 48 (1): 29-40.
6. **Nshimbi, C.C, Moyo, I and Oloruntoba, S.O.** 2018. Editorial: Borders, informal cross-border economies and regional integration in Africa. *Africa Insight*. 48 (1): 1-2
7. **Nshimbi, C.C, Oloruntoba, S.O and Moyo, I.** 2018. Borders, informal cross-border economies and regional integration in Africa: An Introduction. *Africa Insight*, 48 (1): 3-11
8. **Ndimande, N.P.** 2018 Student housing and the slummification of the University of Zululand village in KwaDlangezwa, South Africa *Human Geographies – Journal of Studies and Research in Human Geography*. Vol. 12(1): 2267-2284

9. **Xulu, S.**, Peerbhay, K., Gebreslasie, M. and Ismail, R., 2018. Drought influence on forest plantations in Zululand, South Africa, using MODIS time series and climate data. *Forests*, 9, p.528.
10. **Xulu, S.**, Gebreslasie, M.T. and Peerbhay, K.Y., 2018. Remote sensing of forest health and vitality: a South African perspective. *Southern Forests: a Journal of Forest Science*, 1, p.12.
11. **Mbatha, N. and Xulu, S.**, 2018. Time Series Analysis of MODIS-Derived NDVI for the Hluhluwe-Imfolozi Park, South Africa: Impact of Recent Intense Drought. *Climate*, 6, p.95.
12. Jury, MR, 2018, Modulation of currents near Durban, *Regional Studies Marine Science*, 18 (208-218) doi.org/10.1016/j.rsma.2017.10.009
13. Jury, MR, 2017, Caribbean air chemistry and dispersion conditions, *Atmosphere*, 8 (151-170) doi:10.3390/atmos8080151
14. Jury, MR, 2018, Eastern Venezuela coastal upwelling in regional context, *Regional Studies Marine Science* 18 (219-228) doi.org/10.1016/j.rsma.2017.10.010
15. Jury, MR, 2018, Climatic modulation of early summer dust emissions over West Africa, *J. Arid Environments* 152 (55-68) doi:10.1016/j.jaridenv.2018.01.019
16. Jury, MR, 2018, Characteristics and meteorology of Atlantic swells reaching the Caribbean, *J. Coastal Research* 34 (400-412) doi:10.2112/JCOASTRES-D-17-00029.
17. Jury, MR, 2018, Climate trends across South Africa since 1980, *Water SA* 44 (297-307) doi:10.2112/JCOASTRES-D-17-00029.1
18. Jury, MR, 2018, The pattern of climate change around the Windward Passage, *Theoretical Applied Climatology* 134 (1-9) doi:10.1007/s00704-018-2658-3
19. Winter, A., Jury, M.R. , Sammarco, P.W., Zanchettin, D., 2018, On the Relationship between Coral  $\delta^{13}C$  and Caribbean climate, *International J. Climatology* 38 (5689-5698) doi.org/10.1002/joc.5772
20. Jury, MR, 2018, Characteristics of Ethiopia air chemistry and its meteorological context, *Earth Interactions*, 22 (1-22) doi.org/10.1175/EI-D-17-0009.
21. Jury, MR, 2018, Puerto Rico sea level trend in regional context, *J. Ocean Coastal Management*, 163 (478-484) doi.org/10.1016/j.ocecoaman.2018.08.006
22. Jury, MR, 2018, Northward excursion of the ITCZ toward the Caribbean in boreal summer, *Meteorology Atmospheric Physics* 130 (1-10) doi10.1007/s00703-018-0642-1
23. Jury, MR, 2018, Global wave-2 structure of ENSO-modulated convection, *International Journal of Climatology*, 38 (1-11) doi:10.1002/joc.5963
24. Jury, MR, 2018, South Indian Ocean Rossby waves, *Atmosphere-Ocean*, 56, (322-331) doi:10.1080/07055900.2018.15448
25. Nshimbi C. C .and **Moyo I.** 2018. Informal Immigrant Traders in Johannesburg: The Scorned Cornerstone in the Southern African Development Community Integration Project. In: Adeniran A., Ikuteyijo L. (eds) *Africa Now! Emerging Issues and Alternative Perspectives*, 387-413. London: Palgrave Macmillan.

### 7. Conference Presentation in 2018-19:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Moyo, I.	Polyperspectivity in regional and continental integration in Africa: On the informal cross border trade-regional integration nexus in the Southern African Development Community (SADC) region	Oral	17-21 December,	15 <sup>th</sup> CODESRIA General Assembly, Dakar, Senegal.
Moyo, I	Unemployment, migration, urban informality and political activism	Oral	1-5 October 2018	SSAG Conference, Geography and Community: Research, learning, impact, University of the Free State, Bloemfontein
Moyo, I	Migrant traders in Johannesburg: Perspectives on inclusive development.	Oral	3-5 September 2018	The workshop and conference on the EU-Africa migration conundrum in a changing global order, University of Pretoria, South Africa
Moyo, I.	On multiperspectivity in regional and continental integration in Africa: The non-state actors regional integration nexus in the Southern African Development Community (SADC) region	Oral	17 - 19 October 2018.	9th Humanities and Social Sciences Conference, Theme: The social sciences and human basic needs, University of Zululand.
Moyo, I.	On the informal cross border trade-regional integration nexus in the Southern African Development	Oral	6-10 August 2018.	IGU Regional Conference CAG Annual Meeting NCGE

	Community (SADC) region.			
Moyo, I.	Zimbabwe's unemployed, migration, urban informality and political activism.	Oral	24-26 May 2018	Workshop on Unemployment and the Unemployed in Africa, Beuggen, Germany
Moyo, I.	Informal street traders in Bulawayo, Zimbabwe: On urban unemployment, poverty, resistance and resilience.	Oral	17-18 May 2018,	IGU Commission on African Studies Inaugural Conference, University of Namibia, Republic of Namibia.
Aniche, E and Moyo, I.	African Union (AU) and Migration: Implications for Human Trafficking in Africa.	Oral	28-29 June 2018	African Heritage Institution International Conference. Economics of Sustainable Growth in Africa, African Heritage Institution, Independence Layout, Enugu State, Nigeria
Moyo, I.	On migration, spatial-mobility of borders and the liminality of undocumented Zimbabwean migrants in South Africa		17-18 May 2018,	IGU Commission on African Studies Inaugural Conference, University of Namibia, Republic of Namibia.
Moyo, I.	Securitized nationalism and borders: Towards a decolonisation of borders in the SADC?	Oral	29-31 January 2018.	Paper presented at The Toyin Falola @65 conference. Theme: African knowledges and alternative futures, University of Ibadan,
Mthembu, A.T. and Moyo, I.	The operation of traditional health care services in Umkhanyakude District Municipality,	Oral	1-5 October 2018	SSAG Conference, Geography and Community: Research, learning, impact, University of the Free State, Bloemfontein
Ndimande N.P.	Lived experiences and silent struggles of the University of	Oral	1-5 October 2018.	SSAG Conference, Geography and Community: Research, learning, impact, University of

	Zululand off-campus students.			the Free State, Bloemfontein
Mbatha N	A climatology of upper troposphere and stratospheric wind and planetary waves of the Southern Hemisphere using MERRA-2 model,	Oral	20-21 September 2018.	34th Conference of South Africa Society for Atmospheric Science (SASAS), Durban

**8. Research Master Dissertations completed in 2018-19:**

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

**9. Master Dissertations of limited scope completed in 2018-19:**

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

**10. PhD Thesis's completed in 2018-19:**

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

**11. Short description of the curriculum presented:**

**Undergraduate (NQF levels 5, 6 and 7):**

Geography 1 (4GES100)

- Earth Science
- Atmospheric Science
- Environmental Management
- Cultural Environment
- Tourism

Geography 2 (4GES200)

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

Geography 3 (4GES300)

- Urban Geography
- Recreation Geography
- Land Use and Resource Management

- Environmental Management
- Environmental Fieldwork and 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 Philosophy in Geography – PhD

**12. Student Numbers (2017-18):**

Level	2018	2019
First year	533	471
Second year	269	253
Third year	149	147
Honours	13	27
Masters	20	23
Doctoral	3	3

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

**14. The name and contact details of your SSAG person for any further (and future)**

**information:** Mr A.T. Mthembu, [mthembua@unizulu.ac.za](mailto:mthembua@unizulu.ac.za), 035 9026329.

## UNIVERSITY OF PRETORIA

1. **Name of Department:** Department of Geography, Geoinformatics and Meteorology

2. **Head/Chair of Department:**

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Professor Serena Coetzee	Geoinformatics	serena.coetzee@up.ac.za	012 420 3536

3. **Information about the Geographers in the Department**

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Dr	Botai	Joel	Extraordinary Lecturer	Atmospheric modelling, remote sensing	<a href="mailto:Joel.botai@weathersa.co.za">Joel.botai@weathersa.co.za</a>	012 367 6070
Prof	Breetzke	Gregory	Associate Professor	Geography of crime (GIS)	<a href="mailto:greg.breetzke@up.ac.za">greg.breetzke@up.ac.za</a>	012 420 4318
Dr	Chirima	George	Extraordinary Lecturer	Geoinformatics	<a href="mailto:ChirimaJ@arc.agric.za">ChirimaJ@arc.agric.za</a>	012 310 2672
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Prof	Combrinck	Ludwig	Extraordinary Professor	Geodesy	<a href="mailto:ludwig@hartrao.ac.za">ludwig@hartrao.ac.za</a>	012 301 3224
Dr	Darkey	Daniel	Senior Lecturer	<i>Retired May 2019</i>		
Dr	Cooper	Antony	Extraordinary Lecturer	Geographical information science (GISc) theory and applications	<a href="mailto:acooper@csir.co.za">acooper@csir.co.za</a>	012 841 4121
Dr	Davis	Nerhene	Lecturer	Human geography (land reform)	<a href="mailto:Nerhene.davis@up.ac.za">Nerhene.davis@up.ac.za</a>	012 420 2882
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Dr	Engelbrecht	Chrisien	Extraordinary Lecturer	Meteorology	<a href="mailto:EngelbrechtC@arc.agric.za">EngelbrechtC@arc.agric.za</a>	
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Dr	Garland	Rebecca	Extraordinary Lecturer	Air quality modelling and environmental health	<a href="mailto:RGarland@csir.co.za">RGarland@csir.co.za</a>	
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Dr	Hausmann	Natalie	Senior lecturer	Bio-geomorphology	<i>Natalie.hausmann@up.ac.za</i>	012 420 4049
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Mr	Kruger	Andries	Extraordinary Lecturer	Meteorology	<i>Andries.kruger@weathersa.co.za</i>	
Prof	Landman	Willem	Professor	Meteorology	<i>Willem.landman@up.ac.za</i>	012 420 3713
Mr	Loubser	Michael	Lecturer	Geomorphology	<i>michael.loubser@up.ac.za</i>	0833285 754
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Dr	Munghemezulu	Cilence	Lecturer	Geoinformatics (geodesy)	<i>Cilence.munghemezulu@up.ac.za</i>	012 420 2170
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Dr	Nsubuga	Francis	Lecturer	Climate change	<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>	+264 (0) 61 223 9977
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Adv	Snijman	PJ	Extraordinary Lecturer	Environmental Law	<a href="mailto:pjsnijman@gmail.com">pjsnijman@gmail.com</a>	
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Mr	van der Merwe	Barend	Lecturer	Geomorphology	<i>Barend.vandermerwe@up.ac.za</i>	012 420 3699
Prof	Van Gils	Hein	Extraordinary Lecturer	Environmental Ecology/Assessment	<a href="mailto:vangils@t-online.de">vangils@t-online.de</a>	
Dr	Wright	Caradee	Extraordinary Lecturer	Public health/ Geography	<i>cwright@mrc.ac.za</i>	012 339 8543

#### 4. Information about the professional and support staff in the Department

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Mrs	Ngcongo	Lunga	Departmental administration	Administration and Student Enquiries	<i>Lunga.ngcongo@u.p.ac.za</i>	012 420 3536
Ms	Pretorius	Erika	Senior technical assistant	GIS support	<i>Erika.pretorius@u.p.ac.za</i>	012 420 3737
Mrs	Van Aardt	Corne	Departmental Coordinator	Administration and Finances	<i>Corne.vanaardt@u.p.ac.za</i>	012 420 2489

#### 5. Department News

Prof Serena Coetzee to head up UP Department of Geography, Geoinformatics and Meteorology



The University of Pretoria congratulates Serena Coetzee on her appointment as Professor and Head of the Department of Geography, Geoinformatics and Meteorology (GGM) in the Faculty of Natural and Agricultural Sciences. She had served as acting Head of Department since March 2018.

Prof Coetzee's vision is to position the GGM as a department that has local impact as well as one that is internationally relevant. "The Department of Geography, Geoinformatics and Meteorology is special because of the multi-disciplinary nature of its research and education," she says. "Geography seeks to understand the natural and human complexities of the earth, which are often closely related to the built environment. Research and education in the department therefore lies at the interface of the natural and social sciences, but also draws on principles from engineering and information technology in the application of geoinformatics and remote sensing."

Prof Coetzee began her career as a software engineer on the global software development teams of two desktop geographic information system (GIS) products. Subsequently, as director and project manager at AfriGIS, she led a variety of GIS projects until 2006, when she joined the Department of Computer Science at UP. She was appointed to the GGM in 2011 to coordinate the geoinformatics discipline and is also the Director of the Centre for Geoinformation Science.

#### Masters student invited to the SUSI Closing Panel Alumni Panel (USA)



Brian Nkala (far right), a Masters student in Environment and Society at the University of Pretoria (UP), was recently invited to participate in the SUSI 2019 Closing Forum Alumni Panel the 2019 Study of the U.S. Institutes for Global Student Leaders Closing Forum as a SUSI All-Star Alumni in recognition of his leadership and community engagement.

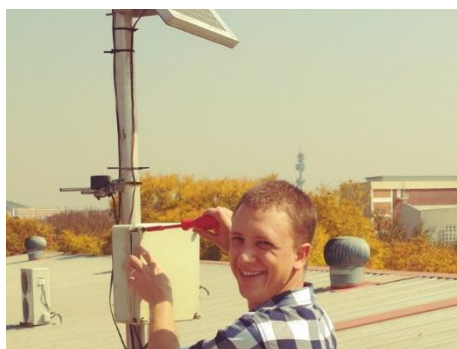
#### **BRICS exchange programme: Russia-South Africa**



Dr Christel Hansen from the Department of Geography, Geoinformatics and Meteorology (UP), and Professor David Hedding from Unisa recently visited the Aktru Research Station in the Altai Mountains of west Siberia. The visit was made possible by the BRICS exchange programme where Dr Hansen and Professor Hedding took part in the 6th International Aktru Summer School organised by Tomsk State University. The Department of Geography, Geoinformatics and Meteorology is one of the current South African departments responsible for the BRICS Network University International Thematic Group of *Ecology and Climate Change*. This exchange allowed for the sharing of knowledge, skills, and a valuable networking opportunity for all those involved.

This year's School took place 10-19 July and Professor David Hedding were part of the organising committee as the Scientific Coordinators for Geology and Geomorphology. The School had the theme *Natural and Human Environment of Arctic and Alpine Areas: Relief, Soils, Permafrost, Glaciers, Biota, and Life Style of Native Ethnic Groups in a Rapidly Changing Climate*, with the main goal to study the unique natural region of the Altai Mountains, lifestyles of native ethnic groups and their adaptations to the rapidly changing climate. In the process, Dr Hansen and Prof Hedding shared, from a South African perspective, their challenges of human response and adaptation to climate change. The School comprised of lectures given by experts in their field, presentations by participants, as well as excursions to the big and small Aktru glaciers (Maliy Aktru and Bolshoy Aktru), the local Altai Mountain flora and forests. For images of the field trip, please visit our gallery.

#### *Meteorology Masters graduate wins SSAG Bronze Medal*



Marks Geldenhuys was awarded the Research Master's Bronze Medal Award for 2018 by the Society of South African Geographers for his thesis entitled "*Blocking, gap flow and mountain wave interaction along the coastal escarpment of South Africa*". Marks was a full time employee at the South African Weather Service during the time of his Msc studies and completed the degree under the supervision of [Liesl Dyson](#) and Deon van der Mescht. He designed and conducted an experiment to measure atmospheric turbulence in a mountainous terrain along the South Coast of South Africa. Markus is

currently perusing his PhD studies at the Institute for Energy and Climate Research, Julich Research Center where he is furthering his knowledge on the design of atmospheric experiments.

#### **Geoinformatics MSc student wins award**



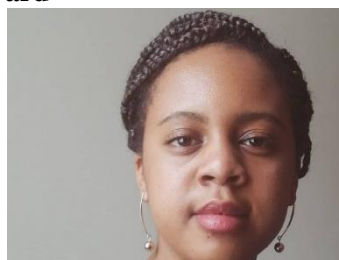
Colette de Villiers has won the award for the best master's oral presentation in Geographic Information System/Remote Sensing category. The student conference took place from the 8th to the 10th of July at the University of the Witwatersrand. This conference was organized by the Society of South African Geographers (SSAG), and students from various universities took part in the event. Colette's research focused on finding the best machine learning algorithm to map an invasive plant with the highest accuracy. This research can assist in informing decision makers about the management of *Prosopis* invaded areas in South Africa. The project presented was funded by the Agricultural Research Council (ARC) and is being supervised by Dr Cilence Mungemezulu (UP), Dr George Chirima (ARC) and Dr Philemon Tsele (UP).

#### *New Acting Director for CFES*



[Prof Emma Archer](#) has been appointed as Acting Director of the [Centre for Environmental Studies \(CFES\)](#). Prof Archer has taken this post on as of May 1st, and she has commenced, with the CFES team, on the work of expanding the Centre's research outputs, as well as the drafting of a new Constitution; and the appointing of a new advisory board.

#### **Student awarded CONSAS award**



CONSAS dates back to the 1960s when it started as a Conference for Southern African Surveyors, and was initially held every four years in a different centre in Southern Africa. In 2011 its name was changed to AfricaGEO to give it an African context, and also to broaden the scope to include GIS and

Geomatics. The CONSAS Foundation awards an award to the best student in Geomatics at every university offering a Geomatics programme recognised by the SAGC. To qualify, Brenda-Ai Maina, a graduate of our BSc Geoinformatics programme and a current BScHons Geoinformatics student, obtained an average of a minimum of 70% for all courses on the undergraduate programme. We congratulate Brenda on this outstanding achievement!

*GGM researcher elected to SCAR*



Dr Hansen, Lecturer in the Department of Geography, Geoinformatics and Meteorology, was voted onto the Geosciences Standing Committee of the Scientific Committee on Antarctic Research (SCAR). “Serving on the Committee means that I now have a voice and can be called upon to represent South Africa’s interest to SCAR for items that fall within the Geosciences Standing Committee. SCAR welcomes input from scientists and this is one way I can contribute to its long-term goals and vision with the South African interest in mind.” SCAR was created in 1958 and is charged with initiating, developing and coordinating high quality international scientific research in the Antarctic region (including the Southern Ocean), and on the role of the Antarctic region in the Earth system. SCAR provides objective and independent scientific advice to the Antarctic Treaty Consultative Meetings and other organisations such as the Nations Framework Convention on Climate Change (UNFCCC) and *Intergovernmental Panel on Climate Change (IPCC)* on issues of science and conservation affecting the management of Antarctica and the Southern Ocean.

#### **Prestigious Centenary Award for Dr Christel Hansen**

Dr Christel Hansen, a lecturer in the Department of Geography, Geoinformatics and Meteorology at the University of Pretoria, and a professional geographic information science practitioner, was recently awarded the prestigious Society of South African Geographers (SSAG) Centenary Award for 2019.

This award is designed to recognise and invest in emerging academics in Geography in the country. Dr Hansen’s application for the Centenary Award centred on her work on her PhD project titled ‘On high-altitude and high-latitude diurnal frost environments’.

‘The Centenary Award is important to me because it recognises and supports research done by early career academics. It will allow me to further my research through a project titled “Comparing cold and warm arid and semi-arid environments with a specific focus on frost cycles/fluctuations below 0°C”. The Society of South African Geographers is incredibly supportive in enabling researchers such as myself, and I thank them for providing me with this opportunity.’

#### **Lecturer Elected to Board of Directors of OSGeo**



The Open Source Geospatial Foundation (OSGeo) is a not-for-profit organization whose mission is to foster global adoption of open geospatial technology by being an inclusive software foundation devoted to an open philosophy and participatory community driven development. During their recent 2018 elections (for the 4 open seats of the OSGeo Board of Directors), Dr Victoria Rautenbach, a senior lecturer in our Department, was elected to the Board.

**6. 2018-19 dated publications:  
2018 dated**

**Breetzke, G. D.,** King, M. & Fabris-Rotelli, I. (2018). The impact of the Canterbury Earthquakes on crime in Christchurch, New Zealand. *Australian and New Zealand Journal of Criminology*, 51(1), 135-156.

**Breetzke, G. D.** & Pearson, A. L. (2018). The spatial patterning of alcohol outlets in post-disaster Christchurch, New Zealand: Practical and policy implications. *Urban Policy & Research*, 36(2), 138-152.

Chersich M, **Wright CY**, Venter F, Rees H, Scorgie F, Erasmus B. (2018). Impacts of Climate Change on Health and Wellbeing in South Africa. *International Journal of Environmental Research and Public Health*, 15 (9), pp. 1 - 14.

**Combrinck L,** Isioye OA, **Botai OJ** (2018). Evaluation of spatial and temporal characteristics of GNSS-derived ZTD estimates in Nigeria. *Theoretical And Applied Climatology*, 132 pp. 1099 - 1116.

de Lange A, **Dyson LL** and Garland R (2018). Finding a relationship between meteorological Air Dispersion Potential and Particulate Matter for six sites in South Africa. Proceedings of the 34th annual conference of South African Society for Atmospheric Sciences, 20-21 September 2018, Durban, South Africa. ISBN 978-0-620-80825-5, pp 50-54

**Dyson LL** and Pienaar N (2018). An Era-Interim hail climatology for South Africa. Proceedings of the 34th annual conference of South African Society for Atmospheric Sciences, 20-21 September 2018, Durban, South Africa. ISBN 978-0-620-80825-5, pp 77-79.

Geldenhuys M, an der Mescht D and **Dyson LL** (2018). Poor-man's experimental design: Measuring wind and turbulence in a complex environment. Proceedings of the 34th annual conference of South African Society for Atmospheric Sciences, 20-21 September 2018, Durban, South Africa. ISBN 978-0-620-80825-5, pp 36-39

Hassim L, **Coetzee S** and **Rautenbach V**, (2018). Electricity infrastructure planning: evaluating solar potential assessments for informal settlements using GRASS and freely available data, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-4/W8, 69-76

Ibrahim S, Balzter H, Tansey K, Tsutsumida N, **Mathieu R** (2018). Estimating fractional cover of plant functional types in African savannah from harmonic analysis of MODIS time-series data. *International Journal of Remote Sensing*, 39 (9), pp. 2718 - 2745.

Isioye O, **Combrinck L,** **Botai OJ** (2018). Evaluation of spatial and temporal characteristics of GNSS-derived ZTD estimates in Nigeria. *Theoretical And Applied Climatology*, 132 (3-4), pp. 1099 - 1116.

Kapwata T, Mathee A, Le Roux W, **Wright CY** (2018). Diarrhoeal Disease in Relation to Possible Household Risk Factors in South African Villages. *International Journal of Environmental Research and Public Health*, 15 (8), pp. 1 - 12.

Kapwata T, Gebreslasie M, Mathee A, **Wright CY** (2018). Current and Potential Future Seasonal Trends of Indoor Dwelling Temperature and Likely Health Risks in Rural Southern Africa. *International Journal of Environmental Research and Public Health*, 15(952), pp. 1 - 16.

Mafanya M, **Tsele PL,** Botai J, Manyama P, Chirima G, Monate T (2018). Radiometric calibration framework for ultra-high-resolution UAV-derived orthomosaics for large-scale mapping of invasive alien

plants in semi-arid woodlands: *Harrisia pomanensis* as a case study. *International Journal of Remote Sensing*, 39 (15-16), pp. 5119 - 5140.

Majodina M, **Botai OJ**, Rautenbach CJDW(2018). The vulnerability of the South African electricity transmission network infrastructure to weather and climate: A review. *Journal of Energy In Southern Africa*, 29 (4), pp. 51 - 59.

Mahlangu PN, **Mathieu R**, **Wessels KJ**, Naidoo L, Verstraete M, Asner G, Main R (2018). Indirect Estimation of Structural Parameters in South African Forests Using MISR-HR and LiDAR Remote Sensing Data. *Remote Sensing*, 10 (10), pp. 1 - 31.

Phakula S, **Landman WA**, Beraki A (2018). Forecasting seasonal rainfall characteristics and onset months over South Africa. *International Journal of Climatology*, 38 (1), pp. 889 - 900.

Ratnam J, Doi T, **Landman WA**, Behera S (2018). Seasonal Forecasting of Onset of Summer Rains over South Africa. *Journal of Applied Meteorology and Climatology*, 57 pp. 2697 - 2711.

Sibolla BH, **Coetzee SM**, van Zyl T (2018). A Framework for Visual Analytics of Spatio-Temporal Sensor

Observations from Data Streams. *Isprs International Journal of Geo- Information*, 7 (12), pp. 1 - 28..

Simpson L, **Dyson LL** (2018). Severe weather over the Highveld of South Africa during November 2016. *Water SA*, 44 (1), pp. 75 - 85..

Sweijd N, **Wright CY** (2018). Where have all the flowers gone? – Changing climate, seasons and weather and the challenges and opportunities for public health research. *Southern African Journal of Infectious Diseases (Formerly Southern African Journal of Epidemiology and Infection)*, 33 (3), pp. 3 - 5.

**Wright CY** (2018). Next-generation melanoma prevention efforts for overlooked populations and populations with health disparities: a South African perspective. *Melanoma Management*, 5 (3), pp. 1 - 4.

Chersich M, Scorgie F, Rees H, **Wright CY** (2018). How climate change can fuel listeriosis outbreaks in South Africa. *SAMJ South African Medical Journal*, 108 (5), pp. 453 - 454.

Abiodun G, Njabo K, Witbooi P, **Adeola AM**, Fuller T, Okosun K, Makinde O, **Botai OJ** (2018). Exploring the influence of daily climate variables on malaria transmission and abundance of *Anopheles arabiensis* over Nkomazi Local Municipality, Mpumalanga Province, South Africa. *Journal of Environmental and Public Health*, 2018 (3143950), pp. 1 - 10.

**Ndarana T**, Bopape M, Waugh D, **Dyson LL** (2018). The Influence of the Lower Stratosphere on Ridging Atlantic Ocean Anticyclones over South Africa. *Journal of Climate*, 31 (15), pp. 6175 - 6187.

Schutte, F., & **Bretzke, G. D.** (2018). The influence of extreme weather conditions on the magnitude and spatial distribution of crime in Tshwane (2001–2006). *South African Geographical Journal*, 100 (3), pp. 362 - 377.

Teka H, Madakadze IC, **Botai OJ**, Hassen A, Angassa A, Mesfin Y (2018). Evaluation of land use land cover changes using remote sensing Landsat images and pastoralists' perceptions on range cover changes in Borana rangelands, Southern Ethiopia. *International Journal of Biodiversity and Conservation*, 10, pp. 1 - 11.

Thobela L and **Dyson LL** (2018). The influence of thermal and vorticity advection on the development of continental tropical low-pressure systems over southern Africa. Proceedings of the 34th annual conference of South African Society for Atmospheric Sciences, 20-21 September 2018, Durban, South Africa. ISBN 978-0-620-80825-5, pp 146-153

Van Alleman T, **Olivier J**, Dippenaar M (2018). A laboratory simulation of the pollution of formaldehyde in cemeteries (South Africa). *Environmental Earth Sciences*. Published online [Http://doi.org/10.1007/512665-017-7219-z](http://doi.org/10.1007/512665-017-7219-z) (13 Jan. 2018).

**Wright CY**, Gebreslasie M, Mathee A (2018). Current and Potential Future Seasonal Trends of Indoor Dwelling Temperature and Likely Health Risks in Rural Southern Africa. *International Journal of Environmental Research and Public Health*, 15 (952), pp. 1 - 16.

### **2019 dated**

**Archer, E.R.M.** 2019. Learning from South Africa's recent summer rainfall droughts: How might we think differently about response? *Area*. 51(3): 603-608

**Archer, E., Landman W.A., Malherbe, J., Tadross, M. and Pretorius, S.** (2019). South Africa's winter rainfall region drought: a region in transition? *Climate Risk Management*, Volume 25, 2019, 100188. DOI: [10.1016/j.crm.2019.100188](https://doi.org/10.1016/j.crm.2019.100188)

**Breetzke, G. D.** & Edelstein, I. S. (2019). The spatial concentration of crime in a South African township. *Security Journal*, 32(1), 63-78.

**Breetzke, G. D.**, Polaschek, D., Curtis-Ham, S. (2019). Does crime count? The effect of neighborhood-level crime on recidivism among high-risk parolees. *Applied Geography*, 102, 20-27.

Brodeur J, **Coetzee S**, Danko D, Garcia S and Hjelmager J, 2019. Geographic Information Metadata—An Outlook from the International Standardization Perspective. *ISPRS International Journal of Geo-Information*, 8, 280. <https://doi.org/10.3390/ijgi8060280>.

Buyle R, Vanlischout Z, **Coetzee S**, De Paepe D, Van Compennolle M, Thijs G, Van Nuffelen B, De Vocht L, De Vidts B, Mechant P, Mannens E, (2019). Raising Interoperability among Base Registries: The Evolution of the Linked Base Registry for Addresses in Flanders, *Journal of Web Semantics*, 55:86-101. <http://dx.doi.org/10.2139/ssrn.3276197>.

Chersich, M. F., Swift, C. P., Edelstein, I., **Breetzke, G. D.**, Scorgie, F., Schutte, F. & **Wright, C. Y.** (2019). Violence in hot weather: Will climate change exacerbate rates of violence in South Africa? *South African Medical Journal*, 109, 7, 447-449.

**Coetzee S**, Du Preez J, Behr F-J, **Cooper AK**, Odijk M, Vanlischout S, Buyle R, Jobst M, Chauke M, Fourie N, **Schmitz P**, Erwee F, (2019). Collaborative Custodianship through Collaborative Cloud Mapping: Challenges and Opportunities. 29th International Cartographic Conference, 15-19 July 2019, Tokyo, Japan.

**Coetzee S, Rautenbach V**, Green C, Gama K, Fourie N, Goncalves B, Sastry N, (2019). Using and Improving Mapathon Data Through Hackathons. *ISPRS Geospatial Week 2019*, 10-14 June Enschede, the Netherlands.

**Coetzee S**, Minghini M, Solis P, **Rautenbach V** and Green C, (2018). Towards understanding the impact of mapathons – Reflecting on YouthMappers experiences. *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-4/W8, 35-42, <https://doi.org/10.5194/isprs-archives-XLII-4-W8-35-2018>.

Çöltekin A, **Rautenbach V, Coetzee S**, Mokwena TI, (2018). Landform perception accuracy in shaded relief maps: A replication study confirms that nww lighting is better than nw against the relief inversion effect. *ISPRS TC IV Mid-term Symposium “3D Spatial Information Science – The Engine of Change”* (Volume XLII-4), Delft, The Netherlands, 1-5 Oct-2018.

Foster, I.B., McIntyre, T. and **Hausmann, N.S.** 2019. Understanding the relationship between farmers and burrowing mammals on South African farms: are burrowers friends or foes? *Agriculture and Human Values*. Available as Online Early: <https://doi.org/10.1007/s10460-019-09939-w>

Gama K, **Rautenbach V**, Green C, Gonçalves BA, **Coetzee S**, Fourie N, Sastry N, (2019). Mapathons and Hackathons to Crowdfund the Generation and Usage of Geographic Data, *Proceedings of the International Conference on Game Jams, Hackathons and Game Creation Events*, March 2019, San Francisco, California.

**Hausmann, N.S.**, Delport, C., Kakembo, V., Mashiane, K.K. and le Roux, P.C., 2019. Restoration potential of invaded abandoned agricultural fields: what does the seedbank tell us? *Restoration Ecology* 24, 813–820

Ilie CM, Brovelli MA, **Coetzee S**, (2019). Monitoring SDG 9 with Global Open Data and Open Software - A Case Study from Rural Tanzania. *ISPRS Geospatial Week 2019*, 10-14 June Enschede, the Netherlands.

**Landman, W.A.**, Barnston, A.G., Vogel, C. and Savy, J. (2019). Use of ENSO-related seasonal precipitation predictability in developing regions for potential societal benefit. *International Journal of Climatology*, pp. 1-11. DOI: [10.1002/JOC.6157](https://doi.org/10.1002/JOC.6157)

Maggie G. Munthali, **Nerhene Davis**, Abiodun M. Adeola, **Joel O. Botai**, Jonathan M. Kamwi, Harold L. W. Chisale and Oluwagbenga O. I. Orimoogunje. 2019. Local Perception of Drivers of Land-Use and Land-Cover Change Dynamics across Dedza District, Central Malawi Region. *Sustainability*. 11(3). 832; <https://doi.org/10.3390/su11030832>.

Maluleke, P., **Landman, W.A.**, Malherbe, J. and **Archer, E.**, 2019. Seasonal forecasts for the Limpopo Province in estimating deviations from grazing capacity. *Theoretical and Applied Climatology*, 137(3-4), pp.1693-1702.

Munthali, M.G.; **Botai, J.O.**; **Davis, N.C.** Adeola, A.M. 2019. Multi-temporal Analysis of Land Use and Land Cover Change Detection for Dedza District of Malawi using Geospatial Techniques. *International Journal of Applied Engineering Research* Volume 14, Number 5 (2019) pp. 1151-1162.

Nyoni, N.M.B., Grab, S. and **Archer, E.R.**, 2019. Heat stress and chickens: climate risk effects on rural poultry farming in low-income countries. *Climate and Development*, 11(1), pp.83-90.

Pillay L, Schaab G, **Coetzee S** and **Rautenbach V**, (2019). A comprehensive workflow for automating thematic map geovisualization from univariate big geospatial point data. 29th International Cartographic Conference, 15-19 July 2019, Tokyo, Japan.

**Rautenbach V, Coetzee S**, Coltekin A, Pettit C, **Pijper L**, Madden M, Christophe S, Lkhamjav O. (2019). Towards Establishing an Open Catalogue for Geospatial Educational Resources. ISPRS Geospatial Week 2019, 10-14 June, Enschede, the Netherlands.

Shirvani, A., Fadaei, A.S. and **Landman, W.A.** (2019). The linkage between geopotential height and monthly precipitation in Iran. *Theoretical and Applied Climatology*, 136(1), pp. 221-236, DOI: [10.1007/s00704-018-2479-4](https://doi.org/10.1007/s00704-018-2479-4).

#### 7. Conference Presentation in 2017-18:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
Dr Natalie Haussmann	Aardvark: friend or foe? Assessing the relationship between farmers and burrowing mammals on South African farms	Poster	21 to 26 July	Society for Conservation Biology's 29 <sup>th</sup> International Congress for Conservation Biology in Kuala Lumpur, Malaysia,
Prof Emma Archer	Environment and climate change in Africa – an overview	Oral	June 2019	R20 Austrian World Summit
Mrs Erika Pretorius	Using crowd sourcing and web-maps to promote student engagement with spatial concepts – a case study in a South African University.	Oral	8-10 April	Locate'19, Melbourne, Australia.
Dr Nerhene Davis	The implications of an incomplete restorative justice in South African land restitution: lessons from the Moletele restitution case	Oral	March 25-29	Land and Poverty Conference: Catalyzing innovation, Washington, DC.
Dr Nerhene Davis	Actors, Institutions and Implications of an Incomplete	Oral	May 14-17	19 <sup>th</sup> Annual Conference of the South African Association of Public

	Restorative Justice in South African Land Restitution: Lessons from The Moletale Case.			Administration and Management, , University of Mpumalanga, Nelspruit.
Prof Gregory Breetzke	The spatial concentration of crime in a South African township	Oral	15-18 June	Environmental Crime and Crime Analysis Symposium, Guangzhou, China
Luqmaan Hassim	Electricity infrastructure planning: evaluating solar potential assessments for informal settlements using GRASS and freely available data	Oral	August 2018	FOSS4G2018, Dar es Salaam, Tanzania
Serena Coetzee	Collaborative Custodianship through Collaborative Cloud Mapping: Challenges and Opportunities	Oral	July 2019	29th International Cartographic Conference
Serena Coetzee	Using and Improving Mapathon Data Through Hackathons	Oral	June 2019	ISPRS Geospatial Week 2019
Serena Coetzee	Towards understanding the impact of mapathons – Reflecting on YouthMappers experiences	Oral	August 2019	FOSS4G2018, Dar es Salaam, Tanzania
Serena Coetzee	Towards Establishing an Open Catalogue for Geospatial Educational Resources	Oral	June 2019	ISPRS Geospatial Week 2019

#### **8. Research Master Dissertations completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
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Jozua Esterhuizen	Coastline dynamics at Thukela Mouth and the Amatigulu and Umlalazi river estuary areas, KwaZulu-Natal	University of Pretoria	MSc Geoinformatics	Prof PD Sumner	
Christiaan Schutte	Predictive modeling of Namibian fairy circles and their co-occurrence with <i>Euphorbia</i> species using Geographical Information Systems (GIS)	University of Pretoria	MSc Geography	Prof Gregory Breetzke	Prof Marion Meyer (UP)
Aphiwe Mgushelo	Land acquisition and the growth of informal settlements in South Africa: The case of informal settlements in Mamelodi, City of Tshwane, 1994 - 2014	University of Pretoria	MA Geography	Dr D Darkey	
Nosipho Zwane	Investigating the influence of present and projected climate on the livelihood of small-scale farmers in the uThungulu District Municipality, KwaZulu-Natal, South Africa	University of Pretoria	MSc Meteorology	Dr OJ Botai	Dr IC Madakadze
Izak Foster	Understanding farmer knowledge, perceptions and management of burrowing mammals: A study from the Ottosdal region in South Africa	University of Pretoria	MA Environment and Society	Dr NS Haussmann	
Thumo Neluvhalani	Assessing the vulnerability of small-holder	University of Pretoria	MA Environment and Society	Dr NC Davis	

	subtropical fruit farmers in Tshakhuma village to the 2015/2016 El Nino related drought				
Alissa Terblanche	Impacts of new buildings on urban liveability: a socio-economic study on Pretoria, South Africa	University of Pretoria	MSc Geography	Dr D Darkey	-
Renate Van Heerden	River discharge dynamics, climate and land-use change: the Amatikulu and Nyoni rivers, KwaZulu-Natal, South Africa	University of Pretoria	MSc Geography	Prof PD Sumner (UFH)	Mr MJ Loubser
Mapaleng Lekgeu	High School student's perceptions and understanding of climate change: A case of selected high schools in the Tshwane Metropolis in Gauteng	University of Pretoria	MA Geography	Dr NC Davis	
Madodomzi Mafanya	Framework for semi-automated object-based image classification of invasive alien plant species in South Africa: <i>Harrisia Pomanensis</i> as a case study	University of Pretoria	MSc Geoinformatics	Dr PL Tsele	Dr OJ Botai
Lise Potgieter	Coping and adaptation of commercial dairy farmers to drought in the Mooi catchment, KwaZulu-Natal	University of Pretoria	MSc Environment and Society	Dr NC Davis	Prof PD Sumner (UFH)

Raina Hattingh	Framework to guide mine-realted land use planning towards optimization of the rehabilitated landscape	University of Pretoria	MSc Environmental Management	Dr WF Truter	Prof JWH Ferguson
Mzukisi Kuse	Trends in soil erosion and land use in the Upper Tugela catchment	University of Pretoria	MSc Geography	Prof PD Sumner (UFH)	Mr M Loubser
Katlego Mashiane	Interactive effects of disturbances on grassland soil and vegetation characteristics: A study of Rietvlei Nature Reserve and the Eastern Cape, South Africa	University of Pretoria	MSc Geography	Dr NS Hausmann	Dr PC le Roux
Lisa Mbwia	Analysis of land cover changes of the Hartebeesthoek Radio Astronomy Observatory environment over five decades	University of Pretoria	MSc Geoinformatics	Prof WL Combrinck	Dr OJ Botai
Elelwani Phaduli	Drought characterization in South Africa under climate change	University of Pretoria	MSc Meteorology	Dr OJ Botai	Prof GG Djolov (deceased)
Markus Geldenhuys	Blocking, gap flow and mountain wave interaction along the coastal escarpment of South Africa	University of Pretoria	MSc Meteorology	Dr LL Dyson	Mr D van der Mescht (SAWS)
Tamsyn Galloway	Gravel road and mammal path impacts on above- and belowground vegetation characteristics in an urban grassland nature reserve	University of Pretoria	MSc Geography	Dr NS Hausmann	Dr V Rautenbach
Yvette Bevis	Exploring the usability and suitability of different	University of Pretoria	MSc Geoinformatics	Prof SM Coetzee	Dr V Rautenbach

	techniques for visualising uncertainty in 3D maps for regional level wind farm planning				
Niell du Plooy	Analysing the influence of TNT on Southern African trees, grass and shrubs using <i>in-situ</i> hyperspectral data	University of Pretoria	MSc Geoinformatics	Dr PMU Schmitz	
Mbali Mahlayeye	Single and multi-temporal assessment approach of natural resources using remote sensing	University of Pretoria	MSc Geoinformatics	Dr OJ Botai	Dr A Ramoelo (CSIR)
Petronella Tizora	Modelling land use and land cover change in the Western Cape Province	University of Pretoria	MSc Geoinformatics	Dr AK Cooper	Mrs A le Roux (CSIR); Mr GG Mans (CSIR)
Patience Mulovhedzi	Towards a heat-watch warning system for South Africa for the benefit of the health sector	University of Pretoria	MSc Meteorology	Prof WA Landman	Dr RM Garland (CSIR)
David du Preez	Spring time ozone and solar ultraviolet variations over the Western Cape, South Africa	University of Pretoria	MSc Meteorology	Dr CY Wright	
Elizabeth Webster	A synoptic climatology of Continental Tropical Low pressure systems over southern Africa and their contribution to rainfall over South Africa	University of Pretoria	MSc Geography	Dr LL Dyson	
Catherine Smart	Rainfall variability and drought in the central and northern KzaZulu-Natal	University of Pretoria	MSc Environment and Society	Prof PD Sumner (UFH)	Prof W Nel (UFH)

	Drakensberg, 1955-2015				
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**9. Master Dissertations of limited scope completed in 2018-19:**

<i>Student's Name</i>	<i>Title of dissertation</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
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**10. PhD Thesis's completed in 2018-19:**

<i>Student's Name</i>	<i>Title of thesis</i>	<i>Institution</i>	<i>Qualification</i>	<i>Supervisor</i>	<i>Co-supervisor</i>
Dr Ermos Malahlela	Remote sensing of environmental variables for mapping malaria distribution: the case of Vhembe District Municipality, South Africa	University of Pretoria	PhD Geoinformatics	Dr Jane Olwoch	Dr C Adjorlolo
Dr Yahaya Aliyu	A multi-technique appraisal of city-scale atmospheric pollution in Nigeria	University of Pretoria	PhD Geoinformatics	Dr OJ Botai	Prof CJdeW Rautenbach
Dr Adeola Omolola	The use of satellite-derived data and neural-network analysis to examine variation in maize yield under changing climate	University of Pretoria	PhD Geoinformatics	Dr D Darkey	Dr EH Tesfamariam; Prof A Hassen; Dr OJ Botai
Dr Philemon Tsele	Towards development of a thermal monitoring system and analysis of meteorological parameters for the HartRAO Lunar Laser Ranging telescope	University of Pretoria	PhD Geoinformatics		
Dr Inonge Kasimona	Sustainability of wildlife resources in Zambia: An analysis of community participation and devolution of authority from central government to	University of Pretoria	PhD Environment and Society	Prof MJ Somers	Prof JWH Ferguson

	community resource boards in Mumbwa and Lupande Game Management Areas				
Dr Kabwe Mubanga	Drivers of smallholder farmers' crop production, with special focus on maize, in Choma District, Zambia	University of Pretoria	PhD Environment and Society	Prof JWH Ferguson	Prof JM Steyn; Dr JB Stevens
Dr Cilience Munghemezulu	Development of an Integrated Timing System for the HartRAO Lunar Laser Ranging Station	University of Pretoria	PhD Geoinformatics	Prof WL Combrinck	Dr OJ Botai
Dr Daniel Smit	Reconceptualising management plans for protected areas in South Africa	University of Pretoria	PhD Environment and Society	Dr I van Aardt	
Dr Laven Naidoo	Quantifying the structure of the woody element in Savannahs using integrated optical and Synthetic Aperture Radar (SA) approach: a stepping stone towards country wide monitoring in South Africa	University of Pretoria	PhD Geoinformatics	Dr R Mathieu	Dr KJ Wessels

### **11. Short description of the curriculum presented:**

#### **Undergrad**

A total of four undergraduate 3-year degree programmes are offered through the Department of Geography, Geoinformatics and Meteorology:

- BSc Environmental Sciences
- BSc Geography
- BSc Geoinformatics
- BSc Meteorology

The BSc Environmental Sciences degree programme (426 credits) comprises of a set of selected core modules from the departments GGM, and Zoology and Entomology, and Botany. Suggested co-majors are in chemistry (Credits 48), Ecology (Credits 55), geography (Credits 52) and with further modules in Geoinformatics recommended as a theme.

The BSc Geography programme comprises of core modules from GGM and is open to electives from GGM, Plant Production and Soil Science, Chemistry, Plant Science, Physics, Zoology and Entomology,

Geology, Mathematics and Applied Mathematics, Computer Science, Anthropology and Archaeology, Economics, History, Psychology, Sociology, and Political Sciences departments. Both of these bachelor programmes feed into the BScHons Geography and Environmental Sciences. Humanities and Education students may qualify for the BSocSci Geography and Environmental Studies depending on the number of GGM modules completed.

The BSc Geoinformatics programme totals 457 credits but has been *ex post facto* revised to 431 credits from 2018 by the removal of all elective credits from 2<sup>nd</sup> and 3<sup>rd</sup> year. The curriculum (as revised in 2016) was approved by the South African Geomatics Council (SAGC) in 2016 to meet the academic requirements for professional registration as a GISc Technologist. This undergraduate BSc programme leads into the BScHons Geoinformatics programme.

The BSc Meteorology programme totals 404 credits across the three years. Electives totalling 126 credits can be drawn from GGM, Geology, Plant Production and Soil Science, Chemistry, Plant Science, Mathematics and Applied Mathematics, Physics and Computer Science departments. Modules are co-taught with contracted and extraordinary staff from the South African Weather Services. This programme leads into the BScHons Meteorology programme.

An introduction to discipline ethics is integrated into undergraduate teaching within each of the degree programmes. Community engagement is formally part of a module in Geoinformatics while professional exposure is achieved by extending invitations to experts in industry and private practices to present guest lectures within all the undergraduate programmes.

### Postgrad

The department currently offers four, one-year honours programmes (135 Credits) comprising of taught modules and a research project.

- BSc Hons Geographical sciences; Option: Geography and Environmental Science
- BSocSci Hons Geographical sciences; Option: Geography and Environmental Science
- BSc Hons Geoinformatics
- BSc Hons Meteorology

The department offers the following two-year masters and three-year doctoral programmes:

- MSc Air Quality Management (Coursework and mini-dissertation)
- MSc Air Quality Management (Dissertation)
- MSc Environment and Society (Coursework and mini-dissertation)
- MSc Environment and Society (Dissertation)
- MSc Geography (Dissertation)
- MSc Geoinformatics (Dissertation)
- MSc Meteorology
  
- PhD Air Quality Management
- PhD Environment and Society
- PhD Geography
- PhD Geoinformatics
- PhD Meteorology

The Air Quality Management and Environment and Society degrees are managed through the Centre for Environmental Studies.

### 12. Student Numbers (2018-19):

Level	2017	2018
Undergraduate	383	379
Honours	45	50

Masters	40	41
Doctoral	25	31

**13. Any other information not included above, that you would like to include in the newsletter:** None

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

Associate Professor Gregory Breetzke  
Department of Geography, Geoinformatics and Meteorology  
Faculty of Natural and Agricultural Sciences  
University of Pretoria  
0002  
e: greg.breetzke@up.ac.za  
p: +27 124204318

## UNIVERSITY OF CAPE TOWN

1. Name of Department: Environmental and Geographical Science

2. Head/Chair of Department:

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Asoc Prof Sowman, M	Environmental governance	<i>Merle.sowman@uct.ac.za</i>	0216502683

3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
Babatunde Abiodun	Academic	Atmospheric science	babatunde.abiodun@uct.ac.za	0216502874
Frank Eckardt	Academic	Physical Geography	<a href="mailto:frank.eckardt@uct.ac.za">frank.eckardt@uct.ac.za</a>	0216502874
Gina Ziervogel	Academic	Climate adaptation	<a href="mailto:gina.ziervogel@uct.ac.za">gina.ziervogel@uct.ac.za</a>	0216502874
Kevin Winter	Academic	Integrated water management	<a href="mailto:kevin.winter@uct.ac.za">kevin.winter@uct.ac.za</a>	0216502874
Merle Sowman	Academic	Environmental governance	<a href="mailto:merle.sowman@uct.ac.za">merle.sowman@uct.ac.za</a>	0216502874
Michael Meadows	Academic	Physical Geographer	<a href="mailto:michael.meadows@uct.ac.za">michael.meadows@uct.ac.za</a>	0216502874
Philile Mbatha	Academic	Human Geographer	<a href="mailto:philile.mbatha@uct.ac.za">philile.mbatha@uct.ac.za</a>	0216502874
Pippin Anderson	Academic	Physical Geographer	pippin.anderson@uct.ac.za	0216502874
Shari Daya	Academic	Human Geographer	shari.day@uct.ac.za	0216502874
Suraya Scheba	Academic	Human Geographer	<a href="mailto:suraya.scheba@uct.ac.za">suraya.scheba@uct.ac.za</a>	0216502874
Zarina Patel	Academic	Human Geographer	zarina.patel@uct.ac.za	0216502874

4. 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
Mrs Basadien, T	Senior Secretary	n/a	<a href="mailto:Tanya.basadien@uct.ac.za">Tanya.basadien@uct.ac.za</a>	0216502874
Mrs Adams, S	Admin Officer	n/a	<a href="mailto:Sharon.adams@uct.ac.za">Sharon.adams@uct.ac.za</a>	0216502873
Mrs Hartley, F	Admin Assistant	n/a	<a href="mailto:Fahdelah.hartley@uct.ac.za">Fahdelah.hartley@uct.ac.za</a>	0216502866

Mr Toffar, N	Finance Office	n/a	<a href="mailto:Nur.toffar@uct.ac.za">Nur.toffar@uct.ac.za</a>	0216502883
Mr Hess, S	Technical Assistant	n/a	<a href="mailto:Sayed.hess@uct.ac.za">Sayed.hess@uct.ac.za</a>	0216502682

## 5. Department News

### A/Prof Gina Ziervogel

The book *Day Zero – One city's response to a record-breaking drought* has just been released in July - see the online version ([www.dayzero.org.za](http://www.dayzero.org.za)) and access a [downloadable](#) copy. There is also a short [movie](#) that accompanies it. The book captures some of the perspectives and experiences of the various sectors as the Cape Town drought crisis played out. As climate change impacts intensify and these types of events become more common, it is important to understand the different roles government, private sector, academia and civil society play in managing and mitigating the effects.

### Dr Zarina Patel

Engaged Scholarship

Zarina Patel was the recipient of the Faculty of Science Engaged Scholarship award in 2018; and was recently awarded a grant to support course development focused on social responsiveness.

The distinctive focus of Zarina's work is the use and role of transdisciplinary approaches in southern contexts, reaching across and beyond academic partners and knowledge brokers, to navigate alternate insights and responses to complex urban issues. Zarina's scholarship has led to the significant advancement of debates within geography and the wider social sciences on the theorisation of environmental governance and decision making; environmental justice; and transdisciplinarity. It has also served to considerably advance the practice of transdisciplinary research within the academy, within South Africa and internationally. This work has contributed to a series of articles that have focused on key concepts, as well as to articles that are co-produced with non-academic partners, serving to diversify the forms of knowledge that are recognised as authoritative within these debates.

Her transdisciplinary engagement with urban transitions has been shaped by international collaborations through the Mistra Urban Futures Programme (2012 - 2019), Pan-African collaborations through the Leading Integrated Research for Agenda 2030, known as LIRA 2030 (current since 2017), and most recently through the Global Futures Council on Cities and Urbanisation (2018-2019).

### Professor Michael Meadows awarded the African Academy of Sciences Fellowship in 2018

Professor Meadows has been on the forefront of reconstructing Southern Africa's paleoenvironment for several decades with a focus on the Western Cape. He has been drawing on a diverse set of records and proxies, that include diatoms and pollen from sediment and peat cores as well as hyrax middens from caves. The work has made a significant contribution to our understanding of the Late Quaternary winter rainfall zone associated wetland dynamics, the palaeoecology of the Cape Floral Kingdom and sea level change. The most recent advances established high resolution Holocene records, also crucial in the identification of early anthropogenic land degradation, land use and land cover change. Prof Meadows's work has been widely cited. While he could be described as a biogeographer, he has also played a significant role in advancing the subject of Physical Geography and Geomorphology having written and edited numerous books on the matter. In recognition of these achievements, the African Academy of Sciences has elected Professor Meadows to be a fellow of the AAS.

The EGS Department was well represented at the SSAG Student conference held at Wits this year  
**The EGS Department was well represented at the SSAG Student conference held at Wits this year.**

UCT's Department of Environmental and Geographical Science was well represented at the Student SSAG conference in Johannesburg this year. Abdullahi Ali Hassan, Emily Nicklin, Thandeka Mbambo,

Kolosa Ntombini, Molly Anderson, Sarlotte Kalenga, and Yaseen Samuels are all Honours or Masters students who presented at the conference.

We were delighted that two of our students came home with prizes. Congratulations to Molly Anderson who won the best oral presentation in Human Geography at the Honours level and to Kolosa Ntombini who won the best oral presentation in Human Geography at the Masters level!



Our prize winners Molly Anderson and Kolosa Ntombini

UCT's Department of Environmental and Geographical Science students Luntu Dubazana, Abdullahi Ali Hassan, Emily Nicklin, Molly Anderson, and Kolosa Ntombini taking some time out from the Student SSAG 2019 conference to see a bit of Johannesburg.

**Professor Maano Ramutsindela is the new Dean of the Faculty of Science**

Professor Maano Ramutsindela from the Department of Environmental and Geographical Science is now the Dean of the Faculty of Science. He took up this position on 1 March 2019. Before his appointment as the Dean, Professor Ramutsindela was the Deputy Dean of Operations. He has also served the science faculty in critical committees such as the Ad Hominem Committee, Committee of Assessors and the Executive Committee. He chaired the Faculty of Science Transformation Advisory Committee and served as an elected member of the UCT Council and the Senate Executive Committee. As a member of the Senate Committee of 12, he chaired and participated in committees that handled conflicts. He represented UCT in the Worldwide Universities Network (WUN) and is the founding co-chair of the WUN Global Africa Group.



Professor Maano Ramutsindela

Having obtained his PhD in Geography from the Royal Holloway, University of London, Professor Ramutsindela has gone on to receive the NRF President Award (currently known as the NRF Prestigious Award), the International Visitor Award of the African Studies Association in the USA, an appointment as Fellow of the Society of South African Geographers, and the NRF Award for the Transformation of the Science Cohort. He is an elected member of the Academy of Science of South Africa.

**Christopher Jack**

The Climate System Analysis Group (CSAG) is a research Center within UCT is hosted by the Environmental and Geographical Science Department (EGS) and spans the spectrum of core climate science through to science-society and policy engagement. A recent highlight has been the completion

of the DFID/NERC funded Future Resilience for African CiTies And Lands (FRACTAL) project, part of the Future Climate For Africa programme. FRACTAL has engaged in deep participatory research into practice in 9 cities across southern Africa and directly influence a number of cities ongoing climate strategies and action plans while building a strong network of practitioners and researchers across the region. Notably, FRACTAL has now been awarded an 18 month costed extension to support ongoing sustainability and upscaling of the approach.

CSAG once again ran a successful Climate Change Winter School welcoming 20 practitioners into a dynamic and engaged week of learning, discussion and critical thinking around the challenges climate change brings to decision makers. CSAG also hosted a workshop in the United Kingdom to bring together funders, researchers and practitioners to discuss the emerging critical issue of ethics and value conflicts in climate science. Finally, a number of CSAG staff and post-docs are involved in the current IPCC Assessment Report process as coordinating lead authors, authors, and contributing authors.

CSAG: <http://www.csag.uct.ac.za>

FRACTAL: <http://www.fractal.org.za>

#### **6. 2018-19 dated publications:**

- Assessing Landscape Dust Emission Potential Using Combined Ground-Based Measurements and Remote Sensing Data
- Late Holocene marine radiocarbon reservoir correction for the southern and eastern coasts of South Africa
- A 5000-yr record of Afromontane vegetation dynamics from the Drakensberg Escarpment, South Africa
- The spatial heterogeneity of micro- and meio-organisms and their significance in understanding coastal system dynamics
- A multiproxy study of the ocean-atmospheric forcing and the impact of sea-level changes on the southern Cape coast, South Africa during the Holocene
- Urban transformative potential in a changing climate
- Modelling the potential impacts of afforestation on extreme precipitation over West Africa
- Numerical simulation of surface solar radiation over Southern Africa. Part 1: Evaluation of regional and global climate models
- Assessing protected area effectiveness within the Caribbean under changing climate conditions: A case study of the small island, Trinidad
- Future changes in rainfall associated with ENSO, IOD and changes in the mean state over Eastern Africa
- Building a global urban science
- Impacts of climate variability and change on drought characteristics in the Niger River Basin, West Africa
- Food, memory and transnational gastronomic culture amongst Cameroonian migrants in Cape Town, South Africa
- "Measurement drives diagnosis and response": gaps in transferring food security assessment to the urban scale
- The 'Day Zero' Cape Town drought and the poleward migration of moisture corridors
- Knocked for six by Cape Town drought
- The Effect of Inter-Organisational Collaboration Networks on Climate Knowledge Flows and Communication to Pastoralists in Kenya
- Food Purchasing Characteristics and Perceptions of Neighborhood Food Environment of South Africans Living in Low-, Middle-and High-Socioeconomic Neighborhoods
- Stewardship, care and relational values
- Analysis of rural people's attitude towards the management of tribal forests in South Africa
- Through the 'Thick and Thin' of farming on the Wild Coast, South Africa
- Exploring Long-Term Livelihood and Landscape Change in Two Semi-Arid Sites in Southern Africa: Drivers and Consequences for Social–Ecological Vulnerability
- Towards Place-Based Research to Support Social–Ecological Stewardship

- Mainstreaming sustainable adaptation to climate change into municipal planning: An analysis from the Eastern Cape, South Africa
- Coping with water supply interruptions: can citizen voice in transdisciplinary research make a difference?
- Local knowledge regarding ecosystem services and disservices from invasive alien plants in the arid Kalahari, South Africa
- Multi-model event attribution of the summer 2013 heat wave in Korea
- Rethinking capitalist transformation of fisheries in South Africa and India
- Crisis Temporalities: Intersections Between Infrastructure and Inequality in the Cape Town Water Crisis
- The WMO Challenge to Develop and Demonstrate the Best New User-Oriented Forecast Verification Metric
- Hot days and tropical nights in Nigeria: trends and associated large-scale features
- Organising for Co-Production: Local Interaction Platforms for Urban Sustainability
- The role of engaged scholarship and co-production to address urban challenges: a case study of the Cape Town Knowledge Transfer Programme
- Climate Adaptation and Water Scarcity in Southern Africa
- Examining vulnerability in a dynamic urban setting: the case of Bangalore's interstate migrant waste pickers
- High-frequency monitoring of stream water physicochemistry on sub-Antarctic Marion Island
- Assessing local-level forest use and management capacity as a climate-change adaptation strategy in Vhembe district of South Africa
- Anthropogenic influence on the drivers of the Western Cape drought 2015–2017
- Conceptualizing 'the Urban' Through the Lens of Durban, South Africa
- Identification of large-scale meteorological patterns associated with extreme precipitation in the US northeast
- Ensemble evaluation and projection of climate extremes in China using RMIP models
- Evaluation of regional very heavy precipitation events during the summer season using NARCCAP contemporary simulations
- Statistics of multi-year droughts from the method for object-based diagnostic evaluation
- Urbanization in Africa: challenges and opportunities for conservation
- African dreams: locating urban infrastructure in the 2030 sustainable developmental agenda
- Large-Scale Transdisciplinary Collaboration for Adaptation Research: Challenges and Insights
- Water for sustainable development in the Berg Water Management Area, South Africa
- A high-resolution record of Holocene climate and vegetation dynamics from the southern Cape coast of South Africa: pollen and microcharcoal evidence from Eilandvlei
- Spatio-temporal evolution of the early-warning status of cultivated land and its driving factors: A case study of Heilongjiang Province, China
- Holocene environmental change along the southern Cape coast of South Africa – Insights from the Eilandvlei sediment record spanning the last 8.9 kyr
- Perceptions of ecosystem services provision performance in the face of climate change among communities in Bobirwa sub-district, Botswana
- Building beyond land: An overview of coastal land reclamation in 16 global megacities
- Review of progress with integrated coastal management in South Africa since the advent of democracy
- Social impacts of marine protected areas in South Africa on coastal fishing communities
- Potential impacts of 1.5 °C and 2 °C global warming on rainfall onset, cessation and length of rainy season in West Africa
- The Story of Water in Windhoek: A Narrative Approach to Interpreting a Transdisciplinary Process
- Evaluation of rainfall simulations over Uganda in CORDEX regional climate models
- Adaptation to flooding, pathway to housing or 'wasteful expenditure'? Governance configurations and local policy subversion in a flood-prone informal settlement in Cape Town
- A suite of macrophyte species distribution models for investigating hydrology-driven spatial changes in a large flood-pulsed tropical wetland

- Globalization and Sustainable Development: At the Urban Crossroad
- Socio-ecological vulnerability assessment in coastal communities in the BCLME region
- Process-based model evaluation and projections over southern Africa from Coordinated Regional Climate Downscaling Experiment and Coupled Model Intercomparison Project Phase 5 models
- Influence of Agulhas forcing of Holocene climate change in South Africa's southern Cape
- Livelihoods on the Edge without a Safety Net: The Case of Smallholder Crop Farming in North-Central Namibia
- Stewardship as a boundary object for sustainability research: Linking care, knowledge and agency
- Assessing vulnerability of horticultural smallholders' to climate variability in Ghana: applying the livelihood vulnerability approach
- Multifunctional landscapes in a rural, developing country context: conflicts and synergies in Tshidzivhe, South Africa
- Dependencies on natural resources in transitioning urban centers of northern Botswana
- Late-Holocene dynamics of sea-surface temperature and terrestrial hydrology in southwestern Africa
- Untangling a Gordian knot that must not be cut: Socio-ecological systems research for management of southern Benguela fisheries.
- Simulating the characteristics of tropical cyclones over the South West Indian Ocean using a Stretched-Grid Global Climate Model
- A diagnostic framework for food system governance arrangements: The case of South Africa
- Interannual rainfall variability and SOM-based circulation classification
- Smallholder farmers' experiences of climate variability and change on pineapple production in Ghana: Examining adaptation strategies for improved production
- Developing and implementing policy for the mandatory labelling of genetically modified food in South Africa
- Agroecology: The Future of Sustainable Farming?
- A systematic review of how vulnerability of smallholder agricultural systems to changing climate is assessed in Africa
- Africa's urban adaptation transition under a 1.5° climate
- Communities of practice: One size does not fit all
- Engaging with local South Africa smallholder farming communities : a necessary effort for improving community preparedness to climate variability
- How severe is Cape Town's "Day Zero" drought?
- Early 21st century anthropogenic changes in extremely hot days as simulated by the C20C+ detection and attribution multi-model ensemble
- Consequences of 1.5 °C and 2 °C global warming levels for temperature and precipitation changes over Central Africa
- Projected climate over the Greater Horn of Africa under 1.5 °C and 2 °C global warming
- Temperature and precipitation extremes under current, 1.5 °C and 2.0 °C global warming above pre-industrial levels over Botswana, and implications for climate change vulnerability
- The effects of 1.5 and 2 degrees of global warming on Africa in the CORDEX ensemble
- The southern African climate under 1.5 °C and 2 °C of global warming as simulated by CORDEX regional climate models
- On the need for regional climate information over Africa under varying levels of global warming
- Potential impact of 1.5 °C and 2 °C global warming on consecutive dry and wet days over West Africa
- Obstacles facing Africa's young climate scientists
- Effects of climate change and adaptation on the livestock component of mixed farming systems: A modelling study from semi-arid Zimbabwe
- Trends in mean and extreme temperatures over Ibadan, Southwest Nigeria
- Dust activity and surface sediment characteristics of the dustiest river in southern Africa: the Kuiseb River, Central Namib
- Hydrogen and oxygen isotope composition of precipitation and stream water on sub-Antarctic

Marion Island

- Towards a multi-scalar reading of informality in Delft, South Africa: Weaving the ‘everyday’ with wider structural tracings
- Accommodating landscape-scale shocks: Lessons on transition from Cape Town and Puerto Rico
- The contribution of fog to water and nutrient supply to *Arthroerua leubnitziae* in the central Namib Desert, Namibia
- Programme for the development of weather and climate numerical modelling systems in South Africa
- Assessing Future Spatio-Temporal Changes in Crop Suitability and Planting Season over West Africa: Using the Concept of Crop-Climate Departure
- Defining Crop–climate Departure in West Africa: Improved Understanding of the Timing of Future Changes in Crop Suitability
- A synthesis of three decades of socio-ecological change in False Bay, South Africa: setting the scene for multidisciplinary research and management.
- Low- Cost Flow Sensors
- A changing fishery system: perspectives from crew in the Southern Cape's handline fishery
- Untangling a Gordian knot that must not be cut: Social-ecological systems research for management of southern Benguela fisheries
- Enabling acceptance and use of ecological intensification options through engaging smallholder farmers in semi-arid rural Limpopo and Eastern Cape, South Africa
- Rural-Urban Linkages Facilitated by the Mining Sector in South Africa
- Future projection of droughts over major river basins in Southern Africa at specific global warming levels
- Projecting drought characteristics over East African basins at specific global warming levels
- A Methodological Approach to Assess the Co-Behavior of Climate Processes over Southern Africa
- Building transformative capacity for adaptation planning and implementation that works for the urban poor: Insights from South Africa
- ADD KIDIST, Simulating the impact of climate change on maize production in Ethiopia, East Africa
- Climate process chains: Examples from southern Africa
- Potential impacts of global warming levels 1.5 °C and above on climate extremes in Botswana
- ADD LEN, Numerical simulation of surface solar radiation over Southern Africa. Part 2: projections of regional and global climate models
- The Materiality of Pentecostal Religious Healing: The Case of Cameroonian Migrants in Cape Town
- Developing pathways to improve smallholder agricultural productivity through ecological intensification technologies in semi-arid Limpopo, South Africa
- Classification of small-scale farmers for improved rainfall variability management in South Africa
- Chlorophyll fluorescence and carbohydrate concentration as field selection traits for heat tolerant chickpea genotypes
- Adapting to changing climate through improving adaptive capacity at the local level – The case of smallholder horticultural producers in Ghana
- A synthesis of barriers to and enablers of pro-poor climate change adaptation in four South African municipalities
- Understanding the current state of collaboration in the production and dissemination of adaptation knowledge in Namibia

**7. Conference Presentation in 2018-19: Not completed**

**8. Research Master Dissertations completed in 2018-19:**

Student’s Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Bux, Quraisha	Understanding urban ecologies in the context of	UCT	Masters by Dissertation	Anderson, Pippin	

	local biodiversity and open space conservation agendas in two South African cities				
Cameron,Kieran Jeanne	Urban river restoration: a case study of the Stiebevel' rivers ability to enrich the biodiversity of species and organism following a rehabilitation intervention, Franschoek, SA	UCT	Masters by Dissertation	Winter,Kevin John	
Fell,Jessica Leigh	An analysis of surface water from an informal settlement, Langrug, Franschoek: down a slippery slope	UCT	Masters by Dissertation	Winter,Kevin John	
Gore,Michelle Jacqueline	Understanding the impact of ENSO patterns on drought over southern Africa using SPEEDY	UCT	Masters by Dissertation	Abiodun,Babatunde Joseph	
Gottlieb,Tunehafo Ruusa	The contribution of fog to the moisture and nutritional supply of <i>Arthroerua leubnitziae</i> in the central Namib Desert, Namibia	UCT	Masters by Dissertation	Eckardt, Frank	Cramer,Michael Denis
Mahlanza,Londeka Joyful	The role of Social Movements in building	UCT	Masters by Dissertation	Scott,Diane Lesley	Ziervogel,Gina

	adaptive capacity in urban water supply challenges. The case of the western Cape water caucus				
Molepo,Koketso	The transport of PM10 over Cape Town during high pollution episodes	UCT	Masters by Dissertation	Abiodun,Babatunde Joseph	
Muhl,Ella-Kari	An analysis of the perceptions surrounding the re-zoning of the Tsitsikamma Marine Protected Area	UCT	Masters by Dissertation	Mbatha,Philile	Sowman,Merle Rozanne
Mukungu,Tichaona Tavare	Evaluation of the potential changes in South Africa's future synoptic wind climate	UCT	Masters by Dissertation	Lennard,Christopher James	
Underhill,Laura Gillian	An analysis of the ability of small urban wetlands to treat stormwater: the case of Princess Vlei wetland, Cape Town	UCT	Masters by Dissertation	Winter,Kevin John	

**9. Master Dissertations of limited scope completed in 2018-19:**

Student's Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Achieng,Stephanie Laura	Marine Protected Areas in Kenya: perceptions of adjacent coastal communities to the costs and benefits associated with	UCT	COURSE WORK MASTERS	Sowman,Merle Rozanne	

	different MPA governance models				
Botha,Deirdre	An analysis of urban form as an approach to social sustainability: a comparative study of contrasting housing developments	UCT	COURSE WORK MASTERS	Patel,Zarina	
Chappel,Angela Mary	Identifying barriers and enablers to the adoption of new practices to improve crop production in the semi-arid Omusati region, Namibia	UCT	COURSE WORK MASTERS	Spear,Dian	
Coldrey,Kevin	Assessing the vulnerability of South Africa's national protected areas to climate change	UCT	COURSE WORK MASTERS	Turpie,Jane Kirsten	
Drewett,Jessica Coral	Student food security: the (dis)connection between student food experiences, sustainability and green spaces from the lens of food security	UCT	COURSE WORK MASTERS	Haysom,Gareth Duff	
Fox,Ashley Neary	The political ecology of community-based adaptation to flood risk in informal settlements: the case of a local community organisation	UCT	COURSE WORK MASTERS	Ziervogel,Gina	
Kgantsi,Boitshekwane	Cultural ecosystem services of the Diep River	UCT	COURSE WORK MASTERS	Anderson,Pippin	

	Corridor: community perceptions of the ecosystem services				
Lyttle,Casey Tara	Analysing modelled nearshore wave climate variability and change as relevant to the traditional handline fishery of the South African South Coast	UCT	COURSE WORK MASTERS	Jarre,Astrid Claudia	
Mahachi,Heather Vimbai	Towards zero emissions and zero poverty in the Global South: a comparative analysis of South Africa, India and Mexico's approach to development and climate change mitigation	UCT	COURSE WORK MASTERS	Winkler,Harald Ernst	
Mikosi,Khathutshelo Takalani	Exploring the contribution of community food systems towards food security: a case study of the Orange Farm Community Co- operative (OFCC)	UCT	COURSE WORK MASTERS	Anderson,Pippin	
Mohamed,Bishar	An analysis of local perceptions of the role of drought in exacerbating contemporary pastoral conflict in northern Kenya: a case study of Marsabit County	UCT	COURSE WORK MASTERS	New,Mark George	Lamb,Guy
Mosime,Bonolo	The use of traditional weather	UCT	COURSE WORK MASTERS	Spear,Dian	

	forecasting by agro-pastoralists of different social groups in Bobirwa sub-district, Botswana				
Nguyen,Tina Thi	Integrating sustainability thinking and practices into surfing events: case studies in Hawaii and Jeffreys Bay	UCT	COURSE WORK MASTERS	Sowman,Merle Rozanne	
Nkemelang,Tiro	Evaluating temperature and precipitation extremes under 1.5°C and 2.0°C warming above pre-industrial levels: Botswana case study	UCT	COURSE WORK MASTERS	New,Mark George	
Nortje,Griffin	Assessing the effectiveness of environmental impact assessment as a safeguard to biodiversity in the Cape Floristic Region of South Africa	UCT	COURSE WORK MASTERS	Hill,Richard Charles	
Nyawali,John Alfred	Impact of urbanisation on vegetable cultivation and supply for the traditional markets in Zambia: a case study of selected markets in Lusaka District	UCT	COURSE WORK MASTERS	Battersby,Jane Elizabeth	
Olsen,Toni	Tolerating climate change: a study on the influence of thermal history on thermal tolerance of <i>Galaxias zebratus</i> in rivers	UCT	COURSE WORK MASTERS	Reed,Cecile Catharine	

	of the Cape Peninsula, South Africa				
Robertson,Rowan Edward	Investigation into the sustainable on-farm production and use of biodiesel	UCT	COURSE WORK MASTERS	Pearce,Howard Thomas	
Roggenbuck,Abbey	Urban agriculture, urban planning and urban development in the contemporary African city: a case study of the Lukhanyo Hub Project	UCT	COURSE WORK MASTERS	Battersby,Jane Elizabeth	
Weeber,Joshua	Investigating the habitat selection and dietary preferences of a largely sedentary population of blue wildebeest in the Kgalagadi Transfrontier Park – impacts of permanent surface water provision in a semi-arid environment	UCT	COURSE WORK MASTERS	February,Edmund Carl	
Whittingham,Jennifer Anne	The “Silent Scream” of “Pathetic Seeds”: exploring a feminist ethics of care as a means to broaden the scope of current GM crop risk assessment practices in South Africa	UCT	COURSE WORK MASTERS	Wynberg,Rachel Paula	
Mahachi,Heather Vimbai	Towards zero emissions and zero poverty in the Global South: a	UCT	COURSE WORK MASTERS	Winkler,Harald Ernst	

	comparative analysis of South Africa, India and Mexico's approach to development and climate change mitigation				
Mikosi, Khathutshelo Takalani	Exploring the contribution of community food systems towards food security: a case study of the Orange Farm Community Co-operative (OFCC)	UCT	COURSE WORK MASTERS	Anderson, Pippin	
Mohamed, Bishar	An analysis of local perceptions of the role of drought in exacerbating contemporary pastoral conflict in northern Kenya: a case study of Marsabit County	UCT	COURSE WORK MASTERS	New, Mark George	Lamb, Guy
Mosime, Bonolo	The use of traditional weather forecasting by agro-pastoralists of different social groups in Bobirwa sub-district, Botswana	UCT	COURSE WORK MASTERS	Spear, Dian	
Nguyen, Tina Thi	Integrating sustainability thinking and practices into surfing events: case studies in Hawaii and Jeffreys Bay	UCT	COURSE WORK MASTERS	Sowman, Merle Rozanne	
Nkemelang, Tiro	Evaluating temperature and precipitation extremes under 1.5°C and 2.0°C warming above pre-industrial	UCT	COURSE WORK MASTERS	New, Mark George	

	levels: Botswana case study				
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Roggenbuck,Abbey	Urban agriculture, urban planning and urban development in the contemporary African city: a case study of the Likhanyo Hub Project	UCT	COURSE WORK MASTERS	Battersby,Jane Elizabeth	

Weeber,Joshua	Investigating the habitat selection and dietary preferences of a largely sedentary population of blue wildebeest in the Kgalagadi Transfrontier Park – impacts of permanent surface water provision in a semi-arid environment	UCT	COURSE WORK MASTERS	February,Edmund Carl	
Whittingham,Jennifer Anne	The “Silent Scream” of “Pathetic Seeds”: exploring a feminist ethics of care as a means to broaden the scope of current GM crop risk assessment practices in South Africa	UCT	COURSE WORK MASTERS	Wynberg,Rachel Paula	

#### 10. PhD Thesis’s completed in 2018-19:

Student’s Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Cirolia,Liza Rose	Accounting for the C/city: analyzing Kisumu's fiscal configurations	UCT	PHD	Parnell,S	
Cowell,Carly Ruth	Exploring the past and the present in order to predict the future: herbarium specimens, field data and extinction probability for conservation managers	UCT	PHD	Anderson,Pippin	
Delgado Caicedo,Jerónimo	The role of cities in the foreign policy of emerging powers: the cases of Bogotá, Colombia and Johannesburg, South Africa	UCT	PHD	Parnell,S	
Gurney,Kim Janette	Art as a vector of value: from end to end	UCT	PHD	Pirie,Gordon Jarvey	
Kent,Michael Lennox	A mode-based metric for evaluating global climate models	UCT	PHD	Hewitson,Bruce Charles	Jack,Ch David

Kozanayi, Witness	Influences of customary and statutory governance on sustainable use and live-hoods: the case of baobab, Chimanimani district, Zimbabwe	UCT	PHD	Wynberg, Rachel Paula	
Kozanayi, Witness	Influences of customary and statutory governance on sustainable use and live-hoods: the case of baobab, Chimanimani district, Zimbabwe	UCT	PHD	Matose, Frank	
Lawal, Shakirudeen Abimbola	The response of southern African vegetation to drought in past and future climates	UCT	PHD	Abiodun, Babatunde Joseph	
Mbatha, Nonhlanhla Philile	The influence of plural governance systems on rural coastal livelihoods: the case of Kosi Bay	UCT	PHD	Sowman, Merle Rozanne	Wynber Paula
Roux, Saul Alexander	The role of local government in sustainable energy development: a case study of the City of Cape Town	UCT	PHD	Patel, Zarina	
Toriro, Percy Munyaradzi	Food production, processing and retailing through the lens of spatial planning legislation and regulations in Zimbabwe: evidence from Epworth	UCT	PHD	Battersby, Jane	
Viljoen, Nina Susara	Participative water demand management as an adaptive response within complex socio-institutional systems: a case study of Cape Town, South Africa	UCT	PHD	Winter, Kevin	
Von Holdt, Johanna Regina Catherina	Atmospheric dust emission processes, sources and impacts in Southern Africa	UCT	PHD	Eckardt, Frank	
Ward, Catherine Dale	Climate variability in social-ecological systems of the Southern Cape: integrating farming and fishing perspectives	UCT	PHD	Jarre, Astrid Claudia	

**11. Short description of the curriculum presented:**  
**Information attached**

**Undergraduate Courses**

**NQF 5, 6 and 7**

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**EGS1003S GEOGRAPHY, DEVELOPMENT & ENVIRONMENT**

*There is a compulsory fieldwork component involving half-day field excursions.*

18 NQF credits at HEQSF level 5

**Convener:** \Dr P Mbatha

**Course entry requirements:** A pass in NSC Geography or GEO1009F

**Course outline:**

The course introduces students to development and environment debates in geography, by exploring the geography of third world development, focusing on the historical roots and spatial patterns that underpin development

**Lecture times:** Monday - Friday, 2nd period

**DP requirements:** Attendance and satisfactory completion of practicals, including fieldwork, and tutorial assignments; students must attain an average mark of not less than 40% for the coursework component.

**Assessment:** Essays, a class test, practical assignments (including fieldwork) and tutorial work count 50%; one 2-hour theory examination written in November counts 50% (subminimum of 40% required).

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**EGS1005F** INTRODUCTION TO ENVIRONMENTAL ASSESSMENT & MANAGEMENT  
12 NQF credits at HEQSF level 5

**Convener:** Dr K Winter

**Co-requisites:** Any one of CIV4041F, CIV4042F, CIV4045F and CIV4046F

**Course outline:**

This course aims to introduce environmental engineering and the application of sustainable development to inform design and applications. Key concepts in environmental management will introduce students to tools such as Environmental Impact Assessment (EIA), Environmental Management Programmes (EMPr) and Environmental Management Systems (EMS), including a consideration of environmental ethics, and resource use and recovery in an African context. The course includes practical sessions: case studies, field trips and a course project.

**Assessment:** A class test, practical assignments and field report count 50%; one 2-hour examination written in June count 50% (sub-minimum of 40% required).

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**GEO1009F** INTRODUCTION TO EARTH AND ENVIRONMENTAL SCIENCES

*This course is presented jointly by the Departments of Archaeology, Environmental & Geographical Science and Geological Sciences, but administered by Geological Sciences. Students are required to attend three half-day excursions in the Cape Peninsula. Students who fail this course will be advised to register for AGE1004S (see entry in Department of Archaeology).*

18 NQF credits at HEQSF level 5

**Convener:** To be advised

**Course entry requirements:** At least 60% for NSC Physical Science, Life Sciences or Geography (or AGE1004S). NOTE: Preference will be given to students registered in the Science Faculty.

**Course outline:**

This course aims to develop a broad understanding of how the Earth works, leading to majors in Archaeology, Environmental & Geographical Sciences, Geology and Ocean & Atmosphere Science.

The course covers the following general topics: structure and dynamics of the Earth; stratigraphy and geological history; climatology; surface processes and evolution of landscapes; biogeography; humans and the environment.

**Lecture times:** Monday - Friday, 2nd period

**DP requirements:** An average of 30% on all marked classwork and tests.

**Assessment:** Marked classwork counts 24%; marked class tests count 16%; June examination 3 hours 60%. A Subminimum of 40% is required in the theory examination paper. Supplementary examinations for GEO1009F will be written in July.

### **Second-Year Courses**

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#### **EGS2013F THE PHYSICAL ENVIRONMENT**

*There is a compulsory fieldwork component involving half-day field excursions.*

24 NQF credits at HEQSF level 6

**Convener:** Associate Professor F Eckardt

**Course entry requirements:** GEO1009F

#### **Course outline:**

The course focuses on contemporary Atmosphere-Earth surface interactions, in particular the role of precipitation and water from a global to a regional scale and examines temporal dynamics, driven by natural process as well as anthropogenic pressures. It covers in detail global circulation patterns, climate variability, soil formation, polar response to climate change, tropical deforestation, and desertification and earth observation technology. It concludes with a detailed study of local scale systems and applications covering stream catchments, estuaries, wetlands and coastlines. It is expected that students will enhance their understanding of Earth system dynamics, systems interactions and develop an appreciation for scales both temporal and spatial. Students are also expected to put the local context into a regional setting and make linkages to the larger global picture.

**Lecture times:** Monday - Friday, 5th period

**DP requirements:** Satisfactory completion of practicals and all written assignments, including projects, fieldwork reports, practicals, essays and class tests. Students must attain an average mark of not less than 40% for the coursework.

**Assessment:** Project, essays, class tests and practical assignments including fieldwork report count 50%; one 3-hour examination written in June count 50% (subminimum of 40% required).

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#### **EGS2014S CONTEMPORARY URBAN CHALLENGES (MERLE TO CONFIRM)**

*There is a compulsory fieldwork component involving half-day field excursions.*

24 NQF credits at HEQSF level 6

**Convener:** Dr S Daya

**Course entry requirements:** For BSc: EGS1003S; For BA or BSocSc: EGS1003S or Social Science Foundation course and two full first year Humanities courses, or equivalent.

#### **Course outline:**

Spatial thinking sits at the core of Geographical scholarship, and space and human societies are always mutually constitutive. This course explores how geographers have theorised space and place as central to understanding historical processes, social relations and cultural practices. Focusing particularly on

Africa and other regions of the global South, the course covers foundational Human Geography concepts such as modernity, landscape, memory, heritage, identity and inclusion. Through theoretical work and field-based experiential learning, we examine how space and place both shape and are shaped by a range of power dynamics.

**Lecture times:** Monday - Friday, 5th period

**DP requirements:** Attendance and satisfactory completion of practical including fieldwork and tutorial assignments; students must attain an average mark of not less than 40% for the coursework.

**Assessment:** Essays, a class test, practical assignments based on compulsory fieldwork and tutorial work count 50%; one 2-hour theory examination written in November counts 50% (subminimum of 40% required).

### **Third-Year Courses**

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#### **EGS3012S** ATMOSPHERIC SCIENCE

36 NQF credits at HEQSF level 7

**Convener:** Associate Professor B J Abiodun

**Course entry requirements:** GEO1009F (or equivalent), EGS2013F (or SEA2004F or SEA2002S or SEA2003F or approved 2000-level Science course), and any 1000-level Physics (or Mathematics) course.

#### **Course outline:**

This course aims to provide a thorough understanding of the physical processes that control the Earth's atmosphere. It covers the following topics: atmospheric energy balance, thermodynamics, dynamics, and general circulation; tropical and mid-latitude weather producing systems; weather and climate extreme events (e.g. heat-waves, drought, and floods) in Africa; climate variability and change; atmospheric boundary layer turbulence, chemistry, and pollution. The lectures are complemented with field measurements and laboratory practicals to demonstrate basic data analysis techniques employed in atmospheric sciences.

**Lecture times:** Monday - Friday, 1st period

**DP requirements:** Satisfactory completion of practicals and all written assignments, including essays, project reports and class tests.

**Assessment:** Essays and tests count 20%; project reports and practicals count 20%; one 3-hour examination in November counts 60% (subminimum of 40% required).

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#### **EGS3021F** SUSTAINABILITY & ENVIRONMENT

*There is a compulsory fieldwork component involving a half-day field excursion.*

36 NQF credits at HEQSF level 7

**Convener:** Associate Professor M Sowman

**Course entry requirements:** EGS2013F, EGS2014S

#### **Course outline:**

The course critically engages with current debates and discourses in the fields of sustainability, vulnerability and environmental management, including examination of key concepts such as integration, systems-thinking, complexity, equity, vulnerability, risk, resilience, adaptation and mitigation. Approaches and methods for analysing environmental problems and integrating risk reduction as well as sustainability principles and practices into policy, programme, plan and project cycle processes are investigated and applied in different contexts.

**Lecture times:** Monday - Friday, 3rd period

**DP requirements:** Attendance and satisfactory completion of practicals (including fieldwork), other assignments and tests; students must attain an average mark of not less than 40% for the coursework.

**Assessment:** Practical reports (including fieldwork), class tests and other assignments count 50%; one 3-hour June examination counts 50% (subminimum of 40% required).

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**EGS3022S** GEOGRAPHIC THOUGHT

36 NQF credits at HEQSF level 7

**Convener:** Dr Zarina Patel

**Course entry requirements:** EGS2014S

**Course outline:**

The course focuses on international debates in classical and contemporary human geography. It considers important thematic areas in the geographical literature, such as development; spatiality; urban, political and feminist geographies. Each thematic area explores specific debates and key author's work in the field, providing students with an introduction to literature, a content overview, and skills to deconstruct and build conceptual and analytical arguments related to evidence drawn from geographical research from around the world, other than South Africa. The course also emphasises academic reading and writing skills taught in the practical sessions.

**Lecture times:** Monday - Friday, 4th period

**DP requirements:** Satisfactory completion of essay assignments and class test; students must attain an average mark of not less than 40% for the coursework

**Assessment:** Essay and other assignments count 50%; one 3-hour written examination in November count 50% (subminimum of 40% required).

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**EGS3023F** ANTHROPOCENE ENVIRONMENTS IN PERSPECTIVE

36 NQF credits at HEQSF level 7

**Convener:** Dr P Anderson

**Course entry requirements:** EGS2013F

**Course outline:**

The course deals with the dynamic physical environment including the human impact on global environments at various spatial and temporal scales during the so-called Anthropocene. The general aim of this course is to illustrate the nature and scale of changes that characterise the earth's environment, against a background of both natural and anthropogenically-induced processes. This provides an important perspective when thinking about contemporary environments and how they might change in the future – with obvious consequences for our own species and that of the others with which we share the planet.

**Lecture times:** Monday - Friday, 5th period

**DP requirements:** Satisfactory completion of practicals and all written assignments, including fieldwork report, essays and class tests. Students must attain an average mark of not less than 40% for the coursework.

**Assessment:** Field report, essays, class tests and practical assignments count 50%; one 3-hour examination written in June count 50% (sub-minimum of 40% required).

## **Postgraduate Courses**

### **Ancillary activities**

In addition to formal courses, students undertaking postgraduate courses are required to participate fully in other departmental activities of an academic nature. Such activities are weekly seminars on environmental topics addressed by persons prominent in their fields, field camps and field exercises away from Cape Town, and study tours to obtain first-hand exposure to environmental problems and their solutions. Graduate students who, in the opinion of the Head of Department, have not had adequate exposure to undergraduate courses with environmental content may also be required to attend specified courses.

### **NQF 8**

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#### **EGS4001W ATMOSPHERIC SCIENCE HONOURS**

*Since the code EGS4001W will not carry a NQF credit value, students will be concurrently registered for EGS4052W (coursework component of 120 NQF credits) and EGS4053W (research project of 40 NQF credits).*

160 NQF credits at HEQSF level 8

**Convener:** Associate Professor B J Abiodun

**Course entry requirements:** As for EGS4004W, with the additional requirement of at least a half-course in Mathematics or a full-course in Physics, as well as a senior undergraduate course in climatology or atmospheric science. Experience with computers is highly recommended.

**Course outline:**

The Atmospheric Science programme provides a 4th year of development for those interested in following a career associated with atmospheric science and climatology, or for progression to research in this area. The focus is on practical skills and the application of theory to the issues related to the climate system. The programme follows the same pattern as EGS4004W, with the constraint that three of four course modules must be from the atmospheric options, and the fourth module from one of the Honours level physical science options in Environmental & Geographical Science or the Oceanography department. Included in the requirements are a research project, two seminar presentations, and course fieldwork. Students will also attend and present at the annual conference of the South African Society for Atmospheric Scientists.

**DP requirements:** Students must pass at least three of their coursework electives, and achieve a composite pass on the coursework. Students must achieve a pass on their research project to proceed to graduation in the degree.

**Assessment:** The examinations will follow the same structure as EGS4004W. Not all course options have formal examinations, and a significant portion of the total coursework mark may be based on set project tasks. Examinations on average count 50% and coursework 50% for each module. The combined module results count 75% and the research project counts 25% of the degree as a whole. Students must pass the project component in order to qualify. These component parts of the course will be combined in a final overall mark which will be reflected against the course code EGS4001W, with PA (pass) entered against the coursework and project codes; each of these components must be passed separately for the award of the degree.

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#### **EGS4004W ENVIRONMENTAL & GEOGRAPHICAL SCIENCE HONOURS**

*Since the code EGS4004W will not carry a NQF credit value, students will be concurrently registered for EGS4054W (coursework component of 120 NQF credits) and EGS4055W (research project of 40 NQF credits). Entrance is limited to 30 students*

160 NQF credits at HEQSF level 8

**Convener:** Associate Professor G Ziervogel

**Course entry requirements:** A BSc degree with a major in Environmental & Geographical Science or related field. Acceptance will be at the discretion of the Head of Department who will consider quality

of final year results, material covered in the undergraduate curriculum, and referee reports. Preference may be given to UCT graduates who meet the course entry requirements.

**Course outline:**

Students complete four advanced semester modules. One of these four modules must be a research methods module. Students complete a research methods course and then select a further three modules from a range of advanced courses in Environmental and Geographical Science that have foundations in one or more of the following areas of study: Human Geography, Environmental Management, Physical Geography. Curricula must be approved by the course convener in consultation with the Head of Department. In addition, each student completes a research project. At the discretion of the Convener, in consultation with the Head of Department, students may take one course from outside the Department (in addition to the methods course) towards the BSc Hons degree in Environmental & Geographical Science.

**DP requirements:** Students must pass at least three of their coursework electives, and achieve a composite pass on the coursework. Students must achieve a pass on their research project to proceed to graduation in the degree.

**Assessment:** Courses will be examined at the end of each semester, and the marks combined with project, essay, fieldwork and seminar presentation marks. Examinations on average count 50% and coursework 50% for each module. The combined module results count 75% and the research project counts 25% of the degree as a whole. Students must pass the project component in order to qualify. These component parts of the course will be combined in a final overall mark which will be reflected against the course code EGS4004W, with PA (pass) entered against the coursework and project codes; each of these components must be passed separately for the award of the degree.

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**EGS4011F/S ENVIRONMENTAL MANAGEMENT**

30 NQF credits at HEQSF level 8

**Convener:** To be advised

**Course entry requirements:** Acceptance for an Honours programme.

**Course outline:**

EGS 4011 introduces students to recent developments in Environmental Management within the context of sustainable development. It provides students with the theoretical and conceptual underpinnings of environmental management, and exposure to tools and methods commonly used in the field including Strategic Environmental Assessment, Environmental Impact Assessment, Environmental Management Systems and corporate sustainability reporting. In addition it includes a number of sessions on understanding bio-physical systems in the context of planning and development.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS4021X RESEARCH PROJECT IN ENVIRONMENTAL AND GEOGRAPHICAL STUDIES (BA HONS STREAM)**

40 NQF credits at HEQSF level 8

**Convener:** Associate Professor G Ziervogel

**Course entry requirements:** Acceptance for Honours specialising in EGS.

**Course outline:**

Students conduct a research project in a topic related to their Environmental Studies under the supervision of a member of the academic staff of the department. The course is examined through the submission of a dissertation.

**DP requirements:** Students must achieve a pass on their research project to pass the year.

**Assessment:** Research project: (5% proposal presentation; 5% proposal submission; 10% final project presentation; 80% final project submission).

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**EGS4023F/S RESEARCH METHODS FOR NATURAL SCIENTISTS**

30 NQF credits at HEQSF level 8

**Convener:** Associate Professor B J Abiodun

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The course has a dual purpose. Firstly, a series of weekly lectures and hands-on practical seminars on the nuts and bolts of quantitative analysis. The analysis techniques investigated are (mostly) the fundamental methods found commonly in the literature; viz: Classification, time series analysis, EOF/PCA, non-linear analysis. In parallel to this are a series of seminars on "the Philosophy of Science" addressing issues of values, perception, the science community, etc.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS4024F/S MANAGING COMPLEX HUMAN ECOLOGICAL SYSTEMS**

30 NQF credits at HEQSF level 8

**Convener:** Associate Professor M Sowman

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Increasingly scholars have recognised that many of our environmental problems are complex systems problems that require an understanding of natural, socio-economic and governance systems as well as the interactions that occur between them. Furthermore, research suggests that conventional approaches to managing environmental problems are not moving us in sustainable directions and hence the call for innovative and alternative approaches to managing these complex systems. EGS 5024F introduces graduate students to important theoretical, methodological and ethical foundations of environmental and coastal management. The module introduces systems thinking and complexity theory and explores tools and governance frameworks for managing complex human-ecological systems. These concepts and theoretical ideas are then applied to cases in the coastal and small-scale fisheries arena.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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**EGS4030F/S CLIMATE MODELLING**

30 NQF credits at HEQSF level 8

**Convener:** Associate Professor B J Abiodun

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

An introduction into the development and application of climate models for exploring climate dynamics, forecasting, and climate change. The course explores the inner working of climate models, the use in operational seasonal forecasting in Africa (with hands on work with the current forecasts), and actual running model experiments. Students are expected to have done EGS3012S or its equivalent.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS4034F/S INTERROGATING SOUTHERN AFRICAN LANDSCAPES**

*NB: enrolment to this course is by invitation only*

30 NQF credits at HEQSF level 8

**Convener:** Dr S Daya and Professor M Meadows

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Globalization is a complex of processes influencing the interplay between environment and development. These processes manifest themselves in diverse ways, but southern Africa, with its diversity of natural environment settings and range of human development characteristics, represents an ideal laboratory in which to study this interplay. The course is founded on an understanding of relevant theory and its application to a number of case studies including, inter alia, the political, economic, social, cultural and biophysical background to globalization in the region, conservation and its impacts on local communities; environmental degradation; agriculture and globalization; urban development and nature conservation. These case studies are illustrated in relation to both the relevant literature and to direct experience through fieldwork.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 65%; examination 35%.

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### **EGS4038F/S CLIMATE CHANGE AND PREDICTABILITY**

30 NQF credits at HEQSF level 8

**Convener:** Professor B Hewitson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The course explores the theory of climate change, and then goes into the question of predictability, cross scale relationships and feedbacks in the climate system, the tools and techniques of prediction, and translation of predictions into the user community including impacts and vulnerability analyses and touching on the social dimension.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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### **EGS4039F/S URBAN FOOD SECURITY**

30 NQF credits at HEQSF level 8

**Convener:** Dr J Battersby-Lennard and Dr G Haysom

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Topics include an overview of poverty and urbanization in Southern Africa; urban food security, methods and issues; urban poverty and vulnerability debates; food security and HIV/AIDS; managing urban food systems (ecological, regulatory and fiscal dynamics).

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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### **EGS4040F/S SPECIAL TOPIC IN HUMAN/ENVIRONMENT INTERACTIONS**

30 NQF credits at HEQSF level 8

**Convener:** Dr P Anderson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Issues and themes in contemporary aspects of the Human/ Environmental interface will be covered. Specific attention will be given to profiling core debates in a specialist field of human or environmental geography. The course will focus on using theory, but will encourage the use of case studies. Course outcomes will emphasize the development of conceptual and analytical skills.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework

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**EGS4041F/S APPROACHES AND ISSUES IN PHYSICAL AND ENVIRONMENTAL SCIENCES**  
30 NQF credits at HEQSF level 8

**Convener:** Dr P Anderson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Issues and themes in contemporary aspects of the Physical/ Environmental interface will be covered. Specific attention will be given to profiling core debates in a specialist field of physical or environmental geography. The course will cover theoretical, empirical and methodological concerns and will include a fieldwork component.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS4044F/S URBAN ECOLOGY**  
30 NQF credits at HEQSF level 8

**Convener:** Dr P Anderson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The aim of this module is to introduce students to both the theory and practice of urban ecology. Students will be expected to engage critically with current theories and debates as presented in the urban ecology literature. In addition to this, there will be a significant focus on practical methods and skills. Students will be expected to interrogate the urban landscape, identify and pose relevant ecological questions, and design and implement appropriate methods to answer these ecological questions. Broad theoretical areas to be engaged in, all in the context of the city, include: biogeography, alien invasion, landscape fragmentation, conservation, restoration, ecosystem services, and social ecology.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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**EGS4045F/S GEOMORPHOLOGY**  
30 NQF credits at HEQSF level 8

**Convener:** Associate Professor F Eckardt

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The aim of this course is to introduce students to the theory of geomorphological systems and apply this to an area or topic of their choice. The course is particularly targeted at Honours students who have selected physical geography topics for their dissertation. It gives them the opportunity to deepen some of their geomorphological literature relevant to their chosen project. Students are expected to interpret landscapes, identify formative processes and events, examine environmental changes at different spatial and temporal scales, place their area of study into the geological, Quaternary, climatic and applied context in order to appreciate geomorphologic concepts such as systems approach, complexity, relationships, feedbacks, thresholds, equilibrium and cycles.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS4046F/S WATER RESOURCES**  
30 NQF credits at HEQSF level 8

**Convener:** Dr K Winter

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The aim of the module is to develop a comprehensive understanding of contemporary global and African water resource research and management at an urban and catchment scale, with application to the South African context. As societies place increasing pressure on scarce water resources, the challenge is to develop new thinking to meet the demand for clean, potable water and to reuse water that is fit for a variety of other purposes such as irrigation, industry and households. The course explores how future solutions to global water crises will require a new understanding of complex biophysical and socio-economic systems along with an integrated understanding of theory and practice in water resource science and management. Key themes in the course include new techniques and technologies in water quality and monitoring; statistical analysis of water data; modelling water balances in a selected catchment; and the use of nature-based approaches to water treatment at a research site; and support for water sensitive city planning and development. These and other themes will be discussed in interactive seminar sessions, assignment and applications. The course includes a three week directed reading component, a 2-day field camp and a challenging modelling exercise.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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### **EGS4047F/S POLICY AND GOVERNANCE**

30 NQF credits at HEQSF level 8

**Convener:** Dr Z Patel

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

This course looks at the underlying dynamics involved in the negotiation of environmental policy and its implementation. The assumption here is that unsustainable outcomes are not a result of a lack of will or intention, but rather due to vastly varying values, knowledge and data that are brought to bear on decision making for the environment. The approach of this course is to challenge the 'cultural embeddedness' of policy ie. it critiques the cultural processes underlying environmental policy. A deeper understanding of the cultural politics of environmental policy and practice will deal with the processes through which institutions define and mediate policy outcomes; governance arrangements for sustainable development; the roles of power, rationality, knowledge and values in achieving environmental and social justice.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 30%.

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### **EGS4056F/S IMAGINING SOUTHERN CITIES**

30 NQF credits at HEQSF level 8

**Convener:** Dr S Daya

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The global South is urbanising at roughly twice the rate of the global North, yet dominant narratives of 'the city' continue to privilege London, Los Angeles and Paris over Lagos, Johannesburg and Mumbai. This course explores how cities of the global South are generating new bodies of theory, new forms of social life, and new imaginaries. It does this through novels, films and other textual and visual representations of everyday urbanism, drawing on contemporary theory from the global South to help make sense of these discourses. Situated in the rapidly evolving field of Urban Studies, the course aims to open up conversations across disciplines about the cities we are in and the cities we desire. Students will be expected to read set texts, both fictional and theoretical, and watch set films, in preparation for classes which will take the form of weekly, student-led seminars.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS4057F/S URBAN POLITICAL ECOLOGY**

30 NQF credits at HEQSF level 8

**Convener:** Dr S Scheba

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

This course explores urbanisation dynamics with a particular interest in examining the role of political economic shifts, history, discourse, and new forms of techno-management in shaping the contemporary urban environment. It does this through drawing on urban political ecology as an interdisciplinary field of study, that provides insights into the power relations underlying unequal access to urban space, resources and infrastructure. Situated in this rapidly evolving field of Urban Studies, the course aims to open up conversations about the dynamics underlying unequal access to cities as well as the possibilities that could support more just and equitable cities. Students will be expected to read set texts, both empirical and theoretical, in preparation for classes, which take the form of weekly, student-led seminars.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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**EGS4058F/S CRITICAL PERSPECTIVES ON THE BIO-ECONOMY**

30 NQF credits at HEQSF level 8

**Convener:** Associate Professor R Wynberg

**Course entry requirements:** BA/BSc degree

**Course outline:**

Located at the interface of fast-changing genetic and information technologies, and the juncture of a range of social, environmental and ethical concerns, the so-called bio-economy has changed ways in which biodiversity is used, conserved and commercialised. Although often touted as a panacea for energy crises, livelihoods, environmental remediation and food security, critical questions have been raised about who stands to benefit, the involvement of local communities, and economic and political drivers behind the bio-economy "push". Using a political ecology framing, this interdisciplinary course aims to introduce key theories that situate the bioeconomy and to deepen understandings about the nature of emerging debates. These range from contestations about genetically modified crops, and 'biopiracy' charges of patenting biodiversity and traditional knowledge, through to the potential of agroecology as an alternative agricultural future. The course aims to deepen critical thinking around these questions, and to inspire a scholarship that explores possibilities for socially just and environmentally sustainable approaches, with a particular focus on the Global South. The course involves both theory and practice, drawing on research mostly from Sub-Saharan Africa. Students will be expected to read set texts, to watch set videos, and to prepare seminars. The course includes a short fieldtrip.

**DP requirements:** At least 80% attendance and submission of all assignments

**Assessment:** 1 exam - 40%, 1 essay (3000-4000 words) - 30%, 1 seminar presentation - 15%, 1 critique (response to a particular article, policy or media piece) - 15%. NOTE: The assessment process for Honours and Masters differs in the following ways: 1. Entirely different exams will be set for each level. Both exams will comprise six questions of which students must answer three. The exams will differ in that the Honours exam will test knowledge and understanding of the subject matter, while the Masters exam will test both knowledge and understanding of the subject matter, as well as advanced theoretical concepts and the practical application of these concepts. Both exams will be three hours in duration but the length of responses for each question will vary between the two levels, with a reduced word count for Honours. 2. For the essay, topics will differ and the Honours essay will have a reduced word count and a less theoretical emphasis than that for Masters. The Masters essay will also require students to apply theoretical concepts to practical situations. 3. For seminar presentations, Honours students will be required to read 4-6 journal articles, while the requirement for Masters students will be 6-10 readings. 4. The critique will require Honours students to respond based only on the literature,

while Masters students will be required to also engage with the practical implications of their critique and present opportunities for using it as public intellectuals.

## **NQF 9**

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**EGS5000W** ENVIRONMENTAL & GEOGRAPHICAL SCIENCE DISSERTATION  
180 NQF credits at HEQSF level 9

**Convener:** Dr S Daya

### **Course outline:**

This course consists of an investigation of an approved topic chosen for intensive study by the candidate (student), culminating in the submission of a dissertation. The dissertation shall demonstrate the successful completion of a programme of training in research methods, a thorough understanding of the scientific principles underlying the research and an appropriate acquaintance with the relevant literature. It must be clearly presented and conform to the standards of the department and faculty. The dissertation will usually consist of a report detailing the conduct, and analysis of the results of, research performed under the close guidance of a suitably qualified supervisor/s. The dissertation should be well-conceived and acknowledge earlier research in the field. It should demonstrate the ability to undertake a substantial and informed piece of research, and to collect, organise and analyse material. General rules for this degree may be found in the front of the handbook.

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**EGS5003W** ENVIRONMENTAL & GEOGRAPHICAL SCIENCE DISSERTATION  
180 NQF credits at HEQSF level 9

**Convener:** Dr S Daya

### **Course outline:**

This course consists of an investigation of an approved topic chosen for intensive study by the candidate (student), culminating in the submission of a dissertation. The dissertation shall demonstrate the successful completion of a programme of training in research methods, a thorough understanding of the scientific principles underlying the research and an appropriate acquaintance with the relevant literature. It must be clearly presented and conform to the standards of the department and faculty. The dissertation will usually consist of a report detailing the conduct, and analysis of the results of, research performed under the close guidance of a suitably qualified supervisor/s. The dissertation should be well-conceived and acknowledge earlier research in the field. It should demonstrate the ability to undertake a substantial and informed piece of research, and to collect, organise and analyse material. General rules for this degree may be found in the front of the handbook.

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**EGS5008H** ENVIRONMENT, SOCIETY & SUSTAINABILITY COURSEWORK  
*Entrance is limited to 12 students*

90 NQF credits at HEQSF level 9

**Convener:** Dr P Mbatha

**Course entry requirements:** An Honours degree (or equivalent). In special circumstances graduates who have shown by examination, or publication, or a record of appropriate training, that they have reached a level equivalent to an Honours degree may be considered. Since there is a limit of 12 places in this course, admission is competitive. Selection will be at the discretion of the Head of the

Department, based on quality of qualification, experiential learning and/or referee reports. For further details refer to the departmental website - see [www.egs.uct.ac.za](http://www.egs.uct.ac.za).

**Course outline:**

This interdisciplinary course is designed for students with diverse backgrounds who have an interest in the issues pertaining to the environment, society and sustainability. This course contributes half of the total credits for a Master's qualification which can be awarded as an MSc or MPhil, depending on the academic background of the student. The coursework component starts with registration in January. Students select four coursework modules in, for example, Theory & Practice of Environmental Management, Capital Politics & Nature, Geography of Development & Environment, Living with Environmental Change, Urban Food Security, Cultural Geographies, Managing Complex Human-Ecological Systems, or Geomorphology. Upon successful completion of the coursework component, students will be required to register for the minor dissertation component (EGS5009W) in the second semester of the first year.

**Assessment:** Assessment for the coursework modules includes both written examinations and coursework assignments such as essays, projects, practical assignments, etc. Examinations on average count 50% and coursework 50% for each module. The combined module results will be reflected as a final coursework result.

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**EGS5009W ENVIRONMENT, SOCIETY & SUSTAINABILITY MINOR DISSERTATION**  
90 NQF credits at HEQSF level 9

**Convener:** Dr P Mbatha

**Course entry requirements:** EGS5008H

**Course outline:**

Students will be required to register for this course in the second semester of the first year and complete a suitable research proposal in consultation with an appropriate supervisor. After approval of the proposal, students will undertake a research project demonstrating the application of theory to practical issues in the research area of environment, society and sustainability. The work must be submitted in the form of a minor dissertation early in the second year.

**Assessment:** The minor dissertation must be presented for formal examination. The coursework and minor dissertation each count 50% towards the degree; each must be passed separately for the award of the degree.

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**EGS5011F/S ENVIRONMENTAL MANAGEMENT**  
23 NQF credits at HEQSF level 9

**Convener:** To be advised

**Course outline:**

EGS 5011 introduces students to recent developments in Environmental Management within the context of sustainable development. It provides students with the theoretical and conceptual underpinnings of environmental management, and exposure to tools and methods commonly used in the field including Strategic Environmental Assessment, Environmental Impact Assessment, Environmental Management Systems and corporate sustainability reporting. In addition it includes a number of sessions on understanding bio-physical systems in the context of planning and development. At this NQF 9 level students will be expected to answer a longer exam paper and express more advanced philosophical and theoretical responses in the examination.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS5012W CLIMATE CHANGE AND PREDICTABILITY COURSEWORK**

*This course is convened by UCT's African Climate & Development Initiative; refer to the section "Inter-faculty Units" later in this handbook. The code EGS5012W represents the overall coursework component; the overall coursework result will be reflected against this code. There are a range of possible minor dissertation codes, depending on the discipline in which the student chooses to register for the research component.*

0 NQF credits at HEQSF level 9

**Convener:** Dr M Norton

**Course entry requirements:** A relevant Honours degree (or equivalent). Students with backgrounds in scientific, planning, engineering, economic, educational, social and legal disciplines are encouraged to apply.

**Course outline:**

This full time taught Master's course (MSc or MPhil) is offered over 13 months, beginning in January. It provides interdisciplinary training in climate change and sustainable development, with a focus on the issues of relevance to African development. The course is designed for both recent graduates as well as those with several years' experience and who wish to gain a broad understanding of the issues involved in climate change and sustainable development from an African and developing world perspective. The curriculum comprises two compulsory core courses, EGS5031F: Introduction to Climate Change & Sustainable Development and EGS5032F: Climate Change Adaptation & Mitigation (details of these courses are presented later in this section). In addition, students will choose at least two elective courses, chosen from a range of courses which offer the student the opportunity to explore new areas, or look at climate and development through existing disciplinary backgrounds. A partial list and details of these courses are available from the ACDI handbook.

**Assessment:** To qualify for the Master's degree, students must pass all coursework with a subminimum of 33% for each core or elective course module; an aggregate coursework mark of 50% is required. A composite grade of the performance on the coursework component as a whole will be reflected against the assessment course EGS5012W. The choice of project for the minor dissertation will be determined by prior qualification. Students may register for a minor dissertation in a range of Departments across the University, including Biological Sciences, Environmental & Geographical Science, Geological Sciences, Chemical Engineering, Mechanical Engineering, Economics, Sociology, Law [Refer to relevant Faculty Handbooks]. Minor Dissertation options in the Science Faculty.

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**EGS5023F/S RESEARCH METHODS FOR NATURAL SCIENTISTS**

23 NQF credits at HEQSF level 9

**Convener:** Associate Professor B J Abiodun

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The course has a dual purpose. Firstly, a series of weekly lectures and hands-on practical seminars on the nuts and bolts of quantitative analysis. The analysis techniques investigated are (mostly) the fundamental methods found commonly in the literature; viz: Classification, time series analysis, EOF/PCA, non-linear analysis. In parallel to this are a series of seminars on "the Philosophy of Science" addressing issues of values, perception, the science community, etc. At the NQF level 9 students will do an additional grand challenge submission for their portfolio which will entail the development of an independent research question, aim and methods, and the application of these methods in carrying out the research.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS5023H** SENIOR RESEARCH PROJECT IN ENVIRONMENTAL & GEOGRAPHICAL STUDIES (MA)

90 NQF credits at HEQSF level 9

**Convener:** To be advised

**Course outline:**

The minor dissertation is based on a three- to six-month supervised research project, to be submitted at the end of January, with the possibility of extension to June the following year.

**Assessment:** The minor dissertation must be presented for formal examination. The coursework and minor dissertation each count 50% towards the degree; each must be passed separately for the award of the degree.

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**EGS5024F/S** MANAGING COMPLEX HUMAN ECOLOGICAL SYSTEMS

23 NQF credits at HEQSF level 9

**Convener:** Associate Professor M Sowman

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Increasingly scholars have recognised that many of our environmental problems are complex systems problems that require an understanding of natural, socio-economic and governance systems as well as the interactions that occur between them. Furthermore, research suggests that conventional approaches to managing environmental problems are not moving us in sustainable directions and hence the call for innovative and alternative approaches to managing these complex systems. EGS 5024F introduces graduate students to important theoretical, methodological and ethical foundations of environmental and coastal management. The module introduces systems thinking and complexity theory and explores tools and governance frameworks for managing complex human-ecological systems. These concepts and theoretical ideas are then applied to cases in the coastal and small-scale fisheries arena. At the NQF 9 level students will prepare an additional grand challenge. These students will be required to review an interdisciplinary academic paper and present a seminar to the class, and written review, providing a critique of this paper.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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**EGS5029H** CLIMATE CHANGE MINOR DISSERTATION

90 NQF credits at HEQSF level 9

**Convener:** Dr M Norton

**Course entry requirements:** EGS5012W

**Course outline:**

The minor dissertation is based on a three- to six-month supervised research project, to be submitted at the end of January, with the possibility of extension to June the following year.

**Assessment:** The minor dissertation must be presented for formal examination. The coursework and minor dissertation each count 50% towards the degree; each must be passed separately for the award of the degree.

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**EGS5030F/S** CLIMATE MODELLING

23 NQF credits at HEQSF level 9

**Convener:** Associate Professor B J Abiodun

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

An introduction into the development and application of climate models for exploring climate dynamics, forecasting, and climate change. The course explores the inner working of climate models, the use in operational seasonal forecasting in Africa (with hands on work with the current forecasts), and actual running model experiments. Students are expected to have done EGS3012S or its equivalent. At the NQF level 9 students will do an additional grand challenge submission for their portfolio which will entail the development of an independent research question, aim and methods, and the application of these methods in carrying out the research.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS5031F INTRODUCTION TO CLIMATE CHANGE & SUSTAINABLE DEVELOPMENT**

23 NQF credits at HEQSF level 9

**Convener:** Dr M Norton

**Course entry requirements:** Acceptance for EGS5012W or by permission of the convener

**Course outline:**

This course provides a broad, integrated, knowledge on key issues in climate change and sustainable development, making students conversant across the spectrum of climate change issues and history. Topics covered include: sustainable development; the climate system, anthropogenic forcing and climate system response; African climate variability and change; international climate change legal frameworks, negotiations, and politics; the economics of climate change and climate change financing; the concept of climate compatible development. The course is lecture, seminar and group-work based. Each section of the course will involve basic framing lectures, supported by either an essay exercise or a group work exercise and seminar.

**Assessment:** Three essays count 20% each; one group-based student project counts 10%; one 3-hour examination counts 30%.

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**EGS5032F/S CLIMATE CHANGE ADAPTATION & MITIGATION**

23 NQF credits at HEQSF level 9

**Convener:** Dr M Norton

**Course entry requirements:** Acceptance for EGS5012W or by permission of the convener

**Course outline:**

This course provides in depth coverage of (i) adaptation and (ii) mitigation from both a theoretical and practical/applied point of view. Adaptation and mitigation are the two key domains of academic and applied learning required for students to be qualified to undertake research and be employable in the climate change arena in the South African and developing country context. The issues are explored from a developing country, climate compatible perspective.

**Assessment:** Four essays count 20% each; one 2 hour examination counts 20%.

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**EGS5038F/S CLIMATE CHANGE & PREDICTABILITY**

23 NQF credits at HEQSF level 9

**Convener:** Professor B Hewitson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The course explores the theory of climate change, and then goes into the question of predictability, cross scale relationships and feedbacks in the climate system, the tools and techniques of prediction, and translation of predictions into the user community including impacts and vulnerability analyses and touching on the social dimension. At the NQF 9 level students will be expected to compose reports with

a higher word count, at a higher intellectual level and with an expectation of a more comprehensive understanding of the pertinent literature. Students at this level will be expected to display a greater commitment and engagement in the oral components of the course.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS5039F/S URBAN FOOD SECURITY**

23 NQF credits at HEQSF level 9

**Convener:** Dr J Battersby-Lennard and Dr G Haysom

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Topics include an overview of poverty and urbanization in Southern Africa; urban food security, methods and issues; urban poverty and vulnerability debates; food security and HIV/AIDS; managing urban food systems (ecological, regulatory and fiscal dynamics). At the NQF 9 level students will be expected to conduct a small piece of independent fieldwork which will inform their extended essay for the course. In this essay all students are expected to engage a current debate on food security or food systems studies. For students at the NQF 9 level they will use a real world case study to critically engage the theoretical literature. These students will be assessed on their ability to interpret the data and use data to critically engage theory.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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**EGS5040F/S SPECIAL TOPIC IN HUMAN/ENVIRONMENT INTERACTIONS**

23 NQF credits at HEQSF level 9

**Convener:** Dr P Anderson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Issues and themes in contemporary aspects of the Human/ Environmental interface will be covered. Specific attention will be given to profiling core debates in a specialist field of human or environmental geography. The course will focus on using theory, but will encourage the use of case studies. Course outcomes will emphasize the development of conceptual and analytical skills. At the NQF 9 level there is a strong emphasis on the development of analytical skills and students are expected to apply these skills in the context of an appropriate theory, to a case study of their own specialist field of human or environmental geography.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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**EGS5041F/S APPROACHES AND ISSUES IN PHYSICAL AND ENVIRONMENTAL SCIENCES**

23 NQF credits at HEQSF level 9

**Convener:** Dr P Anderson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

Issues and themes in contemporary aspects of the Physical/ Environmental interface will be covered. Specific attention will be given to profiling core debates in a specialist field of physical or environmental geography. The course will cover theoretical, empirical and methodological concerns

and will include a fieldwork component. NQF 9 level there is a strong emphasis on the development of analytical skills and students are expected to apply these skills in the context of an appropriate theory, to a case study of their own specialist field of physical geography.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** 100% Coursework.

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### **EGS5044F/S URBAN ECOLOGY**

23 NQF credits at HEQSF level 9

**Convener:** Dr P Anderson

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The aim of this module is to introduce students to both the theory and practice of urban ecology. Students will be expected to engage critically with current theories and debates as presented in the urban ecology literature. In addition to this, there will be a significant focus on practical methods and skills. Students will be expected to interrogate the urban landscape, identify and pose relevant ecological questions, and design and implement appropriate methods to answer these ecological questions. Broad theoretical areas to be engaged in, all in the context of the city, include: biogeography, alien invasion, landscape fragmentation, conservation, restoration, ecosystem services, and social ecology. At the NQF 9 level students will be expected to apply theoretical considerations in engaging in questions that speak to more than one area of urban ecology, for example speaking simultaneously to urban design and climate change. This expectation will be assessed in both the class essay and in the exam. At the NQF 9 level their ability to simultaneously apply theoretical considerations across different areas of urban ecology will be assessed throughout the course.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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### **EGS5045F/S GEOMORPHOLOGY**

23 NQF credits at HEQSF level 9

**Convener:** Associate Professor F Eckardt

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The aim of this course is to introduce students to the theory of geomorphological systems and apply this to an area or topic of their choice. The course is particularly targeted at Honours students who have selected physical geography topics for their dissertation. It gives them the opportunity to deepen some of their geomorphological literature relevant to their chosen project. Students are expected to interpret landscapes, identify formative processes and events, examine environmental changes at different spatial and temporal scales, place their area of study into the geological, Quaternary, climatic and applied context in order to appreciate geomorphologic concepts such as systems approach, complexity, relationships, feedbacks, thresholds, equilibrium and cycles.

At the NQF 9 level students will be expected to back their literature review with data analyses including climatic or hydrological in nature and may also consider the application of GIS data and use Remote Sensing. At the NQF 9 level converting and preparing elements of course content towards the use for a publication would be expected.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS5046F/S WATER RESOURCES**

23 NQF credits at HEQSF level 9

**Convener:** Dr K Winter

**Course entry requirements:** Acceptance for honours or master's specialising in EGS.

**Course outline:**

The aim of the module is to develop a comprehensive understanding of contemporary global and African water resource research and management at an urban and catchment scale, with application to the South African context. As societies place increasing pressure on scarce water resources, the challenge is to develop new thinking to meet the demand for clean, potable water and to reuse water that is fit for a variety of other purposes such as irrigation, industry and households. The course explores how future solutions to global water crises will require a new understanding of complex biophysical and socio-economic systems along with an integrated understanding of theory and practice in water resource science and management. Key themes in the course include new techniques and technologies in water quality and monitoring; statistical analysis of water data; modelling water balances in a selected catchment; and the use of nature-based approaches to water treatment at a research site; and support for water sensitive city planning and development. These and other themes will be discussed in interactive seminar sessions, assignment and applications. The course includes a three week directed reading component, a 2-day field camp and a challenging modelling exercise. At the NQF 9 level students are required to complete an additional assignment that comprises a literature review on a topic of their choice. Furthermore, students at this level are required to prepare, manage and lead a course discussion. NQF 9 level students will receive a separate exam paper to those at the NQF 8 level. **DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS5047F/S POLICY AND GOVERNANCE**

23 NQF credits at HEQSF level 9

**Convener:** Dr Z Patel

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

This course looks at the underlying dynamics involved in the negotiation of environmental policy and its implementation. The assumption here is that unsustainable outcomes are not a result of a lack of will or intention, but rather due to vastly varying values, knowledge and data that are brought to bear on decision making for the environment. The approach of this course is to challenge the 'cultural embeddedness' of policy ie. it critiques the cultural processes underlying environmental policy. A deeper understanding of the cultural politics of environmental policy and practice will deal with the processes through which institutions define and mediate policy outcomes; governance arrangements for sustainable development; the roles of power, rationality, knowledge and values in achieving environmental and social justice. At the NQF 9 level students will be expected to apply theory to appropriate areas of application in the realm of urban environmental policy. Masters level students will be assigned two presentations and subsequent written submissions, with an emphasis on the application of theoretical considerations. The extended policy analysis assignment will contain additional analytical variables to ensure a higher level of analysis.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 60%; examination 40%.

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**EGS5052W APPLIED OCEAN SCIENCES MINOR DISSERTATION**

90 NQF credits at HEQSF level 9

**Convener:** Associate Professor M Vichi and Dr C Reed

**Course entry requirements:** A relevant Honours degree (or equivalent). Students with backgrounds in scientific and engineering disciplines are encouraged to apply.

**Co-requisites:** BIO5012W, BIO5013F, BIO5014F/SEA5011F

**Course outline:**

The minor dissertation, which forms 50% of the overall degree, is based on a six-month supervised research project. The choice of project will be determined by the student's prior qualification and in agreement with the course conveners and supervisors. The dissertation should be submitted at the end of January, with the possibility of extension to June of the next year.

**Assessment:** The minor dissertation must be presented for formal examination. The coursework and minor dissertation each count 50% towards the degree; each must be passed separately for the award of the degree.

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**EGS5056F/S IMAGINING SOUTHERN CITIES**

23 NQF credits at HEQSF level 9

**Convener:** Dr S Daya

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

The global South is urbanising at roughly twice the rate of the global North, yet dominant narratives of 'the city' continue to privilege London, Los Angeles and Paris over Lagos, Johannesburg and Mumbai. This course explores how cities of the global South are generating new bodies of theory, new forms of social life, and new imaginaries. It does this through novels, films and other textual and visual representations of everyday urbanism, drawing on contemporary theory from the global South to help make sense of these discourses. Situated in the rapidly evolving field of Urban Studies, the course aims to open up conversations across disciplines about the cities we are in and the cities we desire. Students will be expected to read set texts, both fictional and theoretical, and watch set films, in preparation for classes which will take the form of weekly, student-led seminars.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 50%; examination 50%.

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**EGS5057F/S URBAN POLITICAL ECOLOGY**

23 NQF credits at HEQSF level 9

**Convener:** Dr S Scheba

**Course entry requirements:** Acceptance for Honours or Master's specialising in EGS.

**Course outline:**

This course explores urbanisation dynamics with a particular interest in examining the role of political economic shifts, history, discourse, and new forms of techno-management in shaping the contemporary urban environment. It does this through drawing on urban political ecology as an interdisciplinary field of study, that provides insights into the power relations underlying unequal access to urban space,

resources and infrastructure. Situated in this rapidly evolving field of Urban Studies, the course aims to open up conversations about the dynamics underlying unequal access to cities as well as the possibilities that could support more just and equitable cities. Students will be expected to read set texts, both empirical and theoretical, in preparation for classes, which take the form of weekly, student-led seminars.

**DP requirements:** At least 80% attendance record and submission of all assignments.

**Assessment:** Assignments 70%; examination 30%.

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**EGS5058F/S CRITICAL PERSPECTIVES ON THE BIO-ECONOMY**  
23 NQF credits at HEQSF level 9

**Convener:** Associate Professor R Wynberg

**Course entry requirements:** BA/BSc degree

**Course outline:**

Located at the interface of fast-changing genetic and information technologies, and the juncture of a range of social, environmental and ethical concerns, the so-called bio-economy has changed fundamentally ways in which biodiversity is used, conserved and commercialised. Although often touted as a panacea for energy crises, livelihoods, environmental remediation and food security, critical questions have been raised about who stands to benefit, the involvement of local communities, and economic and political drivers behind the bio-economy "push". Using a political ecology framing, this interdisciplinary course aims to introduce key theories that situate the bio-economy and to deepen understandings about the nature of emerging debates. These range from contestations about genetically modified crops, and 'biopiracy' charges of patenting biodiversity and traditional knowledge, through to the potential of agroecology as an alternative agricultural future. The course aims to deepen critical thinking around these questions, and to inspire a scholarship that explores possibilities for socially just and environmentally sustainable approaches, with a particular focus on the Global South. The course involves both theory and practice, drawing on research mostly from Sub-Saharan Africa. Students will be expected to read set texts, to watch set videos, and to prepare seminars. The course includes a short fieldtrip.

**DP requirements:** At least 80% attendance and submission of all assignments

**Assessment:** 1 exam - 40%, 1 essay (4000-5000 words) - 30%, 1 seminar presentation - 15%, 1 critique (response to a particular article, policy or media piece) - 15%. NOTE: The assessment process for Honours and Masters differs in the following ways: 1. Entirely different exam questions will be set for each level. Both exams will provide six questions of which students must answer three. The exams will differ in that the Honours exam will test understanding and knowledge of the subject matter, while the Masters exam will test both knowledge and understanding of the subject matter, as well as advanced theoretical concepts and the practical application of these concepts. Both exams will be three hours in duration but the length of response for each question will vary between the two levels, with a reduced word count for Honours. 2. For the essay, topics will differ and the Honours essay will have a reduced word count and a less theoretical emphasis than that for Masters. The Masters essay will also require students to apply theoretical concepts to practical situations. 3. For seminar presentations, Honours students will be required to read 4-6 journal articles, while the requirement for Masters students will be 6-10 readings. 4. The critique will require Honours students to respond based only on the literature, while Masters students will be required to also engage with the practical implications of their critique and present opportunities for using it as public intellectuals.

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**EGS5060W URBAN STUDIES COURSEWORK**

0 NQF credits at HEQSF level 9

**Convener:** Dr A Selmeczi

**Course outline:**

This full time taught Masters course (MPhil) is offered over 24 months, beginning in February. It provides interdisciplinary training in urban studies, with a focus on the issues of relevance to African and global southern city contexts. The course is designed for both recent graduates as well as those with several years' experience and who wish to gain a broad understanding of debates in urban studies from an African and developing world perspective. The curriculum comprises three compulsory core courses, The City Research Studio and two of the following courses: Urban Theory, The Urban Everyday and The Arts of Space. In addition, students will choose a minimum of 23 credits of elective courses chosen from an approved list of electives which offer the student the opportunity to explore urban studies through existing disciplinary and thematic approaches. Details of these courses are available from the Urban Studies Masters handbook.

**DP requirements:** The three required courses must be passed to proceed to the dissertation component of the Masters of Philosophy.

**Assessment:** The minor dissertation must be presented for formal examination. Upon successful completion of the coursework component, students will be required to register for the minor dissertation component (EGS5061W) in the second semester of the first year.

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**EGS5061W URBAN STUDIES MINOR DISSERTATION**

90 NQF credits at HEQSF level 9

**Convener:** Dr A Selmeczi

**Course outline:**

The Masters in Southern Urbanism (an MPhil specialising in Urban Studies) is designed for students who have completed four-year bachelor degrees, as well as students with existing Masters degrees, in specific disciplines. The programme has been designed to provide a rigorous theoretical as well as methodological foundation in interdisciplinary urban studies. It is intended as a bridgehead into PhD-level research, producing skilled researchers able to conduct compelling doctoral research. The MPhil curriculum combines Coursework (50%) and a minor dissertation (50%), a full-time load completed over a period of 18 months.

**Assessment:** The minor dissertation must be presented for formal examination. The coursework and minor dissertation each count 50% towards the degree; each must be passed separately for the award of the degree.

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**EGS5062F THE URBAN EVERYDAY**

23 NQF credits at HEQSF level 9

**Convener:** Professor S Oldfield

**Co-requisites:** The City Research Studio (APG5090W); and, either Urban Theory (EGS5063F) or The Arts of Space (APG5089S).

**Course outline:**

Cities in the African and broader global southern context have come to the fore as crucial sites for the analysis of everyday forms of agency central to contemporary urban life. This body of work makes visible economic, political and social practices that far exceed formal state-driven and sanctioned development processes. This seminar course draws on a social science and humanities inspired literature on southern cities to reflect on everyday urban practice and diverse subjectivities and agencies that constitute contemporary everyday African and southern city life.

**DP requirements:** Written coursework.

**Assessment:** Three 'reaction' papers to engage literature and field-based work (30%); long paper (40%); course participation and seminar presentation (10%); weekly journal reflecting on literature and new learning (20%)

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### **EGS5063F URBAN THEORY**

23 NQF credits at HEQSF level 9

**Convener:** Professor E Pieterse

**Co-requisites:** The City Research Studio (APG5090W); and, either Everyday Perspectives on the Urban (EGS5062F) or The Arts of Space (APG5089S).

**Course outline:**

Cities in the African and broader global southern context have come to the fore as crucial sites for the analysis of everyday forms of agency central to contemporary urban life. This body of work makes visible economic, political and social practices that far exceed formal state-driven and sanctioned development processes. This seminar course draws on a social science and humanities inspired literature on southern cities to reflect on everyday urban practice and diverse subjectivities and agencies that constitute contemporary everyday African and southern city life.

**DP requirements:** Written coursework and participation.

**Assessment:** Three 'reaction' papers to engage literature and field-based work (30%); long paper (40%); course participation and seminar presentation (10%); weekly journal reflecting on literature and new learning (20%)

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### **EGS5064W THEORIES OF JUSTICE & INEQUALITY MINOR DISSERTATION**

90 NQF credits at HEQSF level 9

**Convener:** Dr S Daya

**Course outline:**

Students will complete a suitable research proposal in consultation with an appropriate supervisor. After approval of the proposal, students will undertake a research project critically interrogating established paradigms of understanding justice and inequality and/or demonstrating the application of theory to empirical issues related to justice and inequality.

**Assessment:** By Faculty external examination process.

NQF 10

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**EGS6003W ENVIRONMENTAL & GEOGRAPHICAL SCIENCE THESIS**  
360 NQF credits at HEQSF level 10

**Course outline:**

The PhD is a research degree on an advanced topic under supervision which can be taken in any of the departments in the Faculty. Examination is by thesis alone.

**12. Student Numbers (2017-18):**

<b>Level</b>	<b>2018</b>	<b>2019</b>
First year	154	165
Second year	89	102
Third year	75	65
Honours	12	10
Masters	83	80
Doctoral	71	58

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

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

## UNIVERSITY OF THE FREE STATE

1. Name of Department: Department of Geography

2. Head/Chair of Department:

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Dr Charles Barker	GIS, Fluvial geomorphology	barkerch@ufs.ac.za	51 1 2554

3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank/Position	Area of specialisation	E-mail	Office Telephone number
<b>Bloemfontein Campus</b>				
Dr Charles Barker	Senior Lecturer	GIS, Fluvial geomorphology	barkerch@ufs.ac.za	051 401 2554
Mischka Jacobus	Lecturer	Urban Geography	jacobusm@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
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
Anneri Pretorius	Lecturer	Environment and Conservation	Coetzeeal@ufs.ac.za	051 401 9532
Ernestina Nkooe	Lecturer	Urban and Human Geography	NkooeES@ufs.ac.za	051 401 3762
<b>Qwa Qwa Campus</b>				
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

4. 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
<b>Bloemfontein Campus</b>				
Sandra Brits	Administrator		britss@ufs.ac.za	2184
Nolene van Dyk	Administrator		vandykn@ufs.ac.za	2255
<b>Qwa Qwa Campus</b>				
Meiki Lebeko	Administrator		lebekomk@ufs.ac.za	58 718 5475

## 5. Department News

### Overview of 2018

The department celebrated its 100<sup>th</sup> year in 2018 by hosting the Society of South African Geographers' 11<sup>th</sup> Biennial Academic conference and the 49<sup>th</sup> student conference from 30 September – 5 October. The conferences hosted 250 academics, practitioners, teachers, government officials, and students from across the country on the Bloemfontein and QwaQwa campuses. Proceedings of the academic conference was published.

### Achievements

- **Achievements of Staff**

Ms Ntebohiseng Sekhele based at the Qwaqwa campus, was selected to participate in the University Capacity Development Programme (UCDP) – a US-SA Higher Education Network programme. Her research – focusing on addressing conservation conflicts between communities and protected areas – will be done in collaboration with the [Colorado State University](#).

- **Achievements of Students**

Mr Marius Müller (Honours student) won the prize for the best poster presented at the SSAG Student Conference in 2018. His research investigated the effects of veld fire on vegetation composition and soil physical properties in the Golden Gate Highlands National Park.

### Research Activities

#### *Afromontane Research Unit*

The Geography Department of the Qwaqwa Campus is extensively involved in research activities contributing to the primary focus – the sustainable development of the Maloti-Drakensberg Afromontane area – of the Afromontane Research Unit.

#### *Physical Geography, GIS/Remote Sensing*

Spatio-temporal assessments of fire, rain, and drought; to water erosion risk assessment and effective environmental management; to reconstruction of paleoclimates through GIS/Remote Sensing techniques form the basis of the physical geography research in the department.

#### *Human Geography*

Within human geography, the department's research activities are primarily related to analyses of public spaces and people's relationships with it and within it; with other activities attempting to contribute to understanding of rural livelihoods and factors that might enhance it.

### Community Service

The department successfully hosted SSAG2018 from 1-5 October 2018, welcoming over 100 delegates across two campuses, and publishing 48 peer-reviewed papers in the proceedings. The 49<sup>th</sup> SSAG Student Conference was also hosted in Bloemfontein during which more than 100 student delegates shared their research.

### National and International Collaboration

Ms. Mischka Jacobus is part of an international collaborative project, funded by ESRC-NRF, based on the Planning Education and Research fraternity in South Africa. The Department of Urban and Regional Planning and the Department of Geography, at the University of the Free

State, together with researchers' at the University of Birmingham, UK are looking at the appropriateness, usefulness and impact of the current planning curriculum in South African Higher Education. Among the objectives of the project are to investigate the social and economic value of planning education; to evaluate how the urban and regional planning curriculum addresses issues in a post-colonial context; to determine what the implications are for planning education in the UK; to create a platform for sharing ideas across the world and to inform higher education Urban and Regional Planning strategies to address the challenges facing South Africa and other countries of the Global South. In June 2018, the team attended a writing retreat in Milton Keynes, England. To date, the team has conducted one of the largest ever survey databases undertaken with Planners' in South Africa, including 110 interviews. Ms Liezel Rudolph's research focuses on dating the deglaciation of Marion Island. For this, rock samples were collected from the Island during the 74<sup>th</sup> Relief Expedition in April/May 2017 (and again in 2018), as part of a multi-institutional Geomorphology team. The annual expedition is funded by the SANAP-NRF: Sub-Antarctic Landscape-Climate Interactions (SLCi). In November 2018 she travelled to Scotland to start the analyses of the rocks at SUERC.

Prof Geoffrey Mukwada and Ms Anneri Pretorius jointly collaborate with the Civil Engineering Department of the Central University of Technology in exploring and understanding the transportation needs of rural dwellers within the context of sustainable transportation. By tuning in to community voice, the project intends to contribute to planning for sustainable transportation in rural areas using Maluti-a-Phofung Local Municipality as a case study.

#### **Staff Matters**

Dr Ruth Massey left the department at the beginning of 2018.

Ms Mischka Jacobus was appointed as lecturer in June.

Nthabiseng Mokhethi joined Housing and Residence Affairs on Qwaqwa campus, with her administrative position being filled by Meiki Lebeko since the second semester of 2018.



**Delegate of 11<sup>th</sup> SSAG biannual conference at the Qwaqwa and Bloemfontein campus**

#### **6. 2018-19 dated publications:**

**Adagbasa, E., Adelabu, S., & Okello, T.** 2018. Spatio-Temporal Assessment of Fire Severity in a Protected and Mountainous Ecosystem. *IEEE Xplore IGARSS 2018*: 6572-6575.

**Adelabu S.A., Adepoju K.A., & Mofokeng O.D.** 2018. Estimation of fire potential index in mountainous protected region using remote sensing *Geocarto International*, 1-18.

**Akinmolayan, A.V., Adepoju, K., Adelabu, S., & Osunmadewa, A.** 2018; Estimating Potential Annual Soil Loss of Watershed in Nigeria Using RULSE in a GIS and Remote Sensing Environment. *IEEE Xplore IGARSS 2018*: 7504-7507.

**Akpan, G.E., Adepoju, K.A., Oladosu, Olakunle R., & Adelabu, S.A.** 2018. Dominant malaria vector species in Nigeria: Modelling potential distribution of *Anopheles gambiae sensu lato* and its siblings with MaxEnt. *Public Library of Science One*, 13(10): 1-15.

**Le Roux, A., Mukwada, G., & Lombard, C.** 2018. *Mountain Research and Development*, 38(1): 85-87.

- Mbiriri M, Mukwada, G, & Manatsa, D.** 2018a. About surface temperature and their shifts in the Free State Province, South Africa (1960–2013), *Applied Geography*, 97: 142-151.
- Mbiriri M, Mukwada, G, & Manatsa, D.** 2018b. Influence of Altitude on the Spatiotemporal Variations of Meteorological Droughts in Mountain Regions of the Free State Province, South Africa (1960–2013), *Advances in Meteorology* 2018: 1-11.
- Mbiriri M, Mukwada, G, & Manatsa, D.** 2018c. Spatiotemporal characteristics of severe dry and wet conditions in the Free State Province, South Africa, *Theoretical and Applied Climatology*.
- Molaudzi D.O., **Adelabu, S.A.** 2018. Review of the Use of Remote Sensing for Monitoring Wildfire Risk Conditions to Support Fire Risk Assessment in Protected Areas. *South African Journal of Geomatics*, 7(3): 222-242.
- Mutana, S. & **Mukwada, G.** 2018a. Can mountain route tourism work for the poor? Exploring worldviews from Maluti Route in the Drakensberg Region of South Africa. *Tourism and Hospitality Research*, 0(0): 1–13.
- Mutana, S. & **Mukwada, G.** 2018b. Mountain-route tourism and sustainability. A discourse analysis of literature and possible future research. *Journal of Outdoor Recreation and Tourism*, 24: 59-65.
- Nkooe, E.S. 2018. A Lefebvrian analysis of public spaces in Mangaung, South Africa, *Urban Planning*, 3(3): 26-39.
- Pretorius, A. & Jacobus, M. 2018. Reflective writing as a learning tool in Geography: An example from a third-year Urban Geography module. *Proceedings of the Biennial Conference of the Society of South African Geographers*, University of the Free State, Bloemfontein (1 - 5 October 2018). ISBN: 978-0-86886-852-3.
- Rudolph, E.M.,** Meiklejohn, K.I., Hansen, C.D., Hedding, D.W. and Nel, W., 2018: Observations of rock glaciers in the Jutulssessen, Dronning Maud Land, East Antarctica, *Polish Polar Research*, 39(1): 1-17.

#### 7. Conference Presentation in 2018-19:

- Adagbasa, E., Adelabu, S., & Okello, T.W. 2018. *Spatio-Temporal Assessment Of Fire Severity In A Protected And Mountainous Ecosystem*. Paper delivered at the International Geoscience and Remote Sensing Symposium, Valencia, Spain.
- Adagbasa, G.E., Adelabu, S.A. & Okello, T.W. 2018. *Assessment of short term inter-annual Post fire vegetation recovery using Land surface temperature (LST) derived from NDVI*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Adepoju, K.A. & Adelabu, S.A. 2018. *Classification analysis of Sentinel-2 and Landsat-8 images integrated with ancillary data using machine learning algorithms in a mountainous terrain*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Ahmed, A.A.M. & Mukwada, G. 2018. *Trend detection of long-term temperature data using Mann-Kendall Trend Test: the case of the Maloti-Drakensberg Region*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Chimvurahwe, J. & Mukwada, G. 2018. *Villagers' Perceptions Regarding the Effectiveness of Methods used to Protect Wildlife Resources and the Availability of Non-Timber Forest Products in Gonarezhou National Park*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Hansen, M. 2018. *The Production of Space in the MDTFCA*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Letimela, O. & Van der Walt, A.J. 2018. *An Investigation of Seasonal Maximum and Minimum Temperature Patterns in the Free State: 1969-1999*. Poster presented at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Mbiriri, M., Mukwada, G. & Manatsa, D. 2018. *Surface Air Temperature Variability in the Mountain Regions of the Free State Province, South Africa (1960-2013)*. Paper delivered at

- the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Mehlomakhulu, T. 2018. *Land Lost: An Assessment of its Equivalence to Monetary Value*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Mofokeng, D.O. & Adelabu, S.A. 2018. *Mapping Lightning Distribution for Fire Danger Assessment of the Golden Gate Highlands National Park using Geospatial Technology*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Mutana, S. & Mukwada, G. 2018. *Contested Sustainability of Montane Route Tourism: A Case Study of the Maluti Route in the Drakensberg Mountains of South Africa*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Okello, T.W. 2018. *Human-Wildlife Conflict Among the Rural Maasai Population in The Amboseli Ecosystem, Kenya*. Paper delivered at the 1st Pan-African International Research Congress on Knowledge Generation and Dissemination (PAIRC), Kisumu, Kenya.
- Okello, T.W. 2018. *Community Perceptions on the Effects of Climate Change and Human-Wildlife Conflicts in The Amboseli Ecosystem, Kenya*. Paper delivered at the 1st Pan-African International Research Congress on Knowledge Generation and Dissemination (PAIRC), Kisumu, Kenya.
- Okello, T.W. 2018. *Climate Change Impacts on Arable Farming in The Savannah Grassland Within the Afromontane Region of Southern Africa*. Paper delivered at the 1st Pan-African International Research Congress on Knowledge Generation and Dissemination (PAIRC), Kisumu, Kenya.
- Okello, T.W. 2018. *Impact of Demographic Changes on Small Scale Agricultural Development in Maluti-a-Phofung Local Municipality*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Okello, T.W. 2018. *Sustainable Community Tourism in South Africa: A Perspective from Phuthaditjhaba*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Okello, N.O., Camminga, S., & Okello, T.W. 2018. *The Status and Trends of Key Air Quality Pollutants in Richards Bay, South Africa – Is it Worsening or Improving and Why?* Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Okello, N.O, Camminga, S., Okello, TW, & Zunckel, M. *Spatial and Temporal Trends of PM<sub>10</sub> and SO<sub>2</sub> in the Richards Bay Area*. Paper delivered at the Conference of the National Association for Clean Air, Johannesburg, South Africa.
- Pretorius, A., Mostafa, M.M.H., & Mukwada, G.** 2018. *Community voice in planning for sustainable transportation: Maluti-a-Phofung Local Municipality*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Pretorius, A. & Jacobus, M. 2018. *Reflective writing as a learning tool in Geography: An example from a third-year Urban Geography module*. Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Pretorius, A. & Rudolph, E.M. 2018. *Conference checklists, challenges & costs*. Poster presented at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.
- Rudolph, E.M., Hedding, D.W., & Nel, W.** 2018. *Rock hardness as a relative-age indicator of glacially striated surfaces on Marion Island*. Paper delivered at the 5th NRF-SANAP PI Symposium. Hermanus, South Africa.
- Sekhele, S. & Okello, T.W. 2018. *Assessing Vegetation Change and Socio-Economic Impacts of Livestock Grazing in The Clarens Nature Reserve, Free State in South Africa*. Paper delivered at the 1st Pan-African International Research Congress on Knowledge Generation and Dissemination (PAIRC), Kisumu, Kenya

**Van der Walt, A.J.,** Fitchett, J.M., & Curtis, C.J. 2018. *Statistical classification of South African seasonal divisions on the basis of daily temperature data.* Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.

Zondo, M. & Mukwada G. 2018. *Assessing the Impact of Seasonal Grazing Systems on the Mountain Vegetation under the Changing Climate.* Paper delivered at the 11<sup>th</sup> Society of South African Geographers' Biennial Academic Conference, Bloemfontein, South Africa.

**8. 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

**9. Student Numbers (2017-18):**

Level	2018	2019
First year	1st semester: 408 2nd semester: 262	1st semester: 294 2nd semester: 281
Second year	1st semester: 265 2nd semester: 264	1st semester: 218 2nd semester: 236
Third year	1st semester: 140 2nd semester: 155	1st semester: 118 2nd semester: 164
Honours	1st semester: 22 2nd semester: 24	1st semester: 27 2nd semester: 25
Masters	1st semester: 8 2nd semester: 18	1st semester: 10 2nd semester: 23
Doctoral	1st semester: 8 2nd semester: 19	1st semester: 16 2nd semester: 22

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

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

## UNIVERSITY OF SOUTH AFRICA

1. Name of Department: Department of Environmental Science

2. Head/Chair of Department: Prof Willie Nel

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Prof Willie Nel	Horticulture	<a href="mailto:Nelwaj@unisa.ac.za">Nelwaj@unisa.ac.za</a>	011 471 2324

### 3. Information about the 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	<a href="mailto:mearnkf@unisa.ac.za">mearnkf@unisa.ac.za</a>	0114712973
Dr Chitakira, M	Senior Lecturer	Environmental management	<a href="mailto:chitam1@unisa.ac.za">chitam1@unisa.ac.za</a>	011 471-3220
Mr Jordaan, M	Lecturer	Remote Sensing of the environment	<a href="mailto:Jordam@unisa.ac.za">Jordam@unisa.ac.za</a>	011 471-3222
Ms Baker, M	Lecturer	Environmental management Sustainable development of tourism	<a href="mailto:Bakermisp@unisa.ac.za">Bakermisp@unisa.ac.za</a>	011 471 2926
Mrs Van Niekerk, E	Lecturer	Environmental geology	<a href="mailto:Vniekhj@unisa.ac.za">Vniekhj@unisa.ac.za</a>	011 471 2325
Prof McKay, T	Ass Prof	Adventure Tourism Geography of Education	<a href="mailto:mckaytjm@unisa.ac.za">mckaytjm@unisa.ac.za</a>	011 670 9461
Mrs. Van den Berg, U	Lecturer	Environmental management	<a href="mailto:vdberu@unisa.ac.za">vdberu@unisa.ac.za</a>	011 471 3093

### 4. 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
n/a				

### 5. Department News

Henry Tantoh joined Unisa as a postdoctoral fellow 1 Aug 2018.

Unine van der Berg is making good progress with her PhD. She has ethics clearance and is collecting data/analysing data at present.

Melissa Baker registered for her PhD.

Tracey McKay won the UNISA CAES Excellence in the Scholarship of Teaching and Learning Award, June 2018 and was the UNISA Overall Joint Winner Excellence in the Scholarship of Teaching and Learning Award, Sept 2018.

### 6. 2017-18 dated publications:

- Tantoh, H. B., & McKay, T. J.** 2018 Rural self-empowerment: the case of small water supply management in Northwest, Cameroon. *GeoJournal*, 1-13.  
<https://link.springer.com/article/10.1007/s10708-018-9952-6>
- Tantoh, H. B., & Simatele, D.** (2018). Complexity and uncertainty in water resource governance in Northwest Cameroon: Reconnoitring the challenges and potential of community-based water resource management. *Land Use Policy*, 75, 237-251.
- Tantoh, H. B., & Simatele, D.** (2017). Community-based water resource management in North-west Cameroon: the role of potable water supply in community development. *South African Geographical Journal*, 99(2), 166-183.
- Tantoh, H.B (2018). Community-based management systems: A response to rural water supply and sustainability problems, Northwest Cameroon, *Proceedings of the Biennial Conference of the Society of South African Geographers: 1 – 5 October 2018*, University of the Free State,
- Tantoh, H. B., Simatele, D., Ebhuoma, E., & Donkor, F. K.** (2018). Communities at the Centre of River Basin Management for Sustainable Development in Northwest Cameroon. In *Achievements and Challenges of Integrated River Basin Management*. IntechOpen.
- Fordred, C.L. & **Mearns, K.F.** (2018). Community relationships and maintaining long-term support for protected areas and ecotourism. In C. Van Zyl (ed.), *Collaboration and Co-creation Opportunities in Tourism: Proceedings of the 7th Biennial International Tourism Studies Association Conference*. UK: The British Library, 40-44. ISSN2517 1496.
- Muzirambi, J.M. & **Mearns, K.F.** 2018. Management of cost and benefit sharing in protected areas: A case of Phinda Private Game Reserve, Umkhanyakude District, KwaZulu-Natal. In C. Van Zyl (ed.), *Collaboration and Co-creation Opportunities in Tourism: Proceedings of the 7th Biennial International Tourism Studies Association Conference*. UK: The British Library, 91-96. ISSN2517 1496.
- Queiros, D., **Mearns, K.F.** & Van Zyl, C. 2018. Communication, custodianship and coming in: Three novel intangible C's to engender community support for conservation at Dinokeng Game Reserve. In C. Van Zyl (ed.), *Collaboration and Co-creation Opportunities in Tourism: Proceedings of the 7th Biennial International Tourism Studies Association Conference*. UK: The British Library, 140-145. ISSN2517 1496.
- Thom, G. & **Mearns, K.F.** 2018. Evaluating the effectiveness of rock art interpretation as a sustainable tourism resource at Bushmanskloof, South Africa. In C. Van Zyl (ed.), *Collaboration and Co-creation Opportunities in Tourism: Proceedings of the 7th Biennial International Tourism Studies Association Conference*. UK: The British Library, 152-158. ISSN2517 1496.
- van den Berg, H. & **Mearns, K.F.** 2018. A preliminary investigation into the inclusion of local communities into the Last Mile Logistics Distribution Systems of Luxury Wildlife Tourism Destinations. In C. Van Zyl (ed.), *Collaboration and Co-creation Opportunities in Tourism: Proceedings of the 7th Biennial International Tourism Studies Association Conference*. UK: The British Library, 165-169. ISSN2517 1496.
- Slater, R. & **Mearns, K.** Perceptions and activity profiles of Blue Flag beach users in South Africa. *African Journal of Hospitality, Tourism and Leisure*, 7 (4) article 43, 1-14.
- Donkor F.K., **Mearns K.** (2018) Household Head-Related Social Capital: The Trump Card for Facilitating Actual Uptake of Innovation in Rural Smallholder Systems. In: Leal Filho W. (eds) *Handbook of Climate Change Resilience*. Springer, Cham, 1-16.
- Mearns, K** & Muller G. (2018). Waste management and Benchmarking at Ngala Tented Camp (Ngala Game Reserve) *WasteCon 2018 Proceedings* 15-19 October 2018, Johannesburg, South Africa, 1-11. ISBN: 978-0-6399541-0-3
- Mearns, K.F.** and Liebenberg, J. (2018). An Evaluation of Visitor Facilities and the Visitor Perceptions of the National Zoological Gardens in South Africa, Athens: *ATINER'S Conference Paper Series*, No: BIO2018-2470.
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- Kekana, B., **McKay, T.** and Gunter, A. 2018 Repurposing transit zones to promote mixed use land development: The case of the Sandton Gautrain Station, Proceedings of the Biennial Conference of the Society of South African Geographers: 1 – 5 October 2018, University of the Free State, 2-11.
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#### 7. Conference Presentation in 2017-18:

Name of presenter (s)	Title of presentation	Format of presentation	Date of conference/workshop	Name of Conference/workshop
<b>Chitakira, M.</b> and Togo, M	Critical enablers for climate-smart	Oral	28 to 30 November 2017	The 4th Global Science Conference

	agriculture: a case analysis of peri-urban environments in Southern Africa.			on Climate Smart Agriculture, Johannesburg, South Africa.
<b>Chitakira, M.</b> and Nyikadzino, B	The dynamics of stakeholder participation in integrated water resources management: A case study of the upper Pungwe River basin, Southern Africa.	Oral	18 - 20 September 2017	<i>20<sup>th</sup> International River Symposium</i> , Brisbane, Australia
Dube, I., <b>Chitakira, M.</b> and Tekere, M	How green is the informal business sector? A case study of waste management practices in a South African township.	Oral	16-18 August 2017	<i>International Association for Impact Assessment National Conference</i> , Western Cape, South Africa.
McKay T and Naidoo, A	Student funding and student success: A case study of a South African institution of higher education	Oral	July 24 – 27 2017	SOTL in the South, Bunting Campus, University of Johannesburg
<b>McKay, T.</b> , McEwan, L and Baker, M	The rise of trail running in South Africa: Possibilities for small-scale sports tourism	Oral	1 – 5 October 2018	Biennial Conference of the Society of South African Geographers: University of the Free State.
<b>McKay, T.</b>	The regulations governing South Africa's adventure tourism industry: An overview	Oral	1 – 5 October 2018	Biennial Conference of the Society of South African Geographers: University of the Free State.
Kekana, B., <b>McKay, T.</b> and Gunter, A	Repurposing transit zones to promote mixed use land development: The case of the Sandton Gautrain Station	Oral	1 – 5 October 2018	Biennial Conference of the Society of South African Geographers: University of the Free State.
Donaldson, R and <b>McKay, T</b>	Adventure tourism in a South African	Oral	1 – 5 October 2018	Biennial Conference of the Society of South African

	metro: Risk, policy and planning challenges relating to adventure tourism in Cape Town			Geographers: University of the Free State.
<b>Tantoh, H.B</b>	Community-based management systems: A response to rural water supply and sustainability problems, Northwest Cameroon	Oral	1 – 5 October 2018	Biennial Conference of the Society of South African Geographers: University of the Free State.

#### **8. 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>
Kennedy Nmutamvini	Multi-stakeholder management of a wetland in the City of Tshwane: The case of Colbyn	UNISA	MSc	T McKay	
Dewan Lombard	Law Enforcement in the South African Gold Mining Sector: The nexus between Company, Environmental and Equity law	UNISA	MSc	T McKay	
Ben Nyikadzino	Assessing the Effectiveness of Environmental Management Structures and Participation Process in the Upper Pungwe River Basin, Zimbabwe	UNISA	MSc	Dr M Chitakira	
Innocent Dube	Assessment of the waste management practices of informal enterprises in Olievenhoutbosch	UNISA	MSc	Dr M. Chitakira	Prof M. Tekere

	Township, Pretoria				
Santhuri Naidoo	Evaluating the impact of Environmental Governance on Biodiversity Management in South African cities	UNISA	MSc	Dr M. Chitakira	
I Gordon- Cummings	Factors affecting local community attitudes towards conservation and protected areas at Borakalalo National Park, South Africa.	UNISA	MSc	Prof K Mearns	
JJ Grobler	Water management in the wildlife lodge industry: A multiple case study in South Africa, Namibia and Botswana.	UNISA	MSc	Prof K Mearns	
C Eloff	Satellite based Synthetic Aperture Radar and Optical spatial-temporal information as aid for operational and environmental mine monitoring	UNISA	MSc	M Jordaan	C Eloff
Mrs T Kambula	An analysis of wetland changes in Buffalo City Metropolitan Municipality, Eastern Cape, using GIS and satellite imagery (1997-2017)	UNISA	MSc	M Jordaan	Mrs T Kambula

**9. Master Dissertations of limited scope completed in 2017-18:**

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

**10. 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>

**11. Short description of the curriculum presented:**

Undergraduate (NQF levels 5, 6 and 7): We offer a few soil science modules and some 1<sup>st</sup> 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.

**12. Student Numbers (2017-18):**

<b>Level</b>	<b>2017</b>	<b>2018</b>
First year		
Second year		
Third year		
Honours		
Masters		
Doctoral		

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

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

## UNIVERSITY OF MPUMALANGA

1. **Name of Discipline:** Geography
2. **Head/Chair of Department:** School

Name (Title, Surname, Initials)	Area of specialisation	E-mail	Office Telephone Number
Prof D Parker	Zoologist	<i>Daniel. Parker@Ump.ac.za</i>	0130020223

### 3. Information about the Geographers in the Department

Name (Title, Surname, Initials)	Rank	Area of specialisation	E-mail	Office Telephone number
Prof. P.Q. Siyongwana	Professor	Human Geography	<a href="mailto:Pakama.siyongwana@ump.ac.za">Pakama.siyongwana@ump.ac.za</a>	0130020228
Dr W. Chingombe	Senior Lecturer	Physical Geography	<a href="mailto:Wisemen.chingombe@ump.ac.za">Wisemen.chingombe@ump.ac.za</a>	0130020221
Mr S.Nsukwini	Lecturer NGap Lecturer	Human Geography	<i>Sakhile. nsukwini@ump.ac.za</i>	013000191/2
Mr M Maya	Lecturer	Physical Geography	<a href="mailto:Mafuza.maya@ump.ac.za">Mafuza.maya@ump.ac.za</a>	0130020265

### 4. 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
Miss Tobile Khoza	Administrative secretary		<i>Tobile.Khoza@Ump.ac.za</i>	0130020283

### 5. Department News

In 2018 the department of geography saw the arrival of Mr Mafuza Maya, a physical geographer who also handles the GIS and Remote Sensing modules in the school. UMP and especially the geography fraternity was delighted to receive him and his teaching tasks were scheduled to begin at the start of the 2019 semester.

### 6. 2018 dated publications:

**Chingombe, W.**, Musarandega, H and Pillay, R., 2018. Harnessing Local Traditional Authorities as potential Strategy to combat the vagaries of climate change in Zimbabwe, *'Jamba' Journal Disasters Risk Studies*, online2072-845X print 1996-1421.

**Chingombe, W.**, 2018. Rural Tourism as an option for development in Phuthaditjhaba, Golden Gate National area, RSA, *African Journal of Hospitality and Tourism*, Volume 7.

Kanyerere, T., Tramberend, S., Levine, A.D., Mokoena, P., Mensah, P., **Chingombe, W.**, Goldin, J., Fatima S., and Prakash, M., 2018. Water futures and solutions: Options to enhance water security

in Sub-Saharan Africa, (Eds: P Mensah, D. Katerere, S. Hachungonta and A. Roodt in *Systems analysis approach for complex global challenges*). Springer

**Siyongwana, P.Q.** and Shabalala, A. **2018**: The socio-economic impacts of mine closure on local communities, Evidence from Mpumalanga Province, South Africa, *GeoJournal*, 01-4, DOI,10.1007/s10708-018-9864-5

Mhlanga, O. and **Siyongwana P.Q.**, **2018**: Electronic hotel customer's satisfaction of e-WOM comments of hotels, Pilgrim's Rest, Mpumalanga, *Africa Journal of Hospitality, Tourism and Leisure*, 7(2) ISSN: 2223-814X.

**Siyongwana, P.Q.** and Nagar M.: **2018**: An assessment of road construction in Walmer Township, Nelson Mandela Bay Municipality, South Africa. Published in the *International Journal of Environment and Sustainable Development - IJESD\_179252*.

**Nsukwini, S.**, **2018**. Tourism development as a poverty alleviation strategy in community-owned conservation areas. A study of a protected areas in KwaZulu Natal, *Conference proceedings*, volume 7, 7<sup>th</sup> Biennial ITSA & 2<sup>nd</sup> International TESA Conference.

#### **15. Conference Presentation in 2018:**

Name of presenter (s)	Title of presentation	Format of presentation	Date	Name of Conference /workshop
Heila Lotz-Sisitka, Mutizwa Mukute, Charles Chikunda, Alberto Mavume, Armindo Monjane, <b>Wisemen Chingombe</b> , Beneah Odiahambo, Ashwell Glasson.	Higher Education Curriculum Innovation for Climate Change Resilience,	Oral	03 - 06 December 2018	4th NATIONAL GLOBAL CHANGE CONFERENCE
X. Jevu, K. Marembo and <b>W. Chingombe</b>	Risk assessment of rooftop-harvested rainfall water for individual household and community use in villages of Raymond Mhlaba Local Municipality, Eastern Cape, South Africa	Poster	03 - 06 December 2018	4th NATIONAL GLOBAL CHANGE CONFERENCE
Nsukwini, S	Protected areas and community relations: a comparative study. A comparative study of selected protected areas in KwaZulu-Natal	Oral	1-5, Oct. 2018. Bloemfontein	SSAG
Nsukwini, S.	Tourism development as a poverty alleviation strategy in community-owned conservation areas. A study of a protected areas in KwaZulu Natal.	Oral	6-10 Aug. 2018	ITSA

**16. Research Master Dissertations completed in 2018:**

Student's Name	Title of dissertation	Institution	Qualification	Supervisor	Co-supervisor
Sithembele Mditshwa	Estimating maize grain yield from crop growth stages using remote sensing and GIS in Free State province, South Africa	University of Fort Hare	MSc	Dr W Chingombe	Dr G Chirima
Sipho Dikweni	An investigation of long-term impacts of herbivory in vegetation on the Great Fish River Game Reserve, Eastern Cape Province, South Africa: 1982-2012	University of Fort Hare	MSc	Prof Hamandawana	Dr W Chingombe

**17. Short description of the curriculum presented:**

**Undergraduate (NQF level 5)**

**Introduction to Physical Systems of the Environment:** The objective of this module is to teach the student the basic and some in-depth knowledge of the Geography: Introduction to Physical Systems of the Environment. The course looks at the systems approach in physical geography and gives the student an objective understanding of the interactions between people and the physical environment. Understanding the Earth Systems (geosphere, hydrosphere, atmosphere, and biosphere) is not only crucial but also critical to solving environmental problems.

**Introduction to Human Environment:** The module is an introductory module to the study of geography of human environment. It discusses the basic principles and processes of human geography and to explore the complex relationships between society (people) and space (or place) over time. The topics that are taught are; Concept of Space, Place and Scale, Population dynamics and Diseases Settlement, Political, Economic geography. It also introduces students to statistics for geographers and map reading and interpretation.

**Undergraduate (NQF level 6)**

**Physical Processes and GIS:** The module provides sound grounding in the discipline related to physical processes, which is a sub-branch of fluvial geomorphology. Students learn investigation and exploration methods and thus they will be able to solve practical challenges in geomorphology and GIS related environmental issues. The module will also enable students to explain the aspects of Fluvial-hydro system, the river basin and the drainage basin as an open system. The course introduces students to the interaction of hillslope, drainage networks and channels and give them an objective understanding of catchment hydrology and catchment denudation. Analysis, in detail, of channel processes; mechanics of flow, thresholds of erosion to sediment transport and deposition and examination of the nature of river adjustment and channel changes through time will be considered. Another overall course outcome

expected of the students is to explain key feature of a fluvio-hydro system and the controls in a drainage system. An overview of GIS, applications of GIS, elements of GIS and Web mapping are part and parcel of the module content.

**Economic and Developmental Environment:** The module provides a sound knowledge of how economic and development issues intersect with space and place at different geographical scales to account for the changing configurations of economic and development issues in different in places and at different geographical scales. It also analyses the nature of local economic and development initiatives at different scales and impact of humans on economical and developmental activities on the environment.

**Undergraduate (NQF level 7)**

**Climatology and Remote Sensing:** The module provides a sound background of climatology and Remote Sensing and enable students to be able to solve practical challenges in climatology and the application of remote sensing technology related to climatological and environmental issues. The course provides an up to date stimulating and comprehensive guide to the nature of the earth’s climate. The module also presents a synthesis of contemporary scientific ideas about atmospheric circulation with basic factual information and suggesting ways in which the information can be used. Technological advances in the study of the earth’s climate over the past decades are analyzed too. The module will also able students to explain the aspects climatological space and time scales and key feature of climatology. The module also enables students to analyze in detail and understand the contemporary climatology.

**Urban Social Environment:** This module aims at exposing the learners to concepts of space, place and scale in geography, urban methodologies, the diverse nature of the urban environment, societies, challenges to urban spaces and sustainable cities. The module also enables students to analyse and understand the dynamics of the South African city. It also introduces the learners to social (qualitative) research techniques.

**Postgraduate (NQF level 8):** Will take off next year

**18. Student Numbers ():**

<b>Level</b>	<b>2018</b>
First year	190
Second year	13
Third year	N/A
Honours	N/A
Masters	N/A
Doctoral	N/A

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

**20. The name and contact details of your SSAG person for any further (and future) information:** [pakama.siyongwana@ump.ac.za](mailto:pakama.siyongwana@ump.ac.za)