

## College of Agriculture and Environmental Sciences

### Research focus areas for 2024: School of Ecological and Human Sustainability - Department of Geography

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher for 2024
<b>Settlement and Human Social Dynamics</b>	Mr S Tshabalala E-mail: <a href="mailto:tshabas1@unisa.ac.za">tshabas1@unisa.ac.za</a>	Urban geography and Human geography	Mr Tshabalala is a lecturer in the Department of Geography. He has a Master's degree in Geography from the University of South Africa. His research focus is on urban geography, focusing on spatial and infrastructure development. Methodology expertise: Quantitative and qualitative studies research	1. Urban development (spatial and infrastructure)	MSc - 1
	Mr B Khanye E-mail: <a href="mailto:Khanyb@unisa.ac.za">Khanyb@unisa.ac.za</a>	Tenure in informal settlements	Mr Khanye is a junior lecturer in the Department of Geography. He holds an MSc in Geography from UNISA. His research focuses on tenure and informal settlements		MSc: 1
	Dr T Dirsuweit	Urban studies SMART Cities	Dr Dirsuweit is a senior lecturer in Geography. She has supervised	1. Spatial transformation	PhD: 1 MSc: 1

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	E-mail: <a href="mailto:dirtsutc@unisa.ac.za">dirtsutc@unisa.ac.za</a>	Gender studies Food security and Food Sovereignty	students for over 20 years and has extensive research experience. Dr Dirsuweit holds a PhD in Human Geography (2003) and a Master's in Education (2019) Methodological expertise: Qualitative Methods; Mixed Methods	<ol style="list-style-type: none"> <li>2. Urban ethics and social justice</li> <li>3. Public participation</li> <li>4. Public space</li> <li>5. Gender and the city</li> <li>6. SMART cities</li> <li>7. Gender and space</li> <li>8. Gender and food security</li> <li>9. Food sovereignty</li> <li>10. Urban food gardens</li> </ol>	
	Dr AE de Jager E-mail: <a href="mailto:dejageae@unisa.ac.za">dejageae@unisa.ac.za</a>	Urban greenspace and environmental related study fields	Dr Anna de Jager is a senior lecturer in the Department of Geography. She holds a PhD from Unisa. Methodological expertise: Qualitative research; mixed methods research	<ol style="list-style-type: none"> <li>1. Conservation within urban greenspace,</li> <li>2. Conservation, tourism, and sense of place</li> <li>3. Urban development</li> </ol>	MSc: 2
	Prof M Nicolau E-mail: <a href="mailto:nicolmd@unisa.ac.za">nicolmd@unisa.ac.za</a>	Development and Migration studies	Professor Melanie Nicolau is a professor in the Department of Geography. She holds a PhD in Geography from the University of South Africa. Methodology expertise: Qualitative or mixed methods research	<ol style="list-style-type: none"> <li>1. Migration studies</li> <li>2. Roots-driven initiatives to relieve poverty and inequality</li> <li>3. Application of sustainable development goals and quality of life in rural and urban areas</li> <li>4. Post-development geographies focussing on all aspects of poverty,</li> </ol>	PhD: 2 MSc: 2

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				inequality and sustainability.	
	Prof A Gunter E-mail: <a href="mailto:gunteaw@unisa.ac.za">gunteaw@unisa.ac.za</a>	Urban development	Prof Ashley Gunter is a Professor in the Department of Geography. He is an NRF rated scientist and holds a PhD from The University of Johannesburg. He is the editor of the South African Geographical Journal and currently holds grants from the AHRC and ERLI worth over R5 million. His research focus is on urban development through local economic development and housing. Methodological expertise: Qualitative Methods; Mixed Methods	1. Urban Development 2. Local Economic Development 3. Low Cost Housing	PhD: 2 MSc: 3
	Mrs S Mashao E-mail: <a href="mailto:todansj@unisa.ac.za">todansj@unisa.ac.za</a>	Indigenous and contemporary roles of gender in poverty alleviation	Mrs Mashao is a lecturer in the Department of Geography. She is currently a PhD candidate working on indigenous roles of gender in poverty alleviation. She holds a MSc from the University of Venda and research focuses on gender and poverty.	1. Rural development 2. Gender studies	MSc: 1
	Miss L Mulibana E-mail: <a href="mailto:mulibl@unisa.ac.za">mulibl@unisa.ac.za</a>	Urban geography and Human geography	Miss Mulibana is a lecturer in the Department of Geography. She currently holds a Master's degree in Geography and environmental management from the University of Kwa-Zulu Natal. Her research is focused on urban geography; specifically looking at post-apartheid urban restructuring. Methodology expertise: Qualitative research	3. Urban development 4. Spatial transformation in South African cities	MSc: 1

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	Mr R Schoeman E-mail: <a href="mailto:eschoerc@unisa.ac.za">eschoerc@unisa.ac.za</a>	GIS Urban Geography	Mr Schoeman is a lecturer in the Department of Geography. He holds an MSc from UNISA and is a PhD candidate at the University of Pretoria. Methodology expertise: Quantitative and qualitative studies research	<ol style="list-style-type: none"> <li>1. Urban Geography</li> <li>2. Sustainable Development</li> <li>3. Green Building</li> </ol>	MSc: 1
	Mr LD Sibiyi E-mail: <a href="mailto:sibiyld@unisa.ac.za">sibiyld@unisa.ac.za</a>	Rural Studies, migration studies and Sustainable Development	Mr Sibiyi is a lecturer (AQIP) in the Department of Geography. He currently holds a Master's degree in Geography and environmental studies from the University of Zululand. His PhD research focuses on the integration of migration into planning for the localisation of the SDGs at the local government. Methodology expertise: Qualitative research	<ol style="list-style-type: none"> <li>1. Rural Development/ Rural Livelihoods</li> <li>2. Localisation of Sustainable Development Goals</li> <li>3. Migration studies</li> </ol>	MSc. 1
<b>Geomorphology</b>	Prof DW Hedding E-mail: <a href="mailto:heddidw@unisa.ac.za">heddidw@unisa.ac.za</a>	Landscape and climate interactions in the sub-Antarctic	Prof DW Hedding is a Professor in the Department of Geography. He holds a PhD from the University of Pretoria. His research focus is on geomorphology, weathering and climate change. Methodology expertise: Quantitative research	<ol style="list-style-type: none"> <li>1. Geochronology of sub-Antarctic Marion Island using terrestrial cosmogenic nuclide dating</li> <li>2. Aeolian processes and landforms on sub-Antarctic Marion Island</li> <li>3. Responses of ground thermal processes to synoptic patterns and climate change.</li> </ol>	

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	Prof DW Hedding E-mail: <a href="mailto:heddidw@unisa.ac.za">heddidw@unisa.ac.za</a>	A comparative study on the weathering of basaltic fields: implications for landscape	Prof DW Hedding is a Professor in the Department of Geography. He holds a PhD from the University of Pretoria. His research focus is on geomorphology, weathering and climate change Methodology expertise: Quantitative research	<ol style="list-style-type: none"> <li>1. Landscape evolution of the Lesotho Drakensberg basalts</li> <li>2. The geomorphology of the High Lesotho Drakensberg Mountains</li> <li>3. Thufur development and degradation in the High Lesotho Drakensberg Mountains</li> </ol>	
	Mr AC Greyling E-mail: <a href="mailto:egreyla1@unisa.ac.za">egreyla1@unisa.ac.za</a>	Palaeo Geomorphology and GIS	Mr AC Greyling is a lecturer in the Department of Geography. He holds MSc from the University of Pretoria. His research focus is on large landscape development and palaeo geomorphic landforms. Methodology expertise: Quantitative research and GIS/RS techniques.	<ol style="list-style-type: none"> <li>1. Drakensberg landscape development</li> <li>2. Mass movements and large landslide in mountainous regions (Drakensberg)</li> <li>3. Physical and chemical weathering of basalts and sandstones.</li> </ol>	
	Mr RL Anderson Email: <a href="mailto:a-nderrl@unisa.ac.za">a-nderrl@unisa.ac.za</a>	Gully erosion & erosive rainfall	Ryan Anderson is a lecturer in the Department of Geography and teaches three courses of environmental sciences. He holds an MSc from University of Pretoria. His current research focus is on the impact of	<ol style="list-style-type: none"> <li>1. Gully erosion</li> <li>2. Rainfall erosivity</li> <li>3. Climate change impacts on soil erosion</li> </ol>	

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			climate change on soil erosion with particular focus on rainfall intensity and associated processes on gully erosion. Methodology expertise: Quantitative research		
<b>Integrated Water Resource Assessment, Planning and Management</b>	Prof A du Plessis E-mail: <a href="mailto:duplea@unisa.ac.za">duplea@unisa.ac.za</a>	Water availability, quality and risk	Prof Anja du Plessis is a senior lecturer in the Department of Geography. She holds a PhD from the University of Johannesburg. Her research focus is water availability, quality, scarcity and/or stress as well as future water related risks and opportunities. Methodology expertise: Qualitative and quantitative research	<ol style="list-style-type: none"> <li>1. Current and Future water availability and quality of surface water resources in southern Africa (surface and groundwater)</li> <li>2. Perceptions and/or behaviour towards increased water stress and/or scarcity (domestic water resources).</li> <li>3. Current and Future water related risks and opportunities within southern Africa (i.e. influence of climate change; possibilities of artificial wetlands and wastewater re-use).</li> </ol>	

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	Dr MP Radingoana E-mail: <a href="mailto:radinmp@unisa.ac.za">radinmp@unisa.ac.za</a>	Water availability and quality, greywater reuse, food security, environmental management	Dr Radingoana is a senior lecturer in the Department of Geography. She holds a PhD in Environmental and Water Sciences from University of the Western Cape. Her research focuses on environmental management and greywater reuse as a possible substitute of potable water for domestic agricultural production in rural areas. Methodology expertise: Mixed research approach.	<ol style="list-style-type: none"> <li>1. Water quality and microbial markers</li> <li>2. Food production and quality using greywater.</li> <li>3. Impacts of mining activities and landfill sites on the environment</li> </ol>	MSc: 1
<b>Physical Geography</b>	Dr SC Nenwiini E-mail: <a href="mailto:nenwisc@unisa.ac.za">nenwisc@unisa.ac.za</a>	Physical Geography	Dr SC Nenwiini is a senior Lecturer in the Department of Geography. She holds a PhD in Geography from North West University. Her research focus is on climate variability and change, local scale seasonal rainfall characteristics – for operational purpose in light of natural resources management, agriculture, development and planning. Methodology expertise: Quantitative Research	<ol style="list-style-type: none"> <li>1. Trends and variability assessment in local rainfall and associated time-varying climatological anomalies</li> <li>2. Impacts of climate variation on local scale seasonal rainfall characteristics</li> </ol>	MSc: 2
	Mr TW Mbhamali E-mail: <a href="mailto:mbhamtw@unisa.ac.za">mbhamtw@unisa.ac.za</a>	Climatology and Meteorology	Mr Thulebona Wellington Mbhamali is a lecturer in the Department of Geography. He holds an MSc degree in Physical Geography and is currently pursuing his PhD focusing on modelling and monitoring of climate impacts and its application to derive socio-economic benefits in weather sensitive sectors. Currently, has a number of Honours students working under his supervision.	<ol style="list-style-type: none"> <li>1. Climate analysis, modeling and its application</li> <li>2. Artificial intelligence and machine learning in Geography</li> <li>3. Spatio-temporal analysis</li> </ol>	MSc: 1

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	Ms S Motene E-mail: <a href="mailto:motens@unisa.ac.za">motens@unisa.ac.za</a>	Environmental geomorphology GIS	Ms Motene is a lecturer in the Department of Geography. She holds a MSc in Environmental Science (Geography) from the University of Venda. Her research focuses on using remote sensing and GIS, and geomorphology to solve environmental problems	<ol style="list-style-type: none"> <li>1. Remote sensing and GIS</li> <li>2. Geomorphology</li> </ol>	MSc: 1



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<b>Teaching and Learning in Geography</b>	Prof R Pretorius E-mail: <a href="mailto:pretorw@unisa.ac.za">pretorw@unisa.ac.za</a>	Education for sustainability (EfS)	Prof Rudi Pretorius is an associate professor in the Department of Geography. He holds a PhD and MBL from Unisa and a MSc from UP. His research focus is primarily on education for sustainability and the application thereof in geography and environmental related study fields in higher education. Methodological expertise: Qualitative research; reflective research; integral theory	<ol style="list-style-type: none"> <li>1. Sustainable development applications in higher education</li> <li>2. Scholarship of teaching and learning in geography</li> <li>3. ODL applications in geography and environmental related study fields</li> </ol>	PhD: 1 Or MSc: 1
	Dr T Dirsuweit E-mail: <a href="mailto:dirtsutc@unisa.ac.za">dirtsutc@unisa.ac.za</a>	Social Justice and education Gender and Education Adult Education	Dr Dirsuweit is a senior lecturer in Geography. She has supervised students for over 20 years and has extensive research experience. Dr Dirsuweit holds a PhD in Human Geography (2003) and a Master's in Education (2019). Methodological expertise: Qualitative Methods; Mixed Methods	<ol style="list-style-type: none"> <li>1. Gender and Education</li> <li>2. Socio-spatial issues in education</li> <li>3. Education for sustainable development goals (gender and cities)</li> <li>4. Social justice and adult education</li> </ol>	
	Dr A de Jager E-mail: <a href="mailto:dejageae@unisa.ac.za">dejageae@unisa.ac.za</a>	ODL in geography in higher education	Dr Anna de Jager is senior lecturer in the Department of Geography. She holds a PhD from Unisa. Her research focus is primarily on engaged teaching and learning in Geography and ODL. Methodological expertise: Qualitative research; mixed methods research	<ol style="list-style-type: none"> <li>1. ODL applications in geography and environmental related study fields</li> <li>2. Teaching and learning in geography</li> </ol>	
	Ms S Carow E-mail: <a href="mailto:sanetpc@unisa.ac.za">sanetpc@unisa.ac.za</a>	Spatial thinking in Geography teaching and learning  GIS applications in Geography	Ms Sanet Carow is a lecturer in the Department of Geography. She holds an MSc in Geoinformatics. Her research interests concern the improvement of spatial thinking in Geography teaching and learning and various GIS application in Geography.	<ol style="list-style-type: none"> <li>1. Spatial thinking in Geography at higher education institutions</li> <li>2. Applications of GIS in various application fields</li> </ol>	

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	Prof A Gunter E-mail: <a href="mailto:gunteaw@unisa.ac.za">gunteaw@unisa.ac.za</a>	Education in Africa	Prof Ashley Gunter is a Professor in the Department of Geography. He is an NRF rated scientist and holds a PhD from The University of Johannesburg. He is the editor of the South African Geographical Journal and currently holds grants from the AHRC and ERLI worth over R5 million. His research focus in ODeL is on education in Africa and its impact on the transfer of knowledge Methodology expertise: Qualitative research	<ol style="list-style-type: none"> <li>1. International Distance Education and African Students</li> <li>2. Decolonising Peace Education</li> </ol>	PhD: 1 MSc: 2
	Ms A Khotoo E-mail: <a href="mailto:khotoa@unisa.ac.za">khotoa@unisa.ac.za</a>	ODL in geography in higher education	Ms Anisa Khotoo is a lecturer in the Department of Geography. She holds a MA in Geography from The University of Johannesburg. Methodological expertise: mixed method research	<ol style="list-style-type: none"> <li>1. ODL applications in geography and environmental related study fields</li> </ol>	MSc: 1
	Mr R Anderson E-mail: <a href="mailto:anderll@unisa.ac.za">anderll@unisa.ac.za</a>	ODL in geography in higher education	Mr Ryan Anderson is a lecturer in the Department of Geography. He holds a MSc in Geography and is busy with his PhD. Methodological expertise: quantitative research	<ol style="list-style-type: none"> <li>1. ODL applications in geography and environmental related study fields</li> </ol>	MSc: 2
	Ms A Lombard E-mail: <a href="mailto:lombae1@unisa.ac.za">lombae1@unisa.ac.za</a>	ODL in geography in higher education	Ms Andrea Lombard is a lecturer in the Department of Geography. She holds an MA degree in Geography and Environmental Studies and is currently completing her PhD focusing on the socio-economic evolution of renewable energy in rural areas.	<ol style="list-style-type: none"> <li>1. ODL applications in geography and environmental related study fields</li> </ol>	MSc: 1 PhD: 1

<b>Accessibility, location and allocation analysis</b>	Prof P Schmitz E-mail: <a href="mailto:schimpmu@unisa.ac.za">schimpmu@unisa.ac.za</a>	Geographic Profiling, Forensic Geography,	Prof Schmitz has a PhD in Geography from the University of Johannesburg. He has participated in several accessibility, location and allocation analysis projects while at the CSIR. The projects ranged from locating offices for the Department of Home Affairs to optimal locations for fire brigade stations in the City of eThekweni based on fire types.  He currently has two master's students looking into primary health care access and water accessibility. Latter ranges from tap inside the house to walking to water points using CSIR red book norms and standards.	1. Any accessibility, location and allocation analysis	MSc: 1
	Mr M Mafanya E-mail: <a href="mailto:mafam@unisa.ac.za">mafam@unisa.ac.za</a>	GIS and Remote Sensing	Mr Mafanya is a lecturer in the Department of Geography. He holds a MSc Geoinformatics from the University of Pretoria. His research focuses on Machine Learning for Object-Based Image Classification; 3D modelling based on LiDAR and SfM point clouds; Invasive Alien Plant Species mapping; Radiometric Calibration of Multispectral data	1. Geographic Information Systems 2. Remote Sensing 3. Geospatial analysis	MSc: 1
<b>Economic Geography (with a focus on socio-economic development)</b>	Ms A Lombard E-mail: <a href="mailto:lombae1@unisa.ac.za">lombae1@unisa.ac.za</a>	Evolutionary Economic Geography Socio-economic development  Renewable energy development	Ms Andrea Lombard is a lecturer in the Department of Geography. She holds an MA degree in Geography and Environmental Studies and is currently completing her PhD focusing on the socio-economic evolution of renewable energy in rural areas.	1. Renewable energy development 2. Rural development 3. Socio-economic development	MSc: 1 PhD: 1