



MEMBER PROFILE

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Study areas	
Countries / Regions	South Africa / Vaal River Catchment

Topics of last three projects	
1	Spatial Development Framework for JTG district municipality (GIS operation)
2	Retrospective case series analysis of human exposure to uranium pollution
3	Mapping human exposure to gold mining related uranium pollution of in Witwatersrand

	<u>Topics of last 10 publications</u>	<u>Publication links</u>
1	Virtual Geographical Environments	ISBN 978-3-319-11058-5
2	Human exposure to mining-related pollution	WaterSA
3	DEMs as tool for wetland research	
4	GIS to visualize complex temporal-spatial dynamics of water	
5	GIS as tool in hydrological research	
6	Generating high resolution Digital Elevation Models	
7	Generating a high-resolution DEM for an access restricted area	
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Research interests in water

Climate & Water	Water in arid areas	Arctic water	Water cycle	Atmospheric water	Glaciers & Cryosphere					
Hydrological extreme events	Floods	Droughts	Ice phenomena							
Water flow	Catchment processes	Run-off generation	Groundwater-Surface water interactions	Hyporheic processes	Interstitial water	Porewater	Alluvial water			
Surface water	Limnology	Fluvial dynamics	Continental scale processes	Dams / Reservoirs	Sediments	Rivers	Floodplains			
Ground water	Soil water	Karst water	Hydrogeology	Recharge						
Marine Environment	Coastal waters	Estuarian waters								
Aquatic habitats/ Ecosystems	Wetlands	Lakes	Peatlands	Rivers						
Water availability	Water utility	Water storage	Dams / Reservoirs	Water scarcity	Supply & Distribution	Water allocation	Water restrictions			
Modelling and GIS	Hydro GIS	Groundwater modelling	Surface water modelling	Remote sensing						
Water quality	Pollution	Purification	Hydrochemistry	Treatment	Desalination	Waste water	Sewage			
Water & Health	Water & Sanitation	Water & Food	Waterborne diseases	Drinking water	Water purification					
Water & Energy	Water-Energy nexus	Water for energy	Energy for water	Water, Food & Energy						
Water management/ policy	Integrated Catchment management	Integrated water resource management	Water loss	Reticulation & Supply	Transboundary water					
Water use	Urban	Agricultural	Mine water	Industrial	Grey water	Green water	Blue water	Return water	Water sustainability	Competing water use
Water Law & Economics	Water trade	Virtual water	Privatisation	Water as public good	Right to water	Bills & Laws	Affordability			
Socio-political aspects	Water history	Water wars	Water & Poverty	Access to water						