

CLES | COLLOQUIUM

20 August 2021

10:00am – 13:10pm SAST

"The Potential of Technology and Innovation Towards Realising the South African Constitutional Water Right"

The COVID-19 pandemic highlighted the urgent water reality in South Africa once more: communities, especially those in densely populated urban areas, informal settlements and rural regions lack access to clean drinking water. Although South African municipalities are constitutionally tasked with the function of providing water services to communities and, therefore, play a pivotal role in ensuring access to water to communities, the burden on municipalities weighs unimaginably heavy. Municipalities face various challenges that relate specifically to water service delivery and water resource management, including the country's ever-increasing water stress; the perpetual socio-economic disparities of the past; the effects of climate change, such as prolonged droughts and changing weather patterns; widespread and systemic poverty; geographically unequal water availability and demand; as well as growing and urbanising populations. Nevertheless, the challenges municipalities face to fulfil people's constitutionally entrenched right to water runs even deeper and entails various pressing dichotomies relevant for discussion.

Perhaps ironically, issues such as the rate of properly functioning water infrastructure in South Africa may be entirely underestimated or misunderstood, given the insufficiency of data available on these problems. This may be attributed to lacklustre monitoring and reporting efforts by municipalities, resulting in no or insufficient information. This lack of data or information also impacts water resource management in the country, among other aspects.



The *National Water Resource Strategy* of 2013 strongly encourages the use of technology and innovation considering its potential to contribute to efficient and effective water management solutions. The *National e-Strategy* of 2017 suggests that smart solutions must be introduced and integrated to support the efficient management of water utility infrastructure and modernise the utility services offered by municipalities through these infrastructures. Given the above, this colloquium intends to investigate the potential of technology and innovation towards addressing some of the pressing issues in the access to water, water resource management and water service delivery debates. Some of the technologies envisioned to be of particular use include smart water systems, data science, Information and Communication Technologies, the Internet of Things, and Big Data. These technologies have a broad scope of application and could be used for both planning and operational purposes, as well as for organisational and policy planning at various scales and across a multitude of sectors, contexts, and cities.

Preliminary Programme

20 August 2021

(Virtual Event)

10:00 am	Words of Welcome	<p>Dr Nicolene Steyn (CLES Post-Doctoral Fellow)</p> <p>&</p> <p>Prof Anél du Plessis (South African Research Chair: Cities, Law and Environmental Sustainability)</p>
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Session 1

Introduction to Issues in the Access to Water-Debate

Facilitated by Prof Anél du Plessis

Time	Presenters
10:15 am	Prof Michael Kidd University of Kwa-Zulu Natal
10:35 am	Prof Nathan Cooper University of Waikato
10:55 am	Question & Answer Session
11:05 am	Comfort Break

Session 2

Water Resource Management, Data & its Impact on the Right of Access to Water

Facilitated by Dr Germarié Viljoen

Time	Presenters
11:15 am	Carin Bosman Carin Bosman Sustainable Solutions

11:35 am	Jacques de Vos Mezzanine
11:55 am	Question & Answer Session
12:05 am	Comfort Break
Session 3 Water Services Delivery, Intelligent Water Management Technologies & the Right of Access to Water Facilitated by Melandri Steenkamp	
Time	Presenters
12:15 am	Dr Nicolene Steyn South African Research Chair: Cities, Law and Environmental Sustainability
12:35 am	Mr Jay Bhagwan Water Research Commission
12:55 am	Question & Answer Session
13:05 am	Final Remarks & Closing

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