

Dr Michele Kruger Pr Eng

Curriculum Vitae

Personal

Dr Kruger has Bachelor's, Master's and Doctorate Degrees in Civil Engineering with its associated publications. She has been involved in water and wastewater projects since 2004, which includes the managing of projects, client liaison, design and contract management. She was involved with the DWS's Blue Drop/Green Drop initiative and served as lead inspector on its panel.

She is a previous Board member of Consulting Engineers South Africa, a Trainer for the FIDIC Future Leaders Management Certificate, Chairs the FIDIC Diversity and Inclusion Committee and is on the FIDIC Accreditation Board.

Dr Kruger is very passionate about Capacity Building and has published a book titled: "The Development of Women and Young Professionals in STEM Careers". The book is published by the American Publishing House Taylor and Francis, famous for publishing Engineering Textbooks.

As a young engineer Michele won the Best Paper by a Young South African in the field of Water Science and Technology awarded by the UK Federation for Water Research for her doctoral research in water treatment. She also won the title of CESA "Young Engineer of the Year" and was later recognized by the Women in Civil Engineering Award sponsored by Building Women Magazine, ABSA and the Department of Public Works of South Africa.

Michele has a great passion for engineering and the development of young talent and women in STEM and hopes to make a difference through giving back.

Key Skills / Specialisation

- Professionally registered Civil Engineer – B Eng (Civil), M Eng (Civil), D Eng (Civil)
- Business Development and Marketing
- Specialist Water and Wastewater Process Engineer - Engineering Design
- Project management
- Contract management
- Digitalisation of engineering concepts such as business analytics and dashboarding
- Training

Date of Birth

9 July 1977
ID 7707090117089

Membership/Leadership Roles

- Current International Trainer: FIDIC Future Leaders Management Certificate
- Current Chair: FIDIC Diversity and Inclusion Committee
- Current Member : Water Institute of Southern Africa (WISA)
- Current WISA accredited trainer
- Current Fellow : South African Institution of Civil Engineers (SAICE)
- Current Engineering Council of SA (ECSA) Registration #20090104

- Past Board Member: Consulting Engineers South Africa (CESA)
- Past Vice Chair: ECSA Communications and Information Committee
- Past Chair: CESA Quality and Risk management Committee
- Past Chair: FIDIC Capacity Building Committee
- Past Member: FIDIC Sustainability Committee
- Past Chair: FIDIC Young Professionals Forum Committee

Education/Qualifications

Tertiary Education		
Qualification	Institution	
B Eng (Civil)	University of Johannesburg	(2001)
M Eng (Civil)	University of Johannesburg	(2002)
D Eng (Civil)	University of Johannesburg	(2004)
Wastewater Treatment: Principles, Modelling and Design	Delft University (Netherlands)	(2010)
Business Management and Economics (Cum Laude)	University of Johannesburg	(2004)
FIDIC Young Management Training Program	FIDIC	(2007)

Employment History

Department Water and Sanitation	2019 - Present
<ul style="list-style-type: none"> • Advisor to the Minister: Chair of the Advisory Committee on the Water Sector • Advisor to the Minister: Member of the Advisory Committee on the stabilization and efficient functioning of the Water Sector 	
CSVwater Consulting Engineers (Pty) Ltd	2008 - 2019
<ul style="list-style-type: none"> • Preliminary Design Engineer responsible for Abuja (Nigeria) Wastewater Treatment Works: New 400MI/d WWTW • Design Engineer responsible for the design of Zuurbekom WWTW: Design of new Plant: 80 MI/d, Preparing Project Design Reports, Specifications and Tender Documents • Design Engineer responsible for contract management on the Upgrade and Extension of Vaalkop WTP 3 (Phase 1) and 4 (Phase 2) – 60MI/d • Specialist Sub-consultant for Zimile on the ERWAT Treatment Systems Analysis for the Wastewater Conveyance and Treatment Systems Regionalization and 50-year Master Plan Project • Design Engineer responsible for the DBSA: Ekurhuleni Infrastructure Delivery Programme (EIDP): Feasibility Study: Wastewater Reclamation Programme (19 ERWAT WWTW) • Design Engineer involved in Ntsika-Watergroup JV: Department Public Works Green Drop Program 2016 • Design Engineer responsible for the Klipvoor WTP : New 20 MI/d WTP Preparing Project Design Reports • Design Engineer involved with the Regional Sewage Water Treatment Master Plan : Matjabeng Municipality • Design Engineer responsible for the Olifantsfontein WWCW: Process audit, hydraulic and treatment capacity study • Project Manager responsible for Brits Water Treatment Plants : Upgrade and Extension – Feasibility and Preliminary Design 	

- Design Engineer responsible for the Botshabelo WWTW : 20MI/d extension Preparing Project Design Reports and Tender Documents
- Design Engineer responsible for the Schoemansville Water Treatment Plants : Upgrade and Extension – Feasibility Study
- Design Engineer responsible for the contract management of Hannes van Niekerk WWTW : Mechanical Refurbishment & Upgrading : 15 MI/d Preparing Project Design Reports and Tender Documents
- Design Engineer responsible for the Lindley WWTW : Design of new Plant: 20 MI/d Preliminary Design
- Design Engineer responsible for the Welverdiend WWTP: Upgrading : 6 MI/d Preparing Project Design Reports and Tender Documents
- Design Engineer responsible for the Magaliesburg WWTW : 7 MI/d Extensions to Plant Preparing Project Design Reports, Specifications and Tender Documents
- Design Engineer responsible for the Ngwathe Wastewater Treatment Works: Vredefort, Koppies, Parys, Edenville & Heilbron: Feasibility Study
- Design Engineer responsible for the Phalaborwa Wastewater Treatment Works: Detailed Process Audits
- Design Engineer responsible for the Sasolburg Wastewater Treatment Works: Detailed Process Audits
- Design Engineer responsible for the Sembcorp Silulumanzi: Process Audits WWTW
- Design Engineer responsible for the Tzaneen LM: Process Audit: Wastewater Treatment Works
- Design Engineer responsible for the Mogale City LM WWTW: Process Audits
- Design Engineer responsible for Dr JS Moroka LM: Process Audits
- DWS Implementation of Green Drop and Blue Drop Assessments – Lead Assessor

Bigen Africa Services (Pty) Ltd

2008 - 2009

Zeekoegat WWTW – City of Tshwane

- Design Engineer responsible for the Preliminary Engineering Report for the 40MI Extensions, Sludge management and debottlenecking for the Zeekoegat WWTW in partnership with KV3.
- Roodeplaat & Temba Distribution System studies – City of Tshwane

PD Naidoo & Associates (Pty) Ltd (Now MottMcDonald)

2007 - 2008

- Preparing Project Design Reports, Specifications and Tender Documents on wastewater treatment plants; contract administration (Johannesburg Water Waste Water Treatment Works Partnership)

Goba (Pty) Ltd (Now Hatch)

2004 - 2007

- Design Engineer responsible for the layout design, costing and Design Report of the Mmamabula Mine.
- Design Engineer responsible for the layout design, costing and Design Report of the Zonnebloem Mine.
- Design Engineer responsible for the hydraulic analyses and design of the water transfer, potable water, sewer, stormwater, fire protection and Pollution Control systems of the Khutala Mine.
- Design Engineer responsible for the hydraulic analyses and design of the water transfer, potable water, sewer, stormwater, fire protection and Pollution Control systems of the Go-Forward Case of Klipspruit Mine, including tendering and tender adjudication.
- Design Engineer responsible for the hydraulic analyses and design of the water transfer and fire protection systems of the South Plant at the Douglas Colliery, including tendering and tender adjudication.
- Design Engineer responsible for the hydrology and stormwater analyses of the existing system at Komati Power Station, Middelburg, determination of the backwater analyses of the nearby rivers, analysis of the volume requirements of three dams and pump station requirements

- Design Engineer responsible for the hydrology and stormwater analyses of the existing system at Grootvlei Power Station, Balfour, determination of the backwater analyses of the nearby rivers, analysis of the volume requirements of two dams and pump station requirements
- Engineer responsible for modelling of the sewer system and compiling the report analysing the sewer system and proposed upgrades for the Bruma sewer system, Johannesburg
- Engineer responsible for modelling of the sewer system and compiling the report analysing the sewer system and proposed upgrades for the Delta sewer system, Johannesburg

Certification

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications and my experience.

Dr Michele Kruger PrEng