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Date and place of birth

18 May 1968, Grahamstown, South Africa

Qualifications:

B.Sc. ENG. (Chemical), UCT (1990)

B.Sc. Hons. (Operations Research), UNISA (1993)

MSc ENG., UCT (1994)

Doctorate in Engineering (Dr.-Ing.), RWTH Aachen (1999)

Registered as a professional engineer with the Engineering Council of South Africa

My profile:

I am a settled and experienced academic, based in a highly dynamic and successful department, as well as a registered professional engineer. I define my research and teaching interests by the multiple challenges of sustainable development in developing countries, esp. as these pertain to resource flows. These interests span topics in the fields of systems thinking and industrial ecology, bio-fuels (biogas, biodiesel and bio-ethanol), waste management and sustainable consumption. Since joining the University of Cape Town in 1998, 53 Masters and 7 PhD students have completed their theses under my supervision, with whom I have published more than 50 peer-reviewed papers or book chapters. I have taught widely in the undergraduate curriculum and have introduced sustainability into the curriculum at both the undergraduate and postgraduate level. I increasingly regard myself as an experienced systems thinker and regular interdisciplinarian. Since 2017, I represent UCT on the Sustainable Campus Initiative of the International Association of Research Universities.

From 1995 until May 1998 I was employed at the Chair for Mineral Processing, Beneficiation and Waste Treatment at the Aachen University of Technology in Germany, where I also completed my doctoral dissertation. In it I developed an extension of the sampling theory of particulate solids for applications in recycling operations. The doctorate in engineering was awarded *summa cum laude* in 1999.

With my roots in South Africa's Eastern Cape and in Namibia, I commenced my academic career with a BSc in Chemical Engineering (first class honours) from the University of Cape Town in 1990. After two years as a process engineer on a PVC production plant, I returned to UCT in 1993, obtaining an MSc.Eng. in 1994 for a dissertation that studied options for hazardous waste management in steel making by a life cycle assessment.

Recent & Highly-Cited Publications:

A technological and economic exploration of phosphate recovery from centralised sewage treatment in a transitioning economy context; Sikosana, M.K.L.N, Randall, D.G. and H. von Blottnitz; *WaterSA*, 43 (2), 342-353, 2017.

Cape Town's metabolism: Insights from a material flow analysis. Hoekman, P and H von Blottnitz; *Journal of Industrial Ecology*, 2017

Waste management reform and the green economy: When will they meet? von Blottnitz, H. in *Greening the South African Economy*; edited by Swilling, M., Musango, J.K. and Wakeford, J., University of Cape Town Press, 2016.

2nd Generation Biofuels a Sure Bet? A Life Cycle Assessment of How Things Could Go Wrong; Melamu, R. and H. von Blottnitz, *Journal of Cleaner Production*, 19 (2-3), 138-144, 2011.

A review of assessments conducted on bioethanol systems from an energy balance, CO₂, and environmental life-cycle perspective; von Blottnitz, H. and M.A. Curran; *Journal of Cleaner Production*, 15 (7), 2007.

For a full list, see: <https://scholar.google.co.za/citations?user=AgB0t3MAAAJ&hl=en>