

## CURRICULUM VITAE - Leon Croukamp

**FULL NAMES** : Leon Croukamp

**DATE OF BIRTH** : 29 March 1963

**NATIONALITY** : South African

**LANGUAGES** : English (Excellent)  
Afrikaans (Excellent)

**QUALIFICATIONS** : BSc(hons) 1987 (University of Pretoria)  
MSc 1996 (University of Pretoria)

**SPECIALISATION** : Engineering geological Investigations  
Geographic Information Systems (GIS)  
Engineering geological mapping  
Cemetery site investigations  
Data base management  
Project Management

**EXPERIENCE** : **1985 – State Library of South Africa**  
Library assistant, data capturing

**1987 – Geological Survey of South Africa**  
Regional and site specific engineering geological investigations

**Jan 2003 to Sept 2009 : Senior Engineering Geologist, Council for Geoscience, Pretoria**  
Responsible for the management of personnel, technical support for research, upgrading of instruments and testing equipment as well as performing commercial research  
Responsible for commercial rural and urban engineering geological investigations  
Research and commercial work in environmental geosciences including acid mine drainage, dust pollution from mines and eco-toxicology  
Technical editing of maps and reports  
Marketing and client liaison  
Project Management of commercial projects  
Project proposal writing  
Responsible for research on the geotechnical properties of the moon for future human settlement as input to NASA's Lunar Mapping and Modelling Project

**September 2009 to February 2010 : GIS Specialist for Ruden Ltd, Norway.**  
GIS analysis of 9 areas in Chad for hydrological investigation for Ruden Ltd on behalf of Norwegian Military, Abeche, Chad

**March 2010 to Present : Lecturer, Civil Engineering Department, University of Stellenbosch.**  
Responsible for lecturing in GIS.  
Responsible for lecturing in Engineering Geology.  
Research on GIS and geotechnical properties of the moon  
Responsible for guidance of undergraduate and post-graduate students  
Sub-editor for South African Journal of Geology

**PUBLICATIONS** :

**Dissertation:** *"An Engineering Geological Geographic Information System for Land-Use Planning in South Africa."* MSc Dissertation, University of Pretoria, 1996.

**Journal Publications:** *Croukamp. L (1994); "An Engineering Geological GIS in the South African context", Proceeding 7th IAEG Congress, September 1994, Vol. VI, pp. 4701 - 4706, Lisboa, Portugal*

Croukamp, L (1998) "An engineering geological information system of land-use planning in South Africa: Results from the Pretoria-Johannesburg region" 8<sup>th</sup> IAEG Congress, Vancouver, Canada, 1998

Croukamp, L (2002) "Engineering Geological mapping at the Council for Geoscience" 9<sup>th</sup> IAEG Congress, Durban, South Africa, 2002

Combrinck, L., Fourie, C.J.S., Croukamp, L., Saunders, I., (2007) "Report on preliminary geotechnical and tropospheric site investigation for a proposed space geodetic observatory near Matjiesfontein in the Great Karoo" SA Journal of Geology, 2007, Volume 110, p 225-234

Croukamp, L (2008): LEAG/ILWEG workshop and paper delivered on a Proposed Lunar Geotechnical GIS, October 2008, Cape Canaveral, Florida, USA

LEAG/ILWEG workshop attended, November 2010, Houston, Texas, USA

Croukamp, L, Rossouw, J.J, Fourie, C.J.C, Combrinck, L (2011): Geotechnical Investigation for the Construction of a vault in a rock face for the placement of a gravimeter and a long period seismograph at Matjiesfontein, South Africa, South African Journal of Geology, 2011;114(3-4);561-572

Croukamp, L, Rossouw, J.J, Fourie, C.J.C, Combrinck, L (2011): Foundation requirements for a Lunar Laser Ranger facility at Matjiesfontein, South Africa, South African Journal of Geology, 2011;114(3-4):573-576

Croukamp, L, Combrinck, L, De Wet, M (2012): Proceedings, InkabayeAfrica Workshop, GFZ Potsdam, Germany, 2012, A Lunar Geotechnical GIS as an aid for exploration and settlement construction.

#### **Conference Papers:**

Croukamp, L (1994): "Engineering Geological GIS Data Base used by the South African Geological Survey", Proceedings 4<sup>th</sup> Terrain Evaluation and Data Storage Symposium, 3 - 5 August 1994, Midrand.

Croukamp, L (1994): "Engineering Geological GIS as used by the South African Geological Survey", Proceedings GEO-Information Systems for Environment, Budapest, 14 - 15 September 1994, Hungary

Croukamp, L (1998): "An engineering geological information system for land-use planning in South Africa": Results from the Pretoria-Johannesburg region, 8<sup>th</sup> IAEG Congress, 21 - 25 September 1998, Vancouver, Canada.

Paige-Green, P., and Croukamp, L., (2004) "A Revised Landslide Susceptibility Map of Southern Africa", proceedings Geoscience Africa 2004, July 2004, University of the Witwatersrand

Heath, G., Croukamp, L., Horstmann, U., Coetzee, H. and Du Plessis, J. (2004) "The prevention of water ingress into operational and abandoned gold mines on the Central and East Rand", proceedings Geoscience Africa 2004, July 2004, University of the Witwatersrand

Dippenaar, M., van Rooy, L. & Croukamp, L., 2006. *The Use of Index Laboratory Testing to Determine the Engineering Behaviour of Granitic Saprolite*. Pretoria, International Association of Engineering Geologists.

Glass, J., Van Tonder, D., Wade, P and Croukamp, L., (2008) "Method refinement in assessing sediment contamination in wetlands around the historical Witwatersrand gold mining area, South Africa, using chironomid larvae in situ and laboratory assays", SETAC World 2008 Conference, Sydney, Australia

Fourie, C.J.S. and Croukamp, L., 2009: "The train to Matjiesfontein – Developments of the Geo-Science Train" presented at the third South African Space Geodesy Workshop at Matjiesfontein, South Africa, 16-18 March 2009.

Fourie, C.J.S., Doucoure, M. And Croukamp, L., 2009, "Development of a proposed Geoscience Train", Ninth Biannual SAGA Conference, 13-18 September 2009, Swaziland.

**Other Papers:**

Croukamp. L (1993): "*Using GIS technology in Engineering Geology*", GEO, Vol. 38, pp.13 – 14

Croukamp. L (1996): "*Geo-information in the GIS of the Council for Geoscience and it's role in land-use planning*", 19 - 21 February 1996, CSIR, Pretoria

Haskins, D.R. and Croukamp. L (1997): "*Identifying Suitable Development Potential Terrains utilising GIS applications from a Regional Engineering Geological Mapping Programme in South Africa*", Harare, Zimbabwe.

Keynote lecture presented at 25<sup>th</sup> NAAML, 2003 Conference at Louisville, Kentucky, USA on Closure of mine openings in the Witwatersrand. 2003

LEAG/ILWEG workshop and paper delivered on a "*Proposed Lunar Geotechnical GIS*", October 2008, Cape Canaveral, Florida, USA)

**RESEARCH FOCUS**

:

Geotechnical properties of the lunar surface and development of GIS as a strategic management tool for lunar exploration and habitation.