



South African National
Committee on Large Dams



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Three and a half Day Course on **Dam Monitoring and Surveillance**

Monday 15 to Thursday 18 September 2008
Venue: Protea Hotel, Techno Park, Stellenbosch, SOUTH AFRICA

ECSA Continuing Professional Development (CPD) accredited course*

PRELIMINARY PROGRAMME

Monday 15 September 2008		
07:45 – 08:30	REGISTRATION AND COFFEE	
08:30 – 08:32	Introduction	Prof Gerrit Basson
Session 1		Dr Cornelius Ruiters
08:32 – 08:40	WELCOME TO SANCOLD 2008	Dr Cornelius Ruiters
08:40 – 09:30	KEYNOTE LECTURE Dam Surveillance: Value added or waste	Willie Croucamp
09:30 – 10:10	Dam Surveillance and Dam Monitoring in a nutshell	Prof Chris Oosthuizen
10:10 – 10:40	TEA	
Session 2		Msamo Lephoma
10:40 – 11:05	Visual Observations	Leo van den Berg
11:05 – 11:25	The A to Z of Flow Measurements	Prof Fanie van Vuuren
11:25 – 12:00		Dr Pieter Wessels & Frans le Roux
12:00 – 12:30		
12:30 – 13:30	LUNCH	
Session 3		Henriette Anderson
13:30 – 14:10	Geodetic Surveying: Is it worth the effort?	Charles Pretorius
14:10 – 15:10	GPS Surveying: Accurate enough for dam monitoring? 3D Terrestrial Laser scanning: The basics 3D pictures with an ordinary SLR digital camera?	MC Briers & Francois Stroh
15:10 – 15:40	COFFEE	
Session 4		Prof Pilate Moyo
15:40 – 16:40	The latest in Fibre optics and Tilt gauges	Dr Gary Holzhausen

Note: * CPD commenced in January 2006 whereby all professional engineering persons are required to obtain 25 credits over a 5 year cycle, with a minimum of 3 credits per year, for renewal of registration with ECSA from 2007. This course is a Category 1 activity and offers 3.5 credits. A maximum of 4 credits may be accumulated under this category per year. For more details see www.ecsa.co.za

Tuesday 16 September 2008

07:30 – 08:00	Registration	
Session 5		Lehasa Moloji
08:00 – 08:30	South African dam incidents: The cold facts	Jan Nortje
08:30 – 09:00	Crack-width Gauges: A journey through history	Christo Dorfling
09:00 – 09:30	Dataloggers The ins and the outs	Charl le Roux
09:30 – 10:00	Data transmission: What you need to know	Clive Maasch
10:00 – 10:30	TEA	
Session 6		Solly Mabuda
10:30 – 11:00	Mohale Dam (Lesotho): Before and after the incident	Lethathane Matete & Danie Badenhorst
11:00 – 11:30	Massingir Dam (Mozambique): The recent incident in perspective	Peet Viljoen
11:30 – 12:00	Behaviour of Maguga Dam (Swaziland)	Enoch Dlamini
12:00 – 12:30	Behaviour of the 185m high Katse Dam (Lesotho)	Febokoane 'Mota
12:30 – 13:00	Lessons learnt from South African rockfill dams	Sandy Melvill
13:00 – 13:50	LUNCH	
Session 7		Danie Badenhorst
13:50 – 14:10	Lessons learnt from the rehabilitation of the crest bridges of three large dams	Philip Ronne Prof Pilate Moyo
14:10 – 14:40	Dynamic Monitoring of dams	Prof Pilate Moyo
14:40 – 15:10	Finite Element Analyses: A vital link	Hans Durieux
15:10 – 15:40	COFFEE	
Session 8		Mokgadi Mathekgana
15:40 – 16:00	Water Divining to detect seepage paths through dams: Myth, or method in the madness?	Hennie Malan
16:00 – 16:30	What is new on the roads front	Johan Muller

Wednesday 17 September 2008

Group 1

08:00 – 08:30	Travel from Stellenbosch to Berg River Dam by bus	
08:30 – 11:30	Coordinating the 3 Rotating groups	Pete Nightingale
	1. Behaviour of the dam and appurtenant works	Sandy Melvill
	2. Instrumentation: The practical side	Fil Filmalter
	3. Water divining Geodetic Survey & Seismicity	Various
11:30 – 12:00	Refreshments	
12:00 – 13:00	Travel to Roode-elsberg Dam	
13:00 – 15:30	Condensed version of group 2's programme	
15:30 – 17:00	Return to Stellenbosch	

Group 2

08:00 – 09:30	Travel from Stellenbosch to Roode-elsberg Dam by bus	
09:30 – 12:30	Coordinating the 3 Rotating groups	Dewald Coetzee
	1. Instrumentation: TRIVEC and Sliding Micrometer & Crack and Tilt gauges	Piet Naude & Christo Dorfling
	2. Behaviour of the dam and dynamic monitoring in practice	Prof Chris Oosthuizen & Prof Pilate Moyo
	3. GPS, Laser scanning and Geodetic surveying	MC Briers, Francois Stroh & Charlie Pretorius
12:30 – 13:30	Travel to Berg River Dam	
13:30 – 14:00	Refreshments	
14:00 – 16:30	Condensed version of Group 1's programme	
16:30 – 17:00	Return to Stellenbosch	

Thursday 18 September 2008

07:30 – 08:00	Registration	
	Session 9	Dr Paul Roberts
08:00 – 08:10	SANCOLD The way forward:	Dr Paul Roberts
08:10 – 08:30	Monitoring of Tailings Dams	Rob Williamson
08:30 – 10:00	Presentation and interpretation of monitoring and surveillance results: A holistic approach extensively illustrated with practical examples	Louis Hattingh
10:00 – 10:30	COFFEE	
	Session 10	Rob Williamson
10:30 – 11:00	A few more applications	Selected speakers
11:00 – 12:00	Experts share their experience and answer questions	Various experts
12:00 – 12:40	The final say: When all else fails	Alan Chemaly
12:40 – 12:45	Concluding Remarks	

