



South African National
Committee on Large Dams



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

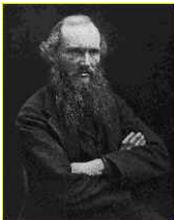
Monday 15 to Thursday 18 September 2008
Venue: Protea Hotel, Technopark, Stellenbosch, SOUTH AFRICA

ECSA Continuing Professional Development (CPD) accredited course*

SANCOLD (South African National Committee on Large Dams) and the Department of Civil Engineering, University of Stellenbosch invite you to join us for a **Course on Dam Monitoring and Surveillance** at the Protea Hotel, Technopark, Stellenbosch, Monday to Thursday 15 – 18 September 2008 (3.5 days). We have an interesting program lined up for you. The two-day technical programme (15 to 16 Sep) is filled with presentations on applications of instrumentation to measure field performance, recent research into new instrument types and new applications, what we can expect from technological advances in the near future, and quantifying the benefits of monitoring systems. We have invited several speakers who are spearheading new developments in monitoring technology to demonstrate what is possible with today's tools.

On Wednesday 17 September 2008 a technical **Dam Safety Surveillance tour** to the recently completed Berg Water and Roode-elsberg dams are included in the programme. A half day **Workshop** is offered on Thursday 18 September 2008 by leading authorities on various topics related to the practical aspects of instrumentation. The tour and workshop will help you put what you've learned to productive use.

The importance of measurement



When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of Science, whatever the matter may be.

Lord Kelvin (1827 - 1907)

If you are interested in:

What Engineers call

Metrology, the art of taking physical measurements.

What Civil Engineers call

Field instrumentation, the art of monitoring the performance of structures and other engineering works by taking physical measurements.

What Dam Engineers call

Dam Safety Monitoring, the art of monitoring the performance of structures and other engineering works by combining physical measurements and visual observations.

What Dam Safety Engineers call

Dam Safety Surveillance, the art of turning monitoring results into useful information for the decision makers

*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*

And If you want to:

Keep up to date on worldwide activities
Learn more about theory and practice,
Exchange ideas and participate in group discussions,
Find interesting references, or
Ask a few questions.

Then this course is for you to:

Use,
Enjoy,
Criticize, and to
Help improve the level of dam safety surveillance in South Africa

The course will focus on the following themes and topics:

Theme 1 - Case Studies:

The role of field measurements in problem-solving, research, safety assessment, risk assessment and improving the design of dam engineering structures and appurtenant works.

- Case histories and monitoring applications
- Instrumentation for innovating design
- Surveillance of dams

Theme 2 - State-of-the Art and Future Trends:

The latest in measurement technology, equipment, communication methods, data management and interpretation, and visions for future development.

- Analysis and presentation software
- Automated Total Stations
- Avoiding electromagnetic interference (EMI)
- Capabilities and limitations
- Data acquisition systems
- Databases and data management systems
- Early warning systems
- Emerging new technologies
- Fiber optic sensors
- Future trends and needs
- Geotechnical, structural, geodetic, environmental and geophysical instrumentation methods and equipment
- Global Positioning Satellite Systems (GPS)
- Internet applications
- Performance, cost and reliability data
- Problems and pitfalls
- Protecting equipment against damage during electrical storms
- Real-time monitoring
- Remote monitoring, wireless systems

Theme 3 - The “Practical Side” of Instrumentation:

Demonstrating and quantifying the benefits of field measurements to project management teams, owners, engineers, contractors, regulators and insurers.

- Benefits of instrumentation to owners
- Benefits of monitoring to engineers
- Benefits of monitoring to contractors
- Role of instrumentation in risk management

REGISTRATION FORM – Dam Monitoring and Surveillance Course 2008

Kindly complete this registration form and fax it to **fax number +27-21 4130447** or mail the form to:
**The Secretary, Institute for Water and Environmental Engineering, Department of Civil Engineering,
University of Stellenbosch, Dam Monitoring & Surveillance 2008 Course, Private Bag X1,
MATIELAND, 7602, SOUTH AFRICA.** Or by email to: msb@aspt.co.za

On receipt of the completed registration form, an invoice will be faxed to participants within 3 working days.
Payment can be made electronically (details will be provided on the invoice) or by cheque, to be made payable to **University of Stellenbosch**.

CLOSING DATE FOR REGISTRATION AND PAYMENT: 29 August 2008

Title	<input type="text"/>	Surname	<input type="text"/>	Name	<input type="text"/>
Company	<input type="text"/>				
	VAT registration number:		Business registration number		
	Postal address:		Street address:		
Tel	()		Fax	()	
Email	<input type="text"/>				
Special dietary requests	<input type="text"/>				
Name/Email of person regarding payment	<input type="text"/>				

FEES: R7000-00 for 3.5 days (Incl. VAT) (Includes tea, lunch, handbook of about R1000, course notes & presentations); The handbook title is: "Geotechnical Instrumentation for Monitoring Field Performance" by Dunicliff, and its price is included in the registration fee.

R6400-00 for 2.5 to 3 days; R5700-00 for 1.5 to 2 days; R4000-00 for 1 day; R2500 for last day only

Indicate dates of attendance: Sep 15 Sep 16 Sep 17 Sep 18

The fee for late registration after 29 August 2008 will be 20 % more than the above fees, and the handbook could only be available after the course.

Cancellations will be accepted in writing and without penalty, up to 10 working days prior to commencement of the course. Participants cancelling in writing less than 10 working days prior to commencement of the course will be liable for a 50% cancellation fee. Following registration without attendance and without written cancellation, delegates will be held responsible for the full course cost.

I HAVE READ AND AGREE TO THE CONDITIONS OF REGISTRATION AS STIPULATED IN THIS BROCHURE

Signature: _____

Date: _____

Enquiries can be directed to:

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