

**Department of Civil Engineering**  
**Institute for Water and Environmental Engineering**  
**StiAs Conference Centre, Stellenbosch University, South Africa**

**Water Networks and Services Planning: Water use in a changing environment**

3 Day Short course: 13 - 15 June 2016

<b>Monday: 13 June</b>			
08h00 - 08h30	<b>Registration &amp; coffee</b>		
	<b>Morning session A: Setting the Scene</b>		
08h30 - 09h00	A history of change	SUN	Prof. HE Jacobs
09h00 - 09h45	Our changing environment - the future	GLS-EOH	Dr. LC Geustyn
09h45 - 10h30	Community health	SUN	Dr. J Barnes
10h30 - 11h00	<b>Break - Tea &amp; Coffee</b>		
	<b>Morning session B: Engineering Challenges - Adapting to change</b>		
11h00 - 11h45	Urbanisation, densification & estimating water use	SUN	Prof. HE Jacobs
11h45 - 12h30	Climate change & possible methods for mitigation	Polytechn. Montréal	Prof. M Fuamba
12h30 - 13h00	Water quality issues in the light of future change	SUN	Dr. I Brink
13h00 - 14h00	<b>BREAK - Lunch</b>		
	<b>Inter-active Workshop #1: Results &amp; Discussion of CAREG-funded research project</b>		
14h00 - 14h45	Facilitator's message & delegates' hands-on session	Prof. HE Jacobs (SUN) & Prof. M Fuamba	
14h45 - 15h30	e-Clicker feedback, facilitator's interpretation & discussion	(Polytechnique Montréal)	
15h30 - 16h00	<b>Break - Tea &amp; Coffee</b>		
16h00 - 16h30	Open discussion with Professors HE Jacobs (SUN) & M Fuamba (Montréal)		
<b>Tuesday: 14 June</b>			
08h00 - 08h30	<b>Registration &amp; coffee</b>		
	<b>Morning session A: Alternative additional water sources</b>		
08h30 - 09h00	Household water use and alternative sources	SUN	Prof. HE Jacobs
09h00 - 09h45	Greywater reuse	UCT	Dr. K Winter
09h45 - 10h30	Desalination of sea water	SUN	Prof. A Burger
10h30 - 11h00	<b>Break - Tea &amp; Coffee</b>		
	<b>Morning session B: Water Use Management and Water Conservation</b>		
11h00 - 11h45	Metering and revenue collection	GLS-EOH	Ms. K Fair
11h45 - 12h15	Online Municipal management platforms	SUN	Prof. HE Jacobs
12h15 - 13h00	Empowered consumers - Mobile apps	FLOWTRON	Mr. J Vosloo
13h00 - 14h00	<b>BREAK - Lunch</b>		
	<b>Inter-active Workshop #2: To the future - in 2116</b>		
14h00 - 15h30	Facilitators review research of what it could be like in the year 2116 and delegates tackle a hypothetical problem	Prof. HE Jacobs (SUN) & Prof. M Fuamba (Polytechnique Montréal)	
15h30 - 16h00	<b>Break - Tea &amp; Coffee</b>		
16h00 - 16h30	Networking opportunity		

Note on CPD points: As of January 2006 all ECSA registered professional engineers are required to obtain 25 CPD credits over a 5 year cycle, with a minimum of 3 credits per year, for renewal of registration with ECSA after 2007. This course is a Category 1 activity and offers 3 CPD credits.

**Wednesday: 15 June**

08h00 - 08h30	<b>Registration &amp; coffee</b>		
	<b>Morning session A: Stormwater and Best Management Practices</b>		
08h30 - 09h00	What are BMPs?	Polytechn. Montréal	Prof. M Fuamba
09h00 - 09h45	The place of stormwater in South African service delivery	UCT	Dr. L Fisher-Jeffes
09h45 - 10h30	BMPs and application: Montréal, Canada	Polytechn. Montréal	Prof. M Fuamba
10h30 - 11h00	<b>Break - Tea &amp; Coffee</b>		
	<b>Morning session B: Climate Change and mitigation of CC impacts</b>		
11h00 - 11h45	General overview of global CC and impacts	Consultant	Mr. A Chapman
11h45 - 12h30	Renewable energy resources and projects in South Africa	SUN	Prof. JL Van Niekerk
12h30 - 13h00	The Water-Energy-Climate nexus	Aurecon & ACDI	Dr. JDS Cullis
13h00 - 14h00	<b>BREAK - Lunch</b>		
	<b>Inter-active Workshop #3: Course Feedback Session</b>		
14h00 - 14h30	e-Clicker feedback on the course	Prof. HE Jacobs (SUN) & Prof. M Fuamba	
14h30 - 15h30	Facilitator: Present results from Day1 and Day2 workshops	(Polytechnique Montréal)	

**Objective** The objective of this once-off course, offered as part of a 2-year project in collaboration with Polytechnique Montréal, is to address specific changes faced by technical leaders in the current age, and to aid participants towards better understanding and more effective planning of services. The focus of the course is on water use in the face of medium- to long-term change.

**Language** The course including course notes will be presented in English.

**Speakers** Key speakers at the course include Prof. HE Jacobs (SUN) and Prof. M Fuamba (Polytechnique Montréal), who will also facilitate inter-active workshops. Other experts include Prof. A. Burger (former Chairman of Process Engineering and Head: Separation Technology at SUN), Dr. L. Geustyn (co-founder and director of GLS, an EOH company), Prof. J. L. Van Niekerk (Director: Centre for Renewable and Sustainable Energy Studies at SUN), Dr. K. Winter and also community health expert Dr. J. Barnes as well as various professional engineers who will share their expertise on the challenges induced by future change.

**Venue** Stias Conference Centre, 10 Marais St., Stellenbosch, South Africa

**REGISTRATION IS DONE ELECTRONICALLY. Kindly complete the on-line form:**

<http://apps.sun.ac.za/SCD/ApplicationForm.aspx?offeringid=28c51ddf-cee1-e511-b11e-0050568000ff>

On receipt of the electronic application, an invoice will be sent to participants within three (3) working days. Payment details will be provided on the invoice.

**Stellenbosch University registered students:** Do not register online. Contact René Burger at [burgerr@sun.ac.za](mailto:burgerr@sun.ac.za) for registration. Reduced fees are applicable to SU-registered students.

***COURSE FEES*** (exempt from VAT)

**R6450 for 3 days** (Includes tea, lunch, course notes & presentations); or

**R4100 per day\*** (Includes tea, lunch, course notes & presentations).

\*Participants who wish to register for less than 3 days **confirm your attendance dates** per Email to René Burger at [burgerr@sun.ac.za](mailto:burgerr@sun.ac.za) after completion of the on-line application.

**Enquiries can be directed to:**

Ms René Burger (before 13h00 o/h)

or

Prof Heinz Jacobs

Department of Civil Engineering

Department of Civil Engineering

Stellenbosch University

Stellenbosch University

+27 21 808 2100

+27 21 808 4352

[burgerr@sun.ac.za](mailto:burgerr@sun.ac.za)

[hejacobs@sun.ac.za](mailto:hejacobs@sun.ac.za)