



**Three-Day Short Course on
NEW DEVELOPMENTS IN WATER AND WASTEWATER TREATMENT
FOR MUNICIPAL ENGINEERING PERSONNEL**

25 – 27 February 2019

Westville Country Club, Durban

Monday 25 February 2019

- 08:30 Welcome
IMESA
- 08:45 Water Treatment in South Africa: Changing needs due to changing water quality
Mr Chris Swartz, Chris Swartz Water Utilization Engineers
- 09:30 Why are South African Water Utilities so slow in adopting innovation?
Peter Thompson, Umgeni Water
- 10:15 Durban seawater desalination and reuse project
Ms Lalitha Moodley, eThekweni Metro
- 11:00 **Tea**
- 11:15 Water reuse plants: disposal of sludge and water treatment residue
Limakatsoa Thakalekoala, Umgeni Water
- 12:00 Advanced treatment processes
To be confirmed
- 12:45 Discussion session
- 13:15 **Lunch**
- 14:00 Effectiveness of multiple barriers for risk management in water treatment
Meg Cunningham
- 14:45 Drinking water quality regulation: current status and the way forward
Department of Water and Sanitation
- 15:30 **Coffee**
- 15:45 Water reclamation and reuse: opportunities and challenges
Mr Chris Swartz, Chris Swartz Water Utilisation Engineers
- 16:30 Networking Opportunity



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- 08:30 Upgrading of a large wastewater treatment works: investigation of the integrated fixed-film activated sludge (IFFAS) process as an option
Mr Pierre Marais, Water and Wastewater Engineering
- 09:15 Decision Making Tool to evaluate the impacts of sludge return liquors on the performance of SA wastewater treatment plants
Prof. David Ikumi, University of Cape Town and Kirshen Naidoo, Royal Haskoning DHV
- 10:00 Recent developments in biological nutrient removal
Prof George Ekama, University of Cape Town
- 10:45 Discussion session
- 11:15 **Tea**
- 11:30 Optimising WRRF for energy generation without compromising effluent quality
Prof George Ekama, University of Cape Town
- 12:15 Urine separation and seawater toilet flushing for sustainable urban water management
Prof George Ekama, University of Cape Town
- 13:00 Discussion session
- 13:15 **Lunch**
- 14:00 Wastewater treatment systems and their impact on surface water
Dr Dennis Amoah, Durban University of Technology
- 14:45 Green Drop and IRIS: an overview and the way forward
Department of Water and Sanitation
- 15:30 **Coffee**
- 15:45 Discussion of Water and Wastewater Treatment Needs
Work session facilitated by Mr Chris Swartz, Chris Swartz Water Utilization Engineers
- 16:30 Closure

Institute of Municipal Engineering of Southern Africa (IMESA)



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Wednesday 27 February 2019

Visits to water and wastewater facilities: Durban area

Program in progress and will be advised shortly