



Dr Simon Judd

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Dr Simon is a former Professor in Membrane Technology at the Cranfield Water Science Institute at Cranfield University, where he was a staff member for over 24 years. His research has incorporated all aspects of water and wastewater treatment technology, with the primary focus on membrane technology for water and wastewater treatment. He has an extensive network of contacts within the water industry both nationally and internationally, arising both from the procuring and/or managing of a number of large collaborative R&D programmes and his many other MBR-related activities.

Professor Judd has published extensively in the peer-reviewed research literature, with over 170 publications - more than 70 relating to MBRs. He has also authored or co-authored five textbooks in membrane and MBR technology, most recently "Industrial MBRs", and two in general water/wastewater treatment technology. He has provided keynote presentations at many international conferences as well as consultancy to clients based across Europe, North America, the Middle East and Far East. He is a Fellow of the Royal Society of Chemistry and Associate Fellow of the Institution of Chemical Engineers.

The Gas Processing Center, Cordially invites you to the Course:

MEMBRANE BIOREACTORS

DAY & DATE: March 5-6, 2017

TIME: 8:00 AM to 2:30 PM

VENUE: New Research Complex (H10) Room F101

Course fees: **2500 QAR**

About the course:

Membrane bioreactor (MBR) technology was originally commercialised in the early 1970s, with the immersed configuration introduced in the 1990s. Since that time their implementation has grown in number and size, such that there are currently over 40 plants of over 100,000 m³/d capacity, with more at the planning stage, and over 20,000 installations globally with a total capacity of over 20 gigalitres per day. The technology offers widely recognised advantages over classical treatment of higher treated water quality (clarified, substantially disinfected and normally fully nitrified), decreased footprint and reduced sludge production. However, its implementation in Qatar has been very limited, with the first installation for industrial effluent treatment commissioned only in 2016.

This two-day course sets out to demystify MBR technology, providing general information about the design and operational aspects of the technology supported by hard data from commercial technologies and existing reference sites. The course is presented in a way to promote interaction with the delegates and address their specific concerns through using the most relevant examples. The course is offered with a free copy of the book *Industrial MBRs*, published in 2014.

Course content

The course covers the following topics:

- Industrial effluent treatment using MBRs
- Municipal wastewater treatment using MBRs
- Comparative costs with conventional treatment
- Membrane separation process fundamentals
- MBR membrane technology configurations
- MBR process design
- MBR operation and maintenance
- Commercial MBR membrane products and process technologies
- Case studies

The course will provide an understanding of:

- the underlying basic governing principles of membrane separation as applied to MBRs and ultrafiltration/ microfiltration generally, including membrane types and configuration, key process parameters and operating principles
- fundamentals of biological treatment, including process configurations, biochemistry and key process parameters
- MBR process design and operation principles , including troubleshooting
- commercial MBR membranes
- real-world effluent reuse applications

Eligibility criteria:

The course is aimed at a broad section of stakeholders, including end users (oil companies and water utilities), consultants, contractors, regulators, technology providers and researchers in wastewater treatment technology for both industrial and municipal effluents.

Gas Processing Center certificate:

All the attendee will receive a certificate for attending this training course.

For more information please contact:

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