



Dr Simon Judd

Maersk Oil Professorial Chair in Environmental Engineering, Gas Processing Centre Qatar University

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.

Dr Simon has published extensively in the peer-reviewed research literature, with over 170 publications – primarily membrane-related. He has also authored or co-authored five textbooks in membrane technology, and two in general water/wastewater treatment technology. Books authored include the world's first book dedicated to the application of membranes to the purification and reuse of industrial effluents, *Membranes for Industrial Wastewater Recovery and Reuse*, published by Elsevier.

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

MEMBRANES FOR INDUSTRIAL WASTEWATER RECOVERY AND REUSE

DAY & DATE: March 19-20, 2017

TIME: 8:00 AM to 2:30 PM

VENUE: New Research Complex (H10) Room F101

Course fees: 2500 QAR

About the course:

The issues surrounding water reuse are well known and have been debated at length. Their nature changes according to the specific application, i.e. domestic, municipal or industrial. Recovery and reuse of industrial effluents are generally governed by economics, which may then be driven by regulation. Increasingly stringent environmental legislation and generally enhanced intensity, efficiency and diversity of treatment technologies has made reuse of water more viable in many industrial processes. Water reuse can take a number of forms: recycling within the process itself on individual process streams, end of pipe treatment of combined effluent streams, i.e. replacement and upgrading of existing plant designed for meeting discharge consent, or use of treated effluents from municipal wastewater plants in large-scale operations.

Whether applied to the domestic or industrial environment, membrane processes inevitably play a key role in water recycling since they can produce water of a reliable quality, the permeate product water quality varying little with feedwater quality. On the other hand, they are susceptible to certain constraining phenomena, principally membrane fouling, and are generally considered to be costly. Key issues in the application of membrane technology to water recycling are thus capability, reliability and cost.

This course is designed to extend the knowledge of those who are interested in industrial wastewater recycling, including problem holders and membrane suppliers as well as students and academics studying in this area. It is intended to provide a practical aid towards actually selecting, installing and/or designing membrane-based systems for recovering and reusing industrial effluent.

Course content

Topics covered on the course comprise:

- Membrane technology
 - Parameter definition
 - Process fundamentals
- Industrial processes and wastewaters
 - Wastewater and process water quality across different industrial sectors
- Introduction to Pinch analysis
- Case studies
 - Data from reference sites across different industrial sectors
- CAD demonstration for process design

The course will provide an understanding of:

- the underlying basic governing principles of membrane separation as applied to porous and dense membrane processes, including membrane types and configuration, key process parameters and operating principles
- process and effluent water quality, and thus reuse opportunities afforded across different industrial sectors
- the application of Pinch analysis to assessing water reuse options
- 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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