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Latest developments in water sensors

7 March 2018

Clare College, Trinity Lane, Cambridge CB2 1TL

Physical and chemical sensors are at the heart of virtually all measurement systems. Amongst the most popular for water monitoring applications are temperature, conductivity, turbidity, colour and pH. During the past decades, they have become smaller, more rugged and stable, leading to better reliable systems. Also during this time, significant advances have been made in the measurement of species such as trace metals, nitrate, nitrite, ammonia, and E. coli, using electrochemical and optical techniques. This workshop will highlight developments and improvements to sensors and sensing technologies, with emphasis on, but not exclusively, these latter, chemical, materials. It will discuss how information supplied from reliable sensors is vital for the development of big data analytics and creates the options for novel applications and alternative measurements. The overall goal will be to provide information to allow water companies to make better measurements in the future.

Chair: Andrew Chappell, Environment Agency

09:30 Tea, Coffee & registration

10:00 Introduction by the Chairman. **Andrew Chappell, Environment Agency**

10:10 Applying instrument maintenance lessons from the nuclear industry to the water industry.
Daniel O'Connor, United Utilities

10:35 pH, ISE, DO and Redox measured with one device – using new devices to develop instruments.
Rowan Maulder, Camlab

11:00 The EA monitoring review – opportunity to consider new approaches. **Dr Hannah Green, Environment Agency**

11:25 Tea & Coffee

11:45 The challenges of field sensors for trace metal detection. **Chris Searle, Trace 20**

12:10 Developments in optical sensing technology, dissolved oxygen. **Ryan Cox, Aquaread**

12:35 Discussion

12:45 Lunch

14:00 Traceability and linearisation of *in situ* fluorescence measurements using the new V-Lux sensor.
Dr John Attridge, Chelsea

14:25 Developments in Nutrient Sensing. **Dr Louise Walker, EMS**

14:50 Towards a universal chip-scale water sensor. **Dr Aurélien Trichet, Oxford HighQ**

15:15 Discussion and Summary

15:30 Close

REGISTRATION: The cost of attending the Workshop is £89.00 inc VAT for RSC and SWIG members. £161 inc VAT for non-members. £20 for students. Literature may be distributed for a fee of £67 and a limited number of table top displays are available at £128 each. Registrations can be made by Tel 01934 830658 or by email to rosa.richards@swig.org.uk or using the on-line booking form.

Please advise of any special dietary requirements at time of booking.

Cancellation policy: Refunds can only be made if cancellations are notified at least 5 days in advance of the Workshop date.