

Robotic and Autonomous Systems

4 May 2016

Atlantis Room, National Space Centre, Leicester LE4 5NS

The water and environment sectors own, operate and are responsible for extensive infrastructure, including natural features, much of which is difficult to reach, remote or in hazardous locations. This infrastructure needs regular inspection, maintenance and, eventually, repair and replacement in order to maintain levels of service, environmental performance and health and safety.

For many years robotic systems have been used, with varying levels of human intervention, to carry out repetitive or dangerous tasks. Advances in sensor systems, communications and artificial intelligence offer the prospect of robotic and autonomous systems being more widely used in the management of our infrastructure.

This workshop will set out what we mean by robotic and autonomous systems and will explore the potential benefits of using them for customers, the environment and other stakeholders. We will also try to discover how far we really are from truly autonomous devices that can sense their environment and direct their own activities, with a minimum of human involvement.

Chair: Chris Jones, Northumbrian Water Group / Leo Carswell WRc

09.30 Coffee & registration

10.00 Water industry needs **Chris Jones, Northumbrian Water Group**

10:15 Current practice in the water industry **Leo Carswell, WRc**

10.30 Robotics for Extreme Environments **Wez Little, Synthotech**

11:00 Tea, Coffee and Networking

11:30 Extended line of site **Tony Knowles, Energy Innovation Centre**

12.00 Managing and maintaining industrial assets **Mark Woods, SCISYS**

12:30 Discussion & Lunch

13:30 Non Destructive Testing **Patrick Boyle, James Fisher NDT**

14.00 Marine technologies, **Chris Wilkinson, SMD Ltd**

14.30 Autonomous inspection & repair of water infrastructure, **Tony Dodd, Sheffield University**

15.00 Discussion & close

15:20 Free entry to the National Space Centre exhibition

SWIG REGISTRATION: The cost of attending the Workshop is £86.00 inc VAT for SWIG members. £156 inc VAT for non-members. £43 for students. Literature may be distributed for a fee of £65 and a limited number of table top displays are available at £124 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.