

The ARROiW - Advanced Recording for Reduction of Oil in Water

A fluorescence-based sensing technology ready for commercial tests

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The ARROiW - Advanced Recording for Reduction of Oil in Water

A fluorescence-based sensing technology ready for commercial tests

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A new fluorescence-based sensing technology, which we named ARROiW – Advanced Recording for Reduction of Oil in Water, has been under development for the last four years at DTU Offshore. It is connected directly to advanced control algorithm developments for control of produced water treatment process units in the O&G industry. Based on a thorough gap analysis of existing practices around discharge monitoring and hydrocyclone control, the end goal has been to develop the ultimate monitoring/control solution to reduce the environmental impact of produced water discharges. The prototype has been thoroughly tested in a pilot plant with a flow-loop setup, and currently, we are searching for appropriate commercial partners to step forward towards commercialization. The equipment is easy to install, and due to the sensor head design, fouling issues are minimal. The system is based on advanced monitoring technology and, therefore, is also applicable in wastewater industries, e.g., industrial and municipal sewage treatment plants.

Figure 1. The ARROiW plugged and running in a flow-loop setup at Aalborg University – Esbjerg.