

# Underwater sensor successfully tested

June 5 2013

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As part of the Dutch STW SeaSTAR project researchers at the University of Twente have conducted tests using underwater communication and location finding at the Rutbeek water recreation park near Enschede. The aim of the SeaSTAR project is to develop wireless sensor network technology for underwater monitoring. These

networks can be used for the underwater monitoring of leaks or movements in gas and oil pipelines or to understand marine life, for instance, or to check water quality or inspect ports and harbours. The latest tests show that precise location finding is now possible.

"UT has developed the communication platform as well as the [underwater sensor](#) system", explains UT scientist Wouter van Kleunen. "The experiments at Rutbeek are the first ones to be carried out using the platform on a large area of water. We need to test in a realistic environment with large distances between the sensors. Measurements were made using [acoustic communication](#) and sensor location finding. Rutbeek is a good testing site in a calm environment with recreational and scientific functions."



## SeaSTAR project

The SeaSTAR project is a collaborative venture between a number of UT research groups (CAES, ICD and Pervasive Systems). Pervasive Systems is the project leader for the SeaSTAR project. The research focuses on the following areas: developing an energy-efficient acoustic underwater sensor, energy-efficient acoustic amplifiers for underwater communication, collaborative beam forming (receiving and transmitting directional signals), efficient network protocols, synchronization and location finding. All these technologies are needed for finely tuned, cost-effective underwater monitoring.



Provided by University of Twente

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