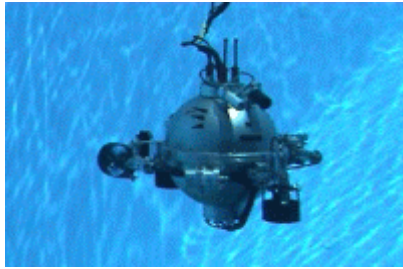


marine technology



Customer:

Vicorob, Universitat de Girona, Girona, Spain

Website:

<http://vicorob.udg.es>

Product Xsens:

[MTi Inertial Measurement Unit](#)

Project:

Control Architecture for an Autonomous Underwater Vehicle

The Underwater Robotics Research Lab of the Computer Vision and Robotics team focuses its work on the design and development of the technologies needed to set-up Autonomous Underwater Vehicles (AUVs) with application to marine science, archeology and industrial underwater inspection (Dams, harbours, pipes,...). The Underwater Robotic Intelligent System (URIS) is one of the last prototypes developed by VICOROB. It is equipped with a network of two PC104 computers interfaced with several sensors. Due to the small dimensions of URIS (sphere of 35 [cm] diameter) most of the sensors commonly used for AUVs doesn't fit onboard. For this reason, URIS sensing



subsystem is composed by two small cameras, two sonar altimeters, a depth sensor and a miniature attitude and heading reference unit from Xsens Technologies. The MTi unit is used to determine the attitude of URIS in order to stabilize it. The MTi is fast; it takes only 6 to 7 ms from the physical event until the reception of the orientation at the processor.

A Team of students of the Universitat de Girona competes in the Student Autonomous Underwater Challenge - Europe (SAUC-E), to be held in London in July, 2006.

Papers about the URIS can be downloaded at:

<http://vicorob.udg.es/fixters/articles/doc/136.pdf>

More information on the team that competes in SAUC-E can be found at:

<http://eia.udg.es/sauce>

