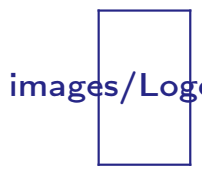
Poznan University of Technology

Institute of Control and Information Engineering

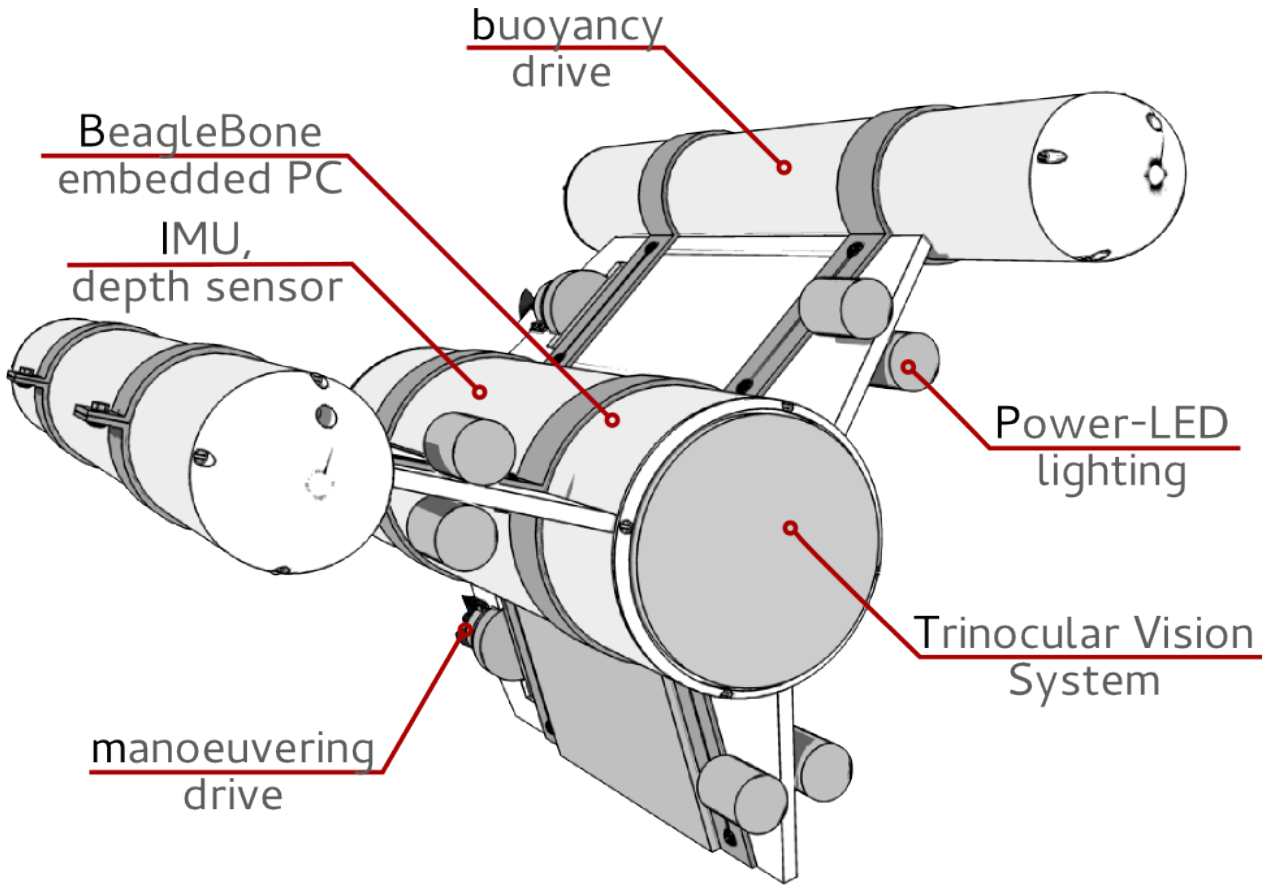
Reasearch activity

Poznań, 07.11.2012



The Isfar Project

A hybrid of ROV/AUV classes vehicle designed for the inland underwater exploration



images/Logo

images/logo-i

The Isfar Project

Parameters:

- operating depth: 20 m,
- linear velocity: 5 km/s,
- weight: 20 kg,
- dimensions: (0.6 x 0.9 x 0.4) m

Applications:

- underwater searching missions - lake/river bed scanning and mapping,
- environmental observation, water quality survey, searching for the sources of the water contamination,
- support in rescue missions,
- inspection of underwater constructions,
- archeological search

The Isfar Project

Scientific problems:

- Control of a 6 DoF underwater vehicle in the terms of disturbances such as river currents.
- Multimodal (NIR, VIS and NUV bands) image registration and data fusion algorithms for underwater imaging purposes.

References:

[1] W. Biegański, J. Ceranka, A. Kasiński , Design, control and applications of the underwater robot Isfar, Journal of Automation, Mobile Robotics & Intelligent Systems, 02/2011, pp. 60 - 65

[2] J. Ceranka, Motion Simulation and Visualisation of the Underwater Object, Poznan University of Technology Academic Journals of Electrical Engineering, 66, pp. 163 - 168, 2011