BREAKING THE SURFACE 2016 – List of tutorials

TUTORIAL 1: University of Girona
- Girona Mission Planning
- Girona500 deployment
- Girona500 data analysis

TUTORIAL 2: OceanScan
- OceanScan Mission Planning
- OceanScan - Data Analysis

TUTORIAL 3: Edin Omerdić, University of Limerick
Truster Control using LabVIEW Real-Time & FPGA Graphical Programming
Any control system for underwater vehicles must be properly interfaced with actuators (thrusters). Using the Bottom-Up approach, this tutorial is focused on the development of a interface between control software and physical actuators (thrusters). Hands-On Tutorial will demonstrate generation of FPGA-based PWM signals for high precision speed and direction control of Blue Robotics T200 thrusters. Two approaches will be explained: (i) approach based on Express VI (RT only, without need to develop FPGA code), and (ii) approach based on RT & FPGA code development. Methods to overcome friction / dead zone issues for low speed rotations will be demonstrated for both approaches.