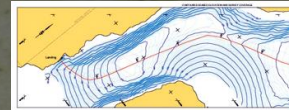


Taking Photos of the Ocean Floor Low Altitude Terrain Following with Flight Style AUVs



Planning

Inspection



Discovery

Sophia Schillai
sms4g13@soton.ac.uk

Supervisors:

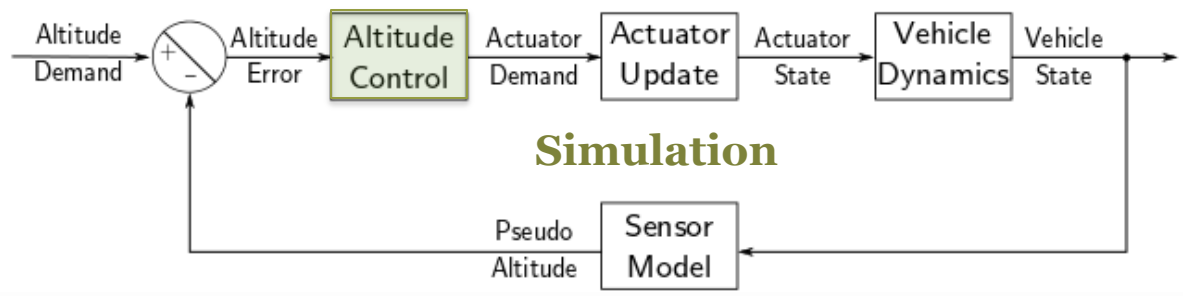
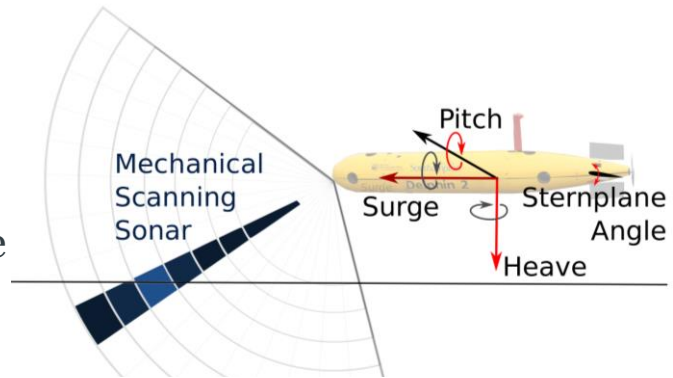
- Dr Alex B Phillips** National Oceanography Centre
- Prof Stephen R Turnock** Fluid Structure Interactions Group
- Prof Eric Rogers** Electronics and Computer Sciences
- Dr Maaten Furlong** National Oceanography Centre

Images sources:

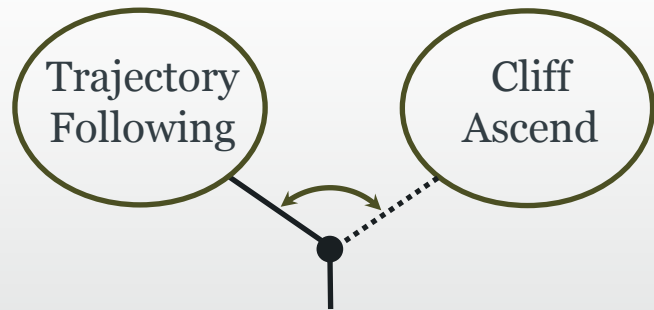
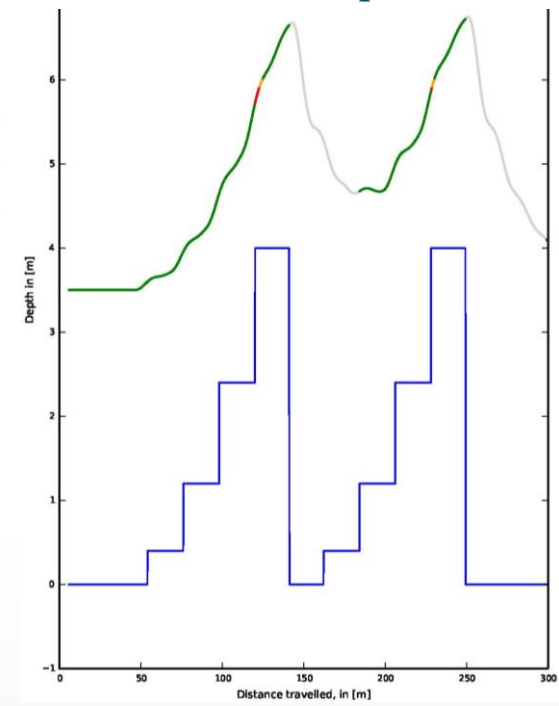
Inspection & Planning: <http://www.terramote.com/marine/electrical-transmission-and-cable-routes>

Discovery & Background photo collected as part of the AESA project, Morris et al 2014

- 1 m/s minimum speed
- 70 hours endurance
- 5.5 m long, 0.9 m diameter
- 150 m maximum sonar range



Simulation



Mapping
Maximum Ascend Rate → Hybrid Control

- Terrain
- Quantification:**
- Photo success zone 68%
- Collision zone 2.1%