

## Woods Hole Oceanographic Institution

## **Challenges and Opportunities for Robotics** and Automation Applied to Aquaculture

## January 11, 2016

| 0800 | Coffee and Pastries  |   |
|------|--|---|
| 0830 | Welcome to WHOI<br>Goals of Meeting  | Dr. James Bellingham<br>Mr. Scott Lindell |
| 0845 | Economics and Policy Considerations for Offshore Aquaculture   | Dr. Hauke Kite-Powell                     |
| 0945 | Offshore Aquaculture, Challenges and Opportunities   | Mr. David Kelly                           |
| 1015 | Break  |   |
| 1030 | What Offshore Shellfish Farmers Need   | Mr. Scott Lindell                         |
| 1115 | Distributed Robotics for Aquaculture   | Dr. Dana Yoerger                          |
|      |  |   |
| Noon | Lunch  |   |
| 1215 | Open Mike 5 minutes each, 2 slides /pitches/updates/comments   | Participants                              |
| 1315 | Break  |   |
| 1330 | Autonomous Vessels for Towing Tasks<br>In Offshore Fish Farming  | Mr. Clifford Goudey                       |
| 1400 | Development of Autonomous Sampling<br>Capability for Small Marine Organisms  | Dr. Annette Govindarajan                  |
| 1430 | Computational Vision and Aquaculture   | Dr. Yogesh Girdhar                        |
| 1500 | Monitoring for Harmful Algal Blooms<br>(HABS) and Their Toxins:<br>Application of Two Novel Biosensors -<br>The ESP and IFCB | Dr. Donald Anderson                       |
| 1530 | Closing Remarks  | Dr. James Bellingham<br>Mr. Scott Lindell |
| 1600 | Reception and Poster Session   |   |
|      |  |   |

## **Speakers**

Dr. James Bellingham, Director Center for Marine Robotics Woods Hole Oceanographic Institution Woods Hole, MA

Mr. Scott Lindell, Director, Scientific Aquaculture Program Marine Biological Laboratory Woods Hole, MA

Dr. Hauke Kite-Powell Research Specialist Marine Policy Center Woods Hole Oceanographic Institution Woods Hole, MA

Mr. David Kelly Chief Technology Officer InnovaSea Bainbridge Island, WA

Dr. Dana Yoerger Senior Scientist Deep Submergence Laboratory Woods Hole Oceanographic Institution Woods Hole, MA

Mr. Clifford Goudey, C.A. Goudey and Associates Newburyport, MA

Dr. Donald Anderson Senior Scientist Biology Department Woods Hole Oceanographic Institution Woods Hole, MA

Dr. Annette Govindarajan Research Specialist Biology Department Woods Hole Oceanographic Institution Woods Hole, MA

Dr. Yogesh Girdhar Postdoctoral Scholar AOPE Woods Hole Oceanographic Institution Woods Hole, MA