FLORIDA ATLANTIC UNIVERSITY

Department of Ocean and Mechanical Engineering

SeaTech - The Institute for Ocean and Systems Engineering

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FLORIDA ATLANTIC UNIVERSITY

MATERIALS & MECHANICS

- Infrastructure Corrosion (Concrete & Steel)
- Sensor Infused Structural Materials (Bridges)
- Mechanical Behavior of Foam Core Sandwich Structures
- Damage Models in Lightweight Sandwich Structures
- Composite Materials for Underwater Turbine Blades

UNDERWATER VEHICLES, SENSING, COMMUNICATION & ACOUSTIC IMAGING

- Autonomous underwater vehicles (AUVs)
- EMF Sensing & Target Detection
- Hydroacoustics
- Underwater Flexible Propulsors
- Sonar Imaging

BIOENGINEERING

- Control of a Dexterous Artificial Hand
- Restoring Autonomy to People with Neurotrauma
- Smart Biosensors (for Disease Monitoring)
- Placenta-on-a Chip
- Tissue Engineering & Biomaterials
- Biosensors for Biomechanical Analysis

FAU DEPARTMENT OF OCEAN & MECHANICAL ENGINEERING
FLORIDA ATLANTIC UNIVERSITY

Selected Research Projects

HYDRODYNAMICS

- Computational Fluid Dynamics (CFD)
- High-Performance Computing
- Experimental Fluid Dynamics
- Biomimetics
- Machine Learning based Flow control

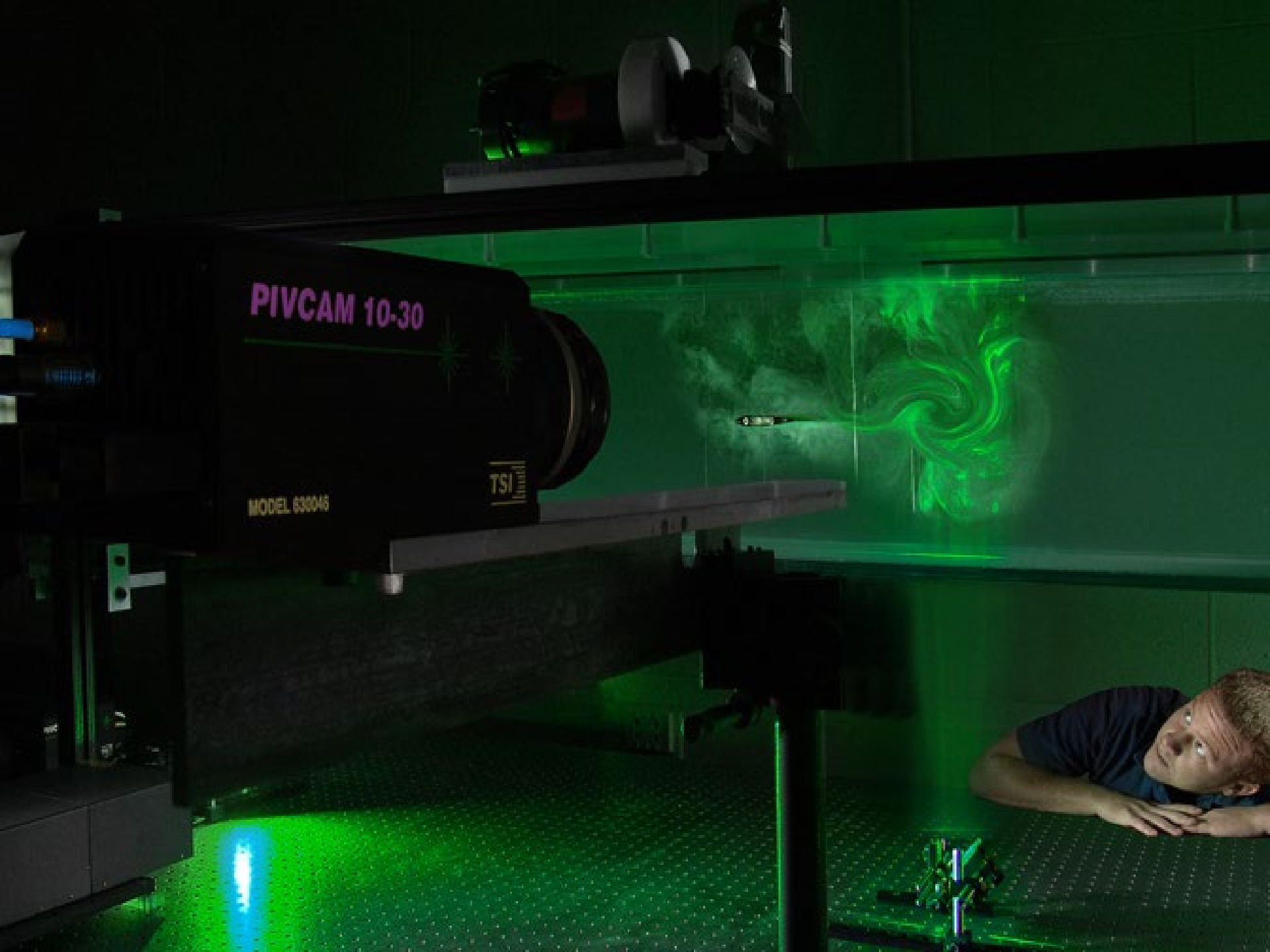
UNMANNED SURFACE VEHICLES

- Coastal Surveys and Security
- Multi-Domain Multi-vehicle Autonomy
- Machine Vision and Target Tracking
- Mobile Recharging Stations for Aerial Drones

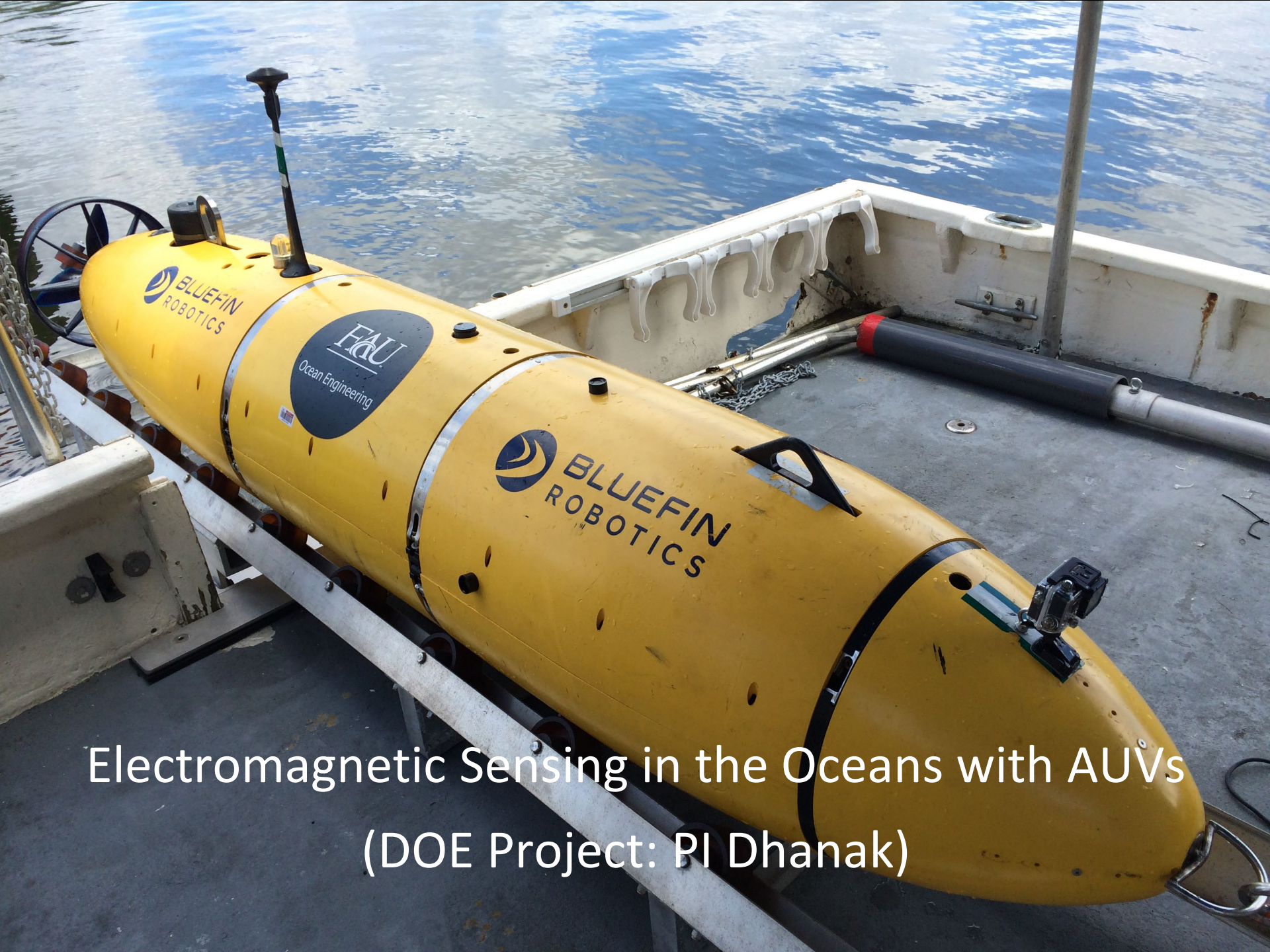

SeaTech

R/V McAllister


Hydrodynamics

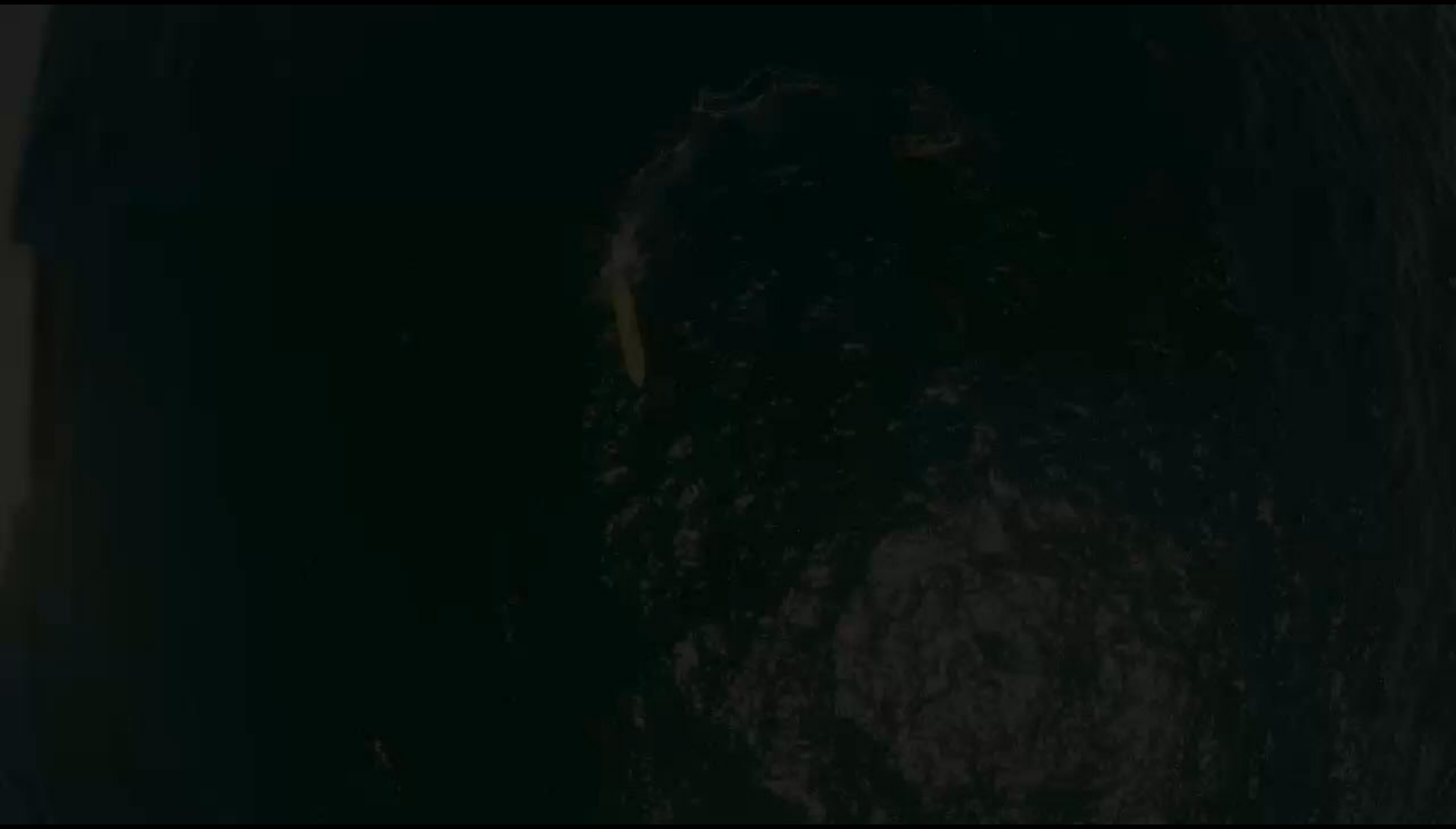

PIVCAM 10-30
MODEL 630046
TSI


Autonomous Underwater Vehicles

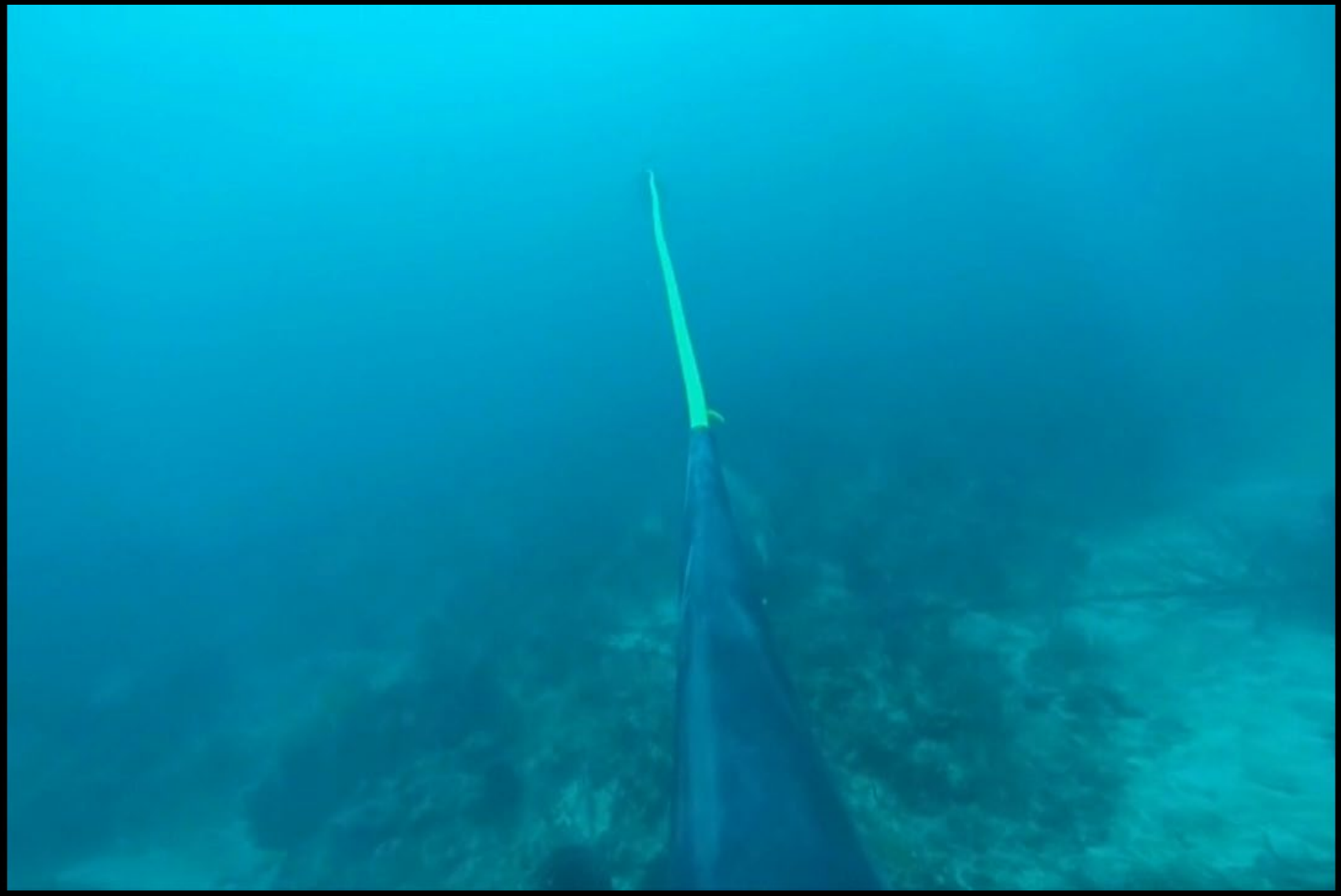


Electromagnetic Sensing in the Oceans with AUVs

(DOE Project: PI Dhanak)



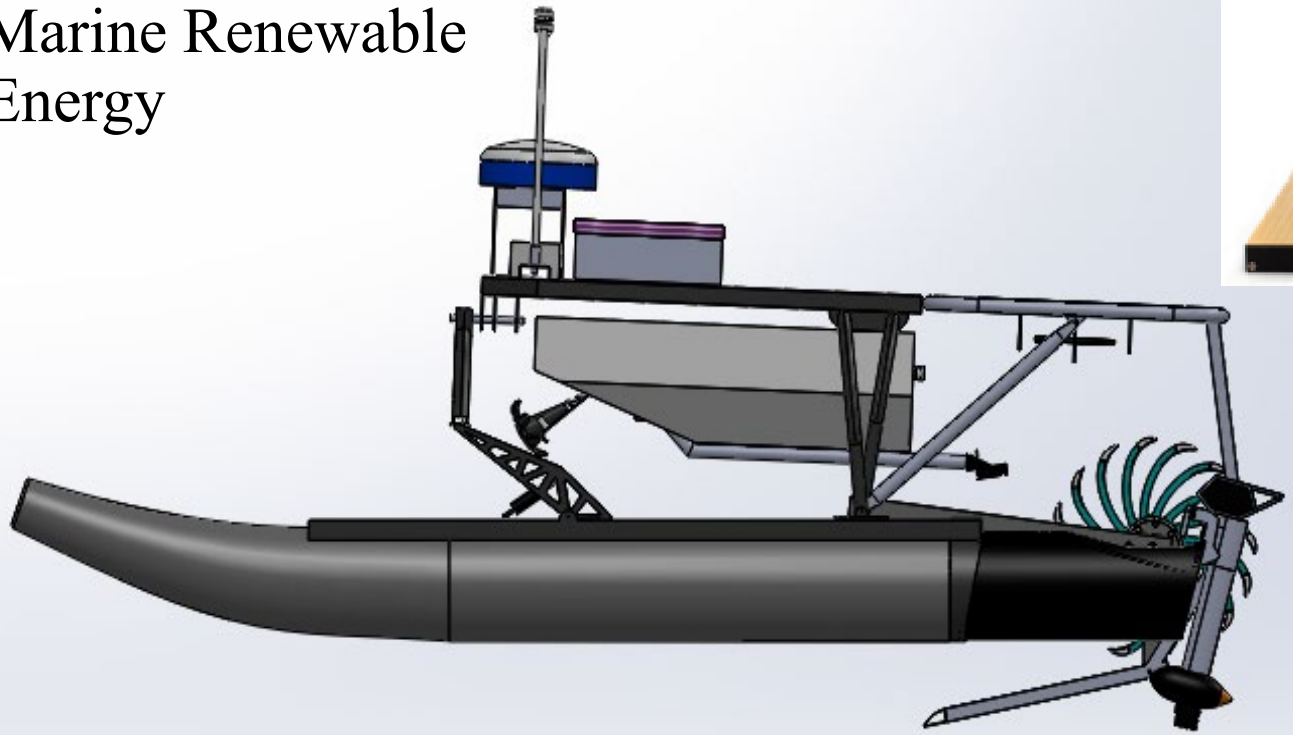
Sensing the marine environment with AUVs



Developing Autonomous Unmanned Surface Vehicles: Office of Naval Research funded project (Dhanak)

Developing Unmanned Surface Vehicles

Marine Renewable Energy



2019-22 - Department of Energy funded project to develop a low-flow marine current turbine to provide partial power for an unmanned mobile at-sea recharge station for aerial drones (PIs: Dhanak, Beaujean)

Questions?