NEW Fall 2016 NEW!!
OCN 418 Advanced Environmental Monitoring Systems & Measurements

Heeia Fishpond Monitoring Station  Raspberry Pi 3 (top)  Pressure Sensor (bottom)  Plot of telemetered pressure data from Heeia

Class: Mondays 1:30pm to 4:30pm (capped at 10 students)
Location: Marine Science Building Room 318
Prerequisites: OCN 363, MATH 242, CHEM 162/L, PHYS 272/L & junior status, or consent
Major restrictions: SOEST majors have priority, but other majors encouraged to inquire

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Course description:
In this course, students will learn to how to combine (1) environmental sensors, and (2) custom, low-cost, open-source microprocessors that can be programmed, configured, and deployed to collect in-situ environmental data and, in certain cases, stream time-series data for near-real-time monitoring and analysis.

There are two general objectives to this course: (1) review of environmental monitoring principles, instrumentation, data collection and visualization, system control and networking; and (2) assigned group environmental monitoring activities and projects where the students learn how to configure and deploy a custom sensor package to monitor temporal and/or spatial environmental variability.

Grading: Group Projects (50%); Final Presentations (25%); Course Attendance/Participation (25%)