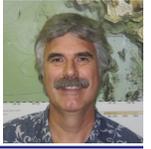


Chair’s Message



John C. Wiltshire, Chair

The School of Ocean and Earth Science and Technology (SOEST), where the Department is administratively located, has newly committed to a strong Ocean Engineering component within the School. In a time of fiscal belt tightening, this represents a major commitment. In this regard, three new faculty members have been hired since July of 2008. Two of them, Bruce Howe and Eva-Marie Nosal are featured in this newsletter. Gerard Nihous, our new ocean renewable energy faculty member, will be featured in our next newsletter. SOEST has also provided additional space to ORE students and assisted the department in getting a large number of new grants.

With this new research impetus, the Department of Ocean and Resources Engineering is a much stronger department than it was only a few years ago. We are preparing for a site visit by ABET, our engineering accreditation commission, in November. The department is also reinforcing its close ties with the local ocean engineering community and has developed a successful and growing internship program for its students with half a dozen local engineering companies. These companies, in turn, benefit from a steady stream of

high quality graduates. The department supplies perhaps half the demand annually of new ocean related engineers in Hawaii.

During this period, the department has had a major changing of the guard with the retirement of founding secretary, Mrs. Edith Katada. Edith began with ORE before the department was formally established and continued for over 42 years, the entire formative time of the department (which was founded in 1966). The tough job of filling Edith’s shoes has fallen on the very capable Ms. Natalie Nagai. She joins us from the College of Agriculture and School of Medicine where she gained broad experience now to the benefit of ORE.

The Dean’s office has assured me of their strong commitment to the long-term growth of ocean engineering in the School of Ocean and Earth Science and Technology. Many ORE specialties are expanding, including new offshore energy technologies, ocean observation, tsunami and wave modeling, coastal process hazards and monitoring, acoustics, and advanced ocean sensing and instrumentation. We are looking forward to both an expanded role within SOEST and the State of Hawaii as a whole. Featured in this newsletter are some of the things we are

doing. We greatly welcome comments, news and support from our illustrious graduates who now number several hundred.

Warmest aloha,
John Wiltshire

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Photo of the issue: *ORE AT A GLANCE!* (Fall 2008)



‘Photo of the issue’ is the place to publish ORE related photos. Feel free to send us your interesting ORE related photos to be published here!

Students' Voice



Masoud Hayatdavoodi, Student Representative

I would like to start this column by emphasizing the importance of having a newsletter in the department. In addition to a place to broadcast the news of the department, an academic newsletter published on a regular basis provides an excellent opportunity for faculty, students and alumni to express their thoughts and ideas to help the department make progress toward its goals.

For faculty members, here is a public place to share their projects and research works with others, and also talk about general topics that may not be discussed in class.

For students, a newsletter is a great opportunity to be involved in the improvement of the department. In a way, the whole period of the student life is a training period. One of the essential things that a student may learn is how to look at the system with critical eyes and to be able to find solutions and then express the ideas in a systematic approach. A newsletter provides this

chance for students to talk and to hear about opinions and suggestions for every issue that concerns their academic life. This is an excellent practice for a real life experience. As this column is called, 'Students' Voice', this newsletter is a place for them to express themselves freely and all other ORE members will hear their voice.

In addition to improving the good prestige of the school, alumni can benefit the department by offering constructive criticism and thereby have a positive influence on the school. Newsletters can act as a connective bridge between the current members of the department and its alumni. Keeping this connection has tremendous value and a newsletter is an easy way to make this communication stronger than before.

Different ideas and thoughts are needed to explore the weaknesses and strengths of a system and various solutions need to be discussed in order to switch the threats into opportunities. Our newsletter can provide the space to express

these thoughts and ideas to move toward a stronger department. On behalf of ORE students, I would like to express my gratitude in having the Hana O Ke Kai back and hope to see the newsletter on a regular basis.

Shifting gears and on a different topic, since the last issue of Hana O Ke Kai, several new students have entered the school and many have graduated from the department and started new chapters of their lives. Many events and changes have also happened. Unfortunately, there is not enough space here to focus on each. Alternatively, a special section called 'Alumni' has been dedicated to their news and updates. This section will hopefully remain in future issues. Please refer to this page to hear about our recent graduated students. In the next issue, on the other hand, there will be a page for the new incoming students.

Aloha and have a great and successful summer and hope to talk to you soon again.

Faculty

(Continued from page 3)

... and monitoring of marine mammals through their vocalizations. Starting in 2003, Howe began using undersea "acoustic" gliders, navigating them using RAFOS signals, receiving tomography and sonar signals, and listening for marine mammals. Adding acoustic modems, the gliders became communications gateways transferring data and commands between other subsea platforms and the pilots on shore.

As an outgrowth of the ATOC experience, Howe helped plan and design the NEPTUNE cabled ocean observatory on the Juan de Fuca plate in the northeast Pacific. This is now being implemented as NEPTUNE Canada and the US Regional Scale Nodes component of the NSF-funded Ocean Observatories

Initiative (OOI). He led the project to design the power system, a prototype now installed in the MARS testbed node in Monterey Bay.

As a step toward being able to moor cabled acoustic sources and receivers, he developed the ALOHA-MARS mooring system (see figure). The basic concept is to extend the power, communications, and timing infrastructure of a seafloor cabled system throughout the water column. In this case, a "node" is on the subsurface float, and a profiler moves up and down the mooring line, occasionally docking and charging its batteries. This figure also shows acoustic gliders extending the spatial footprint of the fixed mooring system.

In the future, Howe expects to continue and extend these many lines of research: using gliders as mobile tomography receivers (in the upcoming ONR Philippine Sea experiment); using the

AMM mooring system in Monterey Bay to study the feedback between circulation and tidal mixing; finalizing the installation of the ALOHA Cabled Observatory (ACO, 100 km north of Oahu); continue the development of mooring systems including a fast profiler, a large, high payload slow profiler, and installing similar mooring systems with acoustic transceivers to form nodes for sustained acoustic monitoring of the North Pacific; and help to further develop the Kilo Nalu Observatory (KNO) with acoustic nodes and AUV docking. These projects will be collaborative with University, national, and international colleagues.

Howe will teach a course in applications of ocean acoustics. He is looking forward to working with colleagues in ORE and SOEST to further develop the academic basis of ocean observing, including acoustics.

Faculty



Eva Marie Nosal

Dr. **Eva-Marie** Nosal joined the ORE department as Assistant Professor in August 2008. She holds two B.Sc. degrees in Mathematics (Pure and Applied) and a B.Mus. in Piano Performance from the University of



Calgary (2000). She received her M.Sc. in Mathematics from the University of British Columbia in 2003 and her Ph.D. in Geophysics from the University of Hawaii in 2007. Dr. Nosal's research interests include mathematical, statistical, and computational modeling of physical systems and processes, statistical and digital signal processing, ocean and seabed acoustics, bioacoustics, and inverse methods. Her work in underwater acoustics develops and applies passive acoustic detection, classification, and tracking methods to monitor the marine environment. These methods are used to observe movement of and within the water column, changes in water properties, and the location and nature of biological, meteorological, seismic, and anthropogenic noise sources. Among other applications, acoustics is also a valuable tool for navigation of mobile

observational platforms such as AUVs and gliders and for measurements of ocean and seabed properties from such platforms. Dr. Nosal is cooperating with Dr. Bruce Howe to establish underwater acoustic capabilities and courses in the ORE department. In the 2008/09 academic year Dr. Nosal taught Oceanography for Ocean Engineers (ORE603) and Numerical Analysis of Hydrodynamic Problems (ORE 766).



Bruce Howe

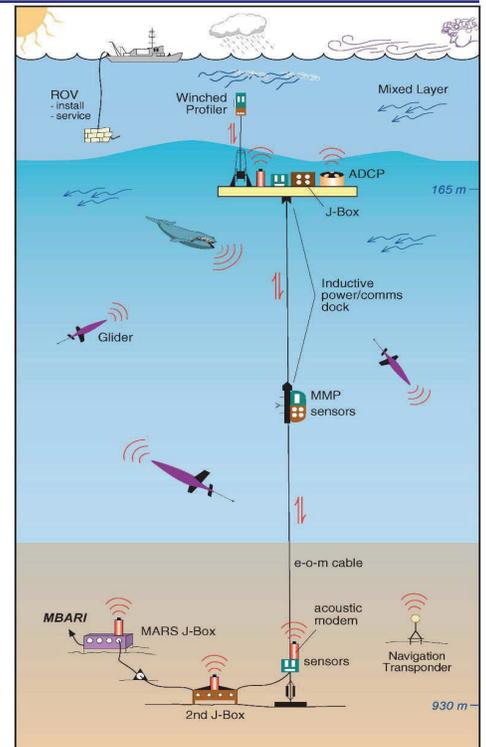
Bruec **Howe** joined ORE last summer as a Researcher, one of six recent SOEST hires in Ocean Observing. His primary interest is developing fixed and mobile sensor network infrastructure for ocean observing, with an emphasis on integrated acoustics systems for navigation, communications and science.

Prof. Howe received a BS degree in mechanical engineering and an MS degree in engineering science in 1978 from Stanford University, and his PhD degree in oceanography in 1986 from the Scripps Institution of Oceanography, University of California, San Diego. From 1987 through 2008 he was an Oceanographer at the Applied Physics Laboratory, University of Washington.

While at Stanford he developed laser

Doppler velocimetry (LDV) instrumentation for air-sea interaction experiments. From 1979 to 1981, he was a Research Associate at the Institut für Hydromechanik, Universität Karlsruhe, working on LDVs for use in the atmospheric boundary layer. While at Scripps and since then he has worked on ocean acoustic tomography, including using reciprocal transmissions for mesoscale velocity, moving ship tomography over 1000 km scales, tracking Gulf Stream meanders, and the North Pacific Acoustic Thermometry of Ocean Climate (ATOC) project, measuring basin-scale temperature. In related work, he has contributed to understanding the effects of internal waves on long-range propagation, long term-trends in ambient sound, ...

(Continued on page 2)



Events



**28th International Conference
on Ocean, Offshore and
Arctic Engineering**
Honolulu, Hawaii • 31 May - 5 June 2009



By R.C. Ertekin and H.R. Riggs, Conference Co-Chairs

OMAE is the acronym for Offshore Mechanics and Arctic Engineering and refers to the annual conference series organized by the Ocean, Offshore and Arctic Engineering Division of the American Society of Mechanical Engineers. As of 2009, the OMAE conference series is now called the International Conference on Ocean, Offshore and Arctic Engineering, a change that reflects the expanded focus of the OMAE Division. OMAE 2009 is the 28th of these annual conferences. The OMAE conferences are held at different locations around the world, generally alternating between the Americas, Europe and Asia. OMAE 2010, for example, will be in Shanghai, China.

OMAe conferences are the premier forum for researchers, engineers, managers, technicians and students from the scientific and industrial communities from around the world to meet and present advances in technology and its scientific support; to exchange ideas and experiences whilst promoting technological progress and its application in industry; and to promote international cooperation in ocean, offshore and arctic engineering. This year's conference was no exception.

It was the first time an OMAE conference was held in Hawaii. OMAE 2009 was locally organized by the University of Hawaii's Department of Civil and Environmental Engineering of the College of Engineering and the Department of Ocean and Resources Engineering of the School of Ocean and Earth Science and Technology. It was held at the Sheraton Waikiki Ho-

tel on May 31-June 5, 2009. About 750 people registered for the conference. Considering the significant economic downturn and the swine flu threat, the registration stats for the conference were quite surprising, of course in a pleasant way. Forty-one countries participated in the conference, 740 presentations were scheduled, and 716 written papers were included in the Proceedings of the conference published on DVD. The 740 presentations were a result of 1,130 abstracts initially submitted to the conference web site. Every manuscript, selected among the accepted abstracts, had been peer reviewed and the accepted ones had been revised before appearing in the Proceedings.

OMAe 2009 showcased the exciting and challenging developments occurring in the industry. Program highlights included a special symposium honoring the important accomplishments of Professor Chiang C. Mei of MIT in the fields of wave mechanics and hydrodynamics and a joint forum of 'Offshore Technology', 'Structures, Safety and Reliability' and 'Ocean Engineering' Symposia on Shallow Water Waves and Hydrodynamics. OMAE 2009 also had special symposia on:

- Ocean Renewable Energy,
- Offshore Measurement and Data Interpretation,
- Offshore Geotechnics, and
- Petroleum Technology

Offshore Geotechnics Special Symposium was first established in 2009 and it was very successful, bringing in



Prof. CC. Mei is receiving the Life-time Achievement Award from ASME during the Awards luncheon of OMAE 2009 (from left, Prof. Carlos Guedes Soares of Instituto Superior Tecnico, Portugal, Prof. Chiang C. Mei of MIT, and Prof. Segen Estefen of PENO/COPPE/UFRJ of Brazil.

about 50 papers. The regular symposia included in the OMAE 2009 program were:

- Offshore Technology
- Structures, Safety and Reliability
- Materials Technology
- Pipeline and Riser Technology
- Ocean Space Utilization
- Ocean Engineering
- Polar and Arctic Sciences and Technology
- CFD and VIV

Dr. Subrata K. Chakrabarti, who has been the Coordinator of the Offshore Technology Symposium in the last 28 years and the Technical Program Chair of OMAE 2009, unexpectedly passed away on January 23, 2009. He was a leader in the field of offshore engineering, a fellow of ASME, and a member of the U.S. National Academy ... (Continued on page 5)

Events



Dr. Subrata Chakrabarti's wife, Prakriti (Nature) and their son, Prabal, receiving the Koa bowl in memory of him from Dr. Denby Morrison and Prof. Segen Estefen during the opening session. Various speakers honored Subrata for his 28 years of volunteering and mentoring for the OMAE conferences.

(Continued from page 4)

of Engineering. OMAE2009 was dedicated to him to honor his accomplishments and to show our appreciation for his friendship and mentorship. A eulogy for Dr. Chakrabarti can be accessed at

<http://www.asmeconferences.org/OMAEO9/SubrataChakrabarti.cfm>

Three short courses were held the weekend before the Conference. They were

- Ice Engineering - taught by Dr. Walter Kuehnlein
- Wave Energy - taught by Prof. Antonio Falcao and Dr. Teresa Pontes
- Vortex-Induced Vibrations - taught by Dr. Robert D. Blevins

Thirty-two participants attended these courses taught by experts.

The plenary session included three

keynote speakers during the morning of the opening day:

- Mr. Robert Ryan, Voce-president, Global Exploration, Chevron Corp. - *The Challenge of Offshore Energy Resources*
- Rep. Cynthia Thielen, Assistant Republican Leader in the Hawaii House of Representatives, - *Ocean Renewable Energies in Hawaii and the Pacific*
- John Murray, Director of Technology Development with FloaTEC, LLC, Houston - *Offshore Frontiers - Challenges and Solutions*

Despite the worldwide recession, OMAE 2009 attracted many sponsors of various events and activities. These sponsors included

- MARIN, Netherlands
- Hawaii Department of Business, Economic Development & Tourism - DBEDT
- ACUSIM Software, Inc.
- C-FER Technologies
- U.S. Minerals Management Service - MMS
- TerraSond Limited
- TransOcean
- MMI Engineering



Representative Cynthia Thielen delivering her keynote speech on Ocean Renewable Energies in Hawaii and the Pacific during the opening session.

- LEMMA, France
- American Bureau of Shipping - ABS
- ENERGO
- Makai Ocean Engineering
- Elsevier, Netherlands
- Ship & Port, Germany

A specialty forum, called Outreach to Engineers, is designed for new graduates and early professionals who may not be familiar with the industry as well as those who have already specialized in this area. This was the third year for the Outreach to Engineers Forum to be held during OMAE. Highlights of the Forum included presentations of the various technologies required (e.g. from geosciences to mechanical/structural engineering and project management), types of job opportunities and possible career paths, as well as site tours. A job fair allowed the participants the opportunity to discuss their situations with engineers, managers and human resource professionals from some of the leading companies in the industry. Students who were selected to attend received scholarships.

Finally, the following University of Hawaii students volunteered at OMAE 2009: Patrick Anderson, Yefei Bai, Richard Carter, Inchieh Chen, Blue Eisen, Liang Ge, Masoud Hayatdavoodi, Abdulla Mohamed, Miguel Quintero, Krystian Paczkowski, Krishnakumar Rajagopalan, Volker Roeber, Tim Roy, Laxman Sharma, Justin Stopa, Jacob Tyler, Yongyan Wu. Their dedicated help is very much appreciated.

Inside ORE

Fluid Dynamics Laboratory

Geno Pawlak



The Fluid Dynamics Laboratory focuses on the study of coastal and marine hydrodynamics including turbulent dispersal of pollutants and nutrients, wave dynamics, flow over rough boundaries, sediment transport, and performance of hydrofoils. In addition, the laboratory is home to the Fluid Dynamics Education Laboratory, which serves as a center for teaching of fluids phenomena in support of courses within the Department and SOEST and is available to the general University community. Laboratory instrumentation includes a number of Acoustic Doppler Velocimeters (ADVs), which obtain high frequency, single point, 3-component ve-

locity measurements. A laser-based Particle Imaging Velocimetry (PIV) system obtains two-dimensional fluid velocity via laser imaging techniques. A pulsed YaG laser with digital still and video cameras is used for flow visualization and measurement.

Kilo Nalu Ocean Observatory, AUV and In-ocean Experiments

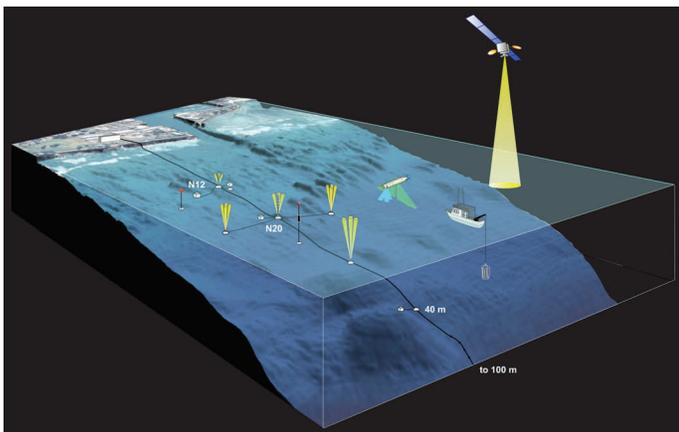
The Department maintains research facilities at Snug Harbor and offshore of Kewalo Basin for staging and in-ocean experiments. These facilities include field research equipment and instrumentation, a 25-ft motorboat (R/V/*Kilo Kai*) and access to a 57-ft coastal research vessel (R/V/*Klaus Wyrki*), as well as machine shop support. The state-of-the-art Kilo Nalu Reef Observatory, on the south shore of Oahu provides a window into the nearshore coral reef physical, biological and chemical environment. The setting for Kilo Nalu is the region offshore of Kakaako Waterfront Park, east of downtown Honolulu and west of Waikiki and Ala Moana. The observatory is managed and maintained by ORE and is being actively used in numerous research projects focusing on water quality variability, benthic boundary layer physics and geochemistry, stratified turbulence, internal wave dynamics and sediment porewater processes. Research at the observatory involves collaborations with numerous units across UH (Oceanography, HIMB, HIGP, Mechanical Engineering) as well as outside of the university (Stanford University, Naval Postgraduate School, Oregon State University, NOAA CRED and NOAA PMEL) with funding from a range of agencies (National Science Foundation,

NOAA Coastal Services Center, Office of Naval Research, UH Sea Grant Foundation, City and County of Honolulu). In addition, Kilo Nalu is a key component in the Hawaii Ocean Observing System (HIOOS), providing real-time observations for online access and for numerical model validation.

Kilo Nalu provides data and power connections to a suite of observational instruments. Baseline observations include water currents and temperature versus depth, directional wave spectra, salinity, acoustic backscatter, turbidity, dissolved oxygen and chlorophyll fluorescence. Meteorological data is collected at the observatory's shore station. The 7-acre in-ocean test range off Kewalo Basin extends from 5 to 20 meters depth with test platforms equipped with shore-cabled power supply outlets and data connections. The Kilo Nalu equipment suite includes acoustic current profilers, current meters, wave gauges, thermistors, pressure sensors, conductivity-temperature-depth (CTD) sensors, anemometers, buoys, mooring equipment and SCUBA diving gear.

The ORE field program operates a REMUS (Remote Environmental Monitoring UnitS: Hydroid, Inc.) autonomous underwater vehicle (AUV) in support of research and teaching programs.

(Continued on page 7)

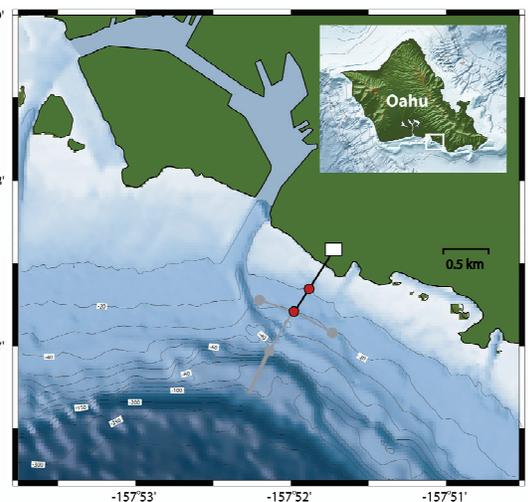


Kilo Nalu Observatory array, with N12 and N20 node locations including baseline observational components. Along-shore ADCP sites at N20 and deeper cable extension are presently under development.

locity measurements. A laser-based Particle Imaging Velocimetry (PIV) system obtains two-dimensional fluid velocity via laser imaging techniques. A pulsed YaG laser with digital still and video cameras is used for flow visualization and measurement.

The laboratory houses a number of experiment tanks, which are used for both research and teaching demonstrations. These include a 10-meter long, 30 × 10 cm wave channel and a rotating table. The tanks allow demonstration of a range of fluid flow phenomena including

benthic boundary layer physics and geochemistry, stratified turbulence, internal wave dynamics and sediment porewater processes. Research at the observatory involves collaborations with numerous units across UH (Oceanography, HIMB, HIGP, Mechanical Engineering) as well as outside of the university (Stanford University, Naval Postgraduate School, Oregon State University, NOAA CRED and NOAA PMEL) with funding from a range of agencies (National Science Foundation,



South shore of Oahu, with Kilo Nalu site.

Inside ORE

Honoring 40 years of Service

Masoud Hayatdavoodi

After 42 years of excellent service to ORE, in an April morning of year 2008, Edith Katada, wearing a beautiful white, green and pinkish dress and a dark sunglass with a deep smile on her face, was driving her car toward Wai'oli Tea Room at Manoa, where her retirement luncheon was going to be held at 11:30 am. She decided to start a new life style by retiring from the place that she has been working for 42 years of her life, Ocean and Resources Engineering department, department where she was there since the very first day of the establishment. This is obviously not a simple decision, to change your life after almost half a century.

The luncheon is not supposed to be big, as Edith emphasized many times, only few alumni, faculty, students and staff of the school. 60 participants are in the Wai'oli Tea Room, all guests who were eager to honor Edith and help celebrate her retirement. Several people are giving short speeches about Edith's outstanding services over the years. A memorial movie is recorded for her, interviewing

department's faculty and students sharing their memories with Edith, as well as some scenes of the department and the university. She receives gifts from attendees and SOEST principals, including many who could not make it there for the luncheon but sent their messages and gift shares.

The ceremony is almost over, it's time for some personal pictures and then finishing the luncheon. People are almost



gone and it's time for her to go back home. She has more time to spend with her family and for her personal life now.

Although the retirement luncheon was a very small gesture compared to her wonderful years of service to the school, at least it was an opportunity to show her how grateful the ORE family is for all she has given to them.

It's early morning of the next day. Unlike the past 42 years of her life, even though it's a week day, she does not need to say bye to family members. She has chosen to not leave in the morning and come back in the afternoon anymore.

ORE and Edith has been inseparable, Edith has contributed so much to this department to see ORE to what it is today. ORE, on the other hand, has been a chapter of Edith's life. It was not very difficult to tell that Edith was happy deep inside and filled with many memories of her achievements with ORE: Very professional and excellent service to the place that she worked. Mission is accomplished in the best possible way.

Mahalo nui loa Edith and good luck in every second of your life.

Kilo Nalu Ocean Observatory ... (Continued from page 6)

The AUV can operate at depths of up to 100 m (328 feet) and is equipped with two ADCPs (Acoustic Doppler Current Profilers), one upward looking and one downward looking, and sidescan sonar. The UH Remus is additionally outfitted with underwater modem communication, GPS navigation, a Seabird CTD, a Wetlabs ECO sensor, and Wi-Fi. Other sensors can be added as needed. Four batteries power the vehicle for maximum mission distances of approximately 55 km at 3 knots. The vehicle is small in comparison to most AUVs, with a weight of 90 lbs REMUS can be deployed and recovered by two individuals from a small craft.

ORE researchers carry out monthly Remus AUV surveys focusing on the south shore of Oahu as part of the HIOOS program. In addition, AUV

surveys also target specific water quality 'events' such as effluent spills and high run-off periods. REMUS provides critical spatial context for the nearshore/offshore sensor network and water sampling programs.

In addition, the ORE field program operates a Seabotix LBV150 remotely operated vehicle (ROV). The LBV150s equipped with two video cameras and a grabber arm and can oper-

ate to depths of 150m, from small vessels.



ORE technician, Kimball Millikan, services equipment at the Kilo Nalu Observatory.

Alumni

Since the last issue of HANA O KE KAI in Fall 2006, several Masters and PhD students have graduated from the department and are now among the alumni family. In this issue and in order to hear and keep in touch with our alumni, several of them were contacted. They were asked 11 questions. The questions are given below and their answers are given in the same order as the questions.

Questions:

1. Name.
2. Admission Date (Year and semester).
3. Graduation Date.
4. Graduation level (MSc. or PhD).
5. Advisor.
6. City and Country that you live in now.
7. One thing that you liked the most about ORE.
8. One thing that you would change in ORE.
9. A short description about your current professional life.
10. Something about your current personal life that you would like to share with others.
11. A message to the current ORE students, faculty and staff .

- cial and private jets.
10. I've done so much diving the past month that I hardly have room for all the fish I've speared.
11. Thanks for being such a great department and a great group of people. A warm ALOHA from the mainland to all!



1. **Lei Yan**
2. Fall 2006
3. December 2008
4. Masters of Science
5. Dr. Cheung
6. Small city of China
7. The courses are really good combination about Ocean Engineering, and I think it will be better if some applied math course is added since students have different backgrounds.
8. ORE needs more office and more experiment facilities
- 9.
- 10.
11. I have advice to new student that when facing the difficult problem, keeping calm is the first and most important thing.

3. Summer 2008
4. Masters
5. Hans Krock
6. Honolulu, USA
7. Good classes and interesting material
8. More student desk and office space
9. Currently a Project Manager at a private engineering consulting company - Lyon Associates, Inc.
10. Attending new hope diamond head church
11. Thank you to all the faculty and staff for leading a great graduate program.



1. **Miguel Canals**
2. Fall 2005
3. Fall 2008
4. PhD
5. Geno Pawlak
6. Rincon, Puerto Rico
7. Great thesis advisor, excellent courses, living in Hawaii, campus close to the waves
8. More diverse courses, I guess that changes now with more faculty members at ORE
9. Assistant Professor, Department of Engineering Science and Materials, University of Puerto Rico at Mayaguez. Teaching courses in fluid mechanics and coastal hydrodynamics and doing research.
10. I had no idea being a professor was so time consuming!
11. To the faculty: core courses were excellent and prepared me very well for life in academia. Overall it was great to be at ORE, it's amazing how lucky we were to study ocean engineering in Hawaii. Live your dreams and never give up!



1. **Krystin K. Bablinskas**
2. Fall 2007
3. May 2009
4. Masters of Science
5. John Wiltshire
6. Pismo Beach, California, USA.
7. Friendly, interesting, international group of people.
8. More boat trips in Geno's lab class!
9. I work for C&D Zodiac in Santa Maria, CA as a Design Engineer designing aircraft interiors for commer-



1. **Ty Dempsey**
2. Fall 2001

Alumni



1. Gregory Wong

2. not sure it was a long time ago 1999?
3. December 2008
4. MS
5. Dr. Cheung
6. Honolulu Hawaii
7. The professors and students
- 8.
9. I am an Engineer and Captain for Navatek Ltd. doing research, development and testing on novel planning hulls, lifting body ships with Adaptive Ride Enhancement Systems.
- 10.
- 11.

1. Alejandro Sanchez

2. Fall 2004
3. Fall 2006
4. MSc
5. Dr Kwok Fai Cheung
6. Vicksburg, MS
7. Great professors
8. Needs a lab and more professors
9. I'm a Research Hydraulic Engineer for the US Army Corps of Engineers at the Coastal and Hydraulics Laboratory
10. Sophie, my wife, is also a graduate of ORE and we recently had a baby boy named Emmanuel.
11. We miss ORE a lot and wish you all the best.

1. Eric Sites

2. Fall 2005
3. Spring 2008
4. MSc.
5. R. Cengiz Ertekin
6. Currently residing in Houston, TX
7. In addition to my education, I left the ORE department with some great friendships that will last a lifetime.
8. I would increase the number of social functions for faculty and students to attend.



9. I am currently working as a Hydrodynamic Engineer for SBM Offshore. Since the beginning of my employment with SBM I have worked on a variety of projects including performing stability analysis for semi-submersible platforms and TLPs and analysis of mooring and riser systems for FPSOs. I have also had the opportunity to be an on-site engineer for the inclination test of a semi-submersible platform.

10. My latest endeavor is to learn to speak French, wish me luck. Au revior!
11. I wish all the faculty, staff, and students the best of luck in the future. ORE is a great department but even great things can be improved upon. With continued effort and involvement from students, staff, and faculty, the department will only get better.

1. Ryan N. Smith

2. Fall 2003
3. Fall 2008
4. Ph.D.
5. Monique Chyba
6. Pasadena, CA USA
7. Exposure to a variety of opportunities and research areas within Ocean Engineering
- 8.
9. Ryan is currently a postdoctoral research assistant working in the Robotic Embedded Systems Laboratory, Department of Computer Science at the University of Southern California. One current research project is trajectory planning and optimization for fleets of autonomous underwater vehicles, based on ocean model predictions. Collaboration with marine biologists and oceanographers implement these trajectories for monitoring and assessment of Southern California's aquatic ecosystems, and in particular, the observation and prediction of harmful algal blooms.
10. Ryan and his wife Ellen are expecting the birth of their first child in late December 2009.
- 11.

1. Marion Bandet (Chavanne)

2. Spring 2001



3. Spring 2009

4. PhD
5. Geno Pawlak
6. Norwich UK
7. Being able to have hands-on experience
8. The student dynamics. I would have loved to see more interactions between students outside the classroom...
9. We just arrived in Norwich, UK, where my husband started a post-doc at the University of East Anglia at the beginning of the year. I am taking some time off at the moment to take care of my newborn son and work on my publications... but keeping an eye open for the next step!
10. I have 2 wonderful keikis! Margot, 2.5-year old and Anael, born on May 1 this year.
11. I had a wonderful time in Hawaii and at UH Manoa thanks in part to the ORE Ohana. To the current students: hang in there! To the faculty and staff: I will cherish the memories of my time in ORE and people I met there... hope to stay in touch! Aloha!

1. Justin Goo

2. Fall 05
3. Fall 07
4. MSc
5. Kwok Fai Cheung
6. Honolulu, HI
7. Variety of classes offered
- 8.
9. Currently working for the US Army Corps of Engineers Honolulu District
- 10.
11. I would like to thank the faculty and staff for helping to prepare me for my career in coastal engineering. I wish the current ORE students the best of luck with their education and future endeavors.

Final Page

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Please do not include my name in the ORE Enrichment Fund Donor Report
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Please mail your check and this form to: c/o ORE Enrichment Fund Administrator, Department of Ocean and Resources Engineering, University of Hawaii at Manoa, 2540 Dole Street, Holmes Hall 402, Honolulu, HI 96822, USA
Eml: adminore@hawaii.edu, **Tel:** +1 (808) 956-7572, **Fax:** +1 (808) 956-3498

Some Recent Publications

- Bai, Z., Wen, Z., and Wiltshire, J.C. 2009. Anticorrosive coatings prepared using the tailings of cobalt-rich manganese crusts: Preparation and properties, Marine Georesources and Geotechnology, in review.
- Colosi, J.A., Xu, J., Worcester, P.F., Dzieciuch, M.A., Munk, W.H., Howe, B.M., and Mercer, J.A. 2009. Temporal and vertical scales of acoustic fluctuations for 75-Hz, broadband transmissions to 87-km range in the eastern North Pacific Ocean, J. Acoust. Soc. Am., accepted.
- Yamazaki, Y., Kowalik, Z., and Cheung, K.F. 2009. Depth-integrated, non-hydrostatic model for wave breaking and runup, International Journal for Numerical Methods in Fluids, in press.
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- Nihous, G.C. 2009. Axisymmetric Large Eddy Simulation of a Circular Source of Buoyancy, International Journal of Heat and Fluid Flow, 7 p, in press.
- Nosal, E.-M., Tau, C., Baffi, S., Wilkens, R., Fu, S.S., Richardson, M. 2008. Compressional wave velocity and attenuation in carbonate sediments of Kaneohe Bay, Oahu, IEEE J. Ocean Engineering 33(4), 367-374.
- Canals, M., Pawlak, G., and MacCready, P. 2008. Three-dimensional structure of a strongly tilted tidal vortex, J. Physical Oceanography, in press.



Hana O Ke Kai

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 Department of Ocean and Resources Engineering
 School of Ocean and Earth Science and Technology
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2540 Dole Street, Holmes Hall 402
 Honolulu, HI 96855-2303
 USA

TEL: +1(808)956-7572
 FAX: +1(808)956-3498
 Email: adminore@hawaii.edu
 URL: <http://www.ore.hawaii.edu>

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