About 300 UH Mānoa engineering and computer sciences students got a chance to meet with potential future employers at the College of Engineering’s annual Spring Career Day 2010, held on February 10th at Holmes Hall.

Holmes Hall was abuzz with motivated students and quality employers.

Over 60 local, national and international companies participated in the event, jointly sponsored by the College of Engineering and the Department of Information & Computer Sciences. Many companies continued their long-standing presence at Career Day including Northrop Grumman, BAE Systems, Hawaiian Electric Company, the Pearl Harbor Naval Shipyard & IMF. Although the current economic downturn has resulted in a slight decline in the number of participating companies from around 85, there were also new companies joining Career Day for the first time like SAIC, Rainforest G Construction LLC and Hawthorne Pacific Corp.

“Our students are our number one priority and our Career Day gives them a golden opportunity to touch bases with the companies that are hiring,” said Dean Crouch. “On the other hand, these companies get a first look at our well-qualified students and it becomes a win-win situation for both parties.”

PARTICIPATING COMPANIES

- Actus Lend Lease, LLC
- AECOM Pacific
- Albert C. Kobayashi, Inc.
- Allana Buck & Bers, Inc.
- Austin, Tsuchimi & Associates, Inc.
- BAE Systems
- Boeing Company
- Bombardier Transportation
- Camber Corporation
- Central Intelligence Agency
- Community Planning and Engineering, Inc.
- Department of Transportation – Highways Division
- EA Engineering, Science and Technology, Inc.
- Engineers Surveyors Hawaii, Inc.
- FAA Airports District Office
- Federal Bureau of Investigation
- Hawaii Chapter Society of Fire Protection Engineers
- Hawaiian Dredging Construction Company, Inc.
- Hawaiian Electric Company
- Hawaiian Telcom
- Hawthorne Pacific Corp.
- HDR/Hawaii Pacific Engineers, Inc.
- Heely Tibbitts Builders, Inc.
- Heartwood Pacific, LLC
- HHMI Corporation
- Hirota & Associates, Inc.
- Honolulu Rail for Growth
- Interesse International, Inc.
- Kaplan Test Prep & Admissions
- Kiewit Building Group
- KPRS Hawaii
- Lockheed Martin
- Maui High Performance Computing Center
- MITRE
- Nan, Inc.
- National Security Agency
- Naval Facilities Engineering Command
- Naval Surface Warfare Center, Port Hueneme
- Northrop Grumman Corporation
- Oceanit
- Pacific Geotechnical Engineers, Inc.
- Pacific Missile Range Facility
- Charles Pankow Builders, Ltd.
- PB Americas, Inc.
- Peace Corps
- Pearl Harbor Naval Shipyard/IMF
- R.M. Towill Corporation
- Raytheon Company
- Referntia Systems, Inc.
- SAIC
- Senex Corporation
- Space and Naval Warfare Systems Center Pacific
- Spirent Communications of Hawaii, LLC
- SSFM International, Inc.
- Swinerton Builders
- UHMC Center for Career Development
- & Student Employment
- UHMC Center on Disability Studies
- URS Corporation
- U.S. Army Corps of Engineers
- Watts Constructors, LLC
- Wilson Okamoto Corporation
- Was, Jonney, Elster Associates, Inc.
- The Women in Technology Project
- Yogi Kwong Engineers, LLC

Career Day Gift

Representatives from Northrop Grumman Corporation presented a $2,000 check to the UH Mānoa College of Engineering in recognition of the importance of Career Day to their University Relations & Recruitment Program. The College’s Small Satellite Program and IEEE Student Chapter will receive $1,000 each.
A Message from the Dean

Peter E. Crouch

The arrival of the new year often brings a myriad of changes to organizations and individuals. However, the University of Hawai‘i at Mānoa College of Engineering is blessed with one constant – the continuing generosity of our alumni, friends and industry partners.

Despite the current economic challenges that affect everyone in our community, the College was very fortunate to receive a $1 million anonymous gift that will fund the establishment of a visiting professorship in civil and environmental engineering. Thanks to a gift by alumnus Leonard Kamp and his wife, Rebecca, the same department will benefit from a scholarship in their name. Hoku Scientific, Inc. also made a valuable contribution to the College and the Shidler College of Business with the creation of a loan program to help our engineering and business students become entrepreneurs.

An exciting addition to our programs is just on the horizon. In Fall 2010, we will begin offering a new bachelor’s degree in computer engineering. The much-anticipated program, a result of collaborative efforts between the College of Engineering and the College of Natural Science’s Department of Information and Computer Sciences, received approval from the University of Hawai‘i Board of Regents late last year.

Finally, with change often comes a bit of sadness. It is with mixed emotions that we say goodbye to Student Activities Coordinator Laura Shimabukuro and Director of Development Kerri Van Duyne. Both have left the College to pursue other endeavors and we wish them well on their new journey.

Aloha!

Peter E. Crouch
Dean

Engineering Receives $1 Million Anonymous Gift

Thanks to a generous $1 million gift from an anonymous donor, the UH Mānoa College of Engineering was able to establish the Dr. Alfred A. Yee Visiting Professorship in Civil and Environmental Engineering. The professorship will enable the College to bring world-class professors to teach undergraduate students in the civil and environmental engineering program. Monies will be used primarily to fund the visiting professor’s salary for up to two semesters.

Yee is president of Applied Technology Corporation in Honolulu and director of Precast Design Consultants Pte. Ltd. in Singapore. Locally, he has been involved with many well-known building projects including the Ala Moana Shopping Center, the IBM Building, the USS Arizona Memorial and the Kahala Hotel (formerly the Kahala Hilton).

Yee is credited with organizing one of the early precast/prestressed concrete mass production facilities in the U.S. and has since developed innovative structural concepts, devices and construction techniques widely used in precast/prestressed concrete construction of high-rise building structures, bridges and marine concrete vessels. He is the recipient of numerous awards in recognition of his work and a member of the prestigious National Academy of Engineering.

According to the donor, Yee was instrumental in training him to become a structural engineer. “I wanted him to be recognized for the significant contributions he made and continues to make in this field,” said the donor. “My hope is that this visiting professorship will expose UH Mānoa students to the caliber of knowledge and experience that people like Dr. Yee have and can share.”

In addition to being a recognized expert in the field, the Visiting Professor must also possess outstanding teaching skills that impact students, both on a motivational and developmental level. The visiting faculty member will be asked to teach one undergraduate class per semester and is encouraged to present a series of lectures for students, faculty and practicing engineers, with the hope that each will develop a long-lasting research relationship with College of Engineering faculty.

“We are extremely grateful for the opportunity to bring in world-class civil engineering experts to enrich our curriculum and create working relationships with our faculty,” said Dean Crouch.
Entertpreneurial Loan Established

Thanks to a donation of $130,000 from Hoku Scientific, Inc., entrepreneurs enrolled in the College of Engineering and the Shidler College of Business at UH Mānoa will be able to apply for a start up business loan.

“We are hopeful that this program will encourage student innovation by strengthening the links between engineering and entrepreneurship, two disciplines Hoku strongly supports,” said Dustin Shindo, former president and CEO of Hoku Scientific, Inc.

Under the program, up to $20,000 will be available per semester and students can apply for loans ranging from $500 to $5,000 and must be used for working capital, supplies equipment and inventory. To be eligible, student must submit an application, attend a workshop and prepare a business plan. The loans will be administered by the Pacific Asian Center for Entrepreneurship (PACE) at the Shidler College of Business.

“We’re excited to have this unique funding opportunity to spark student interest in entrepreneurship, especially in our engineering students,” said Dean Crouch.

Engineering Alumnus Establishes Scholarship

Leonard Kamp (BSCE ’67, Exec. MBA ’82) and his wife Rebecca have established the Leonard and Rebecca Kamp Endowed Scholarship in Civil Engineering, as part of an estate gift to UH Mānoa valued at about $460,000. Concurrently, their gift has led to the establishment of the Leonard and Rebecca Kamp Executive MBA Endowed Scholarship at the Shidler College of Business.

While attending UH Mānoa, Kamp worked for Hawaiian Dredging & Construction and was eventually promoted to vice president of South East Asian projects in 1983. In 1985, he returned to Hawai‘i and purchased Haas Insulations, Inc., a company specializing in fire, acoustic and sound insulation. Kamp sold the company in 1995.

“We are extremely grateful for the Kamps’ support of our civil engineering program,” said Dean Crouch. “This generous gift will help us attract top students with the skills and leadership qualities needed to develop stronger, safer and sustainable communities worldwide.”

Accreditation Visit Goes Well

This past November, the UH Mānoa College of Engineering welcomed a visit by members of the Accreditation Board for Engineering and Technology (ABET) as part of the normal reaccreditation process of its engineering programs.

Accreditation from ABET assures that a college or university program meets the quality standards established by the profession for which it prepares its students. An ABET accredited program is important for the following reasons:

• Accreditation helps students and their parents choose quality college programs.
• Accreditation enables employers to recruit graduates they know are well-prepared.
• Accreditation is used by registration, licensure, and certification boards to screen applicants.
• Accreditation gives colleges and universities a structured mechanism to assess, evaluate, and improve the quality of their programs.

“We expect that our programs will continue to be accredited after the ABET committee meets this summer,” said Bruce Liebert, interim associate dean for Academic Affairs. “The visit went very well and can be attributed to the involvement of the faculty and the leadership of the department chairs in demonstrating that the criteria were all met successfully.”

Currently, ABET accredits some 2,900 programs in applied science, computing, engineering and technology education at more than 600 colleges and universities nationwide.
Engineering’s 2nd Annual Homecoming a Hit

On the heels of last year’s highly successful centennial homecoming, the UH Mānoa College of Engineering did not lose a step with its 2nd annual Homecoming Celebration held on November 4th.

Over 400 engineering alumni and friends gathered on the grounds of Holmes Hall to celebrate homecoming week at UH Mānoa in style with an evening of gourmet food, spirits, entertainment and more.

This year’s festivities kicked off in grand style with an up-tempo visit by the UH Marching Band and the UH Cheerleading Squad. The evening got into full swing with a poker tournament and karaoke contest.

The College of Engineering alumni were again fortunate to celebrate homecoming with delicious food prepared by award-winning chef and restaurateur D.K. Kodama of d.k Steakhouse and Sansei Seafood Restaurant & Sushi Bar fame.

“I was pleased to see so many familiar faces in the crowd,” said Dean Crouch. “Last year we wanted to establish an engineering tradition in Hawai‘i and by the looks of this year’s homecoming celebration, we seem to be well on our way.”

Engineering Students Tour Shipyard

With a starting annual salary of between $54,000 and $62,000, being an engineer at the Pearl Harbor Naval Shipyard (PHNSY) is not a bad place to be.

Last November, 42 students from the UH Mānoa College of Engineering learned first hand about salaries, careers and more, during a special tour of the shipyard, the largest employer of engineers in the state. Students got the opportunity to speak with several of PHNSY’s 600 engineers, observed trade workers in shops, viewed a submarine undergoing repair in dry dock and even climbed up a towering portal crane.

As the largest industrial employer in Hawai‘i, PHNSY has more than 4,700 civilian and military employees (4,328 civilian) and has numerous job opportunities for engineering students. This fiscal year, the shipyard plans to hire 17 nuclear engineers, 64 mechanical engineers, 10 electrical engineers and 29 civil engineers.

“The interest and time commitment made by these UH Mānoa engineering students were impressive and greatly appreciated,” said James Kenny, PHNSY’s nuclear engineering and planning manager. “The open discussion between students and Shipyard engineers was invaluable, as it provided the basis for future outreach with UH Mānoa engineering.”

Recently, PHNSY has strengthened its partnership with UH Mānoa through its Robotics and Apprentice to Engineer scholarship programs.
Nicholson Elected to AGP

Civil and Environmental Engineering Professor Peter Nicholson was recently elected to the Academy of Geo-Professionals (AGP) as a Diplomate, Geotechnical Engineering (D.GE). He joins an elite group of just over 100 certified D.GE’s worldwide.

A recognized expert on geotechnical engineering, Nicholson is often called upon by the State Department of Land and Natural Resources to assist with dam inspections. Also, he has responded as a volunteer on a number of geo-related disasters including the rock fall at Sacred Falls and the Koloko Dam failure on Kauai. He was also a member of a damage assessment team that responded to the 2007 Big Island earthquake and was part of an inspection team called upon to assess the failure of the levee system in New Orleans as a result of Hurricane Katrina in 2005.

“Peter Nicholson is both an asset to the state and to the College of Engineering,” said CEE Chair Constantinos Papacostas. “We are very proud of his well-deserved election to the AGP.”

AGP was established by Civil Engineering Certification, Inc. under the auspices of the American Society of Civil Engineers (ASCE) to improve the practice, elevate the standards and advance the geo-profession.

Ohta Wins NSF Grant

Aaron Ohta, assistant professor of electrical engineering, received a grant from the National Science Foundation in the amount of $174,635 over two years to conduct research that may one day lead to the effective use of stem cells to treat conditions such as Alzheimer’s Disease, heart disease, Type 1 diabetes, stroke and spinal cord injuries.

Entitled, “BRIDGE: Minority Education and Research in Biomedical Microdevices – An Optically Controlled Cell Culturing and Harvesting Platform,” Ohta’s research will be focused on developing “smart” cell culture dishes that would allow biologists to accurately and precisely control the growth of cells, currently a major obstacle in stem cell research.

A primary objective of the grant, which is a part of NSF’s Broadening Participation Research Initiation Grants in Engineering (BRIDGE) Program, is to increase the opportunity for Native Hawaiian and female students to participate in this cutting-edge research project.

Aloha, Kerri

Kerri Van Duyne, who served as director of development for the College of Engineering since October 2005, has been promoted to assistant vice president of Mānoa Leadership Gifts by the University of Hawaii Foundation. In her new role, she will be working closely with UH Mānoa Chancellor Virginia S. Hinshaw to build leadership gifts and other opportunities for the Mānoa campus.

Some of Van Duyne’s accomplishments during her service at Engineering include: increasing the number of new scholarships/fellowships to the College, assisting the establishment of meaningful relationships between the College and new industry partners, and increasing yearly income to the College – including a 94 percent increase in 2008.

“Since my arrival at Mānoa in 2006, Kerri has been a key member of my management team and a successful fundraiser for our College,” said Dean Crouch. “We will miss her invaluable contributions, but we wish her well on her new endeavor.”

Maryknoll To Honor Ho

Galen Ho, a member of the UH Mānoa Engineering Dean’s Council, has been selected to receive the 2010 Monsignor Charles A. Kekumano Noblesse Oblige Service Award from Maryknoll School for his dedication to the community.

Ho, sole proprietor of Galen Enterprise LLC, spent more than 35 years in the defense and aerospace engineering industry. The 1963 Maryknoll graduate will be presented with the award on April 25th.

Thank You, Laura

Laura Shimabukuro has been a fixture in the Engineering Dean’s Office – first as a conscientious student assistant then as a very capable events coordinator. After 10 years of service to the College, Shimabukuro will be leaving to take on a new role at the Mānoa Campus Center.

For those few who don’t recognize her as a household name, Shimabukuro has been responsible for coordinating many of the College’s successful annual events like Career Day, Engineering Day, Head Start: A Formal Introduction to Engineering at UH Mānoa, Open House and the engineering banquet.

“Much of the success of our annual engineering banquet goes to Laura’s event planning talents,” said Ron Ho, banquet chair. “It was my pleasure to work with Laura for the last several years and I will greatly miss her.”

In addition to her outstanding organizational skills, Shimabukuro maintained a great rapport with the engineering students and the various student clubs, which made the recruitment of event volunteers a smooth process.

“The College of Engineering will certainly miss Laura and her valuable contributions at events and in the office,” said Eric R. Matsunaga, director of Marketing and Public Affairs. “We wish her all the best in her new job.”
With year-round sunshine, gentle trade winds and a seemingly endless blue ocean, Hawai‘i is recognized around the world as a tropical paradise. However, paradise comes at a heavy price as Hawai‘i relies on imported petroleum to supply 90 percent of its primary energy needs. As a result, its residents and businesses pay some of the highest prices for electricity and fuel in the country.

Recognizing the urgency and importance of this matter, the State of Hawai‘i teamed up with the U.S. Department of Energy to sign the Hawai‘i Clean Energy Initiative (HCEI) in 2008. The agreement seeks to move Hawai‘i toward having 70 percent of its energy use come from renewable and clean energy sources by 2030.

However, the transformation from a fossil fuels-based economy to a renewable energy and energy conservation-based economy presents enormous engineering, scientific, economic and social challenges, requiring creative thinking in research and education.

Because of its expertise in engineering, science and research, the University of Hawai‘i at Mānoa (UH Mānoa) found itself in a natural position to assist the state and local industry in implementing the HCEI. UH Mānoa held an internal competition for a $1 million research grant on sustainability and in April 2009, a team of UH Mānoa researchers led by Anthony Kuh, professor and chair of the Electrical Engineering Department, was given the award.

Known as the Renewable Energy and Island Sustainability (REIS) program, Kuh’s multi-disciplinary team is comprised of more than 20 UH Mānoa faculty from the Colleges of Engineering, Social Sciences, Natural Sciences, Tropical Agriculture and Human Resources, the Shidler College of Business and the School of Ocean and Earth Science and Technology.

REIS is an ambitious project that is comprised of both research and educational components that seeks to establish a prominent national and international program in renewable energy. The program will focus on basic and applied research in energy and sustainability problems and provide local and international energy firms with expertise and a well-trained workforce of engineers knowledgeable in renewable energy to move the state toward its goal set forth by HCEI.

Faculty members are working with local energy companies, such as Hawaiian Electric Company, on education and research programs, as well as with international companies like Better Place, whose goal is to help reduce global dependency on oil through use of electric vehicles. REIS members also have ties with academic institutions including Carnegie-Mellon University, University of Hong Kong, University of Manitoba, Imperial College (London) and the Tokyo Institute of Technology.

“REIS is a multi-faceted program with multi-faceted goals,” said Kuh. “Engineering faculty and graduate students will be working along side economists, urban planners and energy experts on developing new technologies in renewable energy and sustainability.”

According to Kuh, REIS has the following primary objectives:

- Develop a cross-disciplinary education program
- Conduct basic and applied research in renewable energy, efficiency and sustainability
- Assist the state and local energy firms participating in HCEI
- Implement the Green Holmes Hall Initiative (GHHI) and recruit students to become part of the program

Papacostas received his BE, magna cum laude, in civil engineering from Youngstown State University in 1969. He earned both his MS and PhD in civil engineering from Carnegie-Mellon University in 1971 and 1974, respectively. While at UH Mānoa, Papacostas is credited with the development and implementation of the first statewide traffic accident reporting system in Hawai‘i and the development of one of the earliest internet-served traffic camera systems and traffic flow simulation software.

“I am pleased to start the New Year with Professor Papacostas at the helm of civil and environmental engineering,” said Dean Crouch. “His knowledge, leadership and presence will be a tremendous asset to the department and the College of Engineering.”
Three-Peat for UH Mānoa Engineering

For the third consecutive year, a University of Hawai‘i at Mānoa College of Engineering student has been selected by the National Consortium for Measurement and Signature Intelligence (MASINT) Research (NCMR) as the recipient of its prestigious scholarship. The NCMR scholarship is bestowed upon students who have achieved an outstanding academic record, personal success, and an interest in participating in national security research.

This year’s recipient is Larry Martin, an electrical engineering undergraduate. The $10,000 award will be applied towards tuition, books, and room/board. Previous recipients of the award include electrical engineering students Reece Iwami (2008) and Alexis Zamora (2007). Martin is one of 46 recipients nationwide to have received the award this year.

CCE Student Wins Top Co-Op Award

Kendra Hanagami, a senior in civil and environmental engineering, was named the 2009 University of Hawai‘i at Mānoa Cooperative (Co-op) Education Student of the Year. She was presented with the award and a $500 scholarship at her Co-op site, Engineers Surveyors Hawaii, Inc.

This is the second year the recognition event was held at the student workplace where co-workers and supervisor were in attendance to celebrate. Last year, electrical engineering graduate Matthew Patterson received his award at the Pearl Harbor Naval Shipyards.

As Co-op Student of the Year, Hanagami will represent UH Mānoa in the National Cooperative Education Internship Association Student Employee of the Year competition to be held in April 2010.

For more information on the Co-op program, call the UH Mānoa Center for Career Development and Student Employment at (808) 956-7007 or visit their website at http://cdse.hawaii.edu.
Calendar of Events

**APR ’10**

**Open House**
April 10, 2010

**Engineering Banquet**
April 21, 2010

**May ’10**

**Engineering Convocation**
May 14, 2010

For more information about upcoming College of Engineering events, please visit www.eng.hawaii.edu/events or call (808) 956-7727.

Shiroma Receives Service Award

Electrical Engineering Professor Wayne Shiroma was named the 2009 recipient of the N. Walter Cox Award, in recognition of his service to the Institute of Electrical and Electronics Engineers (IEEE) Microwave Theory and Techniques Society (MTT-S). IEEE is the world’s largest professional association for the advancement of innovation and technology with more than 375,000 members in more than 160 countries.

The N. Walter Cox Award, established in 1989, recognizes an individual who has given “exemplary service to the IEEE MTT-S in a spirit of selfless dedication and cooperation,” and is given in memory of N. Walter Cox, a longstanding MTT-S volunteer.

Shiroma has been a member of IEEE for 24 years, serving in various technical and administrative volunteer capacities. He was the general chair of the 2007 IEEE MTT-S International Microwave Symposium (IMS 2007), held in Honolulu. This was the state’s largest convention in 2007, drawing 7000 participants and generating $34 million in visitor spending. IMS is the fifth largest conference within IEEE and the flagship event of the MTT-S.

According to Shiroma, his greatest passion is mentoring students and young professionals. In the past eight years, he mentored three UH Mānoa undergraduates that were recognized as the most outstanding electrical engineering students in the nation by the electrical engineering honor society Eta Kappa Nu. He helped nurture the formation of the IEEE MTT-S Hawai’i chapter, whose officers are former members of his research group. Following the completion of IMS 2007, he supported the successful bid to bring IMS back to Honolulu in 2017, which will be spearheaded by four executive committee members that were IEEE student or GOLD (graduates of the last decade) members of the IMS 2007 steering committee.

“We are pleased that Wayne was recognized for his outstanding volunteer efforts,” said EE Chair Anthony Kuh. “His tireless work not only benefits the College of Engineering and our students, but also the profession as well.”