

2002-2003 College of Engineering Highlights

The past year at the College of Engineering was a very successful one. It was a year of growth, awards, and achievements. These highlights can be attributed to the determination and hard work of the College's faculty, students, alumni and staff. Their contributions help continue the high-level of excellence at the College. This article will take a look back at a few of the major highlights of the past year.

One of the prominent highlights of the year was the improvements and additions to the College's facilities. In March, nearly \$1 million in capital improvements and renovations were completed in the 5000 square foot Environmental Engineering Laboratory. It is now a state-of-the-art facility for environmental engineering research. Mechanical Engineering Professor Lloyd Hihara is currently establishing a cutting-edge laboratory for corrosion research with a multi-million dollar and multi-year investment from the Department of Defense. With support from Chancellor Peter Englert, the Electrical Engineering Department has begun to upgrade its Physical Electronics Laboratory, which will be relocated to the POST Building. Under the leadership of Professor Magdy Iskander, Director of the Hawaii Center for Advanced Communications, the HCAC has secured a major equipment grant from the National Science Foundation to establish a state-of-the-art test bed facility for research in wireless communications.

Over the last year, the College has seen growth in a number of areas. One of the most significant is enrollment. The College has developed a number of initiatives targeting prospective students to increase their awareness of engineering and to demonstrate to them the quality of the College. The Open House, Engineering Expo, and Summer High School Internship are programs that have helped create a positive effect on enrollment.

In the fall of 2002, the College received 294 freshmen applications, which is a 13 percent increase from the previous year and the highest total in the past decade. This growth helped undergraduate enrollment rise 9.2 percent over the prior year. It was the second straight year that enrollment increased. In the fall of 2001, enrollment increased 3.8 percent.

Each department saw their undergraduate enrollment improve over the previous year. The Mechanical Engineering Department had a 30.9 percent surge, the Electrical Engineering Department saw a 4.4 percent gain, and the Civil and Environmental Engineering Department had a 3.5 percent increase.

Graduate enrollment at the College also saw an 8.7 percent increase over the previous year. The Mechanical Engineering Department saw a large 28.6 percent gain and the Civil and Environmental Engineering Department had a 13.6 percent increase.

Another significant area where the College has seen growth is in research grants and contracts. During the 2002-2003 fiscal year, the faculty brought in more than \$6.4 million in sponsored research. This is an increase from the \$5.5 million received from the previous fiscal year.

Among some of the large research grants are \$1.5 million for Junku Yuh's Semi-Autonomous Underwater Vehicle for Intervention Missions project; \$1.05 million for Mehrdad Nejhad's Adaptive Damping and Positioning Using Intelligent Composite Active Structures project; \$1.15 million for Lloyd Hihara's program to prevent and control corrosion in military vehicles; and a \$1.5 million project for Vassilis Syrmos' Integrated Aircraft Health Management Systems.

The faculty has also grown over the past two years. Thirteen new faculty members have been hired—seven in Electrical Engineering, four in Civil and Environmental Engineering, and two in Mechanical Engineering. Despite this tremendous growth, the College continues to recruit new faculty to replace those who have retired or resigned.

The College also hopes to increase the number of faculty through endowed chairs; these faculty will bring in more cutting-edge research projects for our students to participate in. The first endowed chair will soon be established with a \$1 million endowment from the Advanced Photonics Integrated Circuits (APIC). The endowment will help start an electro-optics, photonics, and adaptive optics program in collaboration with APIC, the College of Engineering and the Institute for Astronomy. The technical areas of interest will focus on Si and Si-Ge based photonics, electronics, integration of photonics and electronics on a single chip, and micro-electromechanical systems.

"This donation represents a major investment in engineering education, research, and innovation. The \$1 million investment will not only help recruit an outstanding faculty in cutting-edge research of photonics, it will also attract promising undergraduate and graduate students," Dean Wai-Fah Chen said.

Our current faculty continues to receive prestigious awards for their teaching efforts. Electrical Engineering Associate Professor Wayne Shiroma received a Board of Regents'

Medal for Excellence in Teaching for 2003. Recipients of this award serve as models because of their level of subject mastery and scholarship, teaching effectiveness and creativity, and personal values beneficial to students.

This is the second year in a row that an engineering faculty has received this prestigious award. Last year, Mechanical Engineering Associate Professor Beei-Huan Chao received this award. Over the past 14 years, seven current faculty members have received this award.

One of our students also received a prestigious award. For the second time in three years one of our electrical engineering students has been named the top electrical engineering student in the nation. Aaron Ohta, who graduated in May, was selected as the recipient of the Alton B. Zerby and Carl T. Koerner Outstanding Electrical Engineering Student Award. Kendall Ching, currently a graduate student at UH, received this honor in 2001. The award is presented by Eta Kappa Nu, the national honor society for electrical and computer engineering. Aaron will be officially recognized at an awards banquet to be held in Los Angeles this fall.

"I'm very flattered to have been picked from my peers throughout the nation, who were also very deserving of the award," Aaron said. "But I also think that it is a very good reflection on the kind of work I was doing here at UH. I think the kind of opportunities I've had here aren't that common at other universities at the undergraduate level."

Aaron also received the 2003 Student Engineer of the Year award from the Hawaii Society of Professional Engineers and was a recipient of the prestigious National Science Foundation Graduate Research Fellowship. The NSF award provides \$114,000 for three years of graduate work.

This past year the College also implemented a new teaching model that will provide students with a discovery-based education experience and project-based learning process. The establishment of the Engineering Clinic Program in the College attracted industrial support for projects to be performed by undergraduate students and jointly supervised by faculty and the industrial liaisons. The program's goal is to bridge the gap between academic education and real world engineering practice.

For the 2002-2003 academic year, the College successfully attracted Clinic Projects



Published monthly by:

HAWAII COUNCIL OF ENGINEERING SOCIETIES

SERVICE PRINTERS, INC.
1829 Dillingham Boulevard • Honolulu, HI 96819
Telephone: (808) 841-7644 • Fax: (808) 847-1487
ADDRESS ARTICLES FOR PUBLICATION TO:
WARREN YAMAMOTO
1526-C Pukele Avenue • Honolulu, HI 96816
Telephone: 527-6988

WILIKI MAILING LIST

Additions and/or corrections should indicate the proper society, institution or association.

LAVERNE HIGA
Dept. of Design and Construction
City & County of Honolulu
650 S. King Street, 15th Floor
Honolulu, Hawaii 96813
Office: 808-527-6246
Fax: 808-527-6103

HAWAII COUNCIL OF ENGINEERING SOCIETIES

P.O. Box 2873
HONOLULU, HAWAII 96802

HOME PAGE:
<http://www.angelfire.com/linux/hces>

2002-2003 OFFICERS

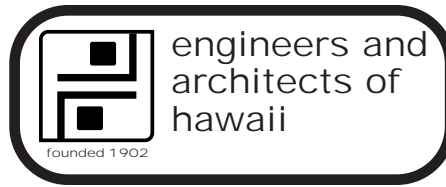
Chairman:	Richard Campbell	834-3103
Vice Chair:	Wayne Kawano	848-7100
Secretary:	Marites Shoji	851-7294
Treasurer:	Tony Lau	522-7426

SOC	Representative	Alternate
AACE	R. Campbell	
ASCE	H. Brandes	W. Chun
ASME	J. Grogan	R. Liu
EAH	M. Tome	R. Morrissey
FALEA	M. Shoji	C. Dungca
HALS	E. Kaneshiro	
HSPE	S. Nojima	S. Seu
IEEE	O. Libed	F.Kobashikawa
ITE	W. Kawano	A. Archilla
LGSEA	A. Dar	L. Nagata
SAME	T. Barnes	
SEAOH	L. Nagata	R. Chu
SFPE	S. Dannaway	
UH(assoc)	W.F. Chen	T. Dobry



Officers & Directors

President	Alan Cadieux
Treasurer	Dr. Amarjit Singh
Secretary	Maelyn Uyehara
Directors	Richard Campbell
	Joesph Uno
	Karl Kagesa



po box 4353,honolulu,hawaii 96813
An association for Hawaii's Engineers and Architects
New WEB Address <http://community.hei.com/eah>

OFFICERS FOR 2003 - 2004

President:	Martin McMorro
1st V.P.:	Bob Morrissey
2nd V.P.:	Gary Yamamoto
Treasurer:	Ralph Dobson
Secretary:	Sam Gillie
Director:	Mary Ellen Nurdyke-Grace (2 year term) Ron Boyle (2 year term) August Ahlf

September Program:

5th – Speaker: **Dee Crowell**, Sandwich Isle Communication – Subject: **Fiber Optics Communication Lines For Hawaiian Homes**
12th Speakers: **Dan Lanterman, Wr Segawa** - Subject: **Rainbow Colored Track At Cooke Field UH**
19th Speaker: **John O’Grodney**, Subject: **Effects Of Roof Coating On Interior Building Temperature**
26th Speaker: **Austin Nako**, Nako Companies – Subject: **Repair Of The Haiku Stairs**

Meetings held every Friday at YWCA room 205 on Richards Street downtown. Parking at Alii Place off Alakea Street for \$1.00 per hour. Meetings start at NOON and end promptly at 1:00 pm.

Members-\$7.50 Guests-\$8.50

Program schedule may be adjusted. Call Secretary to confirm speaker. Anyone wanting a weekly email meeting notice please send your email address to Sam Gillie at sgillie@hei.com.

Meeting Notes for August 1st, 2003

SPEAKER: **Diana King, National Audubon Society** SUBJECT: **“National Audubon Society Plans for Waimea Falls Park”** Diana King started by saying this is the very first presentation she has done on Waimea Valley. They have just taken over as managers on June 26. When Maria called she had told Maria there were many requests for presentations in July, but she said she was not doing anything in July. Maria asked, How about August 1? Daina had said, “I’ll be ready by August!”

The full story starts about a century. The National Audubon Society started in 1905 on the east coast. In the 1970’s, Charley Peach purchased the Waimea site with a vision of creating a beautiful scenic place, open to everybody, with a sanctuary for wildlife, a botanical garden and the swimming hole open to the people. He worked very hard toward that vision. Visitors paid a nominal fee. It continued to expand and grow until in the 1990’s it became the third largest visitor attraction in the State of Hawaii.

There were several ownership changes and the vision shifted away from looking after a beautiful resource, taking care of the botanical collections and the wildlife, to how can we maximize revenues and how can we maximize profits. As the visitor mixed changed, different attractions were added to maximize revenue. But there was a reverse effect. The entrance

fees went up, the overhead went up and visitors started to go down. By 2000 the owner were ready to file for bankruptcy. Then they tried to sell the property as a luxury homesite for \$35 million dollars. When that happened the community reacted. They didn’t want to see this beautiful 2,000 acre valley with a cast-iron fence in front of it with a couple of Dobermans, a guard and no access anymore. The community looked to have the property condemned and make it part of the public domain. The City agreed and proceeded with condemnation. This is in addition to the bankruptcy. But the City did not want to manage the site. The City wanted either a profit or non-profit group, who would manage the site.

The National Audubon Society has been focused over the last 20 years in three areas, science and research, public policy and advo-

(continued on page 9)



PO Box 12204 Honolulu, HI 96828
website: www.eaaauh.org

2003-2004 OFFICERS

President:	Bryce T. Yonemura	473-8000 x2456
Vice Pres:	Kelli Goodin	441-3600
Secretary:	Ryan Sugamoto	956-3357
Treasurer:	Marian Nakama	836-1900 x234
Directors:	Lloyd P.C.W. Lee	
	Michael Y. Magaooay	
	Randolph H. Murayama	
	Wayne H. Nakamura	

2003 ANNUAL GOLF TOURNAMENT

It has been another successful year for the EAAUH Annual Golf Tournament Fundraiser. The tournament, considered the highlight event of the association’s calendar by many, was held on July 25, 2003, at the Leilehua Golf Course. Nearly 250 alumni and friends enjoyed the day of golf, friendship, and fun, as they helped raise funds for six UH College of Engineering Freshman Scholarships. Thanks to the generosity of our sponsors and participants, EAAUH was able to achieve its fundraising goal once again.

Congratulations to the winners!

Overall Low Net - Eric Nakagawa

Low Gross

Flight A - Mike Umemoto

Flight B - Darryl Yokoyama

Flight C - Glenn Saito

Flight D - Larry Lum

Flight S - George Shintani

Low Net

Flight A - Ken Fukuda

Flight B - Nelson Lee

Flight C - Steven Nakagawa

Flight D - Blake Araki

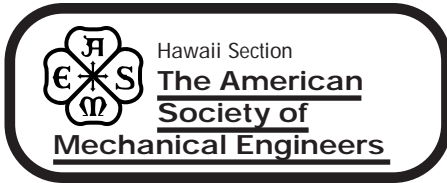
Flight S - George Tamashiro

Class Competition

Class of 1984: Glenn Saito, Darryl Yokoyama, Steven Nakagawa

The planning committee wishes to thank the College of Engineering and the many volunteers for their assistance. And as always, a special Mahalo to this year’s hole sponsors for their support.

See you next year!



Website: www.asme.org/sections/hawaii

2003-2004 OFFICERS

Chairperson	Raymond Liu	521-3773
Vice-chair	LCDR John Markowicz	484-9164
Treasurer	Rodney Krienke	373-2916
Secretary	Sam Gillie	543-4739
Past-chair	James Grogan	254-2947
Dir 1 yr	Ed Chang	543-4227
Dir 2 yr	Ron Flegel	455-0254

HAWAII SECTION COMBINED COMMITTEES & POWER TECHNICAL CHAPTER MEETING

Date: Tuesday, October 14, 2003

Time: 6:00 p.m. to 7:00 p.m.

Place: Hawaiian Electric Company, Inc.
Ward Avenue Cafeteria

All members are invited and asked to attend. Our first Wednesday meeting schedule is now changed to the second Tuesday. We are seeking help from the membership to fill the committee positions and with program ideas. In addition, we are having a Power Technical Chapter meeting to discuss programs for next year. Lots of free pizza and pop are always provided. Please contact Ray Liu or Sam Gillie for directions and more information. For Power Chapter questions, please contact Ed Chang.

PEARL HARBOR BOAT TOUR ON SEPTEMBER 10

We missed announcing this tour in the August Wiliki so there is not much time to reserve a seat for the Pearl Harbor Boat tour. First of all there is no charge for this boat tour. This is an educational tour around Ford Island and Pearl Harbor, highlighting major features such as the December 7 attack, Ford Island, Shipyard, Supply, Submarine Base, Active Ships, Mothballed Ships, and so forth. The tour is on Wednesday, September 10, starting at 4:00 p.m. Your host is Hawaii Section Past-Chairman Stanford Yuen. For more information visit our website at www.asme.org/sections/hawaii. Call Ed Chang at 543-4227 by September 3 to reserve your seat.

RECOGNITION OF 25, 50, 75 YEARS OF MEMBERSHIP FOR 2003-2004

The Hawaii Section congratulates the following members for achieving these monumental years of membership: For reaching 25 years, Timothy K. Lum, Peter K. Schubert, Robert D. Tent, Norman M. Uchida, and Ronald M. Yamanouchi. For achieving 50 years: Wallace D. Johnston, Anthony A. Karkosza, Myron E. Lunchick, and Norman A. Oss. For achieving 75 years: Theodore Vorfeld.

These members will be awarded an ASME Recognition Certificate and a Lapel Rocker. Members with 35-49 years paid receive Life Member Certificates. The Section is planning an award presentation. The awards will be presented after September 15, 2003.

STATUS OF THE KAKAAKO PUMPING STATION "ENGINEERING IN HAWAII" MUSEUM

As was reported previously Past-Chairman Jim Grogan had sent a letter to Governor Lingle on an engineering museum concept for the old Kakaako pumping station on Ala Moana Blvd. at Fort Armstrong. Jim Grogan conceived the idea for a museum after his visited the Baltimore Public Works Museum at the Baltimore, Maryland Inner Harbor. The Governor has

responded, and now Jim Grogan will be communicating with the Hawaii Community Development Authority (HCDA). Will keep you informed as the activities happen.

FR MONTGOMERY COMPETITION PERPETUAL TROPHY

A 12" x 16" plaque will be displayed in the Department of Mechanical Engineering (DME), UHM showcase recognizing all known past and future first place teams of the F.R. Montgomery Competition. The names go back to 1988 with some years having two competitions.

The Francis R. Montgomery Design Competition was established in honor of Mr. Montgomery to further the field of Mechanical Engineering. Each year in May and December, the Hawaii Section works with the DME to host the competition for the ME 481 Design Methodology and ME 482 Design Project courses. The goal of the competition is to recognize and reward innovative design efforts, the practicality of the design, and the ability to present the design in a clear and understandable manner. The design project presentations are judged on the basis of content, organization, delivery and effectiveness, and simple prototype.

FUTURE TOURS

Jim Grogan is planning to arrange another tour of H-Power. It has been awhile since our last tour of the "garbage plant," and it is believed that there are changes and modifications worth seeing. Sam Gillie plans to contact director of the shrimp farm near Sea Life Park for a tour. Ray Liu plans to contact the Hawaiian Waters Park for a tour of their mechanical facilities. Ed Chang plans to arrange a tour of the new Hawaii Fuels Cell Test Facility at HECO's Ward Avenue facility. Dates will be announced in future Wiliki issues and on the Hawaii Section website.

FUTURE ACTIVITIES

The following are activities that are planned:
2003 or 2004: ASME Distinguished Lecturer - William L. Dean, P.E., on "The Engineer as an Independent Business Person: How to Start Your Own Engineering Company." Vice-Chairman John Markowicz will be leading the way to make this lecture happen.



2002-2003 CHAPTER OFFICERS

		Phone	Fax
President	Bob Lohaus	833-4095	
Vice-Pres	Mel Harano	848-6966	848-6964
Treasurer	Sam Dannaway	526-9019	537-5285
Past Pres	Jayn Higashi	526-9019	537-5385

1. For five consecutive Fridays starting August 29 the Honolulu AIA is holding sessions to discuss the 2003 IBC/IRC/IFC, NFPA 1/101/5000 and the upcoming CES Seminars for these codes and the City review and adoption process that will be used for the Next Building Code of Honolulu. SFPE members, particularly those interested in participating in the building code review, are invited. The meetings will be held at the AIA Chapter Office.

2. We are looking for nominations for officers to the positions of President, Vice-President, Treasurer, Secretary, and two Director positions. Those interested in serving or in nominating another please call 526-9019.



2540 Dole Street, Holmes Hall
Honolulu, Hawaii 96822

COLLEGE DEANS AND CHAIRS

Dean	W.F. Chen	956-7727
Chair, CE	Edmond Cheng	956-7550
Chair, EE	Anthony Kuh	956-8403
Chair, ME	Bruce Liebert	956-7167



PROVEN RESULTS

- Prestressed solid planks, tees & beams
- Hollowcore planks
- Prestressed piles
- Structural precast components
- Architectural precast

Project: Hilton Turtle Bay Façade Renovation
Products: Precast Concrete Lanal, Beams, and Parapets
Contractor: Charles Pankow Builders, Ltd.



Grace Pacific
PRECAST

WHERE EXCELLENCE ENDURES

91-063 Malakole Street
Kapolei, Hawaii 96707
Ph: (808) 682-5761
Fax: (808) 682-5764

**2002-2003 Officers:**

		Phone	Fax
President	Horst Brandes	956-8969 <i>brandes@wiliki.eng.hawaii.edu</i>	956-5014
Pres Elect	Westley Chun	488-0477 <i>wkcchun@engrsol.com</i>	488-3776
Vice-Pres	Keith Niiya	533-3646 <i>kniiya@atahawaii.com</i>	526-1267
Secretary	Walter Billingsley	846-3232 <i>wbillingsley@beltcollins.com</i>	538-7819
Treasurer	Lori Fong	531-7094 <i>lfong@ascehawaii.org</i>	528-2368
YMF Pres	Jeff Kalani	593-1116 <i>jeff_kalani@urscorp.com</i>	593-1198
Past-Pres	Tony Lau	524-3771 <i>tlau@hawaiiapacificengineers.com</i>	538-0445

SEPTEMBER DINNER MEETING

Program: Scott Sullivan, Vice President of Sea Engineering, Inc. will present, "Kaunalapau Harbor Repair - Engineering Challenges for an Exposed Deepwater Breakwater."

Kaunalapau Harbor is a small barge harbor located in a natural embayment on the southwest coast of Lanai. Berthing facilities consist of a 400-foot-long wharf, protected by a rubble mound breakwater, originally built in 1925 by the Hawaiian Pineapple Company for the export of pineapple. Hurricane Iwa in 1982 and Iniki in 1992 severely damaged the structure. It is now a very large subsurface rubble mound, with only a small portion of the crest still above water. Sea Engineering, Inc., under contract to the U.S. Army Corps of Engineers, Honolulu Engineer District, has completed the detailed design of the repairs and preparation of construction plans and specifications. The two hurricanes resulted in estimated wave heights of 20 to 22 feet at the project site. Direct hurricane storm wave attack could result in deepwater wave heights of 35 to 50 feet at the site, which are the controlling criteria for the design stability of the structure. Design studies have included a 3-D physical model study of breakwater effectiveness and stability, and a 2-D stability study for refinement of the breakwater section, both conducted by the Corps of Engineers. A multi-beam hydrographic survey provided detailed mapping of the existing rubble mound. The project will utilize the largest Core-Loc armor units constructed to-date, and the deepest toe (-58 feet) and longest overall slope length (130 feet) of any Core-Loc armored structure.

Date: **Thursday, September 18, 2003**

Location: Treetops at Paradise Park, Manoa Valley

Time: 5:30 p.m. - Social Time
6:30 p.m. - Dinner
7:30 p.m. - Program
9:00 p.m. - Adjourn

Menu: Multi-entree buffet

Cost: \$22.00 for Hawaii Section members
\$25.00 for non-section members and guests

\$11.00 for University of Hawaii at Manoa Student Chapter members

Make check payable to ASCE-Hawaii Section. Mail to Lori Fong, ASCE Treasurer, C/O

Parsons Brinckerhoff, Pacific Tower, Suite 3000, 1001 Bishop Street, Honolulu, HI 96813, postmarked by Monday, September 15, 2003. Reservations to Lori Fong by Monday, September 15, 2003 by phone at 531-7094, fax at 528-2368, or e-mail at lfong@ascehawaii.org.

EXECUTIVE COMMITTEE MEETING

August 12, 2003

2003 CALENDAR OF EVENTS

(subject to change)

October 2003 - Dinner meeting featuring Hawaii OCEA Nominees and Award Presentation

PROCUREMENT WORKSHOP SCHEDULED FOR OCTOBER

A workshop entitled, "Implementation of Hawaii's New Procurement Law - Challenges and Opportunities," is scheduled for October 30 in the Piakake Room at the Neal Blaisdell Center Exhibition Hall. The workshop will be co-sponsored by the ASCE Hawaii Section, the Hawaii Local Technical Assistance Program, the American Public Works Association - Hawaii Chapter, and the American Council of Engineering Companies of Hawaii. Topics to be addressed at the workshop include the following: History of Quality-Based Selection (QBS) Legislation, What the Law Requires, The Role and Function of the State of Hawaii Procurement Institute, How Others Have Implemented QBS, and a Panel Discussion with State and County Procurement Officials. MARK YOUR CALENDAR, and visit the ASCE Hawaii Section website for additional, updated information and directions on how to register.

2003 ASCE ANNUAL CONFERENCE AND EXPOSITION

The 2003 ASCE Annual Conference and Exposition will be held in Nashville, TN at the Gaylord Opryland Resort and Convention Center from November 12 to 15. The preliminary program can be found on the ASCE National website at www.asce.org/conferences/annual03/. If you plan on attending the conference, please consider registering through the Hawaii Section because there is a \$50 to \$60 discount per person when registering as a group. To register through the Hawaii Section before September 17, please contact Tony Lau at 522-7426 or at tlau@hawaiiapacificengineers.com.

ASCE JOB LISTINGS

The following employers have openings they would like to fill:

Austin Tsutsumi & Associates, Inc. (Civil, Traffic/Transportation, Environmental and Surveying - Honolulu and Wailuku)

Fewell Geotechnical Engineering (Geotechnical Engineer - Honolulu)

Fukunaga & Associates (General Civil and Environmental/ Sanitary Engineers - Honolulu)

Hawaii Pacific Engineers (Civil and Civil/ Environmental Engineers - Honolulu)

Hida Okamoto & Associates, Inc. (Civil Engineer - Honolulu)

Warren S. Unemori Engineering (Project and Civil Engineers - Wailuku)

For more information on these job listings, please visit the ASCE Hawaii Section website at www.ascehawaii.org.

MEMBERSHIP DRIVE

ASCE counts on our members to help us grow every year by actively participating in the Member-Get-A-Member Drive. The drive is now year-round and offers great new prizes, such as cash rewards, gift certificates, digital

cameras, personal digital assistants, LCD TVs and more. For most prizes, all you have to do to be eligible to win is refer a colleague. This is a great time to help out your colleagues while also helping ASCE find new members. Take a minute to think about the people in your professional life who could benefit from membership. Visit www.ASCEDrive.org to refer them and you could be a winner in the next drawing!

CONVERTING TO ELECTRONIC VERSION OF WILIKI

If you would like to help the ASCE Hawaii Section reduce operating costs by receiving your monthly issue of the Wiliki via e-mail, please contact Tony Lau at 522-7426 or e-mail him at tlau@hawaiiapacificengineers.com.

**2002-2003 OFFICERS**

		Phone
President	Jeff Kalani <i>jeff_kalani@urscorp.com</i>	593-1116
Vice-Pres	Jamie Hikiji <i>jamie.hikiji@m-e.com</i>	521-3051
Secretary	Lori Nishida <i>lnishida@atahawaii.com</i>	533-3646
Treasurer	Paulette Chang <i>pchang@hawaiiapacificengineers.com</i>	524-3771
Student Chapter President	Meris Ota <i>merisota@hotmail.com</i>	956-5808

Next YMF General Meeting

The next two YMF general meetings are scheduled for Tuesday, September 2, 6:00 p.m. at Ryan's (Ward Center); and Tuesday, October 7, 6:00 p.m. at Dave & Buster's. If you are interested in attending, please call Jeff Kalani at 593-1116.

YMF Field Trip - Ameron's Kapaa Quarry

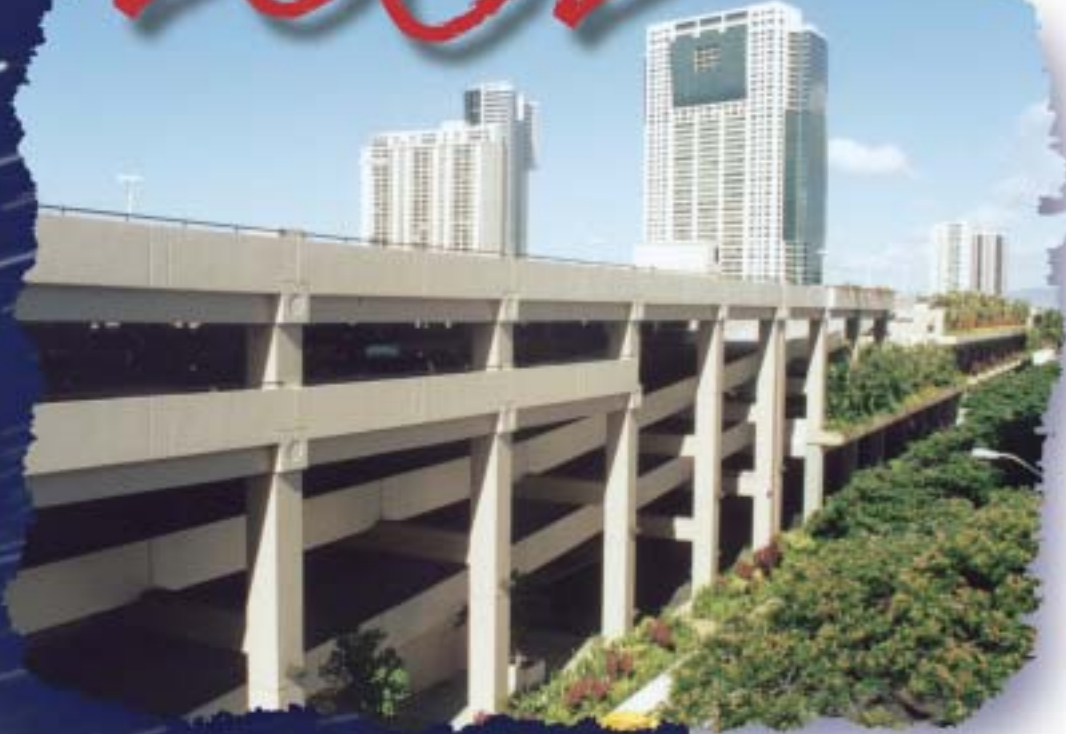
At 10:00 AM on Saturday, September 13, 2003, the YMF will be hosting a tour of Ameron's Kapaa Quarry. This production facility includes basaltic rock mining, crushing, and sizing facilities; a manufactured sand plant; and a ready-mix concrete batch plant. The tour will also include an overview of Ameron's environmental controls. Tour is expected to last approximately 1.5 hours. Long pants, boots, and hardhat are required. Please contact FlorenceChing at chingfm@efdpc.navfac.navy.mil or 227-4704 by Tuesday, September 9, 2003 to sign-up and receive more information.

YMF Ronald McDonald House Dinner

On Saturday, July 26, 2003, ten members of the American Society of Civil Engineers (ASCE)

(continued on page 8)





NEW PRIVATE BUILDING AWARD

OWNER/DEVELOPER:
GGP Ala Moana L.L.C.

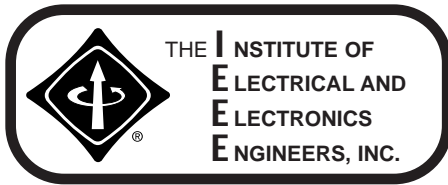
ARCHITECT:
Anbe, Aruga & Ishizu
Architects, Inc.

STRUCTURAL ENGINEER:
Sato & Associates, Inc.

GENERAL CONTRACTOR:
Hawaiian Dredging
Construction Company

Ala Moana Center Mauka/Ewa Parking Deck

This project is a 4-story parking structure located in the mauka-ewa corner of Ala Moana Center. Post-tension cables were used to reduce the amount of rebar required in the structure. This also allowed the schedule to be shortened because the forms could be stripped sooner. Concrete is the choice for a structure that will be required to perform every day without maintenance.



IEEE Hawaii Section

P. O. Box 37607 Honolulu, Hawaii 96837
 Email: sec.hawaii@ieee.org
 Web Page: <http://community.hei.com/ieee/>

2003 HAWAII SECTION OFFICERS:

Chairperson:	Grant Torigoe (torigoe@ieee.org)	833-8889
Vice Chair:	Mark Rognstad, (mark_rogstad@ieee.org)	956-8712
Sec/Treas:	Alison Lee (al.lee@care2.com)	224-9723
Past Chair:	Oscar Libed (oscar.libed@ieee.org)	441-8567
Past Chair:	Norm Kawachika (normk@ieee.org)	531-1308
Past Chair:	Fred Kobashikawa (fkobashi@ieee.org)	543-7753

Section Committee Chairpersons:

HCES Rep:	Fred Kobashikawa (fkobashi@ieee.org)	543-7753
Membership:	Steven Sano (ssano@ieee.org)	543-7981
Webmaster:	Steven Sano (ssano@ieee.org)	543-7981
Newsletter Editor:	Alison Lee (al.lee@care2.com)	224-9723
Professional Act:	Alison Lee (al.lee@care2.com)	224-9723
Student Act:	Tep Dobry (tep@ieee.org)	956-9740
Oceanic Society:	Mark Rognstad (mark_rogstad@ieee.org)	956-8712

WAIPAHU HIGH SCHOOL ROBOT FINISHES THIRD AT INTERNATIONAL CHAMPIONSHIP

One of Hawaii's seasoned robotics teams has successfully plunged into the national level of design, construction, and competition of underwater robots (ROV) sponsored by Marine Advanced Technology Education (MATE) Center and Marine Technology Society (MTS).

Waipahu, a 2001 regional champion in FIRST Robotics, recently took first place in the MATE/MTS Southern California Regional Competition in San Diego, California. The Waipahu Engineers Club ROV "Honu Kai" gained best scores in safety inspection, engineer review, technical presentation, and went on to a lopsided win over eleven other teams in mission competition. The mission was for the students to use their robot to explore an underwater "shipwreck" to find and recover "data probes"; scoring was based on the number of probes and difficulty of recovery, with bonus points for finishing in less than 20 minutes. Waipahu's "Flippas" team beat the next nearest rival by more than 30 points. As a result of this impressive win the team was invited to the international championships at M. I. T. in Cambridge, Massachusetts on June 19-21, 2003.

The Waipahu ROV took an early lead during the first day of competition at the M. I. T. pool with a score of 55.25, but was outscored in the last matches by Cambridge Rindge and Latin, with 65.25, and O'Donel High School, from St. Johns, Newfoundland, with 58.25. Including the scoring for poster presentations, documentation, and judges' interviews, the Waipahu team finished 5th out of the 22 high schools competing, and received a special award for team spirit - sharing the aloha.

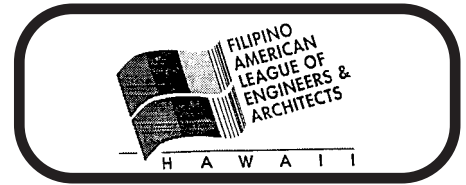
Hawaii ocean technology businesses and technical groups have rallied to donate travel and housing money enabling Waipahu's team to participate. Makai Ocean Engineering, the



Center of Excellence for Research in Ocean Science (CEROS), Oceanic Imaging Consultants, the Marine Technical Society and other generous contributions made it all possible.

ROV copilot Randy Bayudan is just amazed at how well "Honu Kai" and the team performed; Randy and Rodell Salamat piloted the ROV. Team captain and tether manager Vanessa Bayudan remarked that our engineer mentor Mark Rognstad showed us how to make components we imagined, and they worked! Waipahu High School teacher and Engineers Club advisor Bill Speed "never dreamt that a rookie ROV team like ours might end up at the international competition."

The local chapters of IEEE and of the Marine Technical Society are working on bringing an underwater robot competition to Hawaii's high schools this fall. For more information, contact Mark Rognstad at (808) 956-8712 or mark_rogstad@ieee.org. The MATE competition website is http://www.marinetech.org/rov_competition/index.php



P.O. Box 4135, Honolulu, Hawaii 96812
 Website: <http://www.falea.org>

2002-2003 Officers and Directors

President	Roger Urbi
Pres.-Elect	Marites Calad-Shoji
Vice-Pres.	Leonard Obaldo
Secretary	Elvie Marie B. Pineda
Treasurer	Vergel del Rosario
Asst. Treas.	María Domingo
Auditor	Francisco T. Cruzata
Bus. Manager	Armando Ines
PRO	Alfredo Quibol
Directors:	John C. Ramos
	Marcelino Labasan
	Joel Francisco
	Ricardo Magday
	Joey Ressurrecion
	Marlo Garcia

The General Assembly & Election was postponed to Saturday, August 23rd. At the time this article went to press, the following people were running for office:

- VP- Greg Garcia
- Sec - Andrea Benitez
- Tres. - Vergel Del Rosario
- Asst. Tres. - Maria Domingo
- Aud. - Marci Labasan
- Bus Mgr - Armando Ines
- PRO - Fred Quibol

Directors - Elvira Pineda, Joey Resurrecion, Segundo Velasco, Marlo Garcia, John Ramos, Rocky Marquez, Emil Barroga.

Results will be posted on the next FALEA Newsletter.

The Installation Banquet will be held sometime in October. Please call your favorite officer for tickets and information.

THE PACIFIC COAST ELECTRICAL ASSOCIATION
 Presents the

2003 PCEA HAWAII CONFERENCE & EXPO

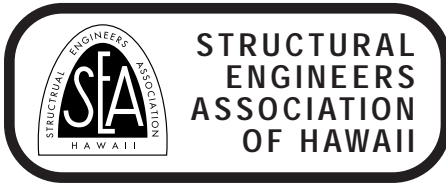
**GRAND WAILEA RESORT HOTEL & SPA
 WAILEA, MAUI
 SEPTEMBER 25-27, 2003**

Tour the Grand Wailea Resort Hotel & Spa's new state-of-the-art Combined Heat & Power Unit and choose from over 20 workshops covering a variety of energy issues!

For more information and registration material, visit <http://pcea.heco.com> or call HECO at (808) 543-4751.



SUSTAINING THE FUTURE
 Highlighting alternative and energy-efficient concepts.



PO BOX 3348, HONOLULU, HI 96801
Web Page URL <http://www.seaoh.org>

2003 OFFICERS & DIRECTORS

Position	Officer	Phone	Fax
President	Randy Chu	373-7950	373-7950
Vice Pres	Wes Segawa	935-4677	935-2070
Secretary	Bennett Fung	531-1308	521-7483
Treasurer	Susan Kuniyoshi	488-7579	488-7818
Director	Ibbotson Kellett	540-1030	526-1989
Director	Les Nagata	951-5916	941-6489
Past Pres	Tom Tanimura	536-7692	537-9022

HIGHLIGHTS OF BOD MEETING

August 6, 2003

Committee Reports:

SEAOH convention – 120 people has signed up for the convention at Lanai. The board wants to thank the sponsors for their generous donations and support.

Twenty-five SEAOH members attended the SEAOH/ASCE joint meeting on July 17.

At this time, 24 people have signed up for the wood design seminar to be held on August 19, 2003.

New Business

In addition to the two existing director positions, two new director positions will be added next year. The term for directors is for two years. In order to maintain two new director positions open every year, the Board voted unanimously to extend the term of director Ibbotson Kellett by one year. Mr. Kellett's term will expire at the end of 2004.

The board will begin solicitation for 2004 officers and directors. Positions open are President, Vice President, Secretary, Treasurer, and two new director positions (with two existing hold over directors). Anyone interested or would like to make a nomination please contact any SEAOH Officer.

Received a thank you letter from Mr. Kason Pacheco, the SEAOH scholarship recipient from University of Hawaii.

The Board will be putting together an Ad hoc committee to address and review professional ethics and conduct.

New Member Applications

Jimmy Lam of Wilson Okamoto Corporation applied as an Allied member.

Stephanie Fung of Wilson Okamoto Corporation applied as an Allied member.

Scot Listavich of Sato and Associates applied as an Allied member.

Francisco Avila of Englekirk Partners applied as Member.

Brent Uechi of Englekirk Partners applied as an Allied member.

Steven Young of Englekirk Partners applied as an Allied member.

Please notify any SEAOH Officer prior to the September Board Meeting if you wish to comment on prospective members.

2003 Calendar of Events

Next BOD meeting: Thursday, September 4, 2003, 4:00 p.m. at Zippys Vineyard.

AISC Practical Steel Design Seminar: Thursday, October 2 at the Pagoda Hotel.

Annual Installation Banquet: Saturday, January 31, 2004 at the Sheraton Moana Surf rider Hotel.

Structural Systems, Inc.

Structural Systems invites you to a technical presentation on current technologies in pre-engineered foundation systems in both new construction and remedial applications.

Atlas Systems, Inc. - Rapid Foundation™ Support Product and Systems

- Topics:**
- Design/Build capabilities
 - New Construction Helical Pier applications
 - Resistance™ Piers for restoring distressed foundations
 - Soil Nails & Shoring systems
 - Rock Anchors™
 - Combination Piers - driven or helical piers in combination with rock anchors or helical tiebacks
 - Corrosion Protection/Mitigation systems
 - Case Studies
 - Question & Answer session

Date: November 4, 2003 • Pagoda Hotel • 8:05 a.m. - 11:30 a.m.

Speakers: David Kraft, Ph.D., P.E.; Dave Raaf, President/CEO, Atlas Systems, Inc.; Joseph Enright, RME & President, Structural Systems, Inc.

Continental Breakfast 7:30 a.m. • RSVP October 20, 2003

For reservations call: **845-2474** or

e-mail: structurs001@hawaii.rr.com or website www.ssihawaii.com



STRUCTURAL SYSTEMS, INC.

AC-13555 / A - General Engineering, C - 31 Masonry, C - 38 Post Tensioning

STOP CORROSION!!

**Protect Exposed Concrete Structures:
Parking Decks, Lanais, Marine Applications**
(Existing & New Construction)

- Galvashield® Sacrificial Galvanic Anodes
- Cathodic Protection Systems
- Post - Tensioning Repairs
- 3M® Zinc - Hydrogel Anodes

1275 Mikole Street, Sand Island Industrial Park, Honolulu, HI 96819 **(808) 845-2474**
www.ssihawaii.com • structurs001@hawaii.rr.com



**2003-2004 OFFICERS**

Office	Name	Phone	Fax
President	Cathy Leong	946-2277	946-2253
Vice Pres	Susan Uejo	521-5361	538-7819
Secretary	Matthew Alonzo	737-1875	734-5516
Treasurer	Fred Smoot	841-7617	833-6125
Past Pres	Richelle Suzuki	541-2530	541-2700

SEPTEMBER 2003 MEETING NOTICE

Speaker: Dr. Leon James, UH Professor of Psychology (aka "Dr. Driving")

Date: Wednesday, September 17, 2003

Time: 11:45 a.m.

Location: Belt Collins Conference Room

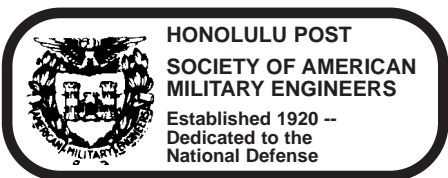
Address: 2153 North King Street, Suite 200

Topic: The Difficulty In Getting Consensus About Unsafe And Aggressive Driving

Cost: \$8.00 for Members/Guests and \$5.00 for Students

Deadline: Noon on September 12, 2003

Please call Matthew Alonzo at phone 737-1875 or send email message to h2ite@hotmail.com by noon, Friday, September 12, 2003 to make your reservations. Payment will be collected at the meeting.



P.O. Box 31218; Honolulu, HI 96820.
www.same.org/honolulu

OFFICERS AND DIRECTORS 2003-4

PRESIDENT: LTC Dave Press, USA
David.c.press@usace.army.mil - 438-1069

VICE PRES (Programs): Col Jim Lyon, USAF
james.lyon@hickam.af.mil - 448-3047

SECRETARY: CPT Sam Battaglio, USA
battaglias@shafter.army.mil - 438-2450

TREASURER: LT Kristina McGee, CEC, USN
mcgeeke@pwcpearl.navy.mil - 471-1170 ext 250

REGIONAL VP RMDL(S) Richard E. Cellon, CEC, USN
celone@efdpac.navfac.navy.mil - 472-1000

Board of Directors

Former POST President: CAPT Mike Giorgione, CEC, USN
giorgionema@efdpac.navfac.navy.mil - 472-1000

MEMBERSHIP: LT Josh Powell, CEC, USN
powelljr@pwcpearl.navy.mil - 471-1170 ext 240

YOUTH PROGRAMS: Doug Schwarm, Geo Engineers
dschwarm@geoengineers.com - 524-6687

READINESS: Jim Frolich, TEC
JWFFrolich@tecinc.com - 528-1445

SUSTAINING MEMBERS: Todd Barnes, Weston Solutions
Todd.Barnes@westonsolutions.com - 585-0448 ext 401

INVESTMENT: Paul Luersen, CH2M Hill
pluersen@ch2m.com - 943-7135 ext 201

NOMINATIONS: BG (Ret) Paul Chinen, Shaw Envir. & Infrastr, Inc
Paul.chinen@shawgrp.com - 474-9142

SCHOLARSHIP: CDR Bert Diehl, USCG
rdiehl@d14.uscg.mil - 541-2200

EDUCATION: MAJ Scott Matthews, USAF
Scott.matthews@hickam.af.mil - 449-8075

ENGINEER'S WEEK LUNCHEON: LTJG Jeremy Ramberg, CEC, USN
rambergjd@pwcpearl.navy.mil - 474-3882 ext 231

CONSTRUCTION CAMP: LT Greg Jennings, CEC, USN
jenningsgp@pwcpearl.navy.mil - 471-1170 ext 216



www.eng.hawaii.edu/~hspe

2003 - 2004 STATE OFFICERS

PRESIDENT:	Peter Boucher, PE
PRES-ELECT:	Riley Smith, PE
1st VICE PRES:	Manuel Lanuevo, PE
2nd VICE PRES:	Kenneth M. Rappolt, PE
SECRETARY:	Neal Herbert, P.E.
TREASURER:	Nancy Burns, P.E.
IMMEDIATE PAST PRES & NATIONAL DIRECTOR:	Scott Seu, PE
HONOLULU CHAPTER STATE DIRECTOR:	Barry Nakamoto, PE
MAUI CHAPTER STATE DIRECTOR:	Eric H. Yamashige, PE, LS
BIG ISLAND CHAPTER STATE DIRECTOR:	Neal Herbert, P.E.
KONA-KOHALA CHAPTER STATE DIRECTOR:	Dan Lanterman, P.E.

HONOLULU CHAPTER 2003-2004 Officers

President	Barry Nakamoto, P.E.
Vice President	Queenie Komori, P.E.
Secretary	Nathan Yuen, P.E.
Treasurer	Carl Kawauchi, P.E.

MAUI CHAPTER

PO Box 4119 Kahului, HI 96733

2003-2004 Officers:

President	Brooks Aoki, P.E., L.S.
Vice-President	Carlos Rivera, P.E.
Secretary	Wendy Kobashigawa, P.E.
Treasurer	Ty Fukuroku, E.I.T.
State Dir.	Eric Yamashige, P.E., L.S.

ASCEYMF

(continued from page 4)

Hawaii Section, Younger Member Forum (YMF) and UH Student Chapter gathered to prepare, cook and serve a mouth-watering barbeque dinner for the families staying at the Moana Ronald McDonald House. The menu ranged from YMFer Tony Lau's famous BBQ chicken to a decadent homemade brownie sundae bar. Over the past several years, the YMF has sponsored and prepared several dinners for the House residents, and the warmth and appreciation expressed by the families has made the Ronald McDonald House one of their favorite community service activities. The YMF would like to thank all of the members who generously gave up their Saturday afternoon to participate in this rewarding activity. A special thank you goes out to the dedicated YMF Community Service Committee Chairperson Jon Yoshinaga for his efforts in coordinating this event.

The Hawaii Section YMF generally organizes community service projects every other month. The YMF also sponsors social, professional, sporting and other miscellaneous activities. For information on future YMF activities, please visit the Hawaii Section YMF website at www.ascehawaii.org/yfm.html or call Jeff Kalani at 593-1116.

ASCE Job Classified

Looking for work? Visit the ASCE's job listing page at <http://www.ascehawaii.org/jobs/job-sinfo.html>.

KNOW YOUR ASCE HISTORY

by C.S. Papacostas

As I was researching the life and times of Sereno Edward Bishop (1827-1909) whom I quoted last month in connection with the process of producing adobe bricks in 19th century Hawai'i, I kept finding references to the "Bishop's Ring." My initial assumption was that the term referred to one of the symbolic regalia of authority worn by certain clerics.

It turns out, however, that "Bishop's Ring" is a meteorological term describing a large diffraction ring of light that appears around the sun following a volcanic eruption. This color effect is caused by the presence of fine ash particles that are ejected in the atmosphere by the eruption. It is called the "Bishop's Ring" because it was first described by none other than Sereno Edward Bishop who observed the phenomenon in Honolulu following the August 1883 eruption at Krakatoa, an island between Java and Sumatra.

According to a German web site (<http://www.meteoros.de/bishop/bishop.html>), the first observation of the phenomenon was published in the Japan Gazette on August 30, 1883. But the following exact description, dated September 5, 1883, is attributed to Sereno:

"Let me draw your special attention to the very strange corona or halo that extends about 20 to 30 degrees away from the sun. It could be seen here every day, and the whole day long. A whitish veil with a shade of pink and violet or purple shadow in front of the blue background. I don't know any other report on such a corona. It is a hardly remarkable object."

Sereno was the privileged son of Artemas and Elizabeth (Edwards) Bishop of the second missionary party that arrived in Hawai'i in 1823. The Centennial Edition (1821-1921) of the Amherst College Biographical Record lists him in the class of 1846.

In addition to the milestones I mentioned last month, his career included editorship of the newspaper "The Friend" and an enormous volume of writings. According to his friend and "revolutionary" ally Lorrin A. Thurston:

"[H]e it was who, in an article contributed to a mainland magazine, coined the phrase descriptive of Hawaii, since universally used, 'The Cross Roads of the Pacific.'"

The following entries in his autobiography ("Reminiscences of Old Hawaii") could possibly explain his and other missionary descendants' perception of the kanaka maoli. First:

"We children were not permitted to learn any of the native tongue until later years. The reason for this was to prevent mental contamination."

And later on, "I have long regarded the most serious error of the missionary work as pursued in these islands as being the failure to begin by establishing, as fast as possible, training schools for the thorough civilizing and Christianizing of youth to become leaders of their people in all good things."

He ended up being one of the strongest supporters of annexation.

Do you know of a civil engineering accomplishment or event that your fellow ASCE members might find interesting? Please send a brief description to C.S. Papacostas (fax 956-5014, email csp@wiiki.eng.hawaii.edu). Previous articles in the series may be found at the Section's web site. Just point your browser to <http://www.ascehawaii.org>.

EAH

(continued from page 2)

cacy, and education. Waimea Valley is in the education area. The National Audubon Society had been primarily in the East coast for most of its history. About 10 years ago the society started a vision to get 2000 Audubon centers in all 50 States by 2020. Knowing this, the Waimea community asked the National Audubon society to submit a bid to the City. The National Audubon Society agreed and a year ago they submitted a bid to the City. In April the City selected the National Audubon Society (NAS). NAS requested a 30-year lease, but really likes to plan for 100 years. But because the bankruptcy is still pending they only have a month-to-month lease. So they are operating on a 100-year plan with a month-to-month lease.

They got access on June 26, spent a couple of days deciding what was what and opened on June 28. They started with a community volunteer day. There are 300 volunteers that did everything from pulling weeds, to cleaning and painting. So what are their plans and long term goals? They have started steering group committees from the community for the cultural resources. The valley has a tremendously important cultural history. It is almost an entire intact ahupua'a. One steering committee focuses on the botanical gardens, which is a tricky issue, because there are plants from all over the world. They have under consideration ways to reshape the gardens by strengthening the Hawaiian gardens, feature gardens from different island groups that could tell the story of island evolution; and perhaps, phase out gardens that do not have relevance to Hawaii assuming the gardens did not have any rare and endanger species that needed to be cared for. They have problems with invasive vines from South America taking over hillsides. They have poisonous plants on main traffic areas. A third group is the ecological steering committee to help them figure out how to look after all the ecological resources on the site. There is breeding site for Hawaiian Moorhens. Moorhens are very secretive birds but in Waimea they with come right up to you. In their 100-year plan they could see one option would be to have a fully restored Hawaiian eco-system.

Five weeks ago there was a \$24.95 entry fee. There was someone selling pearls, a photo booth, and various other commercial kiosks, a tram took you to the waterfalls, where a haole guy dived off the rocks and somewhere else hula was taught to amplified sound. People were quickly moved in and out. Audubon centers purpose is to get the community engaged. They need the visitors to help pay the bills, but the point of the site is get the community on the North Shore back into the valley as stewards.

So the entry fee has to be low. So the first thing that had to go were the trams as they were the single largest expense. It is three quarters of mile to the falls and this is a problem for some people. There are no more shows, but swimming is allowed, but no diving. They want to open up the old trails by the stream and all areas in general downstream of the falls. The most important Hawaiian artifact is a Hawaiian heiau, which is in the parking lot. They want to move the entry closer to the highway. They would like to open up the hiking trails. This creates more things for visitors to do without having to go to the falls.

**Next Deadline for Wiliki is
September 15th**

University campus. One of the UH Micromouse teams placed 5th at the 2003 IEEE Region 6 Micromouse competition at the University of the Pacific in Stockton, California. At the 2003 ASME Human Powered Vehicle competition at the University of California at Davis, the team from UH placed 12th overall. Two teams also participated in the ASME Region IX Design Competition, which involved developing a prototype that could lift and transfer as much rice as possible using the potential energy of two liters of water.

The most exciting and ambitious student project here at the College is CubeSat. With guidance from faculty advisors, the students are designing, fabricating, testing, and launching a picosatellite. The entire College is eagerly waiting the launch of the CubeSat into orbit late next year. The project, which has been covered by local newspaper and television, involves over 70 undergraduate students from all three departments. Unlike other universities, the UH CubeSat project is one of the few that is managed by only undergraduates.

As you can see, the past year has been an excellent one. Looking ahead, the College will continue to strive for excellence in engineering education and research, and in supporting the local engineering community. With our quality faculty, high-caliber students, and supportive staff, the future of the College of Engineering looks very bright.

COLLEGE OF ENGINEERING

(continued from page 1)

from seven different companies. Each company contributed \$25,000 per project for participating students. Led by project director Magdy Iskander, more than 30 of our undergraduate students signed up for these Clinic Projects.

In these projects, students work together as a team with the faculty and graduate students to devise solutions to real-world engineering problems. This past year's participating companies included Orincon, Spirent, Raytheon, ThinkKom Solutions, Net Enterprise, Kyocera, and Vernier Networks.

Students also continue to participate in regional engineering design competitions. The student chapter of ASCE placed fourth overall at the 2003 ASCE Pacific Southwest Regional Conference Concrete Canoe Competition held at the Arizona State

WILIKI ADVERTISERS NEEDED

<p>5" x 2" – (10□) \$64.00</p>	<p>2⁵/₁₆" x 2¹/₂" (6□) \$40.00</p>	<p>7¹/₂" x 5" – (37¹/₂□) ½ page – \$240.00</p>
<p>7¹/₂" x 3³/₁₆" – (25□) (½ page) – \$160.00</p>	<p>4⁷/₈" x 2⁵/₁₆" (11□) \$72.00</p>	<p>2⁵/₁₆" x 1¹/₄" \$20.00</p>

The price for the ads will be based on a 1¹/₄" x 2⁵/₁₆" module size which is 1/24th of the page, and be \$20.00 per month with a 15% DISCOUNT for a 6-MONTH RUN.

Professional Directory

 <p>WES THOMAS ASSOCIATES Land Surveyors 75-5749 Kalawa St., Kailua-Kona, Hawaii 96740-1817 Tel: 808 329-2353 Fax: 808-329-5334 <i>Surveying Hawaii Since 1975</i></p>	 <p>WPT Walter P. Thompson, Inc. Surveyors & Mappers 720 Iwilei Road Suite 425 P.O. Box 3351 Honolulu, HI 96801 Phone: (808) 536-2705 Fax: (808) 599-4032</p>	 <p>R. M. TOWILL CORPORATION SINCE 1930 PLANNING • ENGINEERING • ENVIRONMENTAL SERVICES PHOTOGRAMMETRY • SURVEYING • CONSTRUCTION MANAGEMENT 420 WAIKAMULO ROAD, HONOLULU HAWAII 96817-4941 808 842 1133</p>	 <p>URS Engineers Scientists Program and Construction Managers Environmental Planners 815 PUALANI STREET, 9TH FLOOR HONOLULU, HAWAII 96814-1141 PH: (808) 840-1118 FX: (808) 955-1158 URS www.urscorp.com www.urscorp.com</p>
<p>WALKER INDUSTRIES, LTD. Precast Concrete Products  AARON UNO P.O. Box 1568 Kahului, Maui, Hawaii 96732 Maui (808) 877-3430 Fax (808) 877-7282</p>	<p align="center">Building for a Better World</p>  <p>Washington Contact John Shrewsbury at (703) 629-8594 Arlington, Virginia</p>	<p>Weston Solutions, Inc. Suite 2301 841 Bishop Street Honolulu, Hawaii 96813 Phone: 808.585.0448 Fax : 808.585.7378 www.westonsolutions.com  An employee-ownership Company</p>	 <p>WILSON OKAMOTO CORPORATION Civil Engineers • Structural Engineers • Traffic Engineers • Planners 410 KONA TOWER 1001 K. HANALEIUA BL. SUITE 400 HONOLULU, HAWAII 96813 www.wilsonokamoto.com</p>

Professional Directory

<p>YOUR AD COULD APPEAR HERE FOR \$200 A YEAR</p>	 <p>Earth & Environmental, Inc. Tel: 808.545.2462 Fax: 808.528.5379 www.amec.com</p> <p><i>Full service environmental consulting, engineering, and compliance support. Formerly Ogdan Environmental</i></p>	 <p>AUSTIN, TSUTSUMI & ASSOCIATES, INC. Civil Engineers • Surveyors 501 Sumner Street, Suite 521 Honolulu, HI 96817 Tel: 533-3646, Fax: 526-1267, Email: atahai@atahawaii.com Branch Office: Wailuku, Maui CIVIL • TRAFFIC • SANITARY</p>	 <p>www.beltcollins.com</p>
<p>BROWN AND CALDWELL Environmental Engineering And Consulting • Analytical Services 119 Merchant St., Suite 200 • Honolulu, HI 96813 (808) 523-8499 Fax (808) 533-0226 2145 Wells St., Suite 302 • Wailuku, HI 96793 (808) 244-7005 Fax (808) 244-9026</p>	<p>Carter-Burgess Consultants in Planning, Engineering, Architecture, Construction Management, and Related Services 1001 Bishop Street, Suite 850 Paohai Tower Honolulu, Hawaii 96813 (808) 523-9696 Fax (808) 523-9699 www.c-b.com</p>	<p>S.S. DANNAWAY ASSOCIATES, INC. Fire Protection Engineers Building Code Consultants 720 Iwilei Road, Suite 412, Honolulu, HI 96817 Tel: (808) 526-9019/Fax: (808) 537-5385 ssda@hawaii.rr.com</p>	<p>Y. Ebisu & Associates Acoustical and Electronic Engineers 1126 12th Avenue, Room 305 Honolulu, Hawaii 96816 (808) 735-1634</p>
<p>ESM Esaki Surveying and Mapping, Inc. Lihue, Kauai, Hawaii Ph. (808) 246-0625 • Fax (808) 246-0229 esmap@hawaiian.net ENGINEERS • SURVEYORS Established 1979</p>	 <p>ENGINEERS SURVEYORS HAWAII, INC. (FORMERLY WILLIAM HEE & ASSOCIATES, INC.) 900 HALEKALUWILA STREET HONOLULU, HAWAII 96814 Phone: 591-8116</p>	 <p>FEWELL GEOTECHNICAL ENGINEERING, LTD. OAHU: 96-1416 Waihona Place • Pearl City, Hawaii 96782-1973 (808) 455-6569 • FAX (808) 456-7062 MAUI: (808) 873-0110 FAX (808) 873-0906</p>	<p>MASA FUJIOKA & ASSOC. A PROFESSIONAL PARTNERSHIP ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS MFA 99-1205 Halawa Valley Street, Suite 302 Aiea, Hawaii 96701-3281 Phone 808 484-5366 • Fax 808 484-0007</p>
<p>FUKUNAGA & ASSOCIATES, INC. 1388 Kapiolani Blvd. Honolulu, HI 96814 Phone: 944-1821 Email: office@fainc.org Website: www.fainc.org</p>	 <p>GEOLABS, INC. Geotechnical Engineering and Drilling Services 2006 Kalih Street Honolulu, Hawaii 96819 Phone: 841-5064 Fax: 847-1749</p>	<p>GEOTECHNICAL GROUTING CONSULTANT Edward D. Graf 182 Lumahal St. Tel: 808-396-9451 Honolulu, HI 96825 Fax: 808-396-2075</p>	<p>YOUR AD COULD APPEAR HERE FOR \$200 A YEAR</p>
 <p>CIVIL ENGINEERING AND PLANNING WASTEWATER AND WATER TREATMENT CONSTRUCTION MANAGEMENT SERVICES Hawaii Pacific Engineers, Inc. 1132 Bishop Street • Suite 1003 Honolulu, Hawaii 96813-2830 Phone: (808) 524-3771 • Fax: (808) 538-0445 E-mail: hpeinc@hawaiipacificengineers.com</p>	<p>HIDA, OKAMOTO & ASSOCIATES, INC. CONSULTING CIVIL ENGINEERS PACIFIC GUARDIAN TOWER 1440 Kapiolani Boulevard, Suite 1120 Honolulu, Hawaii 96814 Phone: (808) 942-0066 Fax: (808) 947-7546</p> 	 <p>ERNEST K. HIRATA & ASSOCIATES, INC. Soils and Foundation Engineering 99-1433 Koaha Place • Aiea, Hawaii 96701 Fax (808) 486-0870 • Phone (808) 486-0787</p>	 <p>SAM O. HIROTA, INC. Engineers & Surveyors 864 S. Beretania Street Honolulu, Hawaii 96813 Telephone: 537-9971</p>
 <p>INABA ENGINEERING, INC. 273 WAIANUENUE AVENUE HILO, HAWAII 96720 Phone: (808) 961-3727 / Fax: (808) 935-8033 Civil Engineering • Structural Engineering Land Surveying</p>	 <p>Shaw Environmental & Infrastructure, Inc. 590 Paiea Street, Honolulu, HI 96819-1835 Tel: (808) 474-8172 • FAX: (808) 474-0811 *Nation's leader in on-site remediation services*</p>	 <p>KFC AIRPORT, INC. PROJECT MANAGEMENT CONSULTANTS PLANNING • ARCHITECTURAL/ENGINEERING DESIGN • CONSTRUCTION MANAGEMENT 3375 Koapaka Street, Suite F220-48 Honolulu, HI 96819 Phone: (808) 836-7787 Fax: (808) 834-4833</p>	 <p>KN CONSULTING SERVICES, INC. Civil Engineers 1451 South King Street, Suite 412 Honolulu, Hawaii 96814 Phone: (808) 941-8882 Fax: (808) 941-8828 Email: knconsb@pixi.com</p>
 <p>THE LIMTIACO CONSULTING GROUP CIVIL ENGINEERING AND ENVIRONMENTAL CONSULTANTS 615 Piikoi Street, Suite 1605 • Honolulu, Hawaii 96814 Tel (808) 596-7790 • Fax (808) 596-7361 • www.tlcghawaii.com</p>	 <p>LYON ASSOCIATES CIVIL ENGINEERING / CONSTRUCTION MANAGEMENT 841 Bishop Street, Suite 2006 Honolulu, Hawaii 96813 Tel: (808) 536-6621 Fax (808) 523-1738 E-mail: admin@lyonassociates.com</p>	 <p>Surveying Civil Engineering & Design Environmental Engineering Water Treatment & Supply Construction Management Wastewater Collection & Treatment 1001 Bishop Street, Suite 500, Paohai Tower Honolulu, HI 96813, telephone 808-521-3051</p>	<p>NAGAMINE OKAWA ENGINEERS INC. CONSULTING STRUCTURAL ENGINEERS 1001 Bishop Street • Paohai Tower, Suite 725 Honolulu, Hawaii 96813 Phone: (808) 536-2626 • FAX: (808) 536-3926</p>
<p>NAKAMURA, OYAMA and ASSOCIATES, INC. CONSULTING ENGINEERS ELECTRICAL/TELECOMMUNICATIONS 1314 South King St., Suite 401 Honolulu, Hawaii 96814-2004 Telephone (808) 591-8887 Fax (808) 596-2383</p>	 <p>NEWCOMER - LEE LAND SURVEYORS, INC. 1498 Lower Main Street, Suite "D" Wailuku, HI 96793-1937 Tel: (808) 244-8889 Fax: (808) 244-8422</p>	 <p>Oceanit Innovation through engineering and scientific excellence... Environmental Engineering Coastal Engineering Civil Engineering Planning Pacific Tower #2970, 1001 Bishop Street Honolulu, HI 96813-3654 (808) 531-3017 / Fax: (808) 531-3177 oceanit@oceanit.com / www.oceanit.com</p>	 <p>Okahara & Associates, Inc. Engineering Consultants 200 Kohala St, Hilo, HI 96720 / Ph. (808) 961-5527 Fax (808) 961-5529 671 Ala Moana Blvd., Suite 703, Honolulu, HI 96813 Ph. (808) 524-1224 Fax (808) 521-3151 735574 Maiea St., Bay View, Kailua-Kona, HI 96740 Ph. (808) 329-1221 Fax (808) 329-1006</p>
 <p>Pacific Geotechnical Engineers, Inc. Soils & Foundation Engineering Consultants 429-B Waiakamilo Road Honolulu, Hawaii 96817 (808) 841-8024 FAX (808) 848-5102 E-mail: pge@pacificgeotechnical.com</p>	 <p>PACIFIC MACHINERY INC. 94-025 Farrington Hwy, Waipahu, Hawaii 96797 808/676-0205 FAX 808/676-0264 CATERPILLAR & OLYMPIAN Generator Sets, Engines, Switchgear and Ancillary Equipment. (Prime Power & Standby Power, 8-2000 kW) CATERPILLAR 3600 Utility Plant Generator Sets (1.5-5 MW)</p>	 <p>ParEn, Inc. dba park engineering Engineers, Surveyors, Planners SUITE 300, KAWAIAHAO PLAZA 567 SOUTH KING STREET HONOLULU, HAWAII 96813 TELEPHONE: (808) 531-1676</p>	<p>YOUR AD COULD APPEAR HERE FOR \$200 A YEAR</p>
 <p>Sato & Associates, Inc. HONOLULU 2046 South King Street Honolulu, HI 96826 Tel: (808) 955-4441 Fax: (808) 942-2027 MAUI 2115 Wells Street Wailuku, HI 96793 Tel: (808) 244-9265 Fax: (808) 244-5303 CONSULTING ENGINEERS • CIVIL & STRUCTURAL</p>	<p>SHIMABUKURO, ENDO & YOSHIZAKI, INC. Civil, Environmental & Structural Engineers  1126 12th Avenue, #309 Honolulu, Hawaii 96816-3715 Phone: (808) 737-1875 Fax: (808) 734-5516 Email: seyeng@lava.net</p>	 <p>Marc M. Siah & Associates, Inc. Consulting Engineers 810 Richards Street, Suite 888, Honolulu, HI 96813, Ph. 538-7180 • CIVIL • STRUCTURAL • ENVIRONMENTAL • OCEAN</p>	 <p>501 Sumner Street, Suite 502 Honolulu, Hawaii 96817 Ph (808) 531-1308 Fax (808) 521-7348 Project Managers, Planners, & Engineers www.ssfm.com</p>

HAWAII COUNCIL OF
ENGINEERING SOCIETIES
P.O. Box 2873
Honolulu, Hawaii 96802

Presorted
Standard
U.S. Postage Paid
Honolulu, Hawaii
Permit No. 1400