

## OCTOBER IS ENERGY AWARENESS MONTH

### BuiltGreen™ Homes Are More Comfortable, Salable

The results are in: simple, inexpensive energy efficiency measures can save you money while increasing comfort levels in your home. The top three techniques are:

- Solar water heating;
- Radiant barriers or insulation in ceiling and walls; and
- Natural ventilation.

How well do the cooling techniques work? A demonstration home, built on Hawaiian Homes land in Waiānae, incorporated energy and comfort measures. A similar home, one block away, did not. Monitoring showed clearly that the model BuiltGreen™ home was as much as 18°F cooler. For instance, the west-facing bedrooms of both homes were compared late one September afternoon. The BuiltGreen bedroom was 84°F, while in the home without the efficient cooling technologies, the bedroom was a sweltering 102°F. The model home cost only \$128,000 to build. Also, since the home's interior naturally stays within the "comfort zone" of 73°F – 85°F, its owners can avoid air conditioning, saving at least \$400 in utility bills. The solar water heater is projected to save an additional \$625 per year.

Honsador Lumber Corporation is now marketing kits for the four-bedroom, 2.5-bathroom home, including the energy improvements.

Over 250 possible measures to make an energy-efficient, healthy, durable and comfortable BuiltGreen™ home are now encompassed in a Home Builder Self-Certification checklist. Building and design professionals can use the checklist to gain recognition during the Building Industry Association's annual Parade of Homes.

A "star" rating — between one and three stars can be awarded — distinguishes homes in a highly competitive marketplace and improves resale value.

### Islanders Embrace Solar

Hawaii has more solar water heaters per capita than any other state, a tribute to our sunny climate as well as our high energy costs. A roof in a sunny part of Hawaii receives an average of 1750 Btu per square foot per day. For 1000 square feet of roof, that's the equivalent of 15 gallons of gasoline – per day! Putting at least some of that energy into your home's hot water tank (rather than into your living space) just makes sense. And, it's cost-effective, with an average payback of four years. Revolving loan programs recently instituted by Maui County and the City and County of Honolulu are helping low-income residents with solar installation costs. Other residents are wrapping solar costs into their mortgages. Subdivisions where solar is standard are popping up, and military housing has gone solar in a big way.

Solar water heaters can cut a household's water heating bill by 85-95%. Installing solar is the single most effective thing a homeowner can do to reduce energy use, utility bills, and oil imports. Go solar today!

### Cut Gas Use Three Easy Ways

Car owners can save gasoline and money by doing three simple things:

#1: Buy only the octane your automobile actually needs. Hawaii drivers seem to prefer expensive mid-grade and premium gas. If local drivers bought more regular gas like drivers do on the mainland, they could save about \$7.9 million a year!

#2: Use gasoline efficiently. Avoid topping off your gas tank; fuel expansion can cause a wasteful overflow. Inflate your tires properly for better mileage, and keep up with engine maintenance. Lighten up: carrying extra weight decreases fuel economy, and cargo in the passenger compartment can be hazardous.

#3: Shop for prices. In a recent study, 54% of Hawaii drivers reported convenience as the

top factor determining where they buy gas. Only 30% reported price as most important. Price-conscious shopping can make a big impact on your wallet.

### How to Have Somebody Else Install — And Pay For! — Your Energy Improvements

So, you manage an office building, and the utility bills are crippling your budget. You really want to upgrade the air conditioning... or change to more efficient lamps... but you just don't have the bucks. Why not have somebody else do the work now, **and** foot the bill?

Contract with an energy services company and let them arrange for financing, as well as design, install and maintain the energy-saving equipment until the improvements are paid for.

This isn't the proverbial free lunch; it's called "performance contracting." The energy services company is paid from the savings it achieves — and the savings are guaranteed by contract. Furthermore, the cost of the project can't exceed current utility bills.

An energy performance contract covering more than 50 buildings on the U.H.-Hilo and Hawaii Community College campuses saved \$3.5 million in five and a half years, and that's just one of many success stories.

A Guide to Energy Performance Contracting is available on the web at [www.hawaii.gov/dbedt/ert/pubs.html](http://www.hawaii.gov/dbedt/ert/pubs.html).

### Distributed Energy and Hydrogen Are Part of Plan for Energy Security

Many of the challenges facing Hawaii's energy system — no interconnection between islands, high utility rates, overdependence on imported, non-renewable fossil fuels — make our islands an ideal site for deploying state-of-the-art hydrogen technologies for both power generation and transportation fuel applications of hydrogen.

Major projects are ongoing in hydrogen research locally, including the Hawaii Fuel Cell Test Facility in Honolulu and the Hydrogen Power Park and Gateway Distributed Energy Resources Center, planned for Kona.

Distributed energy systems can be built where an energy resource is located or where the energy is needed.

Distributed energy technologies, including those incorporating hydrogen, can help Hawaii's businesses stabilize their energy costs and ensure secure supplies through diversifying energy sources and more widely distributing electricity generation. The State presently imports more than 50 million barrels of crude oil and 8 million barrels of refined oil products, sending more than \$1.6 billion annu-

(continued on page 9)

| Approximate Temperatures (degrees Fahrenheit) at 5:15 p.m., Sept. 17, 2001<br>(DBEDT Report, 9/2002) |                         |               |            |
|--|-------------------------|---------------|------------|
|  | Hawaii BuiltGreen™ Home | Control House | Difference |
| Exterior   | 84°                     | 86°           | 2°         |
| Attic, Top Position  | 88°                     | 105°          | 17°        |
| Bedroom (west- facing)   | 84°                     | 102°          | 18°        |
| Dining Room (east- facing)   | 84°                     | 94°           | 10°        |



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**WILIKI MAILING LIST**

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

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**U.H. Engineering Student Awarded Scholarship from Bonded Materials Company**

Renee Ishisaka, a junior at the University of Hawaii, College of Engineering, was awarded the 2003-2005 Eric N. Jacobsen Memorial Scholarship, the ninth in a consecutive series since 1996. This year's recipient received a \$6,930 scholarships donated by Bonded Materials Company.

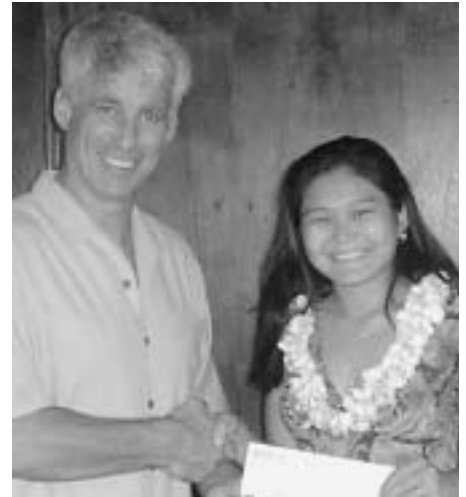
Ms. Ishisaka, who was awarded two years undergraduate tuition, also accepted a paid internship with Bonded for employment in the company's concrete quality control and testing laboratory during the summer of 2004.

The scholarship was created in memory of Eric N. Jacobsen, a beloved and invaluable team member of Bonded Materials Company, who died suddenly in 1996. The purpose of the scholarship is to encourage and reward community involvement and academic excellence by engineering students. Bonded Materials, a Hawaii company, is a diversified manufacturer and distributor of construction and concrete related products with sales offices in Honolulu, Kona, Guam, Saipan, Phoenix and Las Vegas.

From a list of applicants supplied by the University of Hawaii, College of Engineering, Ms. Ishisaka was unanimously selected by HR Administrator Corey Nakamoto, and owners Jeff and Brian Deer.

Prior scholarship recipients include Lee Ann

Shiroma, Stacie Saito, Jennifer Eng, James Cabigon, Aaron Small, Nicole Kikuchi, Timothy Goshi and Jason Seidman.



**Presenting Renee with the scholarship award during the August 22 luncheon hosted by Bonded Materials Company is President, Jeff Deer.**



PO Box 12204 Honolulu, HI 96828  
 website: [www.eaauh.org](http://www.eaauh.org)

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**President's Message**

Better late than never...Welcome from the 2003-2004 Engineering Alumni Association

University of Hawaii (EAAUH) Executive Board. With our recently completed annual golf tournament, we were once again able to award 6 scholarships to incoming freshmen to the College of Engineering. Here's to another successful and fun-filled year for the College. We look forward to the continuing support of our Alumni.

Bryce T. Yonemura  
 EAAUH President

**Upcoming College of Engineering Events**

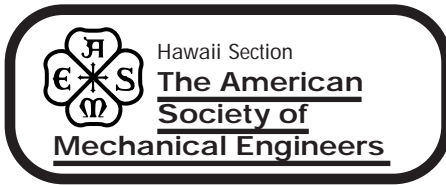
Engineering Day (October 4, 2003)  
 Engineering Expo (January 30, 2004)  
 TEAMS Event (February 21, 2004)  
 College of Engineering Open House (March 6, 2004)

**EAAUH Website**

Please visit our website at [www.eaauh.org](http://www.eaauh.org) for pictures of the 2003 EAAUH golf tournament, information on events, job listings and EAAUH news.



**2003 ASCE Past Presidents Breakfast**  
**Standing (L to R): C. Dudley Pratt, Tony Lau, Gary Yamamoto, William Bow, Kenneth Fan, Delwin Ching, Michael Matsumoto, Masa Fujioka, James Kwong, Peter Nicholson, Stacey Kimura; Sitting (L to R): Wallace Miyahira, Lester Fukuda, Richard Cox, Robert Chuck, Arthur Chiu, Stanley Kawaguchi, C. Michael Street. See article on page 6.**



Website: [www.asme.org/sections/hawaii](http://www.asme.org/sections/hawaii)

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| Dir 1 yr    | Ed Chang            | 543-4227 |
| Dir 2 yr    | Ron Flegal          | 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. Members are always welcome. The Officers and Directors of ASME-HI Look forward to seeing new and familiar faces. Naturally, we are constantly 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.

#### TOUR OF THE H-POWER PLANT IN NOVEMBER

Jim Grogan has arranged for a tour of the H-Power Plant. The details are as follows:

Date: Tentative - Saturday, November 1, 2003 or November 8, 2003. (The tour date will be confirmed after the Wiliki submittal deadline for the October issue. Please check ASME-HI website for the tour date.)

Time: 9:00 am to about 10:30 a.m.

Place: The H-Power Plant is located in Campbell Industrial Park at the corner of Hanua and Komohana Streets. The street address is 91-174 Hanua Street. Meet in the H-POWER Plant parking lot in front of the administration building.

It has been quite a while since we last visited H-Power, and we are looking forward to seeing the modifications made since the last visit. We will see both the RDF (trash) processing facility and the power plant. Please wear hard sole and covered shoes. Hardhats, earplugs, and safety glasses will be provided at the plant. Please contact Jim Grogan at 254-2947 if you would like to attend or if you need more information. Also visit our website.

#### DAGS DESIGN CONSULTANT CRITERIA (DCC) MANUAL

Some design consultant organizations and individuals have received the Department of Accounting and General Services (DAGS) DCC manual (draft) on CDs. DAGS requested comments especially pertaining to Article 1 - General Conditions for Professional Consultant Contracts and Article 2 - Scope of Services for Professional Consultant Contracts. The comments deadline was September 30, 2003. Ad-hoc committees will be formed for reviews before the first edition of the DCC is issued. Participation in the ad-hoc committees is open and interested individuals can contact the

DAGS by email at [public.works.quality.control.branch@hawaii.gov](mailto:public.works.quality.control.branch@hawaii.gov) or by calling 586-0458.

#### ASME-HI TEE SHIRTS

On the suggestion of Chairman Ray Liu, we are looking into procuring ASME-HI Section tee shirts. The details have not been worked out yet. One suggestion is to procure ASME tee shirts and add a Hawaii Section logo or design. Details will be discussed in future meetings. Suggestions from the membership are encouraged.

#### ASME-HI JOB LISTINGS

Link Technologies of Las Vegas and Reno, NV is seeking candidates for a Senior Mechanical Engineer position with a nuclear background. Interested candidates should visit the ASME-HI website at [www.asme.org/sec](http://www.asme.org/sec)



#### 2002-2003 CHAPTER OFFICERS

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#### SFPE Hawaii Luncheon Seminar

##### WATER-LESS FIRE PROTECTION

Presented by:

Marvin Charney, P.E., Kidde-Fenwal

Date: November 18, 2003

Time: 11:30 pm to 1:00 pm

Location: Hale Ikena, Fort Shafter Golf Clubhouse

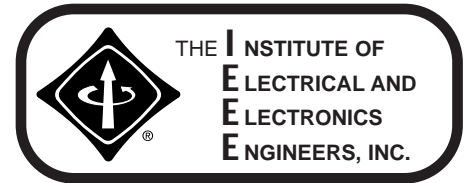
Cost: \$20.00 (\$15.00 for SFPE Members and Chapter Friends)

Please call 526-9019 for a reservation or email us at [info@sfpehawaii.org](mailto:info@sfpehawaii.org).

[tions/hawaii](mailto:tions/hawaii) for more information.

#### 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.



#### IEEE Hawaii Section

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| Membership:        | Steven Sano  | 543-7981 |
|                    | ( <a href="mailto:ssano@ieee.org">ssano@ieee.org</a> )               |          |
| Webmaster:         | Steven Sano  | 543-7981 |
|                    | ( <a href="mailto:ssano@ieee.org">ssano@ieee.org</a> )               |          |
| Newsletter Editor: | Alison Lee   | 224-9723 |
|                    | ( <a href="mailto:al.lee@care2.com">al.lee@care2.com</a> )           |          |
| Professional Act:  | Alison Lee   | 224-9723 |
|                    | ( <a href="mailto:al.lee@care2.com">al.lee@care2.com</a> )           |          |
| Student Act:       | Tep Dobry  | 956-9740 |
|                    | ( <a href="mailto:tep@ieee.org">tep@ieee.org</a> )                   |          |
| Oceanic Society:   | Mark Rognstad  | 956-8712 |
|                    | ( <a href="mailto:mark_rogstad@ieee.org">mark_rogstad@ieee.org</a> ) |          |

## PROVEN RESULTS



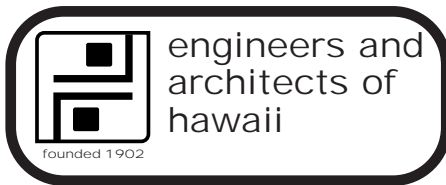
- Prestressed solid planks, double and triple tees and beams
- Hollowcore planks ■ Prestressed piles
- Structural precast components ■ Architectural precast

Project: Kauai Judiciary Building  
Product: Tritees  
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 (2 year term)  
 Ron Boyle (2 year term)  
 August Ahlf

#### OCTOBER MEETING SCHEDULE

**Oct 3rd** - Speaker: Howard Wiig, Institutional Energy Analyst, Hawaii State Energy Office; **"Low emissivity (low-e) glass demonstration"**

See how certain types of glass can let light in while keeping out the heat. Good to know if you're designing buildings or having windows installed. The right windows can make a difference in your electricity bill and keep your home, office or business cool. Plus, it's a really "cool" demonstration to see.

**Oct 10th** - NO MEETING - In honor of Columbus Day,

**Oct 17th** - TBA

**Oct 24th** - Speaker: Shari Shima - TV Meteorologist; **"Today's Weather"**

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](mailto:sgillie@hei.com).

#### Meeting Notes for August 8th, 2003

**SPEAKER: Jeff Mikulina, Director, Hawaii Chapter of the Sierra Club SUBJECT: "Searching for Solutions"**

Jeff started by saying that in the beginning God created earth, but the Sierra Club sued because there wasn't an environmental impact statement. Then God said let there be light, but the Sierra Club asked, "Wait where is the energy for the light going to come from, coal, oil or nuclear?" God said with a wave of his hand, the light will come from a nuclear ball in the sky? The Sierra Club would not object if it only ran half the time. God then said, bring forth the good herbs and seeds for the earth. The Sierra club, said wait, native or non-native seeds? Everything had been agreed to until God said he wanted to complete the project in 6 days. The Sierra club explained it was a 200-day permit application and then there is public hearing. Then God created Hell!

Many people believe this really is typical for the Sierra Club, but Jeff would like the opportunity to explain what the club really is. The club has 5,000 members in Hawaii and by and large they want Hawaii to be a better place for their children and grand children. For people living in urbanized Honolulu it is easy to get detached from the island's natural settings.

Jeff had asked for directions in Ewa and was told "Oh, yes that's just Burger King of the K-Mart."

What really scares Jeff is the global environment. If the Information and Telecommunication Technology Center predictions are true, then there could be an 88 cm raise in sea levels this century, more severe hurricanes, beaches could disappear, prolong draughts, etc. There seems to be more and more unusual weather, like the heat wave in Europe this summer. Jeff talked about solutions, solutions that make the connection between economy and ecology. This connection can be made on many issues. Jeff doesn't like the image for environmentalist, which is some long hair guy that is anti-progress. Jeff said only half that image applies to him (his hair). Some of his colleagues point to businesses being the problem or the engineers are a problem. But commerce is not the problem. The problem is who makes the rules and who enforces them. Jeff's background is in engineering, which gives one a different approach. On a research project he worked on to replace lead solder for Motorola, the solution to replace the lead was rejected because it had a slightly higher reject rate, which could have given their competition an advantage. But if lead were illegal as in Germany because they have decided to just ban the use of lead, then the solution could have been accepted.

Changes in technology are affecting the environment in many positive ways, for example Viagra and the black rhino. The black rhino trade has dropped off in the last five years because; people are realizing there is something that works better than the rhino horn. Another example is the way that the air conditioning industry adopted the replacement of environmentally unfriendly refrigerants. Changing the equipment to green equipment helped the environment and building owner that replaced old equipment for new higher efficient equipment, saving money and reducing energy usage and pollution.

If someone offered to save Hawaii a billion dollars a year, we would rename Bishop Street after him. But this is the amount of money being spent on oil imports every year. A lot of this could be addressed by home grow resources such as solar, or wind power. These are becoming much more effective. The cost of wind is 1/10 what it cost in the 80's. Solar cell facilities grew thirty-five percent in 2002. You really cannot fault a Utility for behaving rationally. If you look at the incentive structure for the utilities, they are behaving perfectly rationally. But customer want more services not necessarily more electricity, which causes more pollution. Is there a way to reward the shareholders and utilities to become more efficient? The Demand Side Management program does some of that, but it could be expanded to more of the service sectors.

There is an idea of Natural Capital, harnessing the sun, harnessing the wind and other natural processes, things that nature does at no cost to us. The costs estimate for the things nature provides for us free, such as soil stabilization, creating oxygen, to filtering water is estimated to be \$35 trillion dollars worldwide. The UH looked at a 100,000 acres in the Ko'olau watershed and estimated the value of the natural capital as \$10 billion per year. The amount of Hawaii taxpayer money that is going to preserve our natural capital is only about \$38 million per year or about \$2.50 per person per month. That is Hawaii's long term care plan for Hawaii's environment. Some people pay

more for coffee per day.

So if you think about our natural capital, the more we can augment, what nature does for free and simple collect the interest the better off we will all be.



#### 2003-2004 OFFICERS

| Office    | Name            | Phone    | Fax      |
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| Past Pres | Richelle Suzuki | 541-2530 | 541-2700 |

We proudly announce the Hawaii Section was awarded the ITE District 6 Best Section Web Site at this year's International ITE meeting in Seattle, Washington. Check it out at [www.ite-hawaii.org](http://www.ite-hawaii.org) for highlights and notices.

#### OCTOBER 2003 MEETING NOTICE

Speaker: Ken Schmidt, GIS Coordinator for C&C of Honolulu, Department of Planning and Permitting

Date: Tuesday, October 21, 2003

Time: 11:45 a.m.

Location: Belt Collins Conference Room  
 Address: 2153 North King Street, Suite 200  
 Topic: Monitoring Construction Projects Through GIS

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

RSVP: Noon on Tuesday, October 14, 2003

Please call Matthew Alonzo at phone 737-1875 or send email message to [h2ite@hotmail.com](mailto:h2ite@hotmail.com) by noon, Tuesday, October 14, 2003 to make your reservations. Payment will be collected at the meeting.



#### HAWAII CHAPTER

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 Phone: (808) 485-1400 Fax: (808) 485-1500  
 Web Page: [www.lgsea.com](http://www.lgsea.com)

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| Director  | Jim Walfish      | 737-0141 | 734-2177 |
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| Membership:  | Adrian Lee   | 536-7692 | 537-9022 |
| Corp. Spon.: | Ron Iwamoto  | 533-2210 | 533-2686 |
| HCES:        | Ather Dar    | 486-2092 | 486-9261 |

2002



CONCRETE ACHIEVEMENT

### Federal Detention Center Honolulu

The Federal Detention Center is located on a 16,309 square meter site at the intersection of Aokea Place and Elliott Street on the west side of the Honolulu International Airport. The entire project utilized approximately 25,000 cubic yards of concrete. Concrete was the choice due its flexibility in design and long term service it provides for buildings of this use.

### NEW PUBLIC BUILDING AWARD

OWNER / DEVELOPER:  
U. S. Department of Justice  
Federal Bureau of Prisons

ARCHITECT:  
Wimberly Allison Tong & Goo

STRUCTURAL ENGINEER:  
Wilson Okamoto & Associates

GENERAL CONTRACTOR:  
Dick Pacific Construction Co., Ltd.





**2002-2003 Officers:**

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

**ASCE HAWAII SECTION ANNUAL BANQUET**

Program: 1) Installation of 2003-2004 ASCE Hawaii Section Officers, Past President Tony Lau presiding. a) Outgoing address by 2002-2003 President, Horst Brandes b) Inaugural address by 2003-2004 President, Westley Chun.

- 2) Presentation of various Section awards.
- 3) Presentation of the 2003 Outstanding Civil Engineering Achievement (OCEA) Award nominations and presentation of the 2003 OCEA award(s).

Date: **Thursday, October 16, 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, American Savings Bank Tower, Suite 3000, 1001 Bishop Street, Honolulu, HI 96813, postmarked by Monday, October 13, 2003. Reservations to Lori Fong by Monday, October 13, 2003 by phone at 531-7094, fax at 528-2368, or e-mail at *lfong@ascehawaii.org*.

**EXECUTIVE COMMITTEE MEETING**

September 11, 2003

**2003 CALENDAR OF EVENTS (subject to change)**

November 20, 2003 - Dinner meeting, program to be announced

**WORKSHOP ON HAWAII'S NEW PROCUREMENT LAW - OCTOBER 30**

A joint workshop entitled, "Implementing Hawaii's Procurement Law - Challenges and Opportunities," is scheduled for October 30 in the Pikake 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. Hawaii's new procurement law, Act 52, the Omnibus Procurement Act, has been described as the most important piece of legislation produced by this year's legislative session. The workshop will focus on how the new law will affect the way government does business in 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, and How Other States Have Implemented QBS. An afternoon panel discussion will feature procurement officials from the State and each County. The panel discussion will allow the audience to raise issues and provide input to the various State and County officials as they embark on the formulation and implementation of procedures to satisfy the new law. PLEASE REGIS-

TER EARLY FOR THIS IMPORTANT WORKSHOP, AS SPACE IN THE PIKAKE ROOM IS LIMITED. Visit the ASCE Hawaii Section website at [www.ascehawaii.org](http://www.ascehawaii.org) for additional information and directions on how to register.

**2003 HAWAII SECTION PAST PRESIDENTS BREAKFAST**

Past Presidents of the Hawaii Section convened for their traditional annual breakfast at the Sam Choy's Breakfast Lunch and Crab on August 15. A record 18 Past Presidents attended. Presentations summarizing the Hawaii Section's accomplishments this year were made by President Horst Brandes, YMF President Jeff Kalani and University of Hawaii Student Chapter Past President Eric Anchetta. The breakfast also allowed the past leaders of our Section to become reacquainted with each

*(continued on page 9)*



**2002-2003 OFFICERS**

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

**Next YMF General Meeting**

The next two YMF general meetings are scheduled for Tuesday, October 7, 6:00 p.m. at "Dave & Buster's"; and Tuesday, November 4, 6:00 p.m. at "Cheerleaders Sports Bar & Grill" in Moanalua Shopping Center. If you are interested in attending, please call Jeff Kalani at 593-1116.

**ASCE Raises Over \$4,500 for MDA**

Fourteen ASCE Hawaii Section volunteers from the Younger Member Forum (YMF) and nine volunteers from the University of Hawaii's ASCE Student Chapter gave up part of their three-day Labor Day weekend to help raise money for the Muscular Dystrophy Association (MDA). This is the 3rd straight year that ASCE has participated in the MDA Hawaii Chapter's "Catch-a-Cure" drive at the intersection of Piikoi Street and Ala Moana Boulevard. This drive is one of many conducted at various locations around the island and held in conjunction with the annual Jerry Lewis MDA Labor Day Telethon. The YMF and UH Student Chapter ASCE volunteers were teamed up with a group from the U.S. Army's 1st Battalion, 27th Infantry. Over \$4,500 was raised in just four hours while waving signs and flashing smiles while encouraging motorists to light their wallets into fishnets donated by the

YMF. Money raised during the Catch-a-Cure drives helps provide services for Hawaii patients who suffer from muscular dystrophy and other neuromuscular diseases. The YMF would like to thank all volunteers who participated for helping to demonstrate yet another way in which civil engineers make a difference!

**ASCE Job Classified**

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

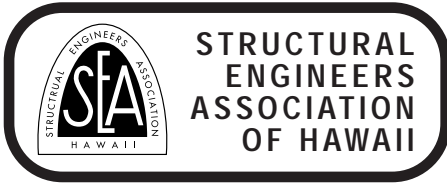
**YMF Tours Ameron Hawaii's Kapaa Quarry**

This past September 13th, the Hawaii Section Younger Member Forum (YMF) organized a technical field trip to Ameron Hawaii's Kapaa Quarry. Ken Kumura, Dave Moore, and Mitchell Kido of Ameron Hawaii sacrificed their busy Saturday morning to lead the group of five on a two-hour tour of the facility. As operations continued at the facility, the group was treated to a behind the scenes look at Ameron Hawaii's Kapaa Quarry, which is situated on 416 acres separated into two phases with reserves totaling approximately 80 million tons for the next 40-50 years. Ken, Dave, and Mitchell provided narration throughout the field trip and described the processes involved at the quarry pit and the primary, tertiary, mansand, and sized rock plants as well as environmental concerns such as air and water quality, blast vibration and noise control, and reforestation/beautification.

The YMF would like to thank Ken Kumura, Dave Moore, Mitchell Kido, and Ameron Hawaii for the great opportunity to tour the facility. The attendees were impressed with the field trip and the hospitality shown by Ameron Hawaii.



**ASCE Younger Member Forum helps "Catch-a-Cure".**



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

September 4, 2003

#### Committee Reports:

47 people attended the wood design seminar held on August 19, 2003. Our new administrative assistant did a great job with the copying of the seminar materials.

The final accounting is being worked on for the annual convention. Some of the people attended the dinners but has not paid for them.

AISC will be handling registrations for the upcoming Practical Steel Design Seminar.

#### Old Business:

Tom presented a preliminary slate of candidates for 2004 officers and directors. Additional candidates need to be contacted.

The Ethics and Professional Conduct Ad Hoc Committee has been formed. Committee members consist of: Harold Hamada, Chairman, Howard Shima, Roy Yamashiro, Rodney Yamamoto, and Richard Sato. This committee will be reviewing the SEAHO By-laws and professional ethics and conduct issues. Anyone who wishes to comment on this issue should contact one of the committee members.

#### New Business

Received a letter from Mike Yee expressing his concerns with the failing rate of candidates taking the ACI Certifications for Concrete Field Technician Grade I examination. Ibbotson volunteered to write up a position letter for the board to consider by the next board meeting.

Tom and Wes are planning to attend the upcoming NCSEA annual meeting around the end of October, 2003.

#### New Member Applications

Carol Pivonka of AISC applied as an Allied member. Please notify any SEAHO Officer prior to the September Board Meeting if you wish to comment on prospective members.

#### 2003 Calendar of Events

Next BOD meeting: Thursday, October 2, 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 Surfrider 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](mailto:structurs001@hawaii.rr.com) or website [www.ssihawaii.com](http://www.ssihawaii.com)

## Structural Systems, Inc.

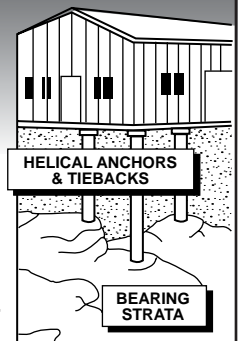
### Permanent Lasting Solutions



- Stop Settling
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- SOIL NAILS
- Slope Stabilization
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LIC. AC-13555

**845-2474**





[http://www.geocities.com/hals\\_us](http://www.geocities.com/hals_us)

**OFFICERS FOR 2003**

President: Layton Nakao  
 Vice-Pres: Eric Hee  
 Secretary: Dennis Chong  
 Treasurer: Kevin Kea  
 Director: Erik Kaneshiro  
 Director: David Hatchell  
 NSPS Governor: Patrick Cummins

HAWAII ASSOCIATION  
 OF LAND SURVEYORS presents  
**"Requirements for Data Processing  
 in NGS Format"**  
 and **"Hawaii's Geoid Model"**

Saturday October 11, 2003; 9:00 am till 2:00 pm at the Pagoda Hotel also Saturday November 8, 2003; 9:30am till 2:30pm at the Maui Beach Hotel

Presented by **Edward Carlson**

**(Hawaii State Advisor, National Geodetic Survey)**

Ed started his career with NGS in 1974 and currently serves as a Senior Geodesist in the Spatial Reference System Division. His early responsibilities included working on the readjustment of the North American Datum of 1983 (NAD 83). This position included the responsibility for developing the strategy and procedures for analyzing the Helmert blocks which were the final stage of NAD 83. Currently, Ed is involved in project planning, project review, project validation, GPS data post-processing, and vector analysis utilizing the manufacturer's software, as well as NGS programs PAGE4 and ADJUST for all of NGS' GPS-derived height projects.

This workshop will be on the requirements for doing a project to submit to NGS, (planning, recon/mark setting and descriptions, observing requirements, data processing, adjustments and Blue Booking) or as Ed calls it, the NGS way. This workshop will also talk about the geoid model which follows along the lines of project planning.

**(Coffee and Lunch will be provided)  
 (Please have registration forms in at least one week prior to workshop date)**

Should you have any questions call Kevin Kea at 531-4252, ext. 17 or email [kevinkcpi@hawaii.rr.com](mailto:kevinkcpi@hawaii.rr.com).

HAWAII ASSOCIATION  
 OF LAND SURVEYORS PRESENTS  
**"Topics for Land Surveying Licensure"**

Saturday September 27, 2003

8:30 am till 3:30pm at the Pagoda Hotel

Presented by: James Kobashigawa; Patrick M. Cummins, LPLS; Wayne Teruya, LPLS

Jimmy Kobashigawa is an Executive Officer at the Professional and Vocational Licensing Division. Since 1994 to the present he has been an Executive Officer for the Board of Professional Engineers, Architects, Surveyors, and Landscape Architects (**EASLA**). Jimmy will be providing information on the land surveyor exams and the licensure requirements for land surveyors in Hawaii.

Pat Cummins is co-owner of Hawaii Land Consultants together with his wife, Mary Myers Cummins, LPLS, and has been registered as a

professional land surveyor since 1981. His knowledge and experience in boundary surveys dates back to 1969. Pat teaches CE 491, "Professional Land Surveying in Hawaii", at the University of Hawaii, College of Engineering, is a co-author of the NBI handbooks "Boundary Law in Hawaii" and "Boundary Disputes in Hawaii". Pat will cover the Hawaiian Land Tenure system, original Hawaiian land titles and the transition from ancient to modern land tenure in Hawaii.

Wayne Teruya is currently employed as a Project Surveyor for ParEn, Inc.dba, Park Engineering mainly responsible for subdivision mapping and processing. Previously to Park Engineering, Wayne was employed by Ruggeri- Jensen-Azar & Associates in Pleasanton, California as a Land Surveyor resolving boundaries for subdivision mapping and ALTA surveys. The topic of Wayne's presentation will be the fundamentals of the Public Land System.

**(Coffee and Lunch are included)  
 (Please have registration forms in by September 19)**

Should you have any questions contact Kevin Kea at 808-531-4252 Ext. 17 or [kevinkcpi@hawaii.rr.com](mailto:kevinkcpi@hawaii.rr.com) to determine traffic impacts of proposed project.



[www.eng.hawaii.edu/~hspe](http://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 OFFICERS**

PRESIDENT Barry Nakamoto, P.E.  
 VICE PRESIDENT Queenie Komori, P.E.  
 SECRETARY Nathan Yuen, P.E.  
 TREASURER Carl Kawauchi, P.E.

**MAUI CHAPTER OFFICERS**

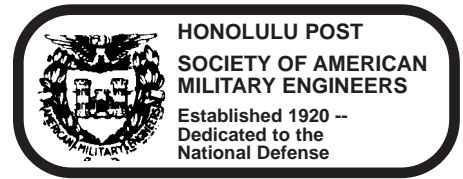
PO Box 4119 Kahului, HI 96733  
 PRESIDENT Brooks Aoki, P.E., L.S.  
 VICE PRESIDENT Carlos Rivera, P.E.  
 SECRETARY Wendy Kobashigawa, P.E.  
 TREASURER Ty Fukuroku, E.I.T.

**BIG ISLAND CHAPTER OFFICERS**

PRESIDENT Galen Kuba, PE  
 VICE PRESIDENT Sal Panem, PE  
 SECRETARY Daniel Kaniho, PE  
 TREASURER Bert Saito, PE  
 CHAPTER DIRS. Richard Bieker  
 Lennie Okano  
 Allan Simeon

**KONA-KOHALA CHAPTER OFFICERS**

PRESIDENT Gordon Ring, PE  
 PRES-ELECT Amy Rice, PE  
 SECRETARY Merrick Nishimoto  
 TREASURER Chrystal Thomas Yamasaki, LPLS  
 CHAP DIRS. Steve Green  
 Jeremy Michelson  
 Bruce Witcher



P.O. Box 31218; Honolulu, HI 96820.  
[www.same.org/honolulu](http://www.same.org/honolulu)

**2003-2004 OFFICERS**

President LTC Dave Press 438-1069  
 Vice Pres COL Jim Lyon 448-3047  
 Secretary CPT Sam Battaglia 438-2450  
 Treasurer LT Kristina McGee 471-1170x250

**September's Meeting**

CDR Joseph Campbell spoke to us about engineering (specifically bridging) problems encountered in Iraq. He elaborated on hasty fixes to those bridging problems such as building revetments out of 4 meter diameter culverts to shorten the bridge span. He also provide insight on hasty small gap crossing with pictures of 1 meter culverts filling the gap.

**October's Meeting**

October's Meeting will be during the CE Conference

Speaker: Mr. Paul A. Parker, Director, Air Force Center for Environmental Excellence (AFCEE)

Date & Time: Wed, 29 Oct 03 at 11:15 - 13:00

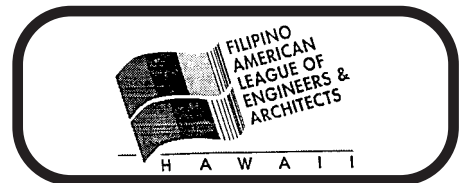
Location: Hickam Enlisted Club

Menu: Pacific Lunch Buffet

Cost: \$14.50 Per Person

RSVP Deadline: 24 October to CPT Battaglia at [battaglias@shafter.army.mil](mailto:battaglias@shafter.army.mil)

Payment will be collected at the meeting.



P.O. Box 4135, Honolulu, Hawaii 96812

Website: <http://www.falea.org>

**2003-2004 OFFICERS AND DIRECTORS**

President Marites C. Shoji  
 Vice-Pres/Pres.-Elect Greg Garcia  
 Secretary Andrea Benitez  
 Treasurer Vergel Del Rosario  
 Asst Treas Maria Domingo  
 Bus. Manager Armando Ines  
 Auditor Marcelino Labasan  
 P.R.O. Fred Quibol  
 Directors Marlo Garcia, Rocky Marquez, Elvi Pineda, John Ramos, Joey Resurreccion, Jun Suela, Segundo Velasco

Congratulations to the new 2003-2004 Officers listed above.

FALEA Installation Banquet will be held at the Sheraton Waikiki Hotel Molokai Ballroom October 18, 2003; 5:30 p.m. - No Host Cocktails, 7:00 p.m. - Dinner; \$35.00 each.

Attire: Barong or Business Suit

Call Marites @ 678-3916 for more information.

There will be a Christmas Caroling Practice to be held on December 12, 2003, location TBA. Christmas Caroling at different houses will be from December 19, 20, & 21st. Details and information to follow.

The FALEA Christmas Party will be held on December 14, 2003. Please call Marites Shoji at 678 3916 for more information.

## Energy Awareness Month

(continued from page 1)

ally out of the state's economy.

### Don't Just Throw it Away

Businesses might find that their wastes are valuable. Biomass — organic material like trash, agricultural waste, and restaurant grease — can be used to produce liquid fuels and biobased materials such as plastics, in addition to electricity.

Some of the energy uses of wastes are well known. On Oahu, for instance, less than half (about 600,000 tons) of Oahu's municipal refuse feeds the 63-megawatt HPOWER plant each year.

The combustion of bagasse from sugarcane used to provide hefty percentages of electricity. Today, biomass' contribution is much smaller but includes power from bagasse as well as mac nut husks and shells.

Brewing fuel alcohol from food or agricultural wastes has long been of interest in Hawaii. Ethanol can be blended with gasoline, or used as a fuel by itself.

Several public wastewater facilities now use anaerobic digestion to reduce sludge volume, organic content and odor. One byproduct is fuel gas, some of which is burned to keep the digesters warm. This gas, like gas collected from landfills, can also be tapped for onsite electricity.

Restaurant grease and oils are becoming better known as a feedstock for biodiesel, which is now manufactured on Maui and Oahu and used statewide. It's used in areas such as the Na Pali Coast and Hawaii Volcanoes National Park, since it's nontoxic and even smells good. In addition, several Oahu companies use restaurant grease as boiler fuel.

So, take a good look at that "garbage" before you dump it in a landfill. Perhaps your waste stream can be converted to a revenue stream!

### Renewable Energy

The Legislature has set renewable energy goals for electric utilities. By 2010, 9% of our electricity is to come from renewable resources. Increased use of renewables like geothermal, solar, wind, biomass and hydro will not increase costs to Hawaii residents; studies have shown that residents could actually save money, especially if the amount paid to the renewable energy generators is not based on the price of oil.

This kind of "renewable portfolio standard" is part of a national trend. Another is "net metering," which lets utility customers get favorable rates for energy they generate themselves and provide to the utility. Hawaii's net-metered installations presently involve photovoltaics, but any renewable energy system with a capacity of up to 10 kilowatts could qualify.

## ASCE

(continued from page 6)

other and to share stories of accomplishments during their terms as President. A good time was had by all. Special thanks goes out to immediate Past President Tony Lau for organizing the event.

### DONATIONS TO ASCE SCHOLARSHIP FUND ARE TAX-DEDUCTIBLE

The Hawaii Section annually provides a university scholarship to a well deserving University of Hawaii ASCE Student Chapter member. Our goal is to build the scholarship fund so that it can provide a second annual scholarship to a deserving UH Student Chapter Member. Show your support for our Civil Engineering students by donating to the ASCE Endowed Scholarship Fund. Please send your contribution, payable to "ASCE Hawaii Section," to the ASCE Hawaii Section Scholarship Committee, PO Box 917, Honolulu, HI 96808. All contributions to the fund are tax-deductible. If you have any questions, please contact Scholarship Committee Chair Horst Brandes at 956-8969 or at [brandes@willki.eng.hawaii.edu](mailto:brandes@willki.eng.hawaii.edu).

### 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)

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](http://www.ascehawaii.org).

### MEMBERSHIP DRIVE

It's time to renew your ASCE membership at <http://www.asce.org/renewal>. By renewing early online you'll have extra chances to win great prizes! Renew online by:

- November 1 for a chance to win a digital video camcorder.
- December 1 for a chance to win an Apple iPod 30GB Digital Audio Player.
- December 14 for a chance to win a Gateway 42" Plasma Television, with guaranteed delivery by the holidays. \*\* Grand Prize for Online Renewals Only \*\*

You will be entered into all applicable prize

drawings that follow your renewal date - so the earlier you renew the more chances you have to win. You may also return your hard copy renewal form or call 800-548-ASCE (2723) or 703-295-6300 for entries into the November 1 and December 1 prize drawings.

To use the online renewal, **you are required to login to your ASCE online account. You must create an online account if you have not already established one. To make the renewal process even more convenient, consider selecting ASCE's two-year dues payment option - you submit only one payment for two continuous years of membership with no interruption of membership, publications and benefits for 24 months. Don't forget to renew your Hawaii Section membership at the same time. If you are not currently a Hawaii Section member, please consider joining the Hawaii Section at this time. While you're online, please don't forget to update your Member Profile (your address, business title, interest areas). Please renew online today to save the Society money and earn extra chances to win great prizes.**

### 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@hawaiipacificengineers.com](mailto:tlau@hawaiipacificengineers.com).



2540 Dole Street, Holmes Hall  
Honolulu, Hawaii 96822

### COLLEGE DEANS AND CHAIRS

|                        |                 |
|------------------------|-----------------|
| Dean                   | Wai-Fah Chen    |
| Interim Associate Dean | Vassilis Symros |
| Interim Assistant Dean | Tep Dobry       |
| CE Chair               | Ronald Riggs    |
| EE Chair               | Todd Reed       |
| ME Chair               | Bruce Liebert   |
| HCAC Director          | Magdy Iskander  |

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

## Professional Directory

|   |  |   |   |
|---|--|---|---|
| <p><b>WES THOMAS ASSOCIATES</b><br/>Land Surveyors<br/>75-5749 Kalawa St., Kailua-Kona, Hawaii 96740-1817<br/>Tel: 808 329-2353 Fax: 808-329-5334<br/>Surveying Hawaii Since 1975</p>                                     | <p><b>WPT</b><br/>Walter P. Thompson, Inc.<br/>Surveying &amp; Mapping<br/>720 Iwili Road<br/>Suite 425<br/>P.O. Box 3351<br/>Honolulu, HI 96801<br/>Phone: (808) 536-2705<br/>Fax: (808) 599-4032</p> | <p><b>R. M. TOWILL CORPORATION</b><br/>SINCE 1930<br/>PLANNING • ENGINEERING • ENVIRONMENTAL SERVICES<br/>PHOTOGRAMMETRY • SURVEYING • CONSTRUCTION MANAGEMENT<br/>420 WAIKAMULO ROAD, HONOLULU HAWAII 96817-4941 808 842 1133</p>  | <p><b>URS</b><br/>Engineers<br/>Scientists<br/>Program and<br/>Construction Managers<br/>Environmental Planners<br/>815 PUALI STREET, 9TH FLOOR<br/>HONOLULU, HAWAII 96814-1141<br/>PH: (808) 845-1116<br/>FX: (808) 845-1108<br/><a href="mailto:urs@urscorp.com">urs@urscorp.com</a> <a href="http://www.urscorp.com">www.urscorp.com</a></p> |
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