VOL. 42 NO. 7

**SERVING 2000 ENGINEERS & LAND SURVEYORS** 

SEPTEMBER, 2006

## COLLEGE OF ENGINEERING UPDATE

#### CoE Summer Internship Program - 2006

Add together 26 high school students representing 16 Hawaii high schools from around the State, and 10 College of Engineering research labs, and your result is the University of Hawaii (UH) College of Engineering's (CoE) 2006 Summer High School Internship Program.

Interns spent six weeks of their summer vacation working on various projects related to research being conducted in the CoE at the UH. Some of the projects interns worked on allowed them to learn valuable engineering skills such as how to do C++ programming, work with Autodesk Inventor 6®, build basic electronic circuits, do computer simulation of a dam break, and build a web camera to name a few. Interns spent 10 – 20 hours a week working in their respective labs.

Besides working in the labs, the program offered several events for the interns to learn more about engineering. Interns toured the various engineering research labs that were participating in the Internship Program. This allowed the interns to see what other opportunities in engineering there were and also gave them a chance to see some of the projects their fellow interns were working on.

A field trip was also organized for the interns to learn about the many career paths within engineering available here in Hawaii. The group visited the following engineering firms: KFC Engineering Management and KFC Airport Inc.'s In-Vessel Bioconversion Facility, Energy Industries, and Oceanic Time Warner Cable.

The culminating event for the Internship Program was the Final Presentations & Reception. This event showcased the intern's experience. Each intern presented a PowerPoint presentation about what they learned throughout their six week journey. Family, friends, teachers, counselors, and prin-

cipals attended the event to celebrate their accomplishments. For additional information, please contact Laura Shimabukuro at laura@eng.hawaii.edu or 956-8404.

#### **Participating College of Engineering Labs**

Autonomous Systems Lab (Mechanical Engineering) - Dr. Song K. Choi, Dr. Tae Won Kim, Dr. Giacomo Marani, Scott E. Weatherwax; Computational Engineering Lab (Civil & Environmental Engineering) - Dr. Albert Kim, Aileen Ng; Computational Engineering Lab (Civil & Environmental Engineering) - Dr. H. Ronald Riggs, Dr. Marcelo Kobayashi, Hugo Pedro, Krystian Paczkowski; Corrosion Lab (Mechanical Engineering) - Dr. Lloyd Hihara, Dr. Atul Tiwari, Ryan Sugamoto; Hydraulics Lab (Civil & Environmental Engineering) - Dr. Michelle Teng, Honggiang (John) Zhou; Manufacturing Lab (Mechanical Engineering) - Dr. Mehrdad Ghasemi Nejhad, Dr. Richard Russ, Stuart Akagi; Micro-scale Thermal Engineering Lab (Mechanical Engineering) - Dr. Weilin Qu, Scott Lee, Abel Siu-Ho; Robotic Surgery Lab (Mechanical Engineering) - Dr. Peter Berkelman, Ji Ma; Small-Satellite Lab (Electrical/Mechanical Engineering) - Dr. Wayne Shiroma, Tyler Tamashiro, Wade Tonaki; Structures Lab (Civil & Environmental Engineering) - Dr. David Ma.

#### **High Schools represented**

Assets School, Hawaii Baptist Academy, Iolani School, Kaimuki High School, Kalani High School, Kapolei High School, Kauai High School, King Kekaulike High School, McKinley High School, Mililani High School, Moanalua High School, Pearl City High School, Punahou School, Roosevelt High School, St. Andrew's Priory, Waipahu High School.

## College of Engineering Orientation Picnic – Fall 2006

Starting college is a very stressful time for students. The journey is a new one, full of

excitement, and also anticipation and uncertainty. The College of Engineering hoped to put some of the students' anxieties at ease by hosting the Second Annual Students Orientation Picnic for incoming freshmen and transfer students. The luncheon was held on Sunday, August 20, 2006, on the Holmes Hall lawn.

Approximately 80 students joined the College of Engineering for the event, which was full of camaraderie among the students, upperclassmen and faculty, games, and food! Students were greeted by Dr. Peter Crouch, the College of Engineering's new Dean, then learned more about advising, mentor programs offered through the College of Engineering, and the many opportunities to get involved by joining a student club or student project. Current students shared their experiences, lessons learned, and "inside" information for surviving the College and the engineering programs. The event finished with a friendly relay race, with the question of which engineering department (Civils, Electrical, or Mechanicals) would take the gold? The Mechanical Engineering students came out on top in the relay race, but everyone left the picnic a winner, feeling slightly more at ease about starting the new semester. For further details, please contact Ms. Laura Shimabukuro laura@eng.hawaii.edu.

#### **New College Leadership**

The College of Engineering welcomes Dr. Peter E. Crouch as our newly appointed Dean. Prior to becoming our dean on July 1, 2006, Crouch was Vice Provost for Global Engagement for Arizona State University and Dean of Arizona State University's Ira A. Fulton School of Engineering, serving as dean for more than a decade. Under his leadership, Arizona State became one of the top 50 engineering programs in the nation (as ranked by US News and World Report). He increased total graduate and undergraduate enrollment to 6,000 students and added 160 new faculty. Dr. Crouch has authored 120 archival and refereed publications and two books, having earned B.Sc. (Engineering Science) and M.Sc. (Control Theory) degrees from Warwick University and a Ph.D. in applied sciences from Harvard. Additional information about the College and our new dean will follow in next month's Wiliki.



See additional pictures on page 11



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Additions and/or corrections to the Wiliki mailing list should indicate the proper society, institution or association. Corrections to email addresses should be submitted to your society coordina-

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## 2006 ITE District 6 Annual Meeting

On June 25-28th, 2006, District 6 of the Institute of Transportation Engineering (ITE) held its 2006 Annual Meeting at the Sheraton Waikiki on Oahu. ITE is a professional society of more than 15,000 transportation engineers, planners and other professionals in some 80 countries. The Institute facilitates the application of technology and scientific principles to research, planning, functional design, implementation, operation, policy development and management for all modes of transportation. In addition, ITE promotes professional development of members, supports and encourages education, stimulating research, developing public awareness, and establishes forum for exchanging professional information. District 6 of ITE is comprised of the 13 western states which include Alaska, Arizona, California, Colorado, Hawaii, Idaho, Oregon, Montana, Nevada, New Mexico, Utah, Washington, and Wyoming.

#### Planning

Although the Hawaii Section was awarded the honor of hosting the 2006 Annual Meeting by the ITE District 6 Board of Directors in 2001, planning for the meeting did not get underway until 2003 when the Local Arrangements Committee (LAC) began negotiations with hotels to determine where the meeting would be held. After careful consideration, the LAC selected the Sheraton Waikiki as the meeting site due to its size and layout. The LAC was looking for a location where the meeting rooms were segregated from the general common areas, but still easily accessible from guest's hotel rooms. In addition, they wanted to ensure that the ITE group would be the primary user of the facility during their conference to minimize conflicts with other groups at the hotel. The Sheraton Waikiki fit both of these requirements while also offering favorable concessions to the ITE group.

Once the location of the meeting had been established, the LAC's focus shifted to advertising the meeting at preceding District 6 Annual Meetings and dispersing available information about the meeting as soon as possible through email and an Annual Meeting website. The LAC recognized that the physical separation between Hawaii and the rest of the District made this meeting more of a challenge

than previous years' and made every attempt to keep ITE members up-to-date on every aspect of the meeting.

Although some of the planning for the 2006 meeting began as early as three years prior, the majority of the planning work occurred during the last 14 months before the meeting. During this period, the LAC established affiliations with Hawaiian Airlines to provide travel arrangements for attendees, extended invitations to over 250 vendors to exhibit at the meeting, solicited 8 sponsors to help alleviate the cost of the meeting, accepted over 175 abstracts from speakers and developed a firstrate technical program, and made arrangements for technical tours, technical training sessions, and social events.

#### **Technical Program**

The technical program consisted of two concurrent training sessions, two technical tours, and 94 individual presentations and one panel discussion contained within three different technical tracks. The technical training sessions were held on the first day and consisted of an Americans With Disabilities Act (ADA) Workshop was designed to introduce attendees to the concepts of ADA and teach them to apply these concepts to "real-world" scenarios, and a Road Safety Audits for Local Governments seminar which was designed to introduce road safety audits (RSAs) as an effective tool that can help to reduce injuries and fatalities on a road network. The two technical tours were conducted on the second day of the meeting and consisted of a tour of the State of Hawaii Department of Transportation (SDOT) Traffic Operations Center (TOC) and the City and County of Honolulu's (CCH) Traffic Management Center (TMC), and the Hawaii Center Advanced Transportation for Technologies (HCATT) facility where zero emission and low emission transportation technologies are currently being developed. The technical tracks for the meeting consisted of a Traffic Operations and Safety track which provided the latest information on traffic signal warrants & timing, safety, ITS, and a wide variety of related topics, Transportation Facilities and Modes track which featured pedestrian

(continued on page 3)



Local Arrangements Committee (left to right): Cathy Leong (General Chair), Richelle Takara (Vice Chair), Ricardo Archilla (Technical Facilities Chair), Matt Alonzo (Registration Chair), Irene Wong (Publicity Chair), Cheryl Yoshida (Exhibits Chair), Pete Pascua (Technical Tour Chair), Walter Okitsu (Technical Program Chair), Fred Smoot (Finance Chair). Not pictured: Wayne Yoshioka (Traffic Bowl Chair) and Wayne Kawano (Activities Chair).

#### ITE Conference, from page 2

and bicycle planning and design, work zones, parking, transit planning, and other related topics, and Special Topics track which included topics such as transportation planning methods, goods movements, community design, and traffic simulation and modeling.

#### **Social Program**

The social program included a golf outing at the Hawaii Prince Golf Course, spouse/guest tours of the Dole Pineapple Plantation/North Shore and Arizona Memorial/USS Missouri Battleship, student fundraising miniature golf tournament, luau, and a jeopardy-style game show. Thanks to generous contributions from the student fundraiser sponsors and participants, the miniature golf event held on the first night of the meeting raised over \$3,500 for the ITE District 6 Student Endowment Fund which supports student initiatives. The following evening, close to 600 people gathered on the Diamond Head Lawn at the Sheraton Waikiki for a luau. The "Traffic Bowl" is an annual jeopardy-style game show where participants are quizzed on transportation-related topics. This year, the Hawaii Section introduced its inaugural team who fared well, especially with the Hawaii related questions, but failed to qualify for the final round.

#### **Attendance**

Over 550 ITE members, friends, and families attended the 2006 District 6 Annual Meeting representing each of the thirteen states in District 6, as well as, other states across the country, Guam, American Samoa, Saipan, and Canada. The turnout for the Annual Meeting far exceeded expectations with over 380 registered attendees including over 60 students and faculty, and over 80 individuals representing nearly 40 vendor companies. The LAC was pleased to note a large contingency of professionals from local private and government agencies at the meeting with a number of local consulting firms pledging to sponsor the meeting at varying levels. In addition, the LAC was also pleased to have Rod Haraga, State of Hawaii Department of Transportation Director, participate as the keynote speaker at the meeting's Opening Session. His presentation regarding the current status and future plans for the State's transportation system gave attendees a glimpse of transportation issues in Hawaii.



The interactive traffic signal system constructed by the City and County of Honolulu's Department of Transportation Services and ITE Hawaii Section was displayed in the hotel foyer during the meeting.



LAC Vice-Chair Richelle Takara takes a moment to relax with her family.



#### 2005-2006 OFFICERS

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**August Meeting Highlights** 

The August luncheon meeting was held on August 17, 2006 at the Honolulu Municipal Building. The guest speakers were Dr. Christopher Ablan, research scientist for Hoku Scientific, and Ms. Stephanie Ito, production specialist for Hoku Scientific, who spoke about their companies involvement in the develop-

ment of fuel cell technology. Since Scientific Since 2001, Hoku has been involved in the development of clean energy technologies. The company is currently focused in three areas, fuel cells, materials, and solar ener-With regards to fuel cells, Hoku Scientific manufactures the membrane electrode assemblies (MEAs) used in the production of fuel cells. These MEAs are responsible for separating the electrons and protons from hydrogen fuel that is injected into the cell. The electrons are then diverted to create electrical energy while the protons pass through the membrane and are combined with oxygen to create water. Hoku Scientific is currently affiliated with organizations such as the Navy to develop stationary fuel cell technologies such as back-up genera-In addition, they tors. have an on-going relationship with Nissan to develop automotive fuel cell technologies.

#### September Meeting Announcement

The September Section meeting date, location, and guest speaker will be announced at a later date. Meeting notices are forthcoming.



State Department of Transportation Director Rod Haraga with ITE District 6 President Ken Ackeret after the Opening Session.



Oahu Metropolitan Planning Organization (OMPO) Executive Director Gordon Lum moderated a technical session then enjoyed the luau with friends.



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#### 2006/2007 Post Officers

#### Post meeting notes from August 8, 2006:

Subject: Hawaii State Civil Defense Disaster Preparedness: Hawaii IND Exercise 2006 Speaker: Mr Kevin Richards, Hawaii State Civil Defense

Mr Richards gave us a sneak peek of the 15-16 Aug Hawaii IND Exercise, 'A Kele, This exercise simulated a "dirty bomb" exploding near downtown Honolulu. The objectives were to assess local response, communications, and mutual aide. Two locations were used during the exercise: downtown Honolulu and Bellows AFS. Downtown use was limited because there was no way to totally shut down the area. Fortunately they were able to use the Bellows AFS airfield as a 1:1 scale mock-up of the downtown area. This full scale distances added realism for the responders that was previously unavailable. Participants included city/county, state, non-government organizations, Department of Defense, and federal agencies both on and off island.

Other business: We were honored to have Ms. Patricia Opheen, from the Anchorage, Alaska SAME Post, attend our luncheon. She informed the post on the up coming 2007 Pacific/ Northwest Region Education and Training Conference being held in Anchorage in Feb/Mar 2007. It promises to be an exciting and informative event. Check the Anchorage SAME web page for more information.

**Next meeting: 12 Sep,** Speaker: Rear Admiral Engle, Topic: Navy Program.

## Certified Facility Manager Designation (CFM)

#### by Captain Matt Cutts, USCG, PE, CFM

Designation as a Certified Facility Manager can be a valuable part of your continuing education and career development program. SAME has partnered with the International Facility Management Association (IFMA) so that SAME members can take advantage of continuing education and certification at discounted rates. SAME members can attendourses for the Certified Facility Manager (CFM) designation offered by IFMA at a special discount rate. In addition, SAME members can take the CFM exam at IFMA member discounted prices.

IFMA President and CEO David Brady, states "CFM designation has proven to be an excellent starting point for bringing recognition to SAME members who are managing military installations, public hospitals and other kinds of government facilities," and "It's also excellent for those professionals who may be transitioning from the public sector to the private sector. IFMA research shows that CFMs earn about

\$15,000 more per year than non-CFM colleagues in the private sector." SAME Executive Director Robert Wolff indicates that "An important component of military engineering relates to facilities management of military installations. We were drawn to IFMA to assist SAME members in their professional education and training through IFMA's conferences, Public Sector Council and CFM program."

In 2004, Commander Bert Diehl of the SAME Honolulu Post attended a CFM designation pilot program co-sponsored by SAME and IFMA. Twenty-three of the twenty-six candidates earned the CFM, including Commander Diehl. Upon retirement from the Coast Guard in 2005, he became Director of Facilities Management at Lakeland Community College in Mentor, Ohio. Since then, CFM review classes and on-site exams have been held in conjunction with several Regional SAME Conferences.

I became a Certified Facility Manager this June. I prepared by completing the Defense Acquisition University course FE 201, which provides a broad understanding of the facilities engineering process and the roles/ responsibilities of acquisition team members as they relate to the facility life cycle in support of military missions http://www.dau.mil/index.asp. Then I purchased and thoroughly reviewed the CFM Bundle Pack, including the Facility Management Handbook by David Cotts, the CFM Study Guide by Jon Martens, and the CFM Handbook published by IFMA. books are available from IFMA at http://www.ifma.org. Finally, I took the CFM Exam Review Course offered by Jon Martens.

Mr. Martens is a principal with JEMCOR, LLC, a facilities management, education and consulting firm in Santa Rosa, CA. He is an instructor with UC Berkeley's Continuing Education program and is an IFMA-certified instructor for their seminars CFM Exam Review Course. This is the definitive course of preparation for IFMA's Certified Facility Manager Exam, and is designed to assist facility professionals seeking certification with preparation for the competency-based examination. The course is organized around the following nine areas of facility management competency: Operations & Maintenance, Real Estate, Human & Environmental Factors, Planning & Management, Leadership Management, Finance, Quality Assessment & Innovation, Communication, and Technology. This two day course is worth 1.3 Continuing Education Units, and applicable toward continuing education required by many states to maintain Professional Engineering licenses.

G.I. Bill education benefits can pay for the cost of approved licensing and certification exams, including the CFM exam. Eligible persons may apply to the Veterans Affairs Office for reimbursement of CFM exam fees. Information about V.A. benefits is available at http://www.gibill.va.gov/Education/LCweb.htm.

The SAME Honolulu Post is considering cosponsoring a CFM Exam Review Course with the Honolulu IFMA Chapter. One possible date is in conjunction with the Pacific Industry Forum in May, 2007. Please contact Warren Hall, the SAME Honolulu Post Education Committee Chair at whall@eaest.com if you are interested in attending the course and gaining designation as a Certified Facility Manager.

## Navy Enhanced Use Leasing - more info from the June meeting

The Honolulu Post's June meeting featured a

briefing on the Navy's Enhanced Use Leasing redevelopment project of Moanalua Shopping Center. The MacNaughton Group is redeveloping the Moanalua Shopping Center under a long-term (40 year) lease agreement with the U.S. Navy. The property near Pearl Harbor will be leased to The MacNaughton Group for commercial development in exchange for the construction of new Navy facilities. The project includes the construction of a 55,000-squarefoot Navy community support services center and up to 30,000 square feet of other market and commercial use facilities. The briefing panel was composed of members of the MacNaughton Group and their Development Team and the Naval Facilities Command, Pacific.

The Navy will get a new 55,000-square-foot, two-story office building, in which it will consolidate a number of offices. The developer will retain retail space that it will lease to private companies. A number of tenants are already opening - Jamba Juice, Verizon Wireless, Vitamin World, and Starbucks. Panda Express and Molly's Smokehouse will be housed in Other tenants include stand-alone space. Ruby Tuesday, Baskin-Robbins, Pearl Family Dental Care, Gamestop, Loco Moco Drive Inn, Cingular Wireless, Yummy Korean BBQ, Jeans Warehouse, Pigtails & Crewcuts (a kids' hair salon franchise), Makoto Sushi, Subway, Nail Tek and Koa Pancake House. Although the area is Navy property, the retail space development will be open to the public.

What is termed "Enhanced Use Leasing" (EUL) is permitting the Department of Defense (DOD) to utilize innovative means by which to work with the private sector to build needed facilities on military installations. Provisions of Title 10 USC 2667 and 2667a have enabled "Enhanced Use Leasing" (EUL) for the leasing of government assets: real property, buildings, and/or equipment to the private sector for up to 50 years. This allows the private sector to use and/or invest in the redevelopment of the asset and it permits the military to retain ownership of the underutilized asset. As an example, the law is utilized by the Bureau of Land Management for leasing grazing rights.

EUL - What is it...really? EUL is a process that allows the military to take assets, primarily real estate that is old, unused, impaired in some way (historically and/or environmentally), inefficient or outdated and possibly turn them over to the private sector for redevelopment and reuse. The primary motivation for doing this is the avoidance of the costs - to redevelop or otherwise put the asset back into shape to productive, and the operating costs to run and/or maintain the facility. And the obvious advantage of being able to develop a much needed facility that might otherwise be very difficult to obtain through the normal programming and budgeting process of the Federal Government.

The business plan that is put in place between the DOD and the developer can also possibly provide a revenue stream for the military partner to utilize for "in-kind" services – that is to further reduce operating costs within the installation or even to provide additional construction of other facilities. This was permitted by amendments to Title 10 USC 2667 that come from Public Law 106-398 and from the FY01 National Defense Authorization Action, Section 2812.



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#### 1. Summer Picnic at White Plain's Beach in Ewa near Barber's Point. Sunday, Sept 10, 11-5:30pm.

White Plain's is a surfing and picnic beach on the leeward side of the Oahu. We'll have the large pavilion on the Waipahu side of the park. Look for an IEEE sign. Surf rentals are limited to military, so you need to bring your own board if you are interested in surfing. Otherwise bring some suntan lotion and swim wear. The Hawaii Section will provide paper things, utensils and soft drinks. Please bring your own dish to share.

You need not be a member to attend. Please contact Nancy Roemer at NLRomer@aol.com or Tri Nguyen at thn khi@yahoo.com for information or to RSVP by 8/17/06. Nancy and Tri will be off-site in this period and will be unable to respond when they are away. They will be away at different times.

Here is a message from Nancy:

'We are having a joint picnic with the IEEE Hawaii Section and the student section. All are invited for a day of sun, fun, camaraderie, swimming, surfing, volley ball and good food. And I mean all - spouses, friends, children and

"This is our second annual picnic. It will be pot luck, with the section and society providing the drinks, plates and utensils. Last year we had a wonderful assortment. No need to ask what to bring - just bring something. It always seems to work - never had just desserts or all salads. Last year we had a wonderful time.

"The cabana reserved is on the far left of the beach, or Diamond Head end. It has several tables, a large grill and is next to the volley ball court - we had a rousing game last year. Bring surf boards, boogie boards, bathing suits, snorkel gear, chairs or whatever.

"The beach is really nice, the surfing is usually good, there are life guards, real bathrooms and Diamond Head and palm trees make it a beautiful spot. Sometimes there is even a cordoned off monk seal sharing the beach.

"Please respond with a yes by [September 1] - so we know how many soft drinks and water

Respond to me or to our Vice Chair - Tri Nguygen - thn@ieee.org.

"Nancy Roemer

IEEE Hawaii Computer Society"

## 2. Hoku Scientific Talk, Thursday, Sept 21, 6-

Karl Taft is a founder of Hoku and has been the company's Chief Technology Officer since 2001. In that capacity, Karl manages the company's product development efforts. He has extensive experience optimizing electrode performance, synthesizing advanced electrolytes and streamlining system designs. Karl will speak on the basic science of the company's products and present an update on their activities in fuel cell membranes and photoelectric devices.

Place: TBD



Website: www.sections.asme.org/hawaii

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#### **NEXT ASME-HAWAII SECTION MEETING**

September 12, 2006 Date: 5:30 pm to 7:00 pm Time:

Ph.D., Veedu, Agenda: Vinod Senior Nanotechnology Engineer at Oceanit Center speaking on

Nanotechnology.

Place: Hawaiian Electric Ward Avenue

Cafeteria

Dr. Veedu is the Technical Chair and Program Coordinator for the Multifunctional NANOcomposites International Conference to be held September 20-22, 2006 at the Hawaii International Conference Honolulu, Hawaii. Oceanit, one of Hawaii's largest and most diversified science and engineering companies, is a major sponsor of this nanotechnology conference. Dr. M. N. Ghasemi-Nejhad is the Multifunctional Nanocomposites 2006 Conference Chairman. The conference is intended to provide a platform for researchers to exchange information. identify research needs and promote industryacademia interactions in this emerging area of multifunctional nanocomposites.

Please contact Ray Liu or Ron Flegal for directions and for more information.

#### **RED HILL FUEL OIL TANK FARM TOUR**

The tour is on September 5, 2006, from 11:00 a.m. to about 12:30 p.m. It is limited 20 people. must e-mail Kevin Dang Dangk001@hawaii.rr.com if you like to attend and to get further information.

The tour will start at Building 1757 (PHNSY), which is close to "H" pier toward the Halawa gate. We will meet in the second floor conference room for a 14-minute video before heading out to Red Hill. Participants are asked to at least dress in long pants and shoes. There are no requirements for hardhats. Travel from Building 1757 through the security gates and to Red Hill will be by vans. There will be no personal cars along this route.

This tour has been very limited since 9/11 and very difficult to arrange. We thank Kevin Dang and Stanford Yuen for their efforts in arranging the tour.

#### ASME HAWAII P.E. REFRESHER COURSE **UPDATE**

The P.E. refresher course commenced on August 1, 2006 with 13 candidates in attendance. At the time of this writing, three sessions have already been conducted with all candidates getting up to speed with the material at hand. So far, the material covered includes the fundamentals of heat transfer and their three modes of transmission. Dr. Stephen Masutani, P.E., who is a researcher with the Hawaii Natural Energy Institute and a registered mechanical engineer in the state of Hawaii, provides the lectures.

Dr. Masutani's lectures are precise and focus on the problems that will most likely be seen in the exam. His background in teaching undergraduate and graduate mechanical engineering students has brought value to the candidates due to his ability to communicate the meaning and application of the relevant formulas used in solving the problems. Following with relevant and practical examples, his lectures reinforce the principles and practices of mechanical engineering design and problem solving. However, Dr. Masutani's lectures are not typical of those seen in college courses,

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The Society of **FIRE PROTECTION ENGINEERS** 

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## 2005-2006 ASCE Hawaii Section Executive Committee

Office Phone Walter Billingsley 846-3232 538-7819 President email: wbillingsley@beltcollins.com Pres-Elect 384-5372 689-1585 Lori Fong email: Ifong@ascehawaii.org Vice-Pres vacant Secretary Ron Iwamoto 486-5202 486-5206 email: ron@iwamotollc.com Mike Hunnemann 791-3980 533-2686 Treasurer email: mike@kaihawaii.com Past Pres 533-3646 526-1267 Keith Niiya email: kniiya@atahawaii.com

## SEPTEMBER JOINT LUNCH MEETING WITH HWEA AND AWWA

Program: Dr. Eric S. Takamura, P.E., Director of the Department of Environmental Services, City and County of Honolulu, will present "The Aftermath of the Beachwalk Force Main Event."

Dr. Takamura will present what happened to the existing force main during the March 24, 2006 event and describe the emergency action it took to install a temporary force main to avoid a similar spill before the next rainy season occurs.

Date: Thursday, September 21, 2006

Location: The Willows Restaurant 901 Hausten Street Time: 11:30 a.m. – Registration &

Social Time

12:00 p.m. – Multi-Entrée Buffet

Lunch

12:30 p.m. - Program
1:30 p.m. - Adjourn

Menu: Multi-entree buffet
Cost: \$22.00 for lunch buffet

\$3.00 for parking validation

Please make checks payable to AMERICAN WATER WORKS ASSOCIATION and mail to:

AWWA Hawaii Section c/o Fukunaga & Associates, Inc. 1388 Kapiolani Boulevard, 2nd Floor Honolulu, Hawaii 96814 Attention: Jon Muraoka

Reservations for the lunch meeting to Jon Muraoka by phone, (808) 944-1821; fax, (808) 946-9339; or email, office@fainc.org.

Please make reservations and send payment by Monday, September 11, 2006.

#### **EXECUTIVE COMMITTEE MEETING**

September 12, 2006

## ELECTION OF THE FY 2007 ASCE HAWAII SECTION OFFICERS

The following slate of officers will be on this year's ballot for new officers. Lori Fong, P.E., who was elected to the position of President-Elect in August 2005, will lead the Hawaii Section as President. Nominees for the remaining Executive Committee positions are as follows:

President-Elect: Ron Iwamoto, P.E. Vice-President: Michael Hunnemann, P.E.

Secretary: Jeffrey Kalani, P.E. Treasurer: Roger Babcock, P.E.

Younger Member Forum President: Lori Nishida, P.E.

The current officers are nominated to continue in succeeding positions: Ron Iwamoto and

Michael Hunnemann. Brief biographical sketches for Jeffrey Kalani, Roger Babcock and Lori Nishida are provided below.

After earning a Bachelor's and Master's Degrees in Civil Engineering in 1996 and 1997 from the University of Hawaii, Jeff joined the Honolulu office of Woodward Clyde. In 2005 Jeff joined Yogi Kwong Engineers as a Senior Geotechnical Engineer and Construction Manager. Jeff has been a registered professional engineer licensed in the state of Hawaii since 2001 and has gained a wide variety of design experience on challenging civil, geotechnical, and trenchless engineering projects throughout the Pacific. Currently, Jeff specializes in the design and construction management of some the largest and most challenging jet grouting, microtunneling and horizontal directional drilling operations in the state of Hawaii, and has co-authored numerous technical publications on these topics. In 2005 Jeff received the Edmund Friedman Young Engineer Award for Professional Achievement, and 2006 Jeff received the Young Engineer of the Year award presented by the Hawaii Society of Profession Engineers. Since 1996 Jeff has been an active ASCE member who has served in numerous positions within ASCE including: chairperson for the University of Hawaii Student Chapter Concrete Canoe Team, Practitioner Advisor for the ASCE Hawaii Section, and the ASCE YMF's Director, President, Job Shadow, and Community Service and Golf Committees Chairperson.

Dr. Roger Babcock is an Associate Professor of Civil & Environmental Engineering at the University of Hawaii in Honolulu Hawaii. He is also affiliated with the Water Resources Research Center. He obtained a B.S. in Civil Engineering from UC Davis, a M.S. in Civil Engineering from Cal Poly San Luis Obispo, and a Ph.D. in Civil Engineering from UCLA. Dr. Babcock worked for Carollo Engineers in the early 1990s and has been at the University of Hawaii since 1995. Dr. Babcock conducts research on biological wastewater treatment, water recycling, membrane bioreactors, membrane fouling mechanisms, fate and transport of wastewater residuals in soils, and adsorption and regeneration of pesticides on activated carbon. Dr. Babcock also does consulting work for several Hawaii and mainland firms and is a member of ASCE, WEF, IWA and AEESP. He is the Faculty Advisor for the UH Student Chapter and is also currently President of the College of Engineering Faculty Senate, Chair of the UH Ethics Focus General Education Committee, Committee Chair of Cub Scout Pack 864, and a member of the Mililani Town Association Board of Directors.

Lori Nishida, P.E. has accepted the nomination to the office of President of the Hawaii Section Younger Member Forum (YMF). She is a University of Hawaii graduate and has been actively involved with ASCE having served as the Student Chapter President, YMF Wiliki Chair, YMF Secretary and currently serves as the YMF Vice President, YMF PE Refresher Course Chair, and Hawaii Section Membership Chair.

The election of the FY 2007 ASCE Hawaii Section Officers will take place at the September Luncheon Meeting.

## ASCE HAWAII SECTION STUDENT SCHOL-ARSHIPS

Please help us increase our scholarship endowment so that we can recognize those deserving students. We continue to accept tax deductible donations with the goal of increasing the annual scholarships. Make your check payable to 'ASCE Hawaii Section' and mail to ASCE Scholarship Committee, P.O. Box 917, Honolulu, HI 96808. If you have any questions, please contact Keith Niiya at 533-3646, or kniiya@atahawaii.com.

#### **ASCE JOB LISTINGS**

The following employers have openings they would like to fill:

- Austin Tsutsumi & Associates, Inc. (Civil Engineer - Honolulu and Wailuku, Land Surveyor - Honolulu)
- Brown and Caldwell (Civil or Mechanical Engineer, Senior Level Drafter - Honolulu)
- Engineering Solutions, Inc. (Civil/Sanitary Engineers)
- Fewell Geotechnical Engineering (Geotechnical Engineer Honolulu)
- Fukunaga & Associates (Civil and Civil/Environmental Engineers - Honolulu)
- Towill, Shigeoka & Associates, Inc. (Licensed Professional Land Surveyor, Computer/Draftsperson (CAD), experienced Party Chiefs and Rodpersons for Oahu and Kona)
- Warren S. Unemori Engineering (Project Engineer, Civil Engineer, & CAD Operator -Wailuku)

(continued on page 7)

# Attention All Engineers!

## CIVIL ENGINEERING JOB OPPORTUNITIES CIVIL ENGINEERS II-VI

Current and anticipated vacancies are available in the following departments:

Board of Water Supply - Customer Care and Engineering Divisions

Design and Construction - Civil and Wastewater Divisions

Environmental Services - Administration; Environmental Quality & Refuse Divisions

Facility Maintenance - Road Division

Planning and Permitting – Site Development Division Transportation Services – Traffic Engineering Division

Applications available online and at the Department of Human Resources, 650 S. King St., 10th Floor (Frank F. Fasi Municipal Building - Photo I.D. required for entrance). Hrs. Mon. to Fri. 7:45 a.m. to 4:30 p.m. For more information, call 527-5571 or visit website at www.honolulu.gov/hr.

#### CITY AND COUNTY OF HONOLULU

An Equal Opportunity Employer



Hawaii Section — Younger Member Forum Web site: http://www.ascehawaii.org/ymf.html

#### **2005-2006 YMF OFFICERS**

Phone President Florence Ching 227-4704 fching@ascehawaii.org 533-3646 Vice-Pres Lori Nishida Inishida@atahawaii.com .. 531-2462 ext. 231 Secretary Lisa Takushi

Lisa Takusni Itakushi@ascehawaii.org Stanch 545-2462 ext. 108 Treasurer mbranch@ascehawaii.org 257-6920 ext. 231 Past Pres Paulette Ujimori

pujimori@ascehawaii.org

#### **Next YMF General Meeting**

The next two YMF general meetings are scheduled for Tuesday, September 5, 6:00 p.m., at Brew Moon Restaurant and Micro Brewery at Ward Centre, 593-0088; and Tuesday, October 3, 6:00 p.m., at Gordon Biersch Brewery Restaurant at Aloha Tower,

#### ASCE History, See page 10

#### ASCE, from page 6

- Bills Engineering Inc. (Civil Engineer, Engineering Assistant & CADD Technician)
- CH2MHILL (Transportation/Traffic Engineer -Honolulu Office)

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

#### ASCE SEMINAR

The following seminar will be coming to Honolulu in October 2006: Dam Breach Analysis Using the Hydrologic Engineering Center's River Analysis System, HEC-RAS, October 18-20, Radisson Waikiki Prince Kuhio Hotel.

For more information and registration, go to http://www.asce.org/conted/seminars/.

#### **MEMBERSHIP DRIVE**

ASCE counts on our members to help us grow every year by actively participating in the Member-Get-A-Member Drive. All you have to do to be eligible to win is refer a colleague, and you will be entered into quarterly drawings. Prizes range from iPods, to gift cards, to cash. 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! Please contact our membership chair, Lori Nishida, at 533-3646 or Inishida@atahawaii.com for further information

#### ASCE HAWAII SECTION'S WEBMAIL LIST -SIGN-UP AND/OR UPDATE

If you would like to receive e-mail notices of upcoming meetings or activities, please signup for the ASCE Hawaii Section's webmail list at http://www.ascehawaii.org/emailform.html. You may also update your email address on that same webpage. Please consider helping the ASCE Hawaii Section reduce operating costs by receiving your monthly issue of the Wiliki via e-mail. If you have any questions, please contact Webmaster Joanna Seto at 586-4329 or jseto@ascehawaii.org.

599-4877. If you are interested in attending to find out what the YMF is all about, please contact Florence Ching at 227-4704.

### Aiea Loop Trail Hike Submitted by Jennifer Chang, YMF Social

On Sunday August 6th, 2006, the American Society of Civil Engineers Younger Member Forum met bright and early to hike the 4.5 mile Aiea Loop Trail. Ten YMF members and friends braved the rainy weather in this successful and fun event. Sights include a crashed WWII cargo plane and views of Halawa Valley, Pearl Harbor, Diamond Head, and the Waianae and Koolau mountain ranges. The hike ended with lunch at Bravos restaurant in Aiea.

Thank you to everyone for attending and

making this event a success!

#### **GOLF ANYONE???**

The YMF has organized a golf outing for Saturday, September 23 at Olomana Golf Course. All are welcome to play. If you are unable (or not brave enough) to join us for golf, please come for drinks and pupus afterward at the clubhouse. Here are the details:

September 23, 2006 (Saturday) Date: 11:45pm (1st of 5 tee times) Time: Where:

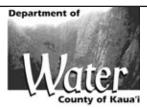
Olomana Golf Course Cost: \$47 per person

Other: We will be collecting \$5 from those

who want to play for "greenies".

We have 5 tee times (foursomes only) - first come first serve. Please RSVP to Jeff Kalani by e-mail (jeff@yogikwong.com) or call Jeff at 754-5501 for more information.





#### MANAGER AND CHIEF ENGINEER

The Kaua'i County Board of Water Supply invites highly qualified, service-oriented, and motivated individuals of the highest integrity and ethics to submit a comprehensive resumé of their educational and professional qualifications for the position of Manager and Chief Engineer ("Manager"). The Manager must have a minimum of five (5) years experience in utility water supply systems, including administration, planning, designing, developing, operating, and managing of such water systems.

The Manager has significant interaction with consumers, County, State, Federal and private agencies and administers policies, rules and regulations established by the Board of Water Supply.

The Manager selected will have proven experience in the area of utility capacity planning, long-term facility planning, water quality testing and monitoring, and knowledge of rules and regulations regarding potable drinking water established by the U.S. Protection Agency and enforced by the Hawai'i State Department of Health.

The Manager shall be a citizen of the United States and resident of the State of Hawaii for at least one year immediately preceding their appointment.

This position provides health care and retirement benefits, leave benefits and incentives. To be considered for this exceptional career opportunity, submit a resumé that includes your past twenty (20) year employment record, proof of registered professional license, membership in professional organizations such as Hawai'i Water Works or American Water Works Associations, education and degrees, professional references and acquaintances no later than Friday, September 29, 2006 to: County of Kaua'i, Board of Water Supply, P.O. Box 1706, Lihue, HI 96766

An Equal Opportunity and Affirmative Action Employer



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

#### 2006- 2007 Officers

E000 E001	01110013	
President	Travis Hylton	531-3017
1st VP	Ardalan Nikou	523-8874
2nd VP	Michael Albright	536-1737
Secretary	Sam Gillie	543-4739
Treasurer	Ralph Dobson	227-2746
Directors:	Augie Ahlf	
	Eric Kashiwamura	543-4705
	Dr. C. S. Papacostas	
	Greg McCartney	

September Meetings

Past Pres.

EAH Meeting Schedule: See EAH Website for Details

Gary Yamamoto

Sept 1 No Meeting Labor Day Sept 8 Program TBA Sept 15 Program TBA Sept 22 Program TBA

Sept 29 Program TBA

Meetings held every Friday (except Holidays) at YWCA room 205 on Richards Street downtown. Meetings start at NOON and end promptly at 1:00 pm. Parking at Alii Place off Alakea Street for \$1.50 per hour.

Buffet Lunch: Members-\$10.00, Guests-\$11.00, BYO lunches welcome. If not having the Buffet Lunch a donation is requested: Members \$2, Guests \$3; to help cover room rental costs.

Program schedule may be adjusted. Call Secretary Sam gillie at 543-4739 (543-4804 FAX) to confirm speaker. Anyone wanting a weekly email meeting notice please send your email address to Sam Gillie at sgillie@hei.com.

#### Program Notes July 7th, 2006 Speaker: Sam Gillie - Senior Engineer, Hawaiian Electric Company, Inc. Subject: "Back to the Future"

Sam presented a video that told the development history of our Hi-Tech tools and toys, which have become everyday necessities, but didn't even exist 20 years ago. Our PC's, cell phones, VCR's, CD's and DVD's; portable music players and headsets, computer office software, computer games, which we already take for granted, all had their beginnings in the 80's in Silicon Valley California. Starting from the basic integrated simi-conductor chips,

Apple computers in Steve Jobs' garage developed the first PC's in the mid 70's, followed by IBM in the early 80's. Apple developed the Graphic User Interface & Mouse (GUI), which we all use today in Windows and Apple. Sony developed Betamax, but it was overtaken by VHS which offered 2 hours of recording vs. 1 hour by Beta and VHS was favored in the Porn Industry that exploded in the 80's. But Sony went on to develop the CD, which replaced LP records and cassette tapes. Video games moved from the Game Arcades to our PC.

The Rubik's Cube became the most sold toy in History.

#### Program Notes July 14th, 2006

The EAH Board has agreed to the new terms from the YWCA for the room rent for \$100 for 2 hours and will continue to cater the lunch from the YWCA. Dues will need to be increased to about \$50 and lunch prices will be increased to

\$10. EAH is still discussing the price for the lunch.

Speaker: Bill Chee, President, Prudential Locations LLC

Subject: "Is Hawaii's Real Estate Market Overvalued?"

Mr. Chee talked about how he first entered college at the UH as an Engineering Major, after his Dad had change his major without telling him. Mr. Chee said he did graduate but not from engineering and with a low GPA, which EAH will not report. He had been selling cars and earning about \$12,000 per year while a student. After he graduated he earned \$6,000 per year at his first job in 1965. He didn't understand his drop pay so he decided to start Prudential Locations in 1969. He said he only understands simple things. People ask him how to invest in real estate. They ask when should I buy? He answers "Anytime." They ask where should I buy? He answers. "Anywhere." They ask what should I pay. He answers, "Anything" Bill's point was that he didn't know of anyone that had lost money after they had owned property for more than 7 years. Real Estate price were high during the Japanese Bubble, but they are higher now. Bill explained that the 60 year old Baby boom generation has the wealth of their Baby Boom parents and their own wealth, which means many are buying second homes and people are living longer. No one used to get a 30 year loan at 60 years of age, but today the bank can not even ask your age. So Demand is high and inventories are low. Which means high prices. Mr. Chee's talk will be posted to the EAH WEB.

Program Notes July 21st, 2006 Speaker: Randall Roth, William S. Richardson School of Law Subject: "Broken Trust"

One of the themes of Mr. Roth's talk was accountability. In Mr. Roth's opinion there has been no accountability by any of the former Trustees of the Bishop Estate. Shortly after the five trustees resigned under fire, instead of seeking what had gone wrong, in the name of Closure and Healing nothing was done to seek accountability. Mr. Roth believes these are code words for "we really don't want to dig too deep below the surface. We really want this to go away completely." He also explained why he and Judge King wrote the book Broken Trust, one of which was that the story has historic significance in Hawaii history. He also explained why as a profession at the Hawaii's law school teaching courses on Non-profits and Trusts; it was his obligation to speak up.

Randall Roth complete talk has been posted on the EAH WEB.

#### Program Notes July 28th, 2006

Justus Muller made the claim that since his 80th Birthday on July 13 he has been thinking that he must be approaching his allotted span in our presents and since he was still here he wanted to say a couple of things. First he wanted to say Good Bye in anticipation of his unscheduled but undoubtedly and inevitable departure. Justus also wanted to say how very much he has appreciated his acquaintance with the members of EAH over the last 35 years.

Speaker: Robert Isler Project Manager -Hawaiian Electric Company Subject: "HECO's Proposed Next Power Plant"

Robert provided the background behind HECO's proposed new 100 MW power plant. He explained that complex projections are made that calculate HECO's reserve kW capacity in the future. Those calculations indicate that HECO will have about 200 MW shortfall in reserve capacity by 2009. The 100 MW plant will fill about 50% of the shortfall. The other 50% will be filled by renewable energy, energy conservation, and distributed generation. The plant is proposed to be located in the Campbell Industrial Park. The proposed fuel can be a mix of ethanol and naphtha. Robert Isler's complete talk has been posted on the EAH WEB.



http://www.eng.hawaii.edu/~hals/hals\_001.htm

#### 2005 HALS BOARD

President - Kevin Kea Vice Pres. - Ross Tanaka Secretary - Dan Hirota Treasurer - Eric Hee Director - Joanne Williamson Director - Alva Nomura NSPS Gov. - Pat Cummins

NSPS Gov. - Pat Cummins Membership: 192 regular, 21 sustaining, 2 honorary,

5 life, 41 governors

#### **Short Course**

"Rock Blasting in Urban Environments – Best Public Relations Practices"

Wednesday October 18, 2006 - 8 am - 4 pm Sheraton Waikiki Hotel, "Waianae Room", Honolulu, Hawaii

#### **Course instructors**

**Dr. Catherine T. Aimone-Martin,** President, Aimone-Martin Associates, LLC, New Mexico **Sandra Duvauchelle,** President, Lehua Management Services. Inc.. Hawaii

This course is for civil engineers and project managers and will provide the basics of rock blasting with explosives. Blast techniques used to plan and implement a blasting pattern design will be reviewed. Emphasis will be placed on the generation and propagation of ground vibrations and noise (or airblast), the use of seismographs to control these off-site affects, and the response of structures near blasting operations. Effective public relations methods and addressing blasting claims will be stressed. CEUs are available.

Program Fee is \$210. Space is limited to 35 participants. Deadline for registration is October 6, 2006. For additional information or to register, call 808-870-9860 or 505-980-9949 or e-mail cathy@aimonemartin.com or lehuaserv@aol.com.



Steel Framing Alliance

#### **HAWAII CHAPTER**

98-029 Hekaha St. Unit 23, Aiea, Hawaii 96701 Phone: (808) 485-1400 Fax: (808) 485-1500 Web Page: www.lgsea.com

#### 2006/2007 Officers and Directors:

		1 110110	i an
President	Tim Waite	479-1216	941-9079
	twaite@strongtie.com		
Vice Pres	Brian Enomoto	486-5202	486-5206
	brian@iwamotollc.	com	
Secretary	Adrian Lee	536-7692	537-9022
	alee@tanimuraeng		
Treasurer	Marvin Mestanza	951-5916	941-6489
	m.mestanza@hawaiiantelcom.net		
Director	Akira Usami	682-5747	682-2928
	ausami@dietrichin	dustries.cor	n
Director	Will Wong	682-6000	682-6001
	wwona@aprmp.co	om	
Director			499-3142
Past Pres			521-3000
	,		02.0000
	wwong@gprmp.co Shane Arnold shanea@huntbuild Jeff Hanyu ieffhanyu@allisonid	om 499-3137 ling.com 536-2108	499-3142

#### National LGSEA Secretariat

Don Allen 202-263-4488, x14, fax 202-785-3856 steeldon@earthlink.net

#### Committee Chairmen

Public Rel./Wiliki/Webpage Comm.	Mardie Torres
Program Committee	Brian Enomoto
Corporate Sponsor Committee	Akira Usami
Membership	Darin Okuda
HCES Liason	Will Wong
Ad Hoc CFS Education Committee	Jeff Hanyu
Ad Hoc Specifications Committee	Jeff Hanyu
Ad Hoc Directed Research	
Committee	Brian Ide
Ad Hoc Field Problems Committee	Shane Arnold

#### **General Membership Update**

The annual membership drive continues to the end of August. If you have not yet received your membership renewal form or have any questions regarding the form, please contact Membership Committee chairperson Darin at d.okuda@hawaiiantel.net. Simultaneously, the annual sponsorship drive also continues. With the LGSEA membership redefined as licensed engineers, degreed engineers, engineering academia and students, the corporate sponsorship is an excellent way for industry partners to receive correspondence, meeting announcements, and chapter activity news. For more sponsorship information, please contact chairperson Akira Usami at ausami@dietrichindustries.com. Corporate sponsors are the chapter's primary source for funding membership events and activities.

The Hawaii Chapter held a lunch membership meeting on August 10th at the Willows restaurant. A joint luncheon with SEAOH, the speaker was Dr. Ian Robertson, professor of Civil and Environmental Engineering department of UH-Manoa. Dr. Robertson presented his final report on cold-formed top plates and their tested performance in comparison to software output from the LGBeamer cold-formed steel design program. Dr. Robertson also presented his photographs and observations of structural failures in the Mississippi delta due to Hurricane Katrina. Over 40 people attended this event. The next LGSEA program is scheduled to focus around fire-resistant design and assemblies, tentatively in October. Look for more information soon on this and other activities



#### STRUCTURAL **ENGINEERS ASSOCIATION** OF HAWAII

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

#### 2006 BOARD OF DIRECTORS (BOD) OFFICERS & DIRECTORS

011102110 @ 51112010110			
Position	Officer	Phone	
President	Bennett Fung	531-1308	
	bfung@ssfm.com		
Vice Pres.	Gary Chock	521-4513	
	structures@martinchoo	ck.com	
Secretary	Brandi Jim On	946-2277	
-	bjimon@wilsonokamoto.com		
Treasurer	Kevin Nakamoto	531-1308	
	knakamoto@ssfm.com	)	

#### HIGHLIGHTS OF BOD MEETING

August 9, 2006

#### **Committee Reports:**

General Membership Meetings/Technical Seminars/Events:

- Wind Resisting Devices Technical Briefing is tentatively scheduled to be a Quarterly General Membership meeting held at the end of August 2006.
- "How to Retrofit Your Home for the Next Hurricane" is Public Outreach Program that will be held on September 23, 2006 at the Japanese Cultural Center.
- CCPI annual Meeting will be held at the Hapuna Beach Prince Hotel on October 12 and 13, 2006.
- AISC 13th Edition Design Handbook Seminar is scheduled for October 26, 2006.
- AISC Seismic Design Seminar is scheduled for the end of January 2007.

#### **New Member** Applications:

The following membership application has been received and is open for comments from the membership:

Lois Mitsunaga, Mitsunaga and Associates, Inc, applied as an Allied Member.

This application will be voted on at the October Board Meeting. Please notify any SEAOH Officer prior to the October Board Meeting if you wish to comment on this prospective member

#### **New Business:**

SEAOH Installation The 2007 Banquet: SEAOH Installation Banquet will be held on Friday January 19, 2006. The time and place will be determined

Nominations for the 2007 **SEAOH** BOD: Nominations are being accepted for the 2007 SEAOH Officers. Please contact any SEAOH officer if you would like to nominate someone

# ACEC

AMERICAN COUNCIL OF ENGINEERING COMPANIES of Hawaii

P.O. Box 88840 Honolulu, HI 96830

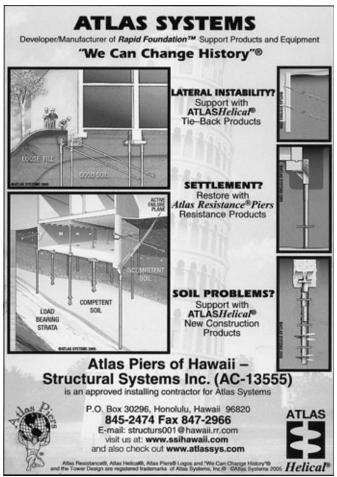
Website: www.acechawaii.org

#### 2006-2007 OFFICERS

		Phone	FAX
President	Barry Jim On	521-3773	521-3993
Pres-Elect	Jon Nishimura	944-1821	946-9339
Treasurer	Norman Kawachika	531-1308	521-7348
Secretary	John Katahira	596-7790	596-7361
PastPres	Janice Marsters	484-5366	484-0007
Natl. Dir.	Roy Yamashiro	945-0198	944-1177
Directors	Sheryl Nojima	521-0306	531-8018
	Douglas Lee	523-8499	533-0226
	Terrance Arashiro	533-3646	526-1267
Exec.Dir.	Ginny M. Wright	741-4772	234-1721
	Email: gwright@acec	hawaii.org	

## **Next Deadline for** Wiliki

is September 15th





WEB SITE www.eng.hawaii.edu/~hspe

2006-2007	HSPE STATE OFFICERS	S
President	Kenneth Rappolt, P.E.	836 5424
	rappoltk001@hawaii.rr.co	nm .
Pres. Elect	Barry Nakamoto, P.E.	543-4515
	barry.nakamoto@heco.co	om
Vice Pres.	Queenie Komori, P.E.	543-4526
	q.komori@heco.com	
Secretary	Neal Herbert, P.E.	935-1946
	nfherbert@msn.com	
Treasurer	Mark Botticelli, P.E.	329-8249
	mbotticelli@wrsa.biz	
Immediate		
Past Pres.	Manny Lanuevo, P.E.	838-8804
	manny.lanuevo@hawaii.g	OV
Maui Ch Dir.	Eric Yamashige, P.E.	270-7834
	eric.yamashige@co.maui	.hi.gov

#### SCHOLARSHIP AWARDS

The HSPE Educational Foundation, an offshoot of the HSPE, awarded four scholarships to Hawaii students in August. Scholarship Committee Chair, Sheryl Nojima, P.E., announced the recipients on August 8. Each recipient receives an award of \$500. Kenneth Ogata, Moanalua High School, plans to major in chemical engineering at Illinois Institute of Technology; Mark Lum, Punahou School, will attend Stanford University majoring in biomedical engineering; Erin Caulfield, also from Punahou School, will attend Massachusetts Institute of Technology, and plans to study electrical engineering; Christopher Lee, Kalani High School, plans to attend Illinois Institute of Technology, with a major in Civil engineering. Money for the scholarships is provided through the fundraising activities of the HSPE Educational Foundation.

#### DISCLOSURE OF PROFESSIONAL LIABILITY INSURANCE

Approved by the NSPE Board of Directors -January 2006

In today's professional practice environment, both employers and engineering employees are concerned about professional liability, risk management and loss prevention. Many firms carry professional liability insurance and/or use specific methods to transfer or mitigate professional liability risk exposure for the firm and their employees. NSPE encourages individual employed engineers and their companies to work in harmony to minimize professional liability risk exposure consistent with good professional practice and sound business judgment. It is the position of the National Society of Professional Engineers that, consistent with good professional practice and sound business judgment, engineer employers provide their employed engineers with appropriate written information relating the availability and extent of professional liability and other applicable insurance, as well as employee indemnification/limitation of liability provisions and other mechanism that are in place to address professional liability exposure incurred by their employees within the scope of their employment. This includes providing information in employee handbooks, employment agreements, and also providing periodic risk management seminars and other loss prevention programs. Insurance is not the only way to protect the firm and employees, however, companies that do not carry professional liability insurance should disclose that fact in writing to their employed engineers.

#### **KNOW YOUR ASCE HISTORY**

by C.S. Papacostas

#### CITIZEN LABOR ONLY, ON NU`UANU DAM

This is how George F. Nellist conveyed the arrival of hydroelectric power to light the streets of Honolulu in 1888 that I addressed last month (August 2006):

"Two small reservoirs were constructed in Nuuanu valley, one at Luakaha and the other near the old Half Way House... which proved to be a great success, providing lights for the city streets.'

His account was in the 2nd installment of his history of the city's water works that appeared in the Jan. 13, 1952 issue of "The Hawaiian Weekly and Polynesian" supplement of the Honolulu Advertiser. In response to a severe drought in 1888-1889, Nellist continues, "work was started on Nuuanu earth reservoirs Nos. 1, 2 and 3, and they were completed the following year."

The debate did tend to flare up and calm down with the cyclical low and high rainfall periods that we now associate with the El Nino Southern Oscillation. In the case at hand, the apple of contention was whether it was prudent to incorporate surface storage with gravity distribution within the city's public water supply or whether to rely exclusively on artesian wells. This time around, the former option won the

On May 6, 1890, just before the completion of the third Nu`uanu dam, yet another U.S. consulting engineer, G. F. Allardt, released a "Report on the increase of power for electric light plan." On a blueprint that was reduced from an official "Honolulu Water Works Map," he showed a pipeline configuration and elevations for not only the three new reservoirs, but also for a clearly labeled larger "Reservoir No. 4 (Proposed)" farther up the valley. The Kingdom's Superintendent of Public Works W. E. Rowell verified in his annual report that "a partial survey for a large storage reservoir in upper Nuuanu" was among the highly varied activities completed by W. W. Bruner, who in contemporaneous accounts was described as a government surveyor.

Allardt and fellow engineer James Dix Schuyler were brought to Hawaii by B. F. Dillingham "to aid him in forming his plans for extensive irrigation works," said the Pacific Commercial Advertiser (PCA, Aug. 17, 1889). Within months, the two collaborators complet-

ed a report entitled "Culture of sugar. Report on water supply for irrigation of the Honouliuli and Kahuku ranchos," which included a rudimentary theory of the structure of the underlying artesian source. Allardt also worked on Dillinham's Oahu Railroad and Land (OR&L) Co. and in 1890 he was engaged by the government for two projects: To develop a plan for the dredging of "the Honolulu Bar" to facilitate harbor navigation and, like Major Bender before him, to prepare a comprehensive sewage plan for Honolulu. His report for the latter was issued in both English and Hawaiian (listed without diacritical marks as "Hoike kuikawa maluna o na hawai lawe ino o Honolulu, ko Hawaii Pae Aina").

As we shall see in a future article, Schuyler played a pivotal role in the final design of the original dam at Nu`uanu Reservoir No. 4.

Much happened between the re-conception of the proposed reservoir in 1890 and the beginning of construction in 1905. Political events ranging from the overthrow of the monarchy in 1893 to party politics under alternate governmental structures strongly influenced the on-again, off-again progress of the idea to which the requirement of purifying surface water was added. According to T. F. Sedgwick's 1913 history of the city's water works, during a cholera epidemic that broke out in 1895, "the Board of Health, adopted stringent measures for its eradication. The mountain water was shut off as far as possible. and artesian water substituted because of its

(continued on page 11)



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#### ASCE History, from page 10

being less subject to contamination." The establishment of a chemical laboratory under the direction of Prof. L. L. Van Slyke at Oahu College (read, Punahou School) accelerated the scientific analysis of water quality [PCA June 30, 1888] and technical advances brought to market a variety of competing filtration systems.

To make a very long story short, in 1894, the "Hawaiian Star" (HS) had phrased thus the main argument that eventually (that is, 10 years later) prevailed:

"If drinking water was one desideratum, there would be no necessity to build storage reservoirs among the hills. But the fact that surplus rain, impounded at a considerable height, would supply not only potable water, but manufacturing power, puts a different face on the question."

The 1905 version of this leitmotif was enunciated by the then Territorial Superintendent of Public Works C. S. Holloway:

"There are millions of gallons of water to be had if we go after them, and if we construct reservoirs we can have a gravity system and secure power, instead of having to pump waters as we do now."

It was Holloway's assistant, J. Hasting Howland, who reported in 1905 that "Mr. S. G. Walker has just completed a very thorough investigation into the possibilities in the upper Nuuanu Valley, and, besides submitting a full set of plans for dam, reservoir, and pipe line down to the new electric power station, has filed reports plainly showing just what can be expected from this source."

Holloway then issued on April 15 a request for proposals for the construction of "a One Story Building for the 'Electric Light Plant'" and on May 5 a notice to contractors for proposals "for constructing Dam and Reservoir, in the Nuuanu Valley" according to plans and specifications

A curious episode followed: Hawaiian Electric's (HECO) general manager Alonzo Gartley was quoted in the July 8 "Evening Bulletin" (EB) as being interested in leasing the territory's electric plant to sell power to the newly established Oahu County. Moreover, in what appears as a ploy to secure a favorable deal, an unnamed HECO engineer was quoted in a separate story to warn that unless the proposed dam "is very carefully constructed, it is going to break lose [sic] someday and wipe out a portion of the city of Honolulu with tremendous loss of life and property" and to shed

doubt on whether the possibility had been seriously considered but Holloway retorted "that he knew of no possibility of the proposed dam being dangerous."

The HECO deal was not consummated.

In the meantime, work at the site was underway and on Aug. 15, the HS provided a progress report asserting, among other things, that the workforce had reached a size of 154 men and emphasizing that "citizen labor only is employed on the work, Hawaiians being in the majority with Portuguese a close second. There are quite a number of whites employed and also some negroes."

More about this racial wrinkle in labor practices next month...

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@wiliki.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.

#### ASME, from page 5

but are lively in that the candidates participate in a free flow question and answer session. Combined with his ability to share experiences that relate to the point at hand, Dr. Masutani puts the class at ease and creates an environment that fosters accelerated learning.

Most of the candidates are practicing mechanical engineers and represent the varied industries in the field of construction such as general contracting, controls for building systems, consulting engineering, the military and mechanical contracting. Some candidates are taking the course but will not be sitting for the examination, but most plan to take the exam in October of this year.

The candidates sit thru the course from 6:00pm to 9:00pm, but the section provides a short dinner break from 7:30pm to 8:00pm. Part of the course fee is used to purchase meals for the candidates so they can focus on the learning at hand. An ASME Hawaii section representative conducts a "food run" to provide convenience for the candidates as they come together as a group to not only focus on passing the exam, but also to get to know other each other as industry professionals and making industry contacts.

As were the previous ASME P.E. refresher courses conducted by ASME-HI Past-Chair Guy Pasco, this P.E. refresher course is proving

to be a success with the next lecture sessions just as exciting, as Dr. Charly Kinoshita, P.E. comes aboard to cover the subject of thermodynamics.

Course meeting times and dates are every Tuesday from 6:00pm to 9:00pm at Holmes Hall, Rm. 242. Parking is available for \$3.00 at the parking structure or at the POST building. For more information on the course schedule, visit www.sections.asme.org/hawaii.



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