

## 2011 HAWAII MATHCOUNTS COMPETITION

MATHCOUNTS is an Engineering event. It is held around Engineers Week. It is sponsored by the Hawaii Society of Professional Engineers. Engineering organizations such as ASME have members on the Hawaii MATHCOUNTS Steering Committee and provides proctors and scorers for the competition with the help of ASCE, SAME, and the US Army Corps of Engineers (USACE) volunteers. Engineering firms such as SSFM International also help with the competition proctoring and scoring.

MATHCOUNTS is also a national math enrichment, coaching and competition program that promotes middle school mathematics achievement in every U.S. state and territory, and is one of the most successful education partnership involving volunteers, educators, industry sponsors and students in America. The competition is opened to 6th, 7th and 8th graders, and the participants are known as Mathletes.

The competitions begin with the Sprint Round, followed by the Target, Team, and Countdown Rounds. The Sprint Round has individual Mathletes answering 30 difficult problems in 40 minutes. The Target Round has 8 problems in pairs of two with 6 minutes per pair to complete. The Team Round has 10 problems where teams of four Mathletes have 20 minutes to come up with the answers, and finally, the Countdown Round in a round robin arrangement is conducted with the 10 - 12 highest individual scorers from the Sprint and Target Rounds. Countdown Round spectators are usually amazed by the brilliance of these Mathletes. The competitions require many dedicated volunteers including proctors and scorers.

The 28th Hawaii State MATHCOUNTS Competition was held March 5, 2011 at Iolani School, with the top schools in the State competing for best in state and first place on the Perpetual Trophy. Individual Mathletes competed against each other to be one of the four to move on to the National Finals. After hours of testing and the scores tallied, Washington Middle School beat out fellow public school Highlands Intermediate for the first place in the State. Private schools Punahou and Iolani were 3rd and 4th respectively. An all-public school team will represent Hawaii in the National Finals in Washington, D.C. on May 6, 2011. Washington Middle will go to Washington with two students, Ethan Vo and David Chang, and their coach Sung Park, the official Hawaii State Team Coach. The other two students making up the team are Julius Balagso of Highlands Intermediate, and Junghao Li of Waiakea Intermediate School.



**Washington Middle Team posing with award presenters at the Chapter Competition, L-R: Lovey-Ann DeRego, Coach Sung Park, Coach Charlen Taniguchi, Jion Kato, David Chang, Raleigh Rono, Ethan Vo, Jennifer Hong, and Barry Nakamoto**

The top students in the written portion (Sprint and Target Rounds) of the competition were Ethan Vo first place, teammate David Chang second, Julius Balagso third, Jedediah Johnson of Punahou fourth, Junhao Li fifth, and Jasmine Doan, Seabury Hall sixth. Vo, Chang, and Balagso also placed first, second, and third in the oral Countdown Round. Vo and Chang also placed high at the Oahu Chapter Competition at Punahou School on February 19, when Vo placed first in the written and oral portions and Chang third in the written. Here's hoping that the Hawaii Team beat the jet lag and do well at the National Finals. A more detailed coverage of the 2011 State and Oahu Chapter competitions can be found on the ASME-HI website.

The Hawaii Society of Professional Engineers organizes Hawaii MATHCOUNTS with assistance from a steering committee comprised of engineers and educators. Hawaiian Electric Company has been a proud supporter of the competitions since 1984.



**Hawaii State Team: L-R: Ethan Vo, David Chang, Julius Balagso, Junghao Li, and Coach Sung Park**

### Trip and Parking Generation Data Project in Waipio Peninsula Soccer Complex

The University of Hawaii at Manoa Institute of Transportation Engineers (UH-ITE) Student Chapter was selected along with four other ITE student chapters this year to receive funding by the National ITE Data Collection Fund Committee and to participate in ITE's 2011 Data Collection. The student team will contribute to the continuing update of ITE's Trip Generation Manual, which is an internationally recognized professional reference.

The student members conducted a trip and parking generation study at the Waipio Peninsula Soccer Complex. The selected site falls under the sports park category. The Waipio Peninsula Soccer Complex has only

one access road at the north side of its expansive parcel. The Soccer Complex has 22 soccer fields, 1 stadium with total capacity of 4,000 seats, approximately 1,200 car parking stalls, 20 bus stalls and an additional unpaved, unmarked area with six rows of parking stalls that can accommodate approximate 1,000 more cars. Bus transit stops are located 1.5 miles away from the Soccer Complex.

Traffic data were collected for on Thursday, Saturday and Sunday from 7:00 AM to 7:00 PM each day for a total of 36 hours of traffic observations. The purpose of collecting data on these days were to study the traffic impacts of

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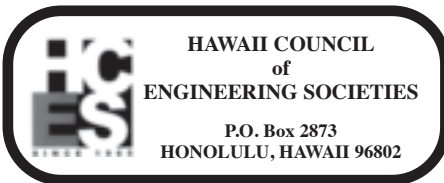
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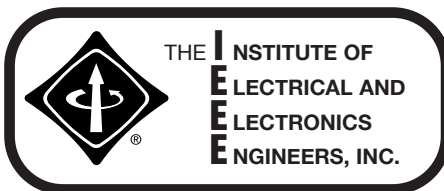
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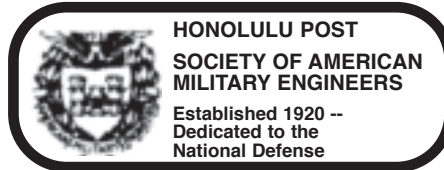
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#### 2011 SAME Scholarship Golf Tournament to be held May 4

Attention all golfers! The 2011 SAME Honolulu Scholarship Golf Tournament will be held on May 4, 2011 at the Pearl Country Club. All proceeds from this event will support SAME Honolulu Post's annual scholarships, TEAMS Competition, Construction Camp and Hawaii State Science and Engineering Fair. Last year's golf tournament raised more than \$12,000 for our annual scholarship program, providing much needed funding to local students pursuing their education in engineering, mathematics, and the sciences. All SAME, HCES, ACECH, AIA, GCA, ABC, and other industry-related organizations are welcome to participate. More information on the tournament, including the sponsorship and registration form, can be downloaded at [www.samehonolulu.org](http://www.samehonolulu.org).

#### SAME Honolulu Sponsoring Local Students to the Annual SAME Construction Camps

The Society of American Military Engineers offers a very unique series of engineering camps designed for High School students who excel in math, science and technical courses and are interested in pursuing engineering in college. These one-week camps are high-energy, hands-on events for students from across the country and around the world.

Led by a professional staff of engineers from both private industry and the military services, these exciting camps take place during the summer months in a variety of settings - centered on a military base in the colorful Colorado Rockies, the beautiful Southern California Coast, or the historic Mississippi Valley. Each camp has its own unique focus and theme and is a one-of-a-kind opportunity to learn what engineers do from professional engineers, learn practical skills and gain exposure to the military services.

SAME Honolulu will be sponsoring one student for each of the three camps coming up this summer. For more information on the camps, visit [www.samecamps.org](http://www.samecamps.org).

For additional information and submission of applications, please contact LT Trey Johnson at

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#### APRIL MEMBERSHIP MEETING – DESIGN-BUILD DONE RIGHT

Thursday, April 7, 2011 at Ala Moana Hotel  
11:45 AM Registration/12:00 noon Lunch

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The Design-Build Institute of America (DBIA) has developed a set of guidelines and procedures to ensure the process runs smoothly and efficiently, from the preparation of the RFPs to the post-award design and construction. Please join us for this presentation by Alan Levy, DBIA, Chair of the DBIA Hawaii Chapter, and Steven Baldrige, PE, president of Baldrige and Associates Structural Engineering. Alan and Steve will help you understand the design-build process and how **Design-Build Done Right** can unleash the power of a truly integrated team that improves your chances of success.

#### 2011 ARMY CORPS OF ENGINEERS WORKSHOP

##### "Quality Design and Construction for a Stronger Future in the Pacific"

The 16th annual Honolulu District, U.S. Army Corps of Engineers workshop for architects and engineers, construction contractors and others in related fields, interested in doing business with the Corps will take place on Thursday, May 5, 2011 from 7:30 AM - 2:00 PM at the **Hale Koa Hotel in Waikiki**.

**New This Year! 2011 SAME Scholarship Golf Tournament on May 4 at Pearl Country Club!** The tournament funds scholarships for local students pursuing their education in engineering, mathematics and the sciences. Need not be a SAME member to participate. For more information call Jeannie Baptiste at 833-3711 x581.

#### Workshop Registration:

<http://www.aiahonolulu.org/cde.cfm?event=346651>

#### Golf Tournament Registration (deadline 4/15/11):

[http://www.aiahonolulu.org/associations/5084/files/SAME%202011%20Annual%20Scholarship%20Golf%20Tournament\\_Registration%20Form.pdf](http://www.aiahonolulu.org/associations/5084/files/SAME%202011%20Annual%20Scholarship%20Golf%20Tournament_Registration%20Form.pdf)



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The 2011 Math Matters Mathematics Competition was held on Saturday, March 5, 2011 at Maui Waena School. Fourteen (14) public and private elementary schools from Maui participated in this year's event.

The Math Matters Competition is a fun and challenging event for 3rd, 4th and 5th grade students. Originated by innovative Maui teachers, the Maui Chapter of the Hawaii Society of Professional Engineers began sponsoring and coordinating this program in 1995.

Volunteers from HSPE help to plan the yearly event, prepare the tests and certificates, correct and score the exams, and facilitate the day's events. The Math Matters agenda consists of individual and team exams and a non-competitive activity.

This year, the Maui High School Robotics Team came in and did a presentation of their activities and competitions.

This year's participating teams were: Carden Academy of Maui, Hana Elementary, Kahului Elementary, Kamali'i Elementary, Kamehameha



**Pukalani School, Winning Team.**

**Left to Right: Coach Jasmine Domingo, Davin Fronda(3), Nicholas Stevenson (5), Reece Green (5), Preston Ito (4)**



**Seabury Hall was the winning team. The members of the Seabury team were Jesse Doan, Zeb Mehring, Coach Steve Vurno, Kevin Lewis, Jasmine Doan, (Maui Chapter HSPE President Mandy Saito is shown on the far right).**

Schools – Maui, Kihei Charter School, Kihei Elementary, Kula Elementary, Lihikai, Makawao Elementary, Pomaikai, Pukalani Elementary, Waihe'e Elementary, and Wailuku Elementary.

Pukalani Elementary School repeated as winners of the team competition, with Wailuku Elementary School and Lihikai School finishing second and third, respectively.

The winning team consisted of Reece Green (5), Nicholas Stevenson (5), Preston Ito (4), and Davin Fronda (3).

Jayne Campbell, a 4th grade home school student was this year's individual high scorer. Nicholas Stevenson (Grade 5) of Pukalani Elementary finished second and Nikita Roque (Grade 5) of Kula Elementary finished third.

For the HSPE Maui Chapter Mathcounts competition in February, a total of eight schools participated: Seabury Hall, Kamehameha Middle School, Iao Intermediate School, Saint Anthony, Maui Waena, and three Molokai schools; Aka'ula School, Kaunakakai Elementary, and Molokai Middle School. Students competed in three rounds of exams for the top individual and team scores.

The top four individuals were: 1st place – Jesse Doan, Seabury Hall School, 2nd place – Jasmine Doan, Seabury Hall School, 3rd place – Pono Puu-Robinson, Kamehameha Middle School, 4th place – Ikaika Renaud, Kamehameha middle School, and 5th place – Matthew Thomas-Sturm, Iao School.

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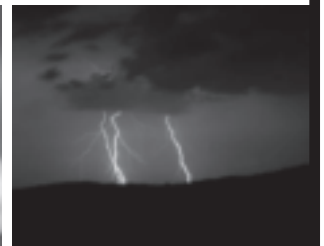
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## APRIL DINNER MEETING

Program: University of Hawaii ASCE Student Chapter

1. The ASCE Student Chapter will summarize its accomplishments for 2010-2011 including highlights from this year's ASCE Pacific Southwest Regional Conference.
2. Student Chapter Service Awards.
3. The Student Chapter of Engineers Without Borders will provide an update on recent events and on-going international projects, primarily focusing on their bridge design and current construction project in Nicaragua.

Date: Thursday, April 21, 2011

Location: Treetops at Paradise Park,  
Manoa Valley

Time: 5:30 p.m. - Social Time  
6:30 p.m. - Dinner  
7:00 p.m. - Program  
8:45 p.m. - Adjourn

Menu: Multi-entree buffet

Cost: \$25.00 for ASCE Hawaii Section members  
\$28.00 for Non-ASCE Hawaii Section members and Guests  
\$11.00 for UH Manoa Student Chapter members

Please make checks payable to ASCE-Hawaii Section and mail to Glenn Miyasato, ASCE Secretary, MKE Associates, LLC, 99-205 Moanalua Road, Suite 205, Aiea, Hawaii 96701 postmarked by Friday, April 15, 2011. Reservations for the dinner meeting to Glenn Miyasato by Monday, April 18, 2011, by phone at 488-7579 ext 3 or email at [glenn@mkellc.com](mailto:glenn@mkellc.com).

## EXECUTIVE COMMITTEE MEETING

Last held: March 8, 2011

Next meeting: April 7, 2011

## ASCE SECTION SCHOLARSHIP APPLICANTS NEEDED

Applications are now being accepted for the 2011 Walter Lum Student Scholarship. The Section anticipates distributing up to a total of two awards of \$3,000 each. Applicants must be juniors or seniors at the University of Hawaii majoring in Civil Engineering. If you qualify or know someone that does, application forms can be obtained from the ASCE Hawaii Section website at [www.ascehawaii.org](http://www.ascehawaii.org) or from the University of Hawaii Civil and Environmental Engineering Department at Holmes Hall Room 383. If you have any questions, please contact Jeff Kalani at 754-5501, or [Jeff@yogikwong.com](mailto:Jeff@yogikwong.com).

## CONTINUING EDUCATION

ASCE National holds more than 275 semi-

nars and computer workshops each year on a wide variety of technical, management, and regulatory topics. These seminars are held in more than 45 cities across the U.S. In addition, ASCE offers customized on-site training and many distance learning programs, including live interactive web/teleconference seminars, online courses and courses on CD, videotape, and audiotape. Please visit [www.asce.org/con-](http://www.asce.org/con-)ted/ for complete details.

## ASCE HAWAII SECTION STUDENT SCHOLARSHIPS

Please help us increase our scholarship endowment so that we can recognize 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 Jeff Kalani at 754-5501, or [Jeff@yogikwong.com](mailto:Jeff@yogikwong.com).

## ASCE JOB LISTINGS

For information on how to advertise job openings in your company on the ASCE Hawaii Section website, please visit <http://www.asce-hawaii.org/jobs.htm>.

## KNOW YOUR ASCE HISTORY

by C.S. Papacostas

### ENGINEERS IN SESSION

On Friday February 25 of this year (2011), I went to the weekly meeting of Engineers and Architects of Hawaii (EAH) of which I am the immediate past president for a presentation titled "Hawaii's Federal Works of the 1930s."

The speaker was Don J. Hibbard, a heritage specialist with Mason Architects, Inc., who had administered the State of Hawaii historic preservation program from 1981 to 2002 and has also written books on the subject of Hawaii's architecture.

Don's presentation focused on the federal works projects in Hawaii during the Great Depression under the auspices of the "New Deal" programs initiated by U.S. President Franklin Delano Roosevelt.

Among the things I discovered was the fact that the first stage of the University's Andrews Amphitheater (below grade) was among the federal works constructed in 1935. Ralph Fishbourne was the architect for the lava rock structure aided by consulting engineering services from none other than Professor Arthur R. Keller who had played a pivotal role in the development of the University and the School of Engineering, as I wrote about in recent installments. The Federal Emergency Relief Administration (FERA) paid for the labor costs, whereas the University supplied the construction materials at a cost of a little more than \$5,000. A special calendar issued this year by the Hawaii Department of Land and Natural Resources and devoted to major works of that era includes a photograph of the amphitheater under construction and another at its present fully completed state.

Now known as The Andrews Outdoor Theater, the facility was named after Arthur Lynn Andrews (1871-1945), an English Professor and Dean of Faculties who came to Hawaii in 1910 from Cornell University. According to the University of Hawaii, this renaissance man produced "The Revolving Wedge: A Football Romance in One Act" by Thornton M. Ware and George Pierce Baker, the institution's first theatrical play in 1913,

organized the first school newspaper, sang in the glee club, and even played third base on the baseball team!

EAH, the organization that sponsored Don Hibbard's talk is Hawaii's oldest professional association of its kind. It was established in 1902 as the Honolulu Engineers' Association and has gone through several name changes over the years. Although I knew about its existence for years (having been asked to present talks on several subjects there) I first became aware of its illustrious history almost by accident. As I believe I have explained before, part of my historical research relies on early Honolulu newspapers, including the Honolulu Star and the Evening Bulletin that later merged into the Star-Bulletin, which in turn became the Star-Advertiser, having absorbed the Honolulu Advertiser last year.

None of the early newspapers has been indexed prior to 1930, meaning that, for people like me, the only way to trace events that occurred in those days is by assembling leads from a variety of sources and doggedly poking, detective-style, into the library microfilm depositories. It so happened several years ago that, as I was hunting for information on the stories I was working on (such as the Kohala Ditch, Nu'uuanu Dam and Reservoir No. 4, Drydock No. 1 at Pu'u'aloa, that is, Pearl Harbor) I kept noticing newspaper articles having to do with Engineers and their activities. Soon that item became a subject of my sleuthing, and I was able to patch together the history of the "Engineers' Association" to 1930 and beyond, parts of which I was asked to present to engineering groups, including ASCE-Hawaii.

The first press coverage of the new organization was on April 6, 1902 by the Evening Bulletin under the header "Engineers in Session." "There was good attendance at the meeting of the Honolulu Engineers' Association yesterday evening. It was the first session since that of temporary organization, and all appearances indicated a strong and healthy career for the association. For the present the association will occupy the snug hall over the Y.M.C.A. gymnasium where, besides holding meetings, will maintain a reading room."

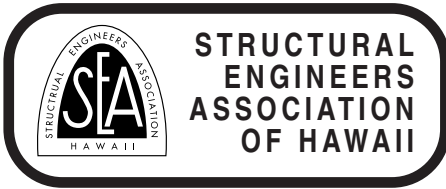
Announced in the newspaper article were the results of the ballot elections for officers: A. Gartley, Chairman; R. E. Frickey, Vice Chairman; W. E. Skinner, Treasurer; R. J. Pratt, Secretary; J. W. Dryer, W.F.C. Hasson and M. E. Koepke, Directors. This was a perfect reflection of the ethnic makeup of the profession at the time.

By the way, Alonzo Gartley (1869-1921), the manager of Hawaiian Electric also became the first president of the Board of Regents of the University where Fishbourne and Keller later built Andrews Amphitheater. Gartley Hall on the Manoa campus was named after him.

On April 19, 1902, the same newspaper followed up with a story, on the front page this time, informed the public that "last night the library and reading room of the Honolulu Engineering Association [the real name, by the way] were regularly opened for the nightly use of members... opened every evening from 7:30 to 9:30... This is the first organization of the kind ever established in Honolulu. It is an educational institute rather than a trade union... Monthly meetings are held for the reading of technical papers and discussion of engineering and mechanical questions."

The library collection included the Encyclopedia Britannica and "all the American and English magazines and periodicals."

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#### HIGHLIGHTS OF BOD MEETING

March 9, 2011

##### Committee Reports:

General Membership Meetings/Technical Seminars/Events:

- Macsteel Field Trip is scheduled for March 30, 2011 at 10:00am at their Kapolei plant. The event will feature a tour of the hot dip galvanizing facility and metal roof roll forming operations. Look for registration forms coming soon.
- Joint ASCE-SEAHO meeting is scheduled for March 31, 2011 at the Treetops Restaurant. The topic of the seminar will be on Hybrid Masonry Seismic Structural Systems.

The following seminars are anticipated to be presented in 2011:

- Pre-Engineered Metal Buildings
- Pre-Engineered Wood Trusses
- Structural Steel Corrosion Coatings

##### 2011 SEAHO Convention Update:

- The year's Annual Convention is tentatively scheduled at Koolau Golf Course on August 4-5, 2011. A full day technical seminar is scheduled for August 4. A morning technical seminar, afternoon golf tournament and simultaneous non-golfing event and an evening banquet dinner is scheduled for August 5. Topics for the seminars will focus on the 2009 IBC Wind and Seismic Provisions. More information will be announced in the upcoming months.

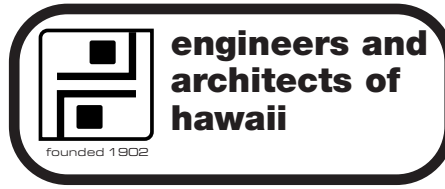
##### Wind Load Maps:

- New wind load maps to be used with the 2006 IBC will be posted shortly on the SEAHO website.

##### New Member Applications:

- Application for SEAHO membership from Jennifer Abayon at MKE Associates LLC was unanimously approved.
- New member application from Seth Goodnight at Shigemura, Lau, Sakanishi, Higuchi and Associates, Inc. for the grade of Allied Member was received and is open for comments from the membership. His application will be voted on at the May 2011 board meeting. Please notify any SEAHO

*continued on page 7*



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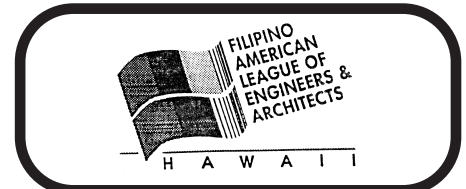
EAH's new meeting location is at the Fort Street Grill in the Topa Tower (Ewa tower on Fort Street ) in the Topa Financial Center (Old AMFAC Bldg). Fort Street Grill closed in May so Lunch sandwiches will be provided by the Carrot Patch until other arrangements can be made for lunch. Parking is available (enter from Nimitz). The WEB site has been updated to provide directions and a Map. If you have questions please call Sam Gillie (543-4739).

Meetings are held every Friday (except Holidays).

Meetings start at NOON and have ended PROMPTLY at 1:00 pm for 70 Years.

Program schedule may be adjusted, call Sam Gillie to confirm speaker 543-4739 Fax 203-1335.

\$10.00 Members, \$12.00 Guest (All Welcome), Students Free, Bring Your Own Lunches Welcome, Drink Refreshments are complimentary. A \$3.00 donation is very gratefully appreciated!!



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The FALEA Foundation will be holding its 4th Annual Scholarship Open Golf Tournament on April 15, 2011 at the Kapolei Golf Course. This fundraising event will raise funds for the foundation's scholarship program for college students enrolled or who will be enrolling in the architectural, engineering and related courses.

Funds generated are also allocated for professional development and training such as the yearly Fundamentals of Engineering Refresher course for engineering graduates preparing for the FE Exams in April and October of every year. This course is made available for free.

For more information on the golf tournament, please email [elvip@alliedpacificbuilders.com](mailto:elvip@alliedpacificbuilders.com) or [jramos416@aol.com](mailto:jramos416@aol.com).

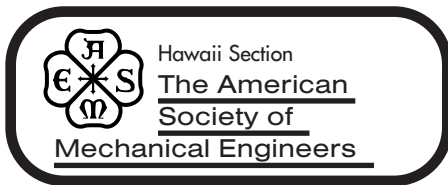
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HCES Rep:	Derick Kam	
Alternate:	John Ahern	

#### NEXT ASME-HAWAII SECTION GENERAL MEETING

Date: May 17, 2011  
Time: 5:30 pm to 7:00 pm  
Place: Hawaiian Electric Ward Avenue Cafeteria  
Agenda: Speaker: Dr. Joseph Van Ryzin of Makai Ocean Engineering on Ocean Thermal Energy.

Dr. Van Ryzin is founder and Vice President of Makai Ocean Engineering and has been a Senior Ocean Engineer in every major program at Makai. This work includes: project conceptualization and estimation, engineering analysis, project feasibility evaluation, preliminary and final design, testing, system optimization, computer simulation, parametric analysis and software development, computer aided drafting, project coordination and supervision, final report production and presentation, and authorship of scientific papers. Dr. Van Ryzin received his Ph.D. in Ocean Engineering from University of Rhode Island, in 1977, his M.S. in Mechanical Engineering from University of Rhode Island, in 1968, and his B.S. in Mechanical Engineering from Carnegie Institute of Technology, in 1966.

Members and guests are invited. There will be free pizza and soft drinks as usual. Please contact Derek Sato or Kory Ikeda for directions and for more information, such as parking.

#### MATHCOUNTS VOLUNTEERS

The MATHCOUNTS Hawaii Steering Committee, including ASME members Ed Chang and Ron Flegal thank the proctor and scorer volunteers who helped at the February 19 and March 5 competitions. Without your help it would be very difficult to have these competitions. Our helpers could have slept in later or took care of personal businesses on their day off, but they came out and helped, some of them consistently for the past 10 plus years.

Many of the volunteers are from Hawaiian Electric Company. Many of them say they enjoy volunteering with the added benefit of catching up on the latest happenings in the company and elsewhere. Also many of the volunteers are from the U.S. Army Corps of Engineers (USACE). Lou Muzzarini takes care of USACE volunteer recruiting and also moderates the testing. We have help from ASCE with Lara Karamatsu taking care of recruiting ASCE members. SAME has also recruited its members with Iris Terashima leading the way. Kevin Nakamoto of SSFM International also helps by

*continued on page 7*



SWE - Hawaiian Islands Section  
P.O. Box 61728  
Honolulu, HI 96839  
[swe.hisection@gmail.com](mailto:swe.hisection@gmail.com)

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Secretary:	Rena Chock
Treasurer:	Ruthsenne Gagarin
Charter Sec. Rep.:	Amy Weintraub
Alt. Charter Sec. Rep.:	Cody Aihara

#### SWE-HI Proposed Section Career Development Committee Report – Mar/Apr 2011

By Carrie Leonard, Grace Yu-Cua, and the Career Development Committee

The SWE-HI Career Development Committee continues moving forward with outstanding participation from its members in planning and implementation of outreach and professional development activities. March and April activities included Waipahu Intermediate's School Career Day, the Sacred Hearts Academy Science Symposium for Girls, Botball workshops at Halau Ku Mana, and the "WOW! That's Engineering" event.

Waipahu Intermediate School invited alum and SWE-HI member, **Ruthsenne Gagarin** (EE Masters candidate, UHM College of Engineering), to speak to students about the engineering profession and higher education requirements for Career Day on Wednesday, February 16th. Eager to "give-back" to the community and school that supported her, Ruthsenne immediately accepted. She quickly developed a structural engineering activity by challenging students to build the highest tower out of found objects in their backpacks. The activity demonstrated basic engineering skills and was an immediate success with students.

On Saturday, March 5th, SWE-HI volunteers, **Dr. Carrie Leonard**, **Raimi Reisen** (BAE Systems Hawaii), and **Maureen Trevenen** (UH College of Engineering) hosted a breakout session at the Sacred Hearts Academy Science Symposium for Girls. This annual statewide event is open to girls in grades 5-8 to spark an early interest in STEM (i.e., science, technology, engineering, mathematics) pathways through hands-on activities.

SWE-HI's symposium session, "Do You See What I See," explored the infrared (IR) portion of the electromagnetic spectrum. Students compared seeing materials and objects (such as people, books and water bottles) with their own eyes to how differently they looked through a night-vision camera. Students enjoyed seeing the variations in hair from roots to ends and marveled at how handprints could leave visible impressions on a folder as viewed through a night-vision camera. Volunteer mentors were equally amazed at the bright, inquisitive and curious minds. A note to all industry professionals – look out for this next generation of budding young scientists and engineers!

The students of Halau Ku Mana, a unique charter school located in the Makiki Forest Recreation Area, decided to enter the Botball scholastic semi-autonomous robotics program

this year. They are led by "Kumu Patrick" Yim (math/science educator), with the assistance of SWE-HI member, **Grace Yu-Cua** (Booz Allen Hamilton), and colleague, Jim Miller (BAE Systems Hawaii), who volunteered to mentor the Halau Ku Mana robotics team by helping them develop programming skills. Using the iRobot system and CBC controller, the team built and downloaded programs to run the robot. Getting the robot moving was quite an exciting accomplishment and great motivator for the students! Grace and Jim will continue working with the team until the annual Regional Championship Tournament in May.

Also coming up is the **WOW! That's Engineering** annual event hosted by the University of Hawaii SWE Collegiate Section on Saturday, April 9th, 2011, at Kalakaua Middle School (8am-12:30pm). The event is open to all middle school students, parents and teachers, and includes a variety of fun, hands-on activities that demonstrate basic engineering concepts; college demonstrations from the student chapters of ASCE, ASME and IEEE; and a workshop for parents and teachers (hosted by Women in Technology/MEDB). Although the event is FREE, pre-registration is required. If you'd like to volunteer, please contact Kristen at [kristenhau@gmail.com](mailto:kristenhau@gmail.com).

We encourage you to join any one of our SWE-HI Career Development luncheon meetings. We focus committee efforts on outreach educational activities (both K-12 and collegiate) as well as professional development opportunities. Meetings are typically scheduled on Thursdays (11:30am to 1:00pm, Laniakea Dining Room at the Richards Street YWCA), bi-monthly. Next meeting is tentatively scheduled for Thursday, April 7th, 2011. To learn more about our committee, please contact Lynn Fujioka (Women in Technology) via email at [lynnfujioka@gmail.com](mailto:lynnfujioka@gmail.com) or call (808) 988-1931. To find out more about SWE-HI Proposed Section, please visit us at [www.SWE-HI.org](http://www.SWE-HI.org). Mahalo!



**Grace Yu-Cua (far left) facilitates an iRobot programming workshop for Halau Ku Mana students.**



**Ruthsenne Gagarin (center, with lei) at Waipahu Intermediate School Career Day.**

## Trip and Parking Generation Data Project in Waipio Peninsula Soccer Complex (from page 1)

the Soccer Complex when it is used for practice or routine league games which usually occur during a weekday and for tournaments that take place during the weekend. Pedestrian and bicycle movements were also observed during the data collection periods.

Trip generation data were gathered by stationing two persons at the entrance/exit of the facility to record the number of vehicles, bicycles and pedestrians that enter or exit the site per 15-minute time interval. Parking generation data were collected by observers who recorded the license plate numbers (3 letters and 1 number to maintain privacy) of the entering and exiting vehicles in 15-minute time intervals. The number of vehicles that use the parking lot or just enter the facility for dropping-off was estimated.

Based on the collected data, it was determined that the peak hours of traffic generation were 4:15-5:15 PM on Thursday, 11:45 AM-12:45 PM on Saturday and 10:15-11:15 AM on Sunday. The peak times for vehicles entering the Soccer Complex was 4:00- 5:00 PM on Thursday, 11:45 AM-12:45 PM on Saturday and 8:00 AM-9:00 AM on Sunday. For vehicles leaving the Soccer Complex, the peak times were 6:00-7:00 PM on Thursday, 11:45 AM-12:45 PM on Saturday and 1:00-2:00 PM on Sunday.

The different types of transportation modes used for all trips at the Soccer Complex shown in Table 1. The majority of trips are made in passenger vehicles; other modes account for less than 2%. Of the visitors entering the Soccer Complex, 80%, 87% and 90% on Thursday, Saturday and Sunday respectively, stayed in the area for more than 30 minutes and used the parking lot.

The average parking duration was estimated to be 1:04 hours for Thursday, 2:04 hours for Saturday and 2:14 hours for Sunday. The maximum vehicle accumulation for each day in the Soccer Complex was 236 vehicles from 5:30-6:30 PM on Thursday, 640 vehicles from 12:45-1:45 PM on Saturday, and 603 vehicles from 11:45 AM-12:45 PM on Sunday.

As expected, Thursday afternoon was the busiest time of the day, as there are various

team practices or games after school and work hours. Between 10 AM and 3 PM on Saturday and Sunday, the use of the Soccer Complex is constant, whereas the majority of the visitors tend to leave the Soccer Complex after 3:45 PM. It is worth noting that at the time of data collection, there was no event taking place at the stadium which is located inside the Soccer Complex.

### UH-ITE Student Chapter Officers

Lambros Mitropoulos – President  
Xin Alyx Yu – Vice President  
Alireza Abrishamkar – Secretary  
Maja Caroe – Treasurer



UH ITE Student Chapter members



### HAWAII SECTION 2010-2011 OFFICERS

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Vice Pres: Xin Alyx Yu  
Secretary: Alireza Abrishamkar  
Treasurer: Maja Caroe

[www.ite-hawaii.org](http://www.ite-hawaii.org)

### ASCE HISTORY, continued from page 4

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 [cs@wilki.eng.hawaii.edu](mailto:cs@wilki.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, continued from page 6

signing up his fellow employees. And of course, ASME always provides proctors and scorers, including the student section and Pi Tau Sigma.

We also have "independent volunteers," not specifically belonging to any group who come out every year. One that stands out is Lynne Ebisui of Hawaiian Telcom.

### FUTURE MEETINGS/TOURS

- August 2011: Tentative tour of the PVT Landfill.

### SEAOH, continued from page 5

officer prior to the May 2011 board meeting if you wish to comment on this prospective member.

**Missing Members:** Please contact Membership Chairperson, Jiabao Chen (Ph: 791-3945 or email [jchen@kaihawaii.com](mailto:jchen@kaihawaii.com)), or any of the SEAOH officers if you have a new mailing and/or email address.

The next SEAOH Board of Directors and Officers meeting will be held on Wednesday, April 6, 2011 at CCPI at 4:30pm. Contact SEAOH President Brian Ide (536-2108, [brian-ide@allisonide.com](mailto:brian-ide@allisonide.com)) for more information.












### SAME, continued from page 2

[weurielus.johnson@navy.mil](mailto:weurielus.johnson@navy.mil) or [weurielus.johnson@gmail.com](mailto:weurielus.johnson@gmail.com) or 808-474-9019.

### Reminder - Applications for 2011 SAME Scholarship Program Due April 15

Each year, SAME Honolulu offers scholarships to deserving high school seniors and college students who will be or are currently enrolled at a university with an accredited engineering or architecture program. In 2010, thanks to the generous donations of the Honolulu Post's sustaining and regular members, SAME Honolulu was able to award six \$2,500 scholarships. Applications are now being accepted, and must be postmarked by April 15, 2011. Winners will be announced in mid-June 2011. For more information, contact Julie Chen at [jchen@ecc.net](mailto:jchen@ecc.net), or download the official application form at [www.samehonolulu.org](http://www.samehonolulu.org). See March Wilki for application form.

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