

wiki o hawaii



ENGINEER OF HAWAII

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SERVING 2000 ENGINEERS & LAND SURVEYORS

MAY, 2016

Reading HS Students for Engineering



Academy
of ENGINEERING

In May 2016, Waipahu High School (WHS) graduates the first class from its four year Academy of Engineering (AOE). This journey began eight years ago with the transition from an extra-curricular Engineers Club doing robotics and TEAM+S activities, to piloting pre-engineering courses for students seeking electives oriented to engineering career preparation. The enrollment numbers of these courses inspired Principal Keith Hayashi and Science Department Head Michael Sana to add an Academy of Engineering membership to Waipahu High's menu of existing National Academy Foundation (NAF) academies.

OPEN ENROLLMENT, 4 YEAR SEQUENCE OF ELECTIVES, ANNUAL 3rd PARTY OVERSIGHT



In Winter 2010, WHS responded to NAF's Request for Proposal with a plan for an engineering academy envisioning an open enrollment, four-year sequence of engineering readiness electives, integrated into a challenging, rigorous academic core course program of study.

WHS' proposal was accepted in February 2011, which put the 'academy development team' into NAF's required (guided and supervised) 'year of planning'. With a grant from 'Small Learning Community' consortium, 'The STEM Academy', a curriculum provider validated by NAF, was contracted to provide these electives. This vendor was chosen over several other providers who offered broader technologist curricula, because its menu of Foundation Courses provided excellent focus (and adaptability) for developing *engineering habits of mind and practices* for students considering engineering college and careers. 'The STEM Academy' courses, aligned with NCTM, ABET, and Common Core standards, feature on-line, web-based, user friendly 'Learning Management System' framed content, with at-home access to its content and CAD software components, as well as annual content updates.

AOE's four year sequence of required electives are:

9th grade- *Introduction to Engineering*;

10th grade- *3D Solid Modeling (SolidWorks CAD w/CSWA & CSWP certification opportunities)*;

11th grade- *Architectural Design w/BIM (ArchiCAD, + AutoDesk REVIT, Bentley MicroStation in SY2016-17)*; and

12th grade- *Principles of Engineering w/Capstone*.

Each elective is scheduled for approximately

180 contact hours, which caused creation of student 'Scholar Days', outside of school schedules, dedicated to significant uninterrupted time for CAD skill-building, design planning, project teaming and development.

In July 2012, NAF certified (with presentation of an academy banner!) that WHS AOE was ready to open for students. This began our annual assessments of AOE data and nearly a score of responses with evidence to prompts for performance evaluation required in four areas of focus: Academic Development, Curriculum & Instruction, Engineering Industry Advisory Board, and Work Based Learning. (Based on SY 2014-15 data, responses and evidence, WHS AOE rose to NAF's third (of four) levels of performance: "Certified".) WHS' AOE is unique as a nationally certified, annually assessed and validated academy.

BENCHMARKING TO UH-M COE

During the 'year of planning', important guidance from University of Hawai'i at Manoa (UHM), College of Engineering's (COE)



Assistant Dean Song K. Choi clarified its academic critical path as well as laying groundwork for qualifications appropriate for teaching engineering readiness electives. UHM COE's position is that this academy would have validity **only** if its graduates entered engineering college directly, **without remediation at the college level**. Remediation is traditionally required for readiness to take MATH241 and CHEM161. To achieve that, two guiding principles were put into place. First, *the critical path for AOE is through MATH* (specifically for students to remain in AOE, they must progress on an academic path for taking and passing AP Calculus A/B not later than their senior year). Second, *AOE required electives should be taught by science or math teachers or graduate engineers* (COE's reasoning, potential engineers should be developed as **problem solving, knowledge workers**, well-versed in scientific process, application of mathematical models, and experienced in challenging design projects). For SY2015-16, AOE electives instructors are two engineers (EE & ME) w/masters, and a physics teacher working for masters in math.

Coming from AOE's major stakeholder, WHS took COE's position to heart; specifically it meant focusing a portion of student academic readiness on MATH 241 (aka Calculus 1) and CHEM 161 to achieve UHM COE direct admis-

State Energy Office Brings Together Energy Stakeholders to Advance Hawaii's Clean Energy Agenda

By Mark Glick

Hawaii State Energy Office Administrator

The effort to secure a clean energy future for Hawaii was bolstered last year with the passage of the nation's first 100 percent renewable portfolio standard (RPS) — a move that removed any ambiguity about where the state is headed with its clean energy transformation. By becoming the first state to make such a bold commitment by a certain time, Hawaii effectively defined the end state objective for all future investments in its electricity sector.



Meeting Hawaii's new 100 percent goal will require a renewed commitment from energy stakeholders who have been actively supporting the Hawaii Clean Energy Initiative (HCEI) since its inception in 2008. It will also require critical investments in the innovative technologies and solutions necessary to fulfill Hawaii's clean energy transformation.

HCEI's reach is through the progressive set of policies, regulations and incentives and the broad-based support of a groundbreaking partnership of the State of Hawaii and the U.S. Department of Energy supported by the Department of Defense, academia, nonprofits, the business community and other interested parties. This coalition has created a groundswell of support for Hawaii's energy transformation that has led to Hawaii consistently surpassing its interim targets for both the RPS and energy efficiency portfolio standard (EEPS). The most recent annual reports from Hawaiian Electric Co. shows that the combined RPS of for the two utilities reached 23.4 percent at the end of 2015, more than 8 percentage points beyond the 2015 interim target of 15 percent.

Modernizing Hawaii's grid systems to accept the record levels of intermittent energy is a primary focus for the next step of the Hawaii Clean Energy Initiative due to the fluctuations in wind and solar. While Hawaii's utilities have been able to accommodate increasing levels of renewable energy with limited capital investment, there will need to be much greater analysis of system modifications such as adjusting ramp rates and load shifting to allow for higher rates of renewable penetration. As Hawaii goes beyond 50 percent renewable towards achieving its 100 percent RPS target, there will need to be significant investments in new infrastructure. Planning is the key to the correct

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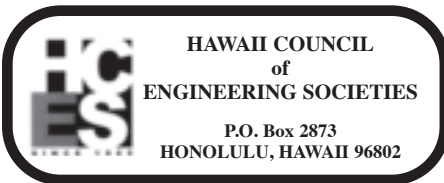
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WILIKI MAILING LIST

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 coordinator.

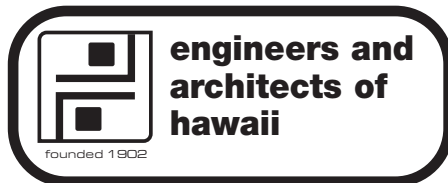


HOME PAGE: <http://hces.us>

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PO box 4353, Honolulu, Hawaii 96813
An association for Hawaii's Engineers and Architects

WEB address: www.eahawaii.org

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2015-2016 ASCE Hawaii Section Officers

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YMF Pres.: Amanda Tanaka, P.E.
email: atanaka@ascehawaiiyf.org

MAY DINNER MEETING

Program: Modernizing the Honouliuli Wastewater Treatment Plant (HWWTP)

Presented By:

- Ms. Lori Kahikina, PE, Director, Department of Environmental Services, City and County of Honolulu
- Dr. Leighton Lum, PhD, PE, Senior Vice President, R.M. Towill Corporation
- Mr. Tiow Ping Wong, MS, PE, Project Coordinator, R.M. Towill Corporation

Synopsis: The HWWTP currently is in its 32nd year of operation. The plant presently treats approximately half of its 26 mgd flow to secondary treatment levels. The remaining half is treated to primary levels and discharged to the Barber's Point Ocean Outfall. The City's 2010 Consent Decree agreement with the Environmental Protection Agency requires that the HWWTP be upgraded to full secondary treatment by the year 2024. In addition a number of the existing processes and facilities must also be upgraded. These as well as the possible implementation of a number of new processes will result in a very modernized HWWTP.

Date: Thursday, May 19th, 2016
Location: Dave and Busters, Pa'ina Room (2nd Floor)

Time: 5:30 p.m. Social Time
6:30 p.m. Dinner
7:00 p.m. Program
Menu: Multi-entrée dinner
Cost: \$30.00 for ASCE Hawaii Section Members
\$35.00 for Non-Members and Guests

EAH's new meeting location is Room 301 in the Topa Tower (Ewa tower on Fort Street; Old AMFAC Building). Validated 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.

Lunch is \$10.00 Members, \$12.00 Guests. (All Welcome), Students Free. Drink refreshments are complimentary. You may bring your own lunches, in which case a \$2.00 donation is gratefully appreciated!!

\$20.00 for University of Hawaii at Manoa ASCE Student Chapter Members

Reservations:

Please make checks payable to "ASCE Hawaii Section" and mail to: Eric Arakawa, ASCE Hawaii Section Treasurer, The Limtiaco Consulting Group, 1622 Kanakanui Street, Honolulu, HI 96817, by Tuesday, May 10th, 2016. Phone/email RSVP by Wednesday, May 11th, 2016, (808) 596-7790 or email at eric.a@tlcghawaii.com. No shows will be billed.

EXECUTIVE COMMITTEE MEETING

Last held: April 8, 2016
Next meeting: May 4, 2016

CONTINUING EDUCATION

ASCE National holds more than 275 seminars 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 <http://www.asce-hawaii.org/links.html> and click on ASCE National 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 96808-0917. If you have any questions, please contact Glenn Miyasato at 488-7579 or gmiyasato@ascehawaii.org.

ASCE JOB LISTINGS

The following job listings are currently posted on the ASCE Hawaii Section website:

- Civil Engineer – CH2M
 - Water Engineer – CH2M
 - Assistant Program Administrator – City and County of Honolulu
 - Civil Engineer V (Geotechnical)– City & County of Honolulu
 - Civil Engineer V – City and County of Honolulu
 - Mechanical Engineer V – City and County of Honolulu
 - Structural Engineer V - City and County of Honolulu
 - Junior Engineer – GPRM Prestress
 - Sr. Geotechnical/Geological Engineer – Hart Crowser, Inc.
 - Project Geotechnical/Geological Engineer – Hart Crowser, Inc.
 - Structural Engineer - Nagamine Okawa Engineers, Inc.
 - Principal Project Control Engineer/Specialist, AIRPORT – Parsons
 - Professional Engineer (Civil and Environmental Engineering) – SEY Engineers, Inc.
 - Civil Engineer V – SSFM International
 - Structural Engineer IV – SSFM International
- For further information on these job listings please visit <http://www.ascehawaii.org/job-listings.html>. or to find out how you can post your company job openings on our website, please contact Tim Goshi at (808)791-3966 or tgoshi@ascehawaii.org.



CCMAA Hawaii Chapter

<http://hawchapter.cmaa.org>

2016 Hawaii Chapter Officers

President: Bill Thornton (Ledcor)
President@cmaahawaii.cmaa.org
 Vice Pres: Chandra Namurnart
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Secretary@cmaahawaii.org
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Treasurer@cmaahawaii.org
 Past President: Derek Mukai
 (Community Planning & Engineering)
Hawaii.cmaa@gmail.com
 Directors: Tim Bramsen (Bowers+Kubota)
 Mike Young (Bowers+Kubota)
 Jeff Clark (Fluor)

CMAA Hawaii Chapter News:

Your Hawaii CMAA Chapter has been very busy planning some exciting upcoming events.

First and foremost, we are proud to present our 4th Annual Mini Conference to be held at Ko'olau Ballrooms. This year the Honorable Mayor Kirk Caldwell will be joining us to open our conference and National President of CMAA Bruce D'Agostino will be making his first visit to Hawaii and will be our Keynote speaker. CCM's can also receive up to 9 points toward CCM Recertification! For more details on the conference, please see the boxed information in this newsletter.

We have opened our 2016 CMAA scholarships application window and expanded the group of potential recipients to include not only Hawaii CM Students, but CM students abroad or on the mainland who have relatives that are members of our Hawaii CMAA chapter.

Our Chapter's 6th Annual Golf Tournament which funds these scholarships as well as our chapter's yearly events has been confirmed for Sept. 30th at Coral Creek Golf Course in Kapolei.

Furthering the knowledge of the importance of the CCM credential is an important aspect of our mission this year. Proving to Hawaii's owners that utilizing CM services will help deliver their projects more effectively and efficiently. As part of this program, we invite those of you who are interested in obtaining your CCM to participate in the upcoming Professional Construction Manager (PCM) training class that CMAA Hawaii will sponsor at Honolulu Community College on August 3rd-5th, 2016.

Please join us and be a part of our Ohana! Our chapter is here as a resource for **all** Construction Engineering and Management professionals, and the things that we do benefit not only our CM community but our larger Ohana as well.

If you have any questions regarding any of our upcoming events, would like to join our Ohana and become more involved with the CMAA Hawaii Chapter or would simply like to be added to our email list, please email us at hawaii.cmaa@gmail.com, or at our mailing address: CMAA Hawaii, PO Box 531, Honolulu, HI 96809

Looking for a CCM? The current listing for all Hawaii CCMs can be found here: <https://cmaanet.org/certified-construction-managers-registry>.

The CMAA Hawaii Chapter cordially invites you to attend our 4th Annual Mini-Conference on **Tuesday, May 17, 2016**
 Program:

8:00 a.m.- Registration / Exhibits Open
 8:45 a.m.- Opening Ceremony: Mayor Kirk Caldwell, Bruce D'Agostino (National CMAA President), Bill Thornton (CMAA Hawaii Chapter President)

SPEAKERS: Session 1: Paul Brewbaker, TZ Economics

Session 2: Norman Takeya, Honolulu Community College

Session 3: Anna Oshiro, Damon Key Leong Kupchak Hastert

Session 4: Duane Kashiwai, Department of Education 12:00 p.m.

Luncheon Buffet Luncheon Speaker: Bruce D'Agostino, CMAA National President & CEO

Session 5: Todd Barnes, Corps of Engineers

Session 6: Tracy Lawson, Lawson & Associates 2:45 p.m.

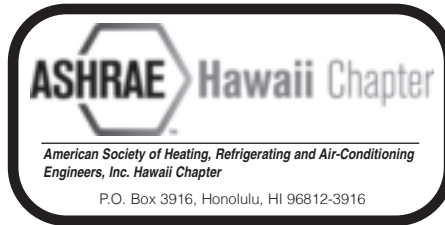
Program Ends 3:00 p.m.

Social Hour/ Pau Hana, pupus will be provided

Price is \$100 for members, \$125 for non-members, and \$50 for students.

Deadline to register is **Saturday April 30th, 2016.**

https://docs.google.com/forms/d/18f5X2QPooDCgp4ldU_U577j-j-sp4qHJpowRTV_Gf0/viewform



Hawaii Section Officers 2015-2016

President	Donna Kishi
Pres-Elect	Dean Borges, PE
Vice Pres	Kevin Luoma, PE
Secretary	Mofazzal Mir, PE
Treasurer	Willie Diguc

We are pleased to present the ASHRAE Hawaii chapter members who were elected for next year's chapter officers and board of governors for Society year 2016-2017 (begins July 1st, 2016):

President: Dean Borges P.E.
 President Elect: Kevin Luoma P.E.
 Vice President: Mofazzal Mir P.E.
 Secretary: Willie Diguc
 Treasurer: Samantha Niver P.E.
 Board of Governors:
 Donna Kishi
 Matt Tio
 David Lebowitz
 Lori Arakawa P.E.
 Andy Crossland P.E.
 RJ Ritter

The elections were held at the April Technical Seminar meeting.

We are also looking for help to serve on various committees. Please contact one of the officers if you would like to volunteer.



2015-2016 YMF Officers

Amanda Tanaka, President
atanaka@ascehawaiiymf.org
 Norman Leong, Vice President
nleong@ascehawaiiymf.org
 Jordan Urabe, Secretary
jurabe@ascehawaiiymf.org
 Nicole Nakaoka, Treasurer
nnakaoka@ascehawaiiymf.org
 Puna Kaneakua, Past President
pkaneakua@ascehawaiiymf.org

YMF General Meeting

The next YMF general meeting is scheduled for Wednesday, May 4th, 2016 at 6:00 pm at Honolulu Beerworks. If you are interested in attending and learning more about the various professional and service opportunities available through YMF, please contact YMF at yymf.hawaii@gmail.com.

MATHCOUNTS Oahu Chapter Competition By Lori Higashi & David Miyasaka, Community Service Chairs

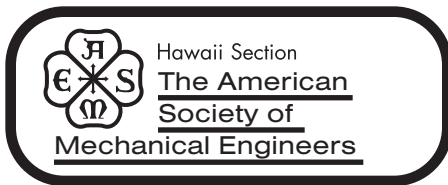
On the morning of Saturday February 13, 2016, 10 volunteers from the Hawaii Section YMF volunteered at the MATHCOUNTS competition held on the Kamehameha Middle School Campus. MATHCOUNTS is a national math enrichment, coaching and competition program that promotes middle school mathematics achievement in every U.S. state and territory, and is one of the most successful educational partnerships involving volunteers, educators, industry sponsors and students. The competition was open to 6th, 7th, and 8th graders. YMF members helped record scores for the participating middle schools. Thank you to all of the volunteers for coming out to help at this event.



Mathcounts Volunteers

ASCE YMF Assists in STEM Nights at Local Schools

By Julie Hero, Outreach Committee Chair
 ASCE YMF had a busy month of March assisting local elementary schools with various Science Technology Engineering and Math (STEM) events. Manana Elementary, Moanalua Elementary, and Webling Elementary hosted STEM nights for their students. ASCE YMF volunteers went to each school and performed 4-5 short science experiments to pique student's interest in the science and engineering fields. Some of these experiments included teaching students about water/cement ratio by using flour and water and using cookies and milk to demonstrate coastal erosion. Each outreach event had roughly 10-15 volunteers, with number of students ranging from 30-100. ASCE YMF would like to extend a big Mahalo to all those who made these events possible, including ASCE YMF volunteers, outside organizations, as well as parents and teachers!



www.asme-hi.com

ASME-HI 2015-2016 Officers

Chairperson	Derek Sato	543-4108
	<i>Derek.sato@hawaiianelectric.com</i>	
Vice-Chair	Derick Kam	
	<i>derickFPE@gmail.com</i>	
Secretary	Victor Russell	
	<i>dsaengr@aol.com</i>	
Treasurer	Kevin Dang	737-1708
	<i>dangk001@hawaii.rr.com</i>	
Past-Chair	Kory Ikeda	
HCES Rep:	Derick Kam	
Alternate:	Derek Sato	

NEXT ASME-HAWAII SECTION GENERAL MEMBERSHIP MEETING

Date: June 1, 2016
 Time: 5:30 pm to 7:00 pm
 Place: HECO Ward Ave Cafeteria
 Conference Room

Agenda: TBA

All members are invited and encouraged to attend our meetings. There are always lots of free pizza and soft drinks. Please contact Chairman Derek Sato or Ed Chang for directions and for more information, such as parking within Hawaiian Electric's Ward Avenue facilities.

HILITES OF OUR APRIL 6 GENERAL MEMBERSHIP MEETING

The meeting was held in Hawaiian Electric's Ward Avenue cafeteria. Chairman Derek Sato opened the meeting attended by ASME Senior and Student Sections members and representative of the Department of Mechanical Engineering (DME), UHM. The discussions included the following:

- The Treasurer's Report included operating funds received from ASME National, funds transferred for the May 6 Francis Montgomery Design Competition awards, and expenses paid for website hosting.
- Derick Kam reported on HCES discussions and decisions such as Engineers Week Banquet registration responsibilities turned over to ASCE from ASME, the search for other locations for the banquet, and E-Week activities relocating to Windward Mall from Pearlridge Mall.
- Student Section report was made by Froilan Garma. Four students are going to the 2016 ASME Conference. All are juniors who have been very active in Section activities. Garma explained that the conference competition includes a very time demanding paper folding machine project, which requires an entire school year to develop and construct.
- Dr. Zac Trimble gave the DME, UHM report, which included the Solar Impulse Tour on March 23. Three professors are being inter-

viewed to fill positions to fulfill staffing requirements.

• Francis Rhodes Montgomery Design Competition will be held Friday, May 6, 2016, from 12 noon to 6 PM, on the UHM campus. There are nine teams with a total of 79 students participating. Derick Kam will do the introductions and award announcements. The three prizes are \$450, \$300, and \$200.

• 2016 Ballots & Survey submittals deadline is April 30, 2016. The results will be announced soon after.

• Program for the evening: Commercial and Recreational Use of Small UAS Platforms, by Nick Paslay. Presentation included the different remote control aircraft platforms for hobbyist, FAA regulations and business potential for commercial uses. Paslay displayed models of some of the different types available.

TOUR OF SOLAR IMPULSE 2

The tour of the Solar Impulse 2 aircraft happened on March 22, 2016. The aircraft is located at the Kalaeloa Airport. Twenty-three members attended the tour, including fourteen UH DME Students, one UH DME professor, one middle school student, and 7 ASME senior section members.

As reported by Dr. Zac Trimble...We viewed the Solar Impulse (SI) 2 plane inside hanger 111 at Kalaeloa Airport. The tour started with an overview of SI2 from an elevated position. Following that we were allowed to walk around relatively close to the plane along the front and down one side of the fuselage. The Solar Impulse people made a concerted effort to provide technical content and details for our specialized engineering group. For one, during the plane walk-around they provided 5-8 SI engineers to mingle with our group and answer our technical questions. They also gave a short presentation with many very interesting engineering details. Finally we were treated to a question and answer session with the Co-Founder and one of the pilots of SI, Andre Borschberg. The tour was well put together and I heard nothing but extremely positive comments from the attendees. We are grateful to SI for the opportunity: it was truly inspiring.



Website: hawaii.apwa.net

2016 Officers

President	Victor Valdez	356-1281
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Vice-Pres	Ryan Char	523-5866
	<i>rchar@group70int.com</i>	
Treasurer	Darin Izon	523-8499
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Past Pres	Tyler Sugihara	768-3600
	<i>tsugihara@honolulu.gov</i>	

59th Annual Hawaii State Science and Engineering Fair

The 59th Annual State Science and Engineering Fair was held March 28-30 at the Convention Center. The fair is the culmination of countless hours of difficult work performed by

students to conduct scientific research, prepare a display board to explain the research, and defend their research to individual scientists.

The Hawaii Chapter has partnered with the Hawaii Academy of Science to recognize and bestow monetary awards to several of these aspiring scientists and engineers.

Award winners (with project names) are as follows: Alex Yamada, Eric Shlitzkus (Improving Remotely Operated Vehicle Efficiency: Surface Textures and Thruster Configurations), Evelyn Haase (Developing a pH Sensor Using a Raspberry Pi to Monitor Ocean Activity), Felix C. Peng (Isolation of a novel marine microorganism capable of aromatic hydrocarbon degradation in East Hawai'i), Celeste M. Jongeneelen (Runaway Stars: Looking for Variability in Hypervelocity Star Candidates), Ryan T. Nguyen (Vog in a Bottle), Daniel Gorham (Cool It Dude: Extra Energy From Water Cooled Solar Panels), Tyson K. Trimble (Let's Fly Down That Track!) and Matthew Ogata (Measuring Radiation in Local Soil).



Recipients of APWA Hawaii Chapter awards with Academy of Science Board member Dr. Neal Atebara, Alternate Delegate Rouen Liu and President Victor Valdez.

Annual Education Fund Golf Tournament

The 23rd Annual Education Fund Golf Tournament was held Friday, April 8, at the Ala Wai Golf Course. Golf Committee Chair Rouen Liu extends a big mahalo to all participants and volunteers for yet another successful event. Proceeds will sustain the Chapter's education fund which provides annual monetary awards at the State Science and Engineering Fair and annual partial scholarships towards higher education tuition to eligible students who major in a public works-related field.

National Public Works Week

National Public Works Week is traditionally sponsored and observed during the third full week in May. During May 15-21, Hawaii Chapter will maintain an exhibit of various recent public works projects to energize and educate the public on the importance of the contribution of public works to their daily lives.

This year's theme "Public Works Always There" showcases the pervasiveness of public works. Communities depend on public works, and the men and women of the profession are always there and always ready.

Instituted as a public education campaign by APWA in 1960, NPWW calls attention to the importance of public works in community life. Through the Week and other efforts, APWA seeks to raise the public's awareness of public works issues and to increase confidence in public works employees and professionals who are the often-unsung heroes of our society. Additional information may be found at www.apwa.net/discover/national-public-works-week.





<http://www.hawaiispe.org/>

HSPE Officers, 2015 to 2016

President: Curtis Beck, PE
curt137inverse@yahoo.com

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Past President: Darren Okimoto, PE
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Vice President: Mike Kamaka, PE
mkamaka@bowersandkubota.com

Secretary: Irina Constantinescu, PE, LEED AP
Constantinescu@brwncald.com

House of Delegates Rep: Majella Stevenson, PE
MujTravel@aol.com

Treasurer: Kurt Kunimune, PE
kkunimune@bowersandkubota.com

HSPE members are welcomed to comment on the proposed revisions to the HSPE Constitution. In Article II Objectives, the first objective is deleted due to being too general and vague: "Advance and promote the public welfare." One objective is added: "In partnership with the Hawaii Society of Professional Engineers Educational Foundation, provide engineering scholarships, organize math and science programs for students, and provide financial support for engineers to study and/or register for engineering licensing exams." Members wishing to see the full text of the HSPE Constitution can access it at our website <http://www.hawaiispe.org/>. Comments on the proposed revisions may be sent to Darren Okimoto at dokimoto@wsue.com by May 10.

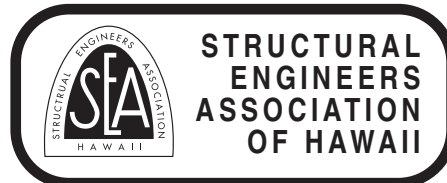
The 2016 Math Matters Mathematics Competition was held on Saturday, March 5, 2016 at Maui Waena School. Over 100 students from fourteen (14) public and private elementary schools across Maui participated in this year's event.

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 Science Center again came in to do a few activities with the students.

The 2016 participating teams were: Carden Academy of Maui, Emmanuel Lutheran School, Kahului Elementary, Kamali'i Elementary, Kamehameha Schools – Maui, Kihei Charter School, Kula Elementary, Lihikoi, Makawao Elementary, Pomaikai, Pukalani, Pu'u Kukui Elementary, Waihe'e, and Wailuku Elementary.

Kahului Elementary School was this year's winner of the team competition, with Pukalani School and Pu'u Kukui Elementary School finishing second and third respectively. The winning team consisted of Justin Alejo (Grade 5), Checed Domingcil (Grade 5), Akira Iwata (Grade 4) and Zachary Pratt (Grade 3).

Akira Iwata from Kahului Elementary School was this year's individual high scorer. Emily Tom (Grade 5) from Pomaikai School finished second and Riley Regan (Grade 5) from Pu'u Kukui Elementary School finished third.



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Kahului Elementary School, Winning Team. Left to Right: Coach Judith Hook, Justin Alejo (Grade 5), Checed Domingcil (Grade 5), Akira Iwata (Grade 4), Zachary Pratt (Grade 3), and Irina Constantinescu (HSPE Maui Chapter President).

PREVIOUS BOD MEETING

April 6, 2016

Structural Evaluations of Public Buildings as Storm Shelters

The Board of Directors of SEAoH recognizes that its members make important contributions towards protecting the Hawaii community from devastating effects of natural hazards such as hurricanes. SEAoH has distributed a letter to all members requesting that those involved in hurricane shelter evaluations and retrofits contribute to a shelter database. This is to be used for communication and assistance in the future prioritization of shelter evaluations and retrofits by HIEMA and DAGS. For contributions or more information please contact Gaur Johnson, gaur@hawaii.edu.

General Membership Meetings/Technical Seminars/Events

For all events see seaoh.org or look for email flyer for registration.

- Seismic Detailing of Concrete Special Moment Frames by S.K. Ghosh – Pagoda Hotel – April 28.
- SEAoH Annual Convention – Turtle Bay Resort. June 10-11.
- ATC training for post-wind and seismic disaster safety evaluations are planned for mid-year. Details to be announced.
- SEAoH now has a subscription to the regular NCSEA technical webinars. Check the website or flyers for upcoming webinars, hosted at UH or another convenient location.
- **Next Meeting** on May 4, 2016. For location, contact SEAoH President, Jeffrey Hanyu, jeffreyhanyu@allisonide.com



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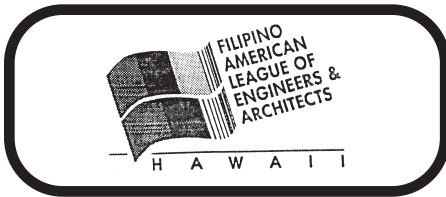


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APRIL 2016 HIGHLIGHTS: Thanks to one of our more active members of FALEA's Board of Directors, Majella, we did have a good venue for our April meeting by volunteering to have the meeting at her house. She and our president, Frank, took care of all the Filipino snacks, and all those who were able to attend had a good time eating and discussing items on the evening's Agenda.

FILIPINO FIESTA & PARADE: Continued prior discussions about this annual event, now in its 24th year. It was reaffirmed that FALEA will again participate with a Marching Unit. We also had a Float in previous years but decided not to have one this year. The theme is "Samasama sa Saya" (Happy Together!) with the celebration spotlighting unique happiness and hospitality of the Filipinos through its cultures and traditions. This will be a one day event on Saturday, May 14, 2016 with a parade from 9:00 AM to 10:00 PM starting from Fort DeRussy, along Kalakaua Avenue, and ending at Kapiolani Park. The parade will feature Miss Hawaii Filipina Hawaii and her court, marching bands, decorated floats, and marching groups of various community organizations. After the parade, a Fiesta will be held at the Kapiolani Park grounds from 10:00 AM to 5:00 PM where various food and cultural booths are set up showcasing Filipino products ranging from food, artifacts and handicrafts. There will also be non-stop entertainment staged at the Kapiolani Park Bandstand featuring local talents and other performing artists.

OSHA 40-HOUR SAFETY CLASS: This FALEA Fundraiser is a "go" with Roger Urbi, again volunteering to teach the class provided it's spread out on weekends, to possibly include some Sundays during the June/July time frame.

GENERAL ASSEMBLY: This is for the election of FALEA Officers and members of the Board of Directors and will be held in the Month of August as set in the organization's By-Laws. For 2016, this will be held on the 6th of August in conjunction with our annual "Summer Picnic."

INSTALLATION OF OFFICERS & DIRECTORS: President-Elect Gene Albano, Jr. chairs the committee to handle this event. Discussion/Planning has been initiated, and tentatively, this will be held in October. Other details will be finalized during upcoming Board Meetings.

REMINDER: MAY 8, 2016: IT'S JUST AROUND THE CORNER... "HAPPY MOTHER'S DAY!!!"

Reading Students, from page 1

sion. Both of these courses are direct entry, first semester, freshmen courses required for all of the engineering college's programs of study (UHM COE Curriculum Check sheets August 2015)!

WHS SUPPORT: 'HOUSES', 7 COURSE SKED, ACTIVE COUNSEL, DEDICATED CLASSROOM

WHS recognized that with an open enrollment policy in conjunction with engineering electives and a rigorous math/science critical path, it needed to ensure proactive advising and counseling for students who might struggle in such a program. The 'House' system (already in place at WHS) for freshmen (Invictus) and sophomores (AIM) in the engineering and technology career pathway, schedules students with the same core academic teachers, created a system for timely recognition and proactive intervention on behalf of struggling students. Academic counselors are aligned to career pathways. Scheduling for required electives as well as AOE 'recommends' (such as AP Math, Sciences, & Environmental Science, and innovation/entrepreneurial electives from business and social studies) is facilitated by a seven period class schedule. A classroom building completed in 2006 provides a physical science classroom facility with enough electrical power and internet capability to support up to 30 student work stations. To support on-line courses, it was outfitted with PC CAD workstations (Lenovo) and, for design projects, a Z450 prototype 3D powder, color-printer (which has logged over 220 jobs, producing over 500 individual items, from HSSEF quality protein molecules, to Japanese 'hankos, to math inspired shape-models, and a variety of CAD softwares designed pieces.)

In January 2012, the first class for AOE registered from Waipahu Intermediate School. They started at Waipahu High in August 2012. They were ambitious, energetic, enthusiastic, and curious to learn more about readiness for engineering college as well as the spectrum of work across engineering professions. Parents were encouraged by a program of college readiness focused on completing engineering college in four years. As c/o 2016 progressed, it swelled from an original nine up to twenty-three, then shrank to twelve by senior year. This expansion-contraction cycle has repeated itself in subsequent classes. AOE's critical path to calculus drives most AOE class shrinkage, although some students depart to other academies or pathways because they have clearer understanding of engineering work, engineering college requirements and rigor.

C/O 2016: GPA, CRIT PATH, CERTIFICATIONS, INTERNSHIPS, CAPSTONES, GRADS IN MAY!

WHS' AOE open-enrolled group has evolved to a graduating class having demographics typically under-represented in engineering professions: 33% (4/12) females, 91% (11/12) Asian /Pacific Islander, 17% (2/12) 'mainstreamed' from English Language Learners (ELL) program. C/O 2016 has these aspirations: 1 Law, 1 Construction Manager, 2 Architects, 2 Civil Engineers, 3 Electrical Engineers, 1 Mechanical Engineer, 1 Bio-Medical Engineer, 1 Environmental Engineer. The median GPA for this hardworking group is 4.00, with a mean GPA of 3.89 (2015 Q1 data). The class is true to AOE's 'critical path thru MATH', in that 100% of 2016 are taking AP Calculus A/B or B/C or, by way of Early College,

have already completed/passed UHM MATH 241. In April, they started a five-week chemistry review in preparation for required CHEM161 Placement. From their sophomore 3DSM course, 83% (10/12) are national, professional first-level Certified SolidWorks Associates (CSWA- Mechanical Design CAD). 20% (2/10) are eligible for CSW Professional exam late May. With respect to work based learning, all students whose schedules were available for internships in 2015 were placed. Internships (full- and part-time) were offered by Department of Transportation-Highways (DOT-H), UHM COE Summer Intern Program, Department of Education Leeward District: Physical Therapy. Four have been invited to continue as part-time (19.5 hrs/wk) interns with DOT-H. Internship opportunities, evaluations, and oversight is coordinated with industry by WHS Career Center in collaboration with the academy.

As of March 2016 in pursuit of STEM Honors at graduation, all have completed their Capstone Project presentations which are culminating activities intended to demonstrate application of skills gained as well as 'stretches in learning'. STEM themes dominated their topics. All exceeded STEM Honors Capstone (multiple-panelist, rubric-based, 85%) evaluations. Presentation titles:

"Design of High School Wrestling Facility" (ArchiCAD, AutoCAD Modeling).

"Modifying Rifton K27 Gait Trainer: Thigh Prompts for Special Olympics Champion" (SolidWorksCAD Modeling).

"Optimizing High School Drafting Classroom" (ArchiCAD and AutoCAD Modeling).

"Applying Lessons in Context of Legal Issues: 2015 Waikiki Sewage Spill".

"The Mpemba Effect: Studying its Possible Applications on Global Warming".

"Effects of Diffused Light on Photovoltaics".

"Earthquake Magnitude Prediction Using P-Wave Amplitudes", (MATLAB modeling).

"App vs ArchiCAD: Calculating the Cost of Complex Figures", (iFormula modeling of stdx derived cost equation).

"Utilizing Ocean Currents to Create Energy"(plastic model).

"Summary of UHM COE 2015 Summer Intern Program in Civil Engineering- Transportation Lab".

HSSEF 2015 "Sustainable Community: Lanai" HiDBEDT Environmental Award, (GIS, PHOTO-SHOP modeling).

"Tiny House Structural Model" (basswood frame & ArchiCAD modeled Exteriors/Interiors) UHM COE 2015 High School Industrial Challenge: SSFM 1st Place.

CONTINUING AOE JOURNEY

Waipahu High's Academy of Engineering continues its journey to provide high school students college and career readiness to the extent that "graduates enter engineering college directly, **without remediation at the college level.**" Currently, there are 72 students in AOE's four year program (~3% of WHS student total). Their demographics are 18 (25%) female, 17 (24%) Free/Reduced Lunch eligible, 68 (94%) Asian/Pacific Islander. For information about WHS AOE, please see AOE website www.edline.net/pages/Waipahu_High_School_Academics_SLC_s/Academy_of_Engineering.

To explore engineering partnerships, or work based learning opportunities email aoewaipahu@gmail.com or contact AOE director wgspeed@gmail.com or 808-307-9532 (classroom).



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LETTER FROM THE ACECH PRESIDENT

Written by Robin M. Lim, P.E.

Aloha ACECH Members:

It was great to see a good turn-out for our ACECH Annual Meeting held on April 7th at the Honolulu Country Club. Attendance was high enough such that we had a quorum to conduct council business. I also appreciate your continued support of our professional organization. Our speakers, Ken Miller, Senior VP and Chief Investment Strategist at First Hawaiian Bank, and Craig Hirai, Executive Director at the Hawaii Housing and Finance Development Corporation (HHFDC), provided perspective regarding the state of our economy and a view of the long range planning goals for our communities.

The proposed slate of officers was presented to the membership, a voice vote was taken, and the new slate of officers was elected. **By unanimous vote, our ACECH officers for 2016-2017 are as follows:**

President: Corey Matsuoka
President-Elect: Jeff Kalani
Secretary: Sean Sugai
Treasurer: Ken Kawahara
Past President: Robin Lim
National Director: Janice Marsters
Director: Garret Masuda
Director: Liana Choy and
Director: Paul Matsuda

In further business, we amended our constitution and bylaws to allow engineering divi-

sions of non-engineering companies to become members of ACECH, and we added an **affiliate** membership category for industries that engineering firms work with, such as insurance companies, software vendors, and banking. We also updated our 2003 ACECH Constitution to provide consistency with ACEC Bylaws and Rules of Procedure.

Pau Hana Webinars:

Our Pau Hana get-togethers are continuing. We look forward to seeing you and your engineering staff at the next Pau Hana Webinar on Wednesday, May 25, at 4 PM, at the SSFM Conference Room, 501 Sumner Street, Suite 620. Keep an eye out for the announcement email.

Best regards,

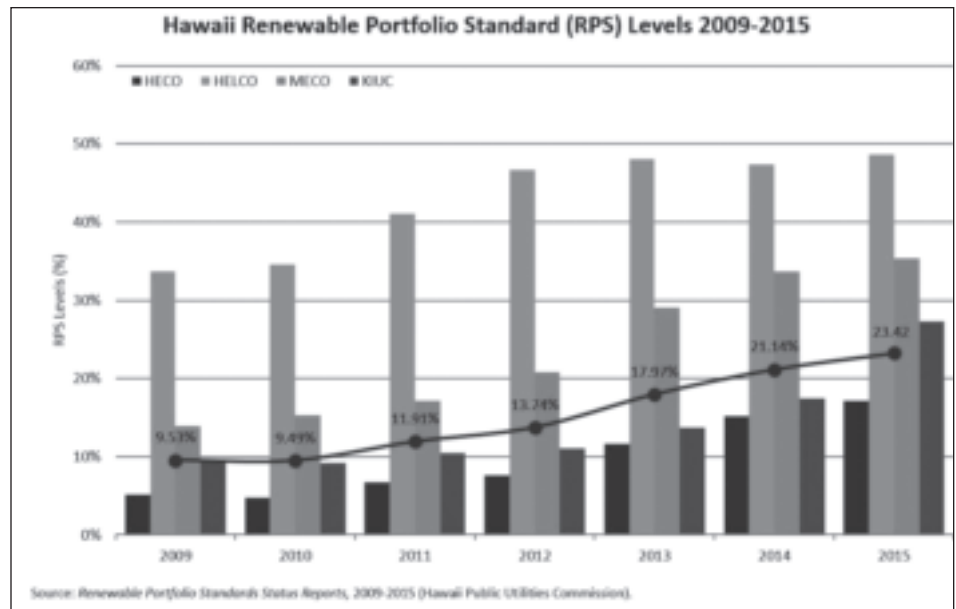
Robin M. Lim, P.E.
ACECH President (FY 2015-2016)

without compromising reliability and energy security over the life cycle of infrastructure investments. Through our improved internal capacity of planners and engineers, HSEO is driving change in utility planning by better communicating to the most technically-minded utility personnel in a manner that they can understand and respect, while achieving a greater measure of shared purpose and alignment to state policy.

By our intervention in regulatory proceedings before the Public Utility Commission, the Hawaii State Energy Office has strongly advocated a holistic and collaborative approach to optimize investments in the emerging, interconnected energy ecosystem. A renewed focus on the transportation sector under the revamped HCEI will help Hawaii's clean energy transformation in a number of ways. Taking advantage of synergies between the electricity and transportation sectors can result in greater resiliency and operational efficiencies in the electric grid. At the same time, reducing fossil fuel use in the transportation sector will have a significant impact on Hawaii's overall energy profile since transportation accounts for about two-thirds of the state's petroleum consumption.

State Energy Office, from page 1

sequencing and timing of investments to ensure that those investments are made in the most efficient manner. The Hawaii State Energy Office is playing an active role in this process to ensure a diversity of lowest-cost solutions



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