VOL. 55 NO. 1

SERVING 2000 ENGINEERS & LAND SURVEYORS

MARCH, 2019

2019 ACECH Engineering Excellence Awards

The annual American Council of Engineering Companies of Hawai`l (ACECH) Engineering Excellence Awards (EEA) banquet was held on Saturday, February 2, 2019 at the Ko'olau Ballrooms. The event served as the culmination of ACECH's EEA program to recognize outstanding engineering projects throughout the State of Hawai`i. Top winners from Hawai`i can then enter the American Council of Engineering Companies(ACEC) national competition, which is one of the most prestigious design competitions in the world.

With a total of 10 entrants and nearly 200 people in attendance at the event, Wilson Okamoto Corporation's Kaneohe-Kailua Wastewater & Treatment Facilities project was announced as the winner of the highly coveted Grand Conceptor Award. InSynergy Engineering Inc.'s Kahauiki Village, Powering the Next Generation and KAI Hawaii's Clear Water Rinse Rack at Air Station Barbers Point were each recognized with Excellence Awards. A summary of all award winners is listed below.

Grand Conceptor Award: Kaneohe-Kailua Wastewater & Treatment Facilities Project

Firm: Wilson Okamoto Corporation **Client:** City & County of Honolulu, Department of Environmental Services

Other Consultants & Contractors Involved:
Bowers + Kubota, Brown & Caldwell, Hensel
Phelps Construction Company, The Limitiaco
Consulting Group, MEI, McMillen Jacobs
Associates, RMA Architects Inc.,
Southland/Mole JV, Yogi Kwong Engineers

The City & County of Honolulu successfully completed the construction of a new 3-mile long, 10-foot diameter, fiberglass pipe lined, sewer tunnel from the Kaneohe Wastewater Pre-Treatment Facility (KWWPTF) to the Kailua Regional Wastewater Treatment Plant (KRWWTP). It is the largest and longest conveyance pipeline installed in the State. The tunnel conveys wastewater by gravity and, when needed, has the capacity to store excess wastewater during wet-weather events until it can be treated. Gravity flow requires no energy input and is achieved by sloping the tunnel from a starting depth of approximately 35 feet below sea level (FBSL) at the KWWPTF, and ending approximately 62 feet FBSL at the KRWWTP. The tunnel lies mostly in rock, through which a 13-foot diameter tunnel boring machine was utilized. The project also included construction of a tunnel influent pump station at KRWWTP, a tunnel influent facility at KWWPTF, and an intermediate shaft for access.

The construction of these facilities alleviated



Finished sewer tunnel. Looking towards Kaneohe tunnel shaft.

concerns of a major failure of the existing Kaneohe-Kailua force main, and additionally provided storage capacity within the tunnel to significantly reduce the likelihood of sewer spill during wet weather events. The project was completed within the City's budget, on time, and met the milestones dictated by the EPA's Consent Decree.

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2019 OAHU CHAPTER MATHCOUNTS COMPETITION RESULTS



The 1st Place Washington Team, L-R: Coach Sung Park, Adam Inamasu, Hyun Seo, Zachary Tyrrell, Felicity Zhou, and Coach Daniel Ninomiya

Hawaii Society of Professional Engineers (HSPE) Educational Foundation's 36TH MATH-COUNTS® Oahu Chapter Competition was held on February 9, 2019 in the Kamehameha Schools Kalama Dining Hall. MATHCOUNTS is a national math competition for middle school students. Competing were 27 Oahu public and private middle/intermediate schools with about 247 middle school students, making this the

biggest Hawaii MATHCOUNTS Oahu Chapter competition held. Every space in the Kalama Dining Hall was filled. The number of schools participating was normal; however, most schools took advantage of the six individual rule allowing a total of 10 students per school to participate.

After several hours of timed math tests, the test sheets scored, and the results tallied, the twelve Countdown finalist were announced and team results were as expected, with Washington Middle School taking nine of the twelve places. Washington is coached by Sung Park and assisted by Daniel Ninomiya. With Washington in first place, in second place was Punahou, followed by 3rd place lolani, 4th place Niu Valley Middle, 5th place Kamehameha Middle, and 6th place Kapolei Middle. These six teams earn the right to compete in the March 9 Hawaii State Competition.

The placement of teams is determined by adding all four team members' individual Sprint and Target Round scores to their Team Round score. The Team Round focuses on problem-solving and collaboration where students have 20 minutes to complete 10 math problems, with the use of calculators. Each

school team is composed of 4 designated mathletes

Hawaii MATHCOUNTS is organized by HSPE with competition assistance from Hawaii educators and engineers. HSPE Honolulu Chapter and State MATHCOUNTS Coordinator is Nhut Pham of Bowers & Kubota, and assisted by outgoing coordinator, Barry Nakamoto, Retired Hawaiian Electric. This is the first competition without long-time co-coordinator, Nathan Yuen, Retired Hawaiian Electric. Nathan passed away October 5, 2018. He was the Hawaii MATHCOUNTS co-coordinator for twelve years with Barry. Nathan will be sorely missed. HEI Charitable Foundation is again sponsoring the 2019 MATHCOUNTS Oahu Chapter and State Competitions with a grant to the HSPE Educational Foundation.

Student mathletes are placed according to individual scores in the Sprint and Target Rounds. The Sprint Round has individual mathletes answering 30 difficult geometry, combinatorics, and algebra problems in 40 minutes. The Target Round has 8 problems in pairs of two with 6 minutes per pair to complete. After all scores were tallied, the highest

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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.



HAWAII COUNCIL of ENGINEERING SOCIETIES

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HOME PAGE: hceshawaii.org EMAIL: hcesorg@gmail.com

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Raymond Liuan and Charly Kinoshita at the 2019 MATHCOUNTS Oahu Chapter Competition.



www.asme-hi.com

HCES Rep:

ASME-HI 2018-2019 Officers

321-2691 Froilan Garma Chairperson Froilan.B.Garma@jci.com Vice-Chair Derick Kam derickFPE@gmail.com 358-6322 Secretary Jason Frifeldt frifelj@yahoo.com 737-1708 Treasurer Kevin Dang dangk001@hawaii.rr.com Past-Chair Derek Sato derek.sato@hawaiianelectric.com

NEXT ASME-HAWAII GENERAL MEMBER-SHIP MEETING

Froilan Garma

Date: Date yet to be determined) Time: from 5:30 pm to 6:45 pm

Place: Usually at Johnson Controls, 420 Waiakamilo Road (map and parking instructions found on the Hawaii Section website)
Agenda: A copy of the agenda will be on the Section website when available.

As usual, all members, students and guests are invited and encouraged to attend our meetings. There are always lots of complimentary refreshments. Please contact Chairman Froilan Garma for directions and for more information, such as parking.

ASME-HI SECTION HISTORY COLLECTED AND SAVED BY CHESTER KAITOKU

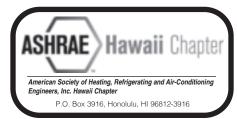
Past-Chair Derek Sato had the task of sorting and digitizing boxes of ASME-HI section files collected by the Chester Kaitoku, Past-Chair, 1989-1990 and 1998-2001. Chester passed away in 2013. All are history of our Section some of which dates back to 1984 when Chester began his Hawaii Section career. There are many interesting saved articles which we will share with the readers over time. There are a few files from the 1971-1973 period when the Chairmen were Joe Hee, Bob Uyechi, and Jerry Yee. Saved are meeting minutes, description and photos of past tours, abstracts and photos of past Francis R. Montgomery Design Competitions, Outstanding Project ASME and past Administrative Conferences (RAC) correspondences. In the writer's opinion, ASME support to the sections has gone to the bare minimum when they dissolved the region concept. There appears to be much less section support from ASME headquarters.

With the 2019 Engineers Week Banquet upon us, Chester's files remind me of three entertaining Engineers Week Banquet venues we had when speakers were replaced with entertaining programs. The first was the late Glen Grant show at the Ala Moana Hotel when he told us ghost stories. The following year Larry Lamberth brought his Barber Shop Quartet, again at the Ala Moana Hotel. These were inexpensive programs and very entertaining. Later Chairman Amarjit Singh arranged for a Polynesian Revue to start his term as HCES chair.

If you are interested in any of the files, please contact ASME-HI's webmaster. Visit our website for contact information.

ASME-HI MEMBERS AT THE 2019 MATH-COUNTS OAHU CHAPTER COMPETITION

The competition was held Saturday, February 9, 2019, a little before the official Engineers Week. For this engineers' event, ASME members helping with the scoring were Charly Kinoshita, Raymond Liu, and Ed Chang. ASCE-YMF, the U.S. Army Corps of Engineers, and HSPE were also represented scoring and proctoring. Refer to the MATHCOUNTS news article in this Wiliki issue.



Hawaii Section Officers 2018-2019

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Pres-Elect Willie Diguc, PE
Vice Pres Samantha Nakamura, PE
Secretary Matthew Tio

Secretary Matthew Tio
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2019 ASHRAE Hawaii Chapter Technical Seminar

"DESIGNING FOR THE NEXT GENERATION"

Event Organizers:

Mofazzal Mir, P.E., ASHRAE Hawaii Chapter President

Josh Jackson, ASHRAE Hawaii Chapter Technical Seminar Chair

Sponsored by: Hawaii Energy

Are you ready to embrace change? The world and our work is moving further and further into a new direction and will never come back. Join us as we learn of the exploding trend of Cannabis and controlled environment agriculture design. Our Technical Seminar also explores the implementation and applications of big data, IoT, and "Smart" everything in our buildings. Lastly, we had such a strong response of the Construction Litigation presentation given at last year's event that we're back for the 2nd edition.

Speakers and Topics:

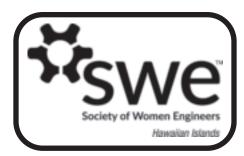
- o "Legal Practices for Risk Mitigation 2nd Edition" by Addison Bonner
- o "Big, Smart, and Everything: Data, Technology, Buildings, Cities, and the IoT" by Dru Crawley
- o "Cannabis Design 101: Fundamentals, Techniques, and Technology" by Kevin Hicks

ASHRAE Hawaii Chapter Technical Seminar will be held on Thursday, March 7, 2019 at the Ala Moana Hotel from 8:00 AM to 2:00 PM. Attendees may register to attend the full day of lectures on all three topics (includes buffet lunch), or may sign up for only the Cannabis Design Fundamentals presentation. Students are welcome! More details on the registration options are available on the ASHRAE Hawaii Chapter website.

Registration is limited to 100 attendees, first come first served. Event sponsorships are also available.

Visit our website for online registration and more information!

https://ashraehawaiichapter.info/meetinginfo.php



P.O. box 61728 Honolulu, HI 96839 HOME PAGE: http://hi.swe.org

EMAIL: swe.hisection@gmail.com

2018-2019 SWE Hawaiian Islands (SWE-HI) Section Officers

President: Dian Nguyen Vice Pres: Tiffany Au Kristen Yoshida Treasurer: Secretary: Chi Jow

The mission of the Society of Women Engineers is to stimulate women to achieve their full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and demonstrate the value of diversity.



The Society of Women Engineers (SWE) has recognized Kristen Yoshida, Belt Collins Hawaii LLC Civil Engineer, PE. CPESC, for her impact on the Society as well as the engineering community with the WE Local New ELiTE

award (New Emerging Leader in Technology & Engineering). Kristen Yoshida will accept the award at SWE's local conference, WE Local Bellevue on April 6, 2019 during the formal awards banquet.

The WE Local New ELiTE award recognizes Kristen Yoshida for her technical excellence with 7 years of experience. The award also recognizes Kristen's continuing dedication to SWE's mission – striving to highlight the impact and importance of women in engineering across the globe, leading by example, and demonstrating that a career in engineering can be a fulfilling, rewarding pursuit for people of all genders and of any background.

Kristen Yoshida is a Civil Engineer at Belt Collins Hawaii LLC. She specializes in projects involving water and wastewater components, including pipelines, reservoirs, pump stations, and modeling. Outside of the office, Kristen is active in a local bowling league and occasionally assists coaching her former high school's tennis team. Kristen chairs the Hawaii Council of Engineering Societies in addition to co-chairing the council's outreach committee. She has held multiple positions in SWE including the University of Hawaii Manoa Collegiate Section President, the Hawaiian Islands Professional Section Representative, Region A Treasurer, and Western Regions Conference Finance Committee Co-chair (Hawaii-hosted conference in 2012), and Outreach Committee Chair. Kristen is currently the Treasurer of the Hawaiian Islands Professional Section.



The Society of Women Engineers (SWE) has recognized Pearl Yamaguchi of Medtronic for her impact on the Society as well as the engineering community with the WE Local ELiTE award (Emerging Leader in **Technology**

Engineering). Pearl Yamaguchi will accept the award at SWE's local conference, WE Local Bellevue on April 6, 2019 during the formal awards banquet.

The WE Local ELiTE award recognizes Pearl Yamaguchi for her technical excellence with 13 years of experience in the fields of technology and engineering. The award also recognizes Pearl's continuing dedication to SWE's mission - striving to highlight the impact and importance of women in engineering across the globe, leading by example, and demonstrating that a career in engineering can be a fulfilling, rewarding pursuit for people of all genders and of any background.

Pearl Yamaguchi has a BA in English Literature and Art, and a BS in Electrical Engineering from the University of Hawaii. She has worked for Medtronic, the world's largest medical device company, for 10 years in Hawaii, Arizona, and California where she is currently a Principal Clinical Account Leader managing clinical research sites in the San Francisco Bay Area. Her past experience includes roles as a Nuclear Engineer at the Pearl Harbor Naval Shipyard and Engineer with Electricians, Inc. in Hawaii. She is passionate about SWE and has held multiple leadership positions including SWE Senator, Charter President of the Hawaiian Islands Professional Section, Medtronic Global SWEnet Board Member, Society Governance Task Force Committee Member, Region Mentoring Program Chair, and President of the University of Hawaii at Manoa Collegiate Section. As well as being active with her Santa Rosa Medtronic SWEnet and the LGBTQ Affinity Group, Pearl is Chair of the Hawaiian Islands Steering Committee and Co-Chair of the Scholarship Committee. Pearl loves to give back by mentoring, providing leadership, and supporting SWE members and others on their journeys.



Website: hawaii.apwa.net

2019 Officers

ZUIS UIIICEIS		
President	Rouen Liu	543-7245
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Secretary	Conor Bell	768-3692
	conor.bell@honolulu.gov	
Past Pres	Ryan Char	441-2174
	rvanc@a70.desian	

Meet & Greet

Please join us Wednesday evening, March 13, at HASR Bistro, 31 North Pauahi Street, and network with fellow members and invited quests from various State and City agencies and the private sector. We will install officers for the upcoming year and also recognize this year's scholarship recipients. Please contact Jon Young at jon@hawaiiasphalt.org for details.

26th Annual Education Fund Golf Tournament - April 5

The 26th annual Education Fund Golf Tournament will be held Friday, April 5 at the Ala Wai Golf Course. Proceeds will sustain the Chapter's education fund which provides annual monetary awards at the Hawaii State Science and Engineering Fair and annual partial scholarships towards higher education tuition to eligible students who major in a public works-related field. Interested golf players may contact Rouen Liu at 543-7245 rouen.liu@hawaiianelectric.com.

Community Service

The Chapter participates in the City's Mālama O Ka 'Aina program, a partnership between the City & County of Honolulu and its citizens to care for and help keep our island community a quality place to live. A future community service event will be forthcoming in May and the Chapter is seeking volunteers to provide much needed support in this partnership. Please check hawaii.apwa.net for additional information on this and other upcoming events.

WILIKI ADVERTISERS NEEDED

5" x 2" − (10□) \$64.00 $7\frac{1}{2}$ " x $3\frac{5}{16}$ " – (25 \square) (1/3 page) - \$160.00 25/16" x 21/2" (6□) 7½" x 5" − (37½□) \$40.00 1/2 page - \$240.00 47/8" x 25/16" $(11\square)$ \$72.00 25/16" x 11/4" \$20.00

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

Treasurer:



2018-2019 ASCE Hawaii Section Officers

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email: earakawa@ascehawaii.org

President-Elect: Jason Kage, P.E.

email: jkage@ascehawaii.org Vice President: Dayna Nemoto-Shima, P.E.

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email: clum@ascehawaii.org

Secretary: Reyn Hashiro, P.E.

email: rhashiro@ascehawaii.org Immediate Past Pres: Lara Karamatsu, P.E.

email: lkaramatsu@ascehawaii.org YMF President: Nicole Nakaoka, P.E.

email: nnakaoka@ascehawaiiymf.org

EXECUTIVE COMMITTEE MEETING

Last held: Feb 7, 2019 Next meeting: Mar 4, 2019

ASCE HAWAII SECTION DINNER MEETING Program: Palu Earthquake and Tsunami & Sunda Strait Tsunami

On September 28, 2018, a magnitude 7.5 earthquake occurred north of Palu, Sulawesi Island, Indonesia. The death toll due to both earthquake and tsunami is over 2200 with more than 1000 still missing and 4500 injured. A number of multi-story reinforced concrete buildings collapsed during the earthquake, most notable was the eight-story Roa-Roa Hotel which collapsed resulting in multiple deaths. The iconic twin steel-arch cable-suspended Palu Bridge IV over the mouth of the Palu River also collapsed during the earthquake. A number of port facilities were damage either by the earthquake or tsunami, and many ships, barges and boats were washed onshore or out to sea. The tsunami caused considerable damage to light-framed structures, though some taller engineered structures survived, protecting those who sought refuge in the upper floors. Extensive lateral spreading due to liquefaction caused by the earthquake also resulted in numerous deaths and extensive damage to residential structures in a number of inland areas. Dr. Robertson visited Palu as a representative of the Structural

Engineering Extreme Event Reconnaissance

(StEER) Network to survey the damage due to

both the earthquake and tsunami. He will give

an overview of the observations and lessons

learned from this event. He will also discuss

the more recent Sunda Strait tsunami generat-

ed by the eruption and flank collapse of Anak Krakatau, the "Child of Krakatoa" which occurred on December 23, 2018.

Speakers: Dr. Ian Robertson, Professor of Civil & Environmental Engineering, University of Hawaii at Manoa

Date: Thursday, March 14th **Location:** HASR Bistro **Time:** 5:30pm Social Time

6:30pm Dinner 7:00 Program

Menu: Multi-entrée buffet

Cost: \$35.00 for ASCE Members

\$40.00 for Non-Members and Guests

\$20.00 for ASCE Student Chapter

Members

Committee Positions

ASCE Hawaii is looking for volunteers to fill the following committee positions: History & Heritage Chair, Advocacy Captain, Student Practitioner Advisor, Water Resources, and OahuMPO CAC Representative. If you are interested or have questions on any of these positions, please contact President Eric Arakawa, earakawa@ascehawaii.org.

MEMBERSHIP

If you haven't already done so, please renew your ASCE membership. You can renew your membership at www.asce.org.

ASCE JOB LISTINGS

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

- Booz Allen Hamilton (Senior Civil Engineer and Wastewater Specialist)
- City and County of Honolulu (Civil Engineer V (Geotechnical), Civil Engineer III, V, VII, Mechanical Engineer V)
- HartCrowser (Geotechnical Engineers Principal Level & Project Level)
- Kennedy/Jenks Consultants (Project Manager, Staff Engineer for Honolulu Office and Staff Engineer for Hawaii Office)
- Nagamine Okawa Engineers Inc. (Structural Engineer)
- PGH Wong (Change and Claims Manager, Change and Claims Specialist, Civil/Building Inspector, Office Engineer, Scheduler)
- SSFM (Civil Engineers V, Structural Engineer IV)
- US Army Corp of Engineers (USACOE) (Interdisciplinary Project Manager, GS-12)
- Zane & Associates, LLC (Facility Planners) For further information, please visit http://www.ascehawaii.org/job-listings.html.



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

2018-2019 YMF Officers

Nicole Nakaoka, President nnakaoka@ascehawaiiymf.org
Kapiolani Street, Vice President kstreet@ascehawaiiymf.org
Carly Kaneko, Treasurer ckaneko@ascehawaiiymf.org
Claire Fukuoka, Secretary cfukuoka@ascehawaiiymf.org
Jordan Urabe, Past President jurabe@ascehawaiiymf.org

YMF General Meeting

The next YMF general meeting is scheduled for Monday, March 4th, 2019 at 6:00 pm at the La Mariana Sailing Club. If you are interested in attending and learning more about the various professional, social and service opportunities available through YMF, please contact YMF at ymf.hawaii@gmail.com.

Dog Day Social

On Sunday, January 20th, twenty-three YMF members and 10 of their furry friends came down to Triangle Park near Diamond Head and had a paw-some morning. All of the members got to hang out with their friends and played with their cute companions. Some of the dogs happily showed off their tricks while others enjoyed lying down on the grass. Everyone who came made friends – human and doggy alike. Thank you to everyone who came to make this social successful!

Golf Outing

On Saturday, January 27th, YMF held a driving range outing at the Newtown Driving Range in Aiea. Thirteen YMF members attended and helped each other out with tips to improve their game. Overall, everyone enjoyed the beautiful afternoon refining their golf skills and networking with other engineers. Thank you to all who participated in this event. Please keep checking the YMF website for information regarding the next YMF Golf Outing.

Mathcounts

On Saturday, February 9th, eight YMF members volunteered for the 2019 MATHCOUNTS Oahu Chapter Competition at Kamehameha Schools Kapalama Campus. The volunteers were tasked with tallying the scores of the various teams and individuals. Thank you to our volunteers and everyone who came out to help on Saturday, and congratulations to the teams and individuals who made it to the state competition next month!









2018-2019 ITE Officers

President: Claire Fukuoka

cfukuoka@atahawaii.com

Cristina Rodriguez Vice Pres.:

crodriguez@atahawaii.com

Sec./Treas.: Jennylin Tapat

JTapat@wilsonokamoto.com

A section meeting was held on February 7th at the Department of Transportation Highways Division Building in Honolulu. President Claire Fukuoka welcomed everyone to the meeting and then shared some of the legislative bills Legislative Committee Chairperson Wayne Yoshioka has been following. These include measures aimed at increasing pedestrian safety (no right-turn on red) and red light cameras. A summary of the bills currently under consideration has been posted on our website. Western District International Director Cathy Leong followed with announcements from the district level and thereafter Vice President Cristina Rodriguez introduced guest speaker Shelly Kunishige, DOT Public Affairs Officer. She was also joined by Marshall Ando, DOT Highways Administrator. The topic of Shelly's presentation was "Maximizing Hawaii's Highways: What DOT is doing to implement cost effective congestion relief quickly". According to Shelly's presentation, there are currently 2,500 lane miles across Hawaii, of which 25% are considered in good condition, 53% in fair condition, and 22% in poor condition. The organization's goal is maintain at least 80% of the roadways in either fair or good condition. However, faced with the rising cost of construction and a decrease in highways revenue, DOT has had to reprioritize its projects from improvements aimed to increase roadway capacity to system preservation projects that would utilize the existing right-of-way and provide the greatest benefit for minimal cost. These projects have included the provision of an additional zipper lane, the Nanakuli Contraflow, the Kahekili Highway Resurfacing and Contraflow, and the Keaau-Pahoa Road Restriping between Keaau Town and Shower Drive. The implementation of these projects has helped to increase roadway capacity along the affected areas all the while minimizing significant infrastructure modifications and cost. In addition, DOT is currently designing a project to provide an additional lane to the westbound direction of H-201 between Puuloa and Halawa and in the future, plans to implement additional ITS improvements and upgrade traffic signals along Nimitz Highway to support connected vehicles. DOT is also exploring different programs to fund some of its more extensive capacity improvement proiects.

Our next section meeting will be held on Tuesday, March 12, 2019 at the Austin Tsutsumi and Associates (ATA) office. guest speaker will be Jennifer Nakayama, President and Executive Director of the Waikiki Business Improvement District Association. If interested in attending, please email Jenny at jtapat@wilsokokamoto.com.



CCMAA Hawaii Chapter

http://cmaahawaii.org

2018-2019 Board

Treasurer

President Ranelle Ho (SSFM) Vice President Kelly French (Jacobs) Gregg Kodama (Brett Hill Secretary

Management Group) Emily Boirum (Bowers + Kubota)

Chapter Past Brook Corney (CH2M) President

CMAA Hawaii Chapter News:

Aloha CMAA Hawaii!

We will no longer be having luncheons for the remainder of the year due to low turnout.

The CMAA pau hana for February will be postponed to March. We will have a combo speaker presentation and happy hour. It will a lot of fun, so come out and enjoy yourselves with a few of your peers. Watch for email updates on pau hana time.

CMAA mini conference will be held in May at Koolau Ballrooms. We are fortunate to have Andrea Rutledge/CMAA President speaking at the mini conference. Plan on attending to learn new things and earn CCM credits.

Be on the lookout for our next community service project. Date and time to be announced.

As shared in the past, our chapter is here as a resource for all Construction Engineering and Management professionals, and the things that

 $ldsymbol{\square}$ TILECO INC.

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 CCMs can be found here: Hawaii https://cmaanet.org/certified-constructionmanagers-registry.



STRUCTURAL **ENGINEERS** ASSOCIATION OF HAWAII

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

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Director (Yr 2) Kainoa Aki

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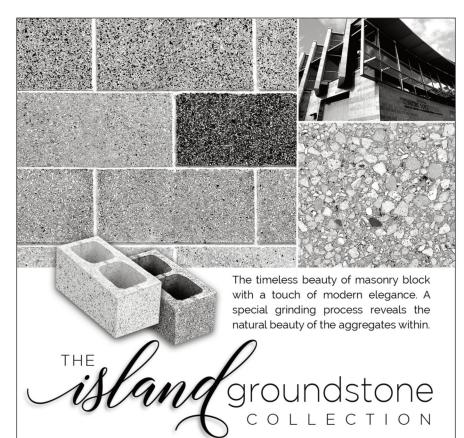
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Hawaii Section OFFICERS

www.aacehawaii.com

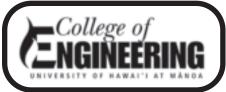
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Joseph Uno, CCP, LEED AP BD+C Dir Soc. Med.

AACE HAWAII SECTION NEWS

February 13, 2019

On December 14, 2018 the AACE Southern California section shared a webinar with the AACE Region 6 sections (Alaska, San Francisco, Idaho Snake River, Cascade (OR), Seattle, South Central California, Hawaii, Las Vegas, Rattlesnake Mountain (WA), Spokane). The presentation was titled "Turning Around Problem Projects", by Joseph A. Lukas, PE CCP, Vice President, PMCentersUSA. The goal of the webinar is to help prepare viewers to more effectively deal with a problem project.



2540 Dole Street, Holmes Hall Honolulu, Hawaii 96822

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Assistant to the Dean, CoE Jean Imada Assistant Specialist, CoE

Carrie Matsuzaki



L-R: Les Kempers, Adam Kempers, Maelyn Uyehara, Nelson Lian, Kainoa Tom, Chris Baze, Juhee Thorn, Brooks Ford, Brandon Leong, Rachel Mamiya, Cole Yamakawa, Kama Gaspar, Kristy Kastner, Will Wong, Christopher Kanae, Sidney Huo, Vinson Hiraoka, Joseph Uno.

Lukas talked about how we will all eventually be faced with events that result in a troubled or 'problem' project - one that is in jeopardy of not meeting the project objectives. He talked about the types of problems that could occur and provided suggestions on how to identify the early symptoms of problem projects. Different types of problem solving strategies were noted, including advantages and disadvantages of each. A five-step systematic problem resolution technique was presented in detail, with a creative approach to problem solving. Rider Levett Bucknall organized group viewing for

AACE members and friends at their new office location. Ten people from scheduling, project management and cost estimating backgrounds were in attendance.

On Friday, February 8th, fourteen AACE Hawaii Section members and guests participated in a visit to the Kalaeloa site of GPRM Prestress. Les Kempers, P.E. gave us an informative presentation on the use of Prestressed Concrete in Hawaii. It was very interesting to see how much of an impact prestressed concrete has had on our architectural landscape.



Governor Ige and representatives of HCES engineering societies participate in the signing of a proclamation for Engineers Week in Hawaii.



Honolulu Mayoral Proclamation of Engineers Week



Grand Conceptor Awardee: Wilson Okamoto Corporation's Kaneohe-Kailua Wastewater & Treatment Facilities Project

2019 ACECH Awards continued from page 1

Excellence Award: Clean Water Rinse Rack at Air Station Barbers Point

Firm: KAI Hawaii

In a nutshell, the USCG Clear Water Rinse Rack project is about providing highly filtered, recycled rinse water through a sophisticated system of piping and nozzles, to clean 100% of the surface area of their C-130 airplanes and H-65C helicopters. Because the Coast Guard aircraft conduct multiple missions on a daily basis the filtration system was designed to provide sufficient rinse water for two rinse cycles per hour, 24 hours per day.

The size of the C-130 propeller plane is significantly larger than the H-65C helicopter, and the C-130 engines are more robust compared to the more complex, intricate helicopter engine. Therefore, the rinsing technique, such as nozzle spray direction, layout, and nozzle pressure had to be designed differently for the two aircraft. If the nozzle pressure is too great and too much water is being directed to the most sensitive areas within the H-65C engine, then a "flameout" or engine failure can occur.

The Clear Water Rinse Rack system provided to the U.S. Coast Guard at Air Station Barbers Point is a unique design that is not duplicated at any other U.S. military facility. The method of collecting the dirty rinse water and the filtration system used for cleaning it is unique. The design of this system was a result of a dedicated and ingenious team of engineers.

Excellence Award: Kahauiki Village: Powering the Next Generation

Firm: InSynergy Engineering, Inc.

Modeled after Hawaii's plantation era culture, Kahauiki Village provides long term, affordable. residences for homeless families. This 144-family master planned community,

incorporating refurbished homes originally built for the Tohoku, Japan tsunami victims, is powered by a low-cost, maintainable and sustainable energy solution, which was brought to life by a public-private partnership.

InSynergy Engineering, Inc. in collaboration with PhotonWorks, engineered an integrated off-grid renewable energy micro-grid that included the first application of a solar-powered microgrid to an entire residential community in Hawaii and the first of its kind shared photovoltaic (PV) system with battery energy storage. This micro-grid supports the energy needs for the 30 families in Phase 1 and reduces their utility bills by over 20% over the cost of purchasing energy from local utilities. The Phase 1 microgrid system generates over 126,648 kWh per year in electricity, which saves 218 barrels of oil, and avoids 104 tons in greenhouse gas emissions (Carbon Dioxide Equivalent).

Honor Award: Central Maui Regional Sports Complex

Firm: R. M. Towill Corporation

The growing population of Central Maui was in dire need for more playing fields and parks. The Central Maui Regional Sports Complex was the answer. For the young and the old, the park features baseball, softball, and soccer fields and a lot of open space for other activities. Engineers designed it to allow four softball games and four baseball games to occur at the same time, in close vicinity. Like Central Oahu Regional Park, the Central Maui Regional Sports Complex can accommodate tournaments with many teams. The restrooms and concessions are conveniently located in the middle of the four fields and the park is designed so the sound and bright lights won't bother the neighbors. Best of all, the water used for the fields does not come from County's drinking water supply; the park has its own well to get water to irrigate the playing fields.

Honor Award: Construction Engineering and Program Management for the Kaneohe/Kailua Wastewater Conveyance & Treatment Facilities

Firm: Bowers + Kubota Consulting, Inc.

To meet the requirements of the 2010 Amended Global Consent Decree (GCD), the City & County of Honolulu (City) constructed a brand new gravity sewer tunnel system on the windward side of Oahu.

The \$375 Million (construction) project was the City's largest wastewater project to date and its completion will reduce wastewater spills on the windward side of Oahu. Responsible for the construction management of the project, Bowers + Kubota's project team consistently developed timely creative solutions in the face of unforeseen conditions and numerous complex issues leading up to and during the construction portion of the program. The team established public trust by implementing a robust community outreach program, inviting public officials onsite, and sharing real-time status of construction.

This project was a first of its kind in Hawaii. Despite many complex challenges during construction, the construction management team collaborated to complete construction on time and within budget meeting the CGD deadline. This is an amazing achievement for the City, community and environment.

Honor Award: The Kroc Center Hawaii: Energy Savings Winner

Firm: RHA Energy Partners, LLC.

The Kroc Center Hawaii is the largest community center of its kind in Hawaii, consisting of a 15-acre multi-purpose campus that includes an aquatic and fitness center, gymnasium, dormitory, preschool, banquet and conference space, offices, and state-of-the-art worship center. First opened in 2012, the Kroc Center Hawaii found itself facing rising energy and operating costs.

To address these challenges, RHA Energy Partners created an Energy Savings & Sustainability Program that identified campuswide lighting upgrades and solar PV system for implementation. RHA led the Kroc Center Hawaii through design, contractor procurement, and construction management. The project consisted of upgrading over 2,100 light fixtures with energy-efficient LED lamps and the installation of a 450-kW PV system that generates 25% of the facility's energy needs. Benefits include \$250,000/year in cost savings (a 35% reduction), and 25% carbon footprint reduction. This savings allows the Kroc Center Hawaii to focus more resources on providing community services.

continued on Page 8



Excellence Awardee: KAI Hawaii's Clear Water Rinse Rack



Excellence Awardee: InSynergy Engineering Inc.'s Kahauiki Village

2019 ACECH Awards

continued from page 7

Honor Award: Farrington High School **Building S Repair Roof Collapse**

Firm: Bowers + Kubota Consulting, Inc.

The roof of the Farrington High School auditorium collapsed on November 23, 2012. A church service was scheduled two hours later. From this near tragedy arose an opportunity to renovate and modernize the entire facility.

New structural steel trusses replaced the ones that fell. New classroom spaces were added. A state-of-the-art media room was created. Brand new stage rigging and equipment were installed.

A ceremony was held to celebrate the opening of this community center. No words could describe the faces of immense pride and joy from the students upon entering their new auditorium for the first time. This is where they can now put on plays. This is where they can now give speeches to their classmates. This is where they can now play in concerts. This is now where memories will be made.

Honor Award: Hawaii Film Studio Firm: G70

Hawaii is a premier filming location, known for scenic vistas, our hospitality, culture, and the economic opportunity available to those in the film industry. However, the State must ensure that it provides the needed production office spaces, studio spaces, and physical support that major productions need to succeed in Hawaii. In an industry where the bottom line rules and make or break decisions are made on a daily basis, it is imperative to provide these amenities. The Hawaii Film Office has taken steps to improve its facilities at their campus, conveniently located near Diamond Head.

The Hawaii Film Studio project successfully replaced the old bungalows that served as office and makeshift storage, with a new facility that provides enhanced and much-needed work space through a configuration that feels open and flexible. The improvements added additional parking spaces, enhanced ADA accessibility, improved maneuverability for large production trailers, increased fire access,



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and addressed drainage issues. This project has shown how a collaboration between the State, design team, contractor, and modular building vendor can provide a valuable and functional space meeting the requirements of the State and its important tenants, in a short timeframe, to support Hawaii's thriving film industry.

Honor Award: Kapolei Business Park Wastewater Pump Station

Firm: R. M. Towill Corporation

Kapolei is Oahu's "second city" which continues to see rapid development and growth. Kapolei's industrial areas are no exception. The Kapolei Business Industrial Park is quickly growing and has plans for more growth. Due to this growth, it became necessary to provide additional sewer capacity for the area. The existing wastewater pump station was unable to handle the increase in flows that was expected in the area. As such, a newer and bigger pump station was needed. RMTC designed the new pump station that will handle the increase in sewage and be ready for the increases that are projected for the future. RMTC's engineers also used new technology to make the pump station easier to maintain, which will save money and time and be safer for those working there.

Honor Award: KNMD112001, Repair Jet **Engine Shop B3416**

Firm: Burns and McDonnell Engineering Company, Inc.

Built in the 1970s, the engine shop is a two-story, 32,080 SF steel and concrete block structure with a 23.000 SF first-floor and a 9,080 SF second floor. The first floor includes two large highbay areas, shops, offices, latrines, weight room, storage and building utility spaces. The second floor includes administrative areas for the Hawaii Air National Guard's Aircraft Maintenance Unit.

Burns & McDonnell's renovation of this DOD facility required gutting the complete interior and replacing all roofing and exterior wall panels, leaving only the slab and structural framing remaining. The newly renovated facility is now easily adaptable for future mission needs and constructed of durable, sustainable materials that will lower the cost of ownership, withstand the tropical environment and result in a 75% energy cost savings. This strategy resulted in a cost savings of \$15 million - more than 50% cost savings over new construction.



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Friday Luncheon, March 8, 2019, 12 pm to

TOPA Tower, Ewa. 3rd Floor Conference Room KAUHAUIKI: POWERING THE NEXT GENERA-TION by Joel Yuen of In Synergy Engineering and Benefactor Duane Kurisu

Modeled after Hawaii's plantation era culture, ACECH Excellence Award winning project, Kahauiki Village, Sand Island, provides long-term, affordable residences for homeless families. This 144-family community is powered by a low cost, sustainable energy solution.

In Synergy Engineering, Inc. engineered a first of its kind integrated renewable energy, solar-powered micro-grid to this entire residential homeless community in Hawaii.

Friday Luncheon, March 22, 2019, 12 pm to 1 pm

TOPA TOWER, EWA, 3rd Floor Conference Room

CLEAN WATER RINSE RACK by Mike Hunnemann of Kai Hawaii

The ACECH Excellence Award winning proiect, the USCG Clean Water Rinse Rack at Air Station Barbers Point is a unique design, not duplicated at any other U.S. military facility. The Rinse Rack provides highly filtered and recycled rinse water through a sophisticated system of piping to clean 100% of the C-130 airplanes and H-65C helicopters. Because of the Coast Guard conducting multiple missions on a daily basis, the filtration system was designed for two rinse cycles per hour, 24 hours per day, every day. The design of this system by Kai Hawaii was result of an ingenious team of dedicated engineers.



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2019 MATHCOUNTS COMPETITION

continued from page 1

scoring mathlete was Adam Inamasu of Washington, followed by Felicity Zhou also of Washington, third place Hyun Seo of Washington, 4th place Khai Tran of Washington, 5th place Arthur Chesshir of Washington, 6th place Serena Perey Ratonel of Washington, 7th place Travis Kuo of Kamehameha, 8th place Allison Eto of Iolani, 9th place Shota Haitsuka of Mililani, and 10th place Sang Huk Lee of Washington. In last year's chapter competition, Inamasu placed 5th and Zhou 7th.

A Countdown Round was held for fun and practice pitting the top 12 individual scorers against each other in pairs. The Countdown Round focuses on speed and accuracy, which amazes the spectators. Students have a maximum of 45 seconds per problem without a calculator. In the end, Inamasu and Zhou exchanged places with Zhou taking first place. Zhou impressed the audience by responding to the problems quickly and almost effortlessly. The Countdown Round is a required event at the State Competition to determine which four mathletes go to the Nationals.



Countdown Round 1st Place Felicity Zhou and 2nd Place Adam Inamasu

Congratulations to Kamehameha Schools, and coach Midori Burton, and Kapolei Middle, and coach Kristine Lindstrom, for their outstanding performances, and again placing 5th and sixth, respectively, and being one of the six Oahu schools continuing on and competing in the March 9 State Competition.

Over 100 volunteers were needed for scoring and proctoring, as scoring judges, and for the refreshments crew. The volunteers came from

Hawaiian Electric Company, U.S. Army Corps of Engineers (USACE), ASCE Young Members Forum (YMF), ASME, SSFM, and the Department of Education. Thanks to Kevin Araki who recruited USACE volunteers, and to Kimberlee Luke who assembled the ASCE YMF volunteers.

Helping with the awards presentation were Dr. Taran Chun, Head of School, Kamehameha Schools Kapalama; Robert Isler, Vice-President of Power Supply, Hawaiian Electric Co., Inc.; Patricia Ishihara, State Mathematics Resource Teacher, Department of Education; and Sara Doi, President-Elect, HSPE. The Master of Ceremonies was again, Lou Muzzarini, retired USACE and currently SSFM consultant, who doubles as the competition moderator. Rosella Motoki, Hawaiian Electric Co., assisted Muzzarini with awards presentation announcing the difficult to pronounce award recipient names.



Award presenters, L-R: Dr. Taran Chun, Patricia Ishihara, Robert Isler, and Sara Doi

Hawaii MATHCOUNTS thanks Kamehameha Schools for again hosting the Oahu Chapter Competition. They will also host the State Competition on Saturday, March 9, 2019. The State Competition will have six Oahu schools, Washington, Punahou, Iolani, Niu Valley Middle, Kamehameha, and Kapolei Middle competing with outer island schools to determine the Hawaii team competing in the 2019 Raytheon MATHCOUNTS National Competition on May 11-14, 2019 in Orlando, Florida.

Deadline for **Wiliki** is March 15th



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NEW STRATEGIC PLAN

The association has a new 2019-2022 Strategic Plan to guide our efforts and activities for the next three years. Please look at the plan on the website (www.hwea.org) and see how you can get involved and contribute.

CONGRATULATIONS TO THE NEWLY ELECTED OFFICERS

See list of incoming officers above.

NEXT EXECUTIVE COMMITTEE MEETING

March 20, 2019, 11:30am, Sand Island WWTP

NEXT QUARTERLY LUNCHEON MEETING

Program: TBA – please visit www.hwea.org

Date: Wednesday, April 24, 2019 Location: Dave & Buster's Honolulu

Time: 11:30 a.m. – Check In

11:45 a.m. - Lunch 12:15 p.m. - Program

1:00 p.m. - Adjourn Menu: Buffet

Cost: \$20.00 for HWEA Members

\$10.00 for Students

Please make checks payable to: HWEA and mail to Hawaii water Environment Association c/o Jason Nikaido, CCH-CSM, 99-989 Iwaena St. Aiea, HI 96701. Reservations for the luncheon meeting to Jason Nikaido by Monday, April 22, 2019, by phone at 768-7220 or email at *jnikaido@honolulu.gov*.

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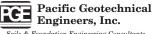
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