UNIVERSITY OF HAWAII AT MANOA COLLEGE OF ENGINEERING COMMEMORATES 110 YEARS

This year the College of Engineering marks its 110th year of engineering education. Over the years, more than 11,900 undergraduate and graduate engineering degrees have been awarded, with a record high of 290 students earning their BS degrees during the 2017-2018 academic year.

Upcoming Events
Holmescoming is right around the corner—October 5 from 5:00-8:30 pm at Let Murakami Stadium. Join us for this fabulous event! Go to https://www.eng.hawaii.edu/event/h18/ for details on how to purchase tickets.

New Faculty and Staff
Tyler Ray, Zhouyuan Song and William Uspal are new faculty in the Mechanical Engineering Department. They are joined by Shayna Yee (support specialist) and Gang Yuan (IT specialist) who have replaced retirees Joanne Yee and Greg Pang, respectively. Ray is currently a postdoctoral research fellow at Northwestern University of California, Santa Barbara in 2015. His research interests in robotics emphasize estimation and coordination of small aerial and underwater robots in extreme conditions involving strong background flows. Uspal was a postdoctoral associate at the Max Planck Institute for Intelligent Systems in Stuttgart, Germany. He earned his PhD in physics from MIT in 2013 and has “two major lines of research: (i) systems of particles driven by external flow, and (ii) systems of chemically active ‘artificial microswimmers.’”

The Civil and Environmental Engineering department welcomes Chunhee Cho and Do-Soo Moon to their faculty. Cho received his PhD in 2016 from Georgia Institute of Technology and was a post doctoral scholar at the University of Nevada, Las Vegas. He’s published over 30 peer-reviewed papers and conference proceedings in the structural health monitoring area. Moon’s PhD is from the University of Illinois at Urbana-Champaign where he was a postdoctoral research associate for the last few years. His research interests include multi-hazard sustainable and resilient structures for civil infrastructures; vulnerability assessment of structures; structural health monitoring and smart sensors; nonlinear finite element modeling; and information technology and structural control applications in structural engineering.

Although it may seem that the number of faculty has been increasing with all the new hires, the total numbers have remained the same for many years. Attrition and retirements have increased the number of faculty searches that we’ve conducted over the last several years. With the newly hired faculty, we have a total of 56 which is only a few more than we’ve had for the last 20 or so years.

Our Students
The Rainbow Warrior Racing Team, comprised of mainly mechanical engineering seniors, earned a 14th overall place out of 80 schools in Lincoln, Nebraska this past spring at the 2018 International Formula SAE (Society of Automotive Engineers) Collegiate Design Series Competition. This is an outstanding accomplishment, given that last year the team finished in 63rd place. Student leaders including Keanu Kim (project manager), Dwight Matsuo (system integrator), Isaiah Amasol (financial manager), Poria Taeb (chassis/aero lead), Justin Tico (powertrain lead) and Nicko Naanos (suspension lead). According to Dr. A Zachary Trible, the team’s advisor, “25 ME students participated directly, mostly ME seniors with about 1/4-1/3 underclassmen; and another 5-10 grad students, underclassmen, and alumni contributed to some extent.” This is the fifth year consecutive year that the students are participated in the international formula competition. Congratulations to the team! Ke Koa “Ehā O Ke Alahele, “The Fourth Warriors of the Road,” is a group of Mechanical Engineering students who built a human powered vehicle to compete in the ASME Human Powered Vehicle Challenge. The team traveled to Pomona, California for the North American West competition where sixteen schools were judged on various aspects. Placing sixth overall, the students placed third in the innovation category. Dayton Lee (project manager), Travis Shimizu (system integrator), Raina Duenas (financial manager), Bill Segall (account manager), Amy Bentz, James Cuenca, Ashley Kahl, Rommel Limjap, Lien Nguyen, Andrew Obianao, and Nicholas Sumera are the “Fourth Warriors.”

UH Engineering students Tom Knapp-Ramos and Jonathan Uejbe took third place at the 2018 UH Business Plan Competition (BPC) for their business plan centered around a product they developed called “Swipewrap.” Swipewrap is a software service that enhances the digital gifting user experience with personalized, 3D unwrappable gift boxes, which users can unwrap with their fingers on their smartphone. The prize package for third place includes the $2,500 HiBEAM Bill Richardson Pioneer Prize and $3,000 value in legal and marketing services. Organized by the Pacific Asian Center for Entrepreneurship (PACE) at the University of Hawai‘i at Mānoa Shidler College of Business, the annual BPC is an intense, semester-long, experiential program that provides hands-on education, mentorship and resources to continued on page 5

SORRY FOR THE LATE DELIVERY
Hurricane Lane affected our production schedule
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.

HAWAI'I COUNCIL OF ENGINEERING SOCIETIES
P.O. Box 2873
HONOLULU, HAWAII 96802

HOME PAGE: hoeshawaii.org
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2018-2019 OFFICERS
Chair:             Kristen Yoshida
Vice-Chair:        Bill Lee
Secretary:         Joe Uno
Treasurer:         Donna Kishi

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AACE                   J. Uno
ACEH                   M. Adolpho
APWA                   J. Hiramatsu
ASCE                   T. Goshi
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ASME                   G. Garma
CMAA                   N. Namumnart
EAH                    M. Alibright
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SPE                    D. Nannaway
SWE                    K. Yoshida
UHM CoE                S.K. Choi

2019 ENGINEERING EXCELLENCE AWARDS COMPETITION & BANQUET
Call for Entries! If you have an innovative and complex project or study that deserves recognition, enter it in the Engineering Excellence Awards Competition. Intent to enter forms are due on October 15, 2018 and the deadline for submitting the Project Flash drive and Panel is November 30, 2018. Please visit our website (www.acehawaii.org) or e-mail eea@acehawaii.org for more information. Please also mark your calendar and make plans to attend the 2019 Engineering Excellence Awards Competition Banquet, which will be held on February 2, 2019, at the Ko'olau Ballrooms.

House of Delegates: Mike Silva
Secretary:          Irida Constantinescu
Treasurer:          Kurt Kunimune

HSPE members from three islands attended the PECON (Professional Engineers Conference) in Las Vegas, in July of 2018; Sara Doi from Honolulu Chapter, Curtis Beck from Big Island Chapter, and Mike Silva from Maui.

L to R: Sara Doi (HSPE President Elect), Curtis Beck (National Institute for Certification Technologies) (NICET), Mike Silva (Hawaii’s House of Delegates Representative).

Chapter (left to right in photo). Sara is HSPE President Elect. Curtis is National Institute for Certification in Engineering Technologies (NICET) Chair Elect. Mike is Hawaii’s House of Delegates Representative. They were very impressed with the professional development sessions that were offered. It was interesting to hear the similar engineering challenges they face in Southern Nevada regarding water source. Also, Southern Nevada has taken great strides in incorporating technology into their transportation system. They have autonomous vehicle Lyfts and an autonomous shuttle on the strip. New Audi vehicles are able to connect to the traffic signal system to inform stopped drivers how long it will be until the signal turns green. NSPE (National Society of Professional Engineers) and the Nevada Society of Professional Engineers did an outstanding job in putting the conference together. The Hawaii reps look forward to bringing back and implementing some great ideas to strengthen and create thriving chapters!

Also, nominations for the Engineer of the Year candidates will be accepted beginning in November of 2018. Nomination forms will be available on the HSPE website. The awardee will be presented at the Engineer's Week Banquet in February of 2019. Please contact Kurt Kunimune of HSPE at kkunimune@bowersandkubota.com for nomination forms or with any questions. Nominations will be due by December 28, 2018. Mahalo!
The SEAOH young member group has been reactivated!! A big Mahalo to the current committee chair Kevin Galvez for spearheading this task. Any young member (under the age of 35) is encouraged to participate in the group. Please contact Kevin at seaoch.ymg@gmail.com for more information.

New Member Applications
Applications for the following individuals have been received and are open for consideration from the membership: Joon Hyung Yim for Associate Member.

Next Meeting on September 5, 2018. For more information, contact SEAOH President, Jeffrey Cudiamat, jcudiamat@structuralhawaii.com

CMAA Hawai‘i Chapter News:
Aloha CMAA Hawai‘i! On Thursday, August 16th the CMAA Hawai‘i Chapter held its speaker luncheon at Dave & Busters in the Paina Hale Room. Big Mahalo to the guest speaker, Allyn Lee. He is the Program Administrator of the University of Hawai‘i. Information was shared in the past, 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 Hawai‘i 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 Hawai‘i, PO Box 531, Honolulu, HI 96809.

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

Electrical Engineer with nearly thirty years of experience with the University of Hawai‘i. Information was shared regarding the Island Wide LED Street Light Upgrade.

On August 4th, part 2 of the Community Service Event was held at the Institute for Human Services Hale Mauliola. The organization was very pleased with the hard work done by the CMAA Hawai‘i Volunteers. Great job to Frank Parker and Terrence Young for organizing these events.

Two scholarships of $1,000 each will be awarded to qualified students at the September CMAA meeting. It is intended to assist students planning to pursue or are pursuing a degree in Construction Management.

Information regarding our end of year Paina event in September will be shared via email. As shared in the past, 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.

The convention has been scheduled for September 14-15 at Aulani. The registration form for members and exhibitors is on the seaoh.org website. The tournament is the main event of the convention, so book soon!!

The golf tournament has been scheduled for Friday, October 19, 2018 at Hoakalei Country Club. The registration form has been posted on the website. The tournament is the main source of revenue for the SEAOH college scholarships that are given every year. This year, SEAOH is planning to award four $3,000 college scholarships, with one scholarship being reserved for a student who may not be pursuing a structural engineering degree. Please check the events section on the seaoh.org website for information on the scholarship application.

Slab-on-grade Corrosion Task Force
SEAOH convened a task group to review the durability of embedded steel and wall anchors in concrete slab edges, as well as steel in contact with the concrete along slab edges. The task group meet during the past few months and is pleased to announce the completion of a set of recommended amendments to the 2012 International Building Code. The recommended amendments were sent to the Department of Planning and Permitting at the City and County of Honolulu. Please contact a board member if you would like to review the recommendation letter.

SEAOH Young Member Group
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Next Meeting on September 5, 2018. For more information, contact SEAOH President, Jeffrey Cudiamat, jcudiamat@structuralhawaii.com
President                      Mofazzal Mir, PE
Treasurer                     David Lebowitz
Bd of Governors
Kevin Luoma, P.E., Donna Kishi, Paul Scott, Scott LaBeau

YMF General Meeting

The next YMF general meeting is scheduled for Wednesday, September 5th, at 6:00 pm at TJ’s Bar & Grill. 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.

Archery Social Tag

On Sunday, July 9th, YMF members participated in an afternoon Archery Tag competition. Participants were divided into 10 teams of six to nine members. The teams warmed up with three rounds of friendly games before starting a single elimination bracket tournament to fight for first place. After four rounds of competitive play, “Team 3”, from Wilson Okamoto Corporation, took first place and team “Jelly Peanut Butter” scored second place. Top three teams were awarded with gift cards to a popular eatery near Downtown Honolulu. Over 70 people participated in this event to fundraise money for an end of the year social event. Thank you all for the contribution! More details for the end of the year social will be announced soon!

Special Olympics

On Saturday, August 4th, eight YMF members volunteered at the ‘Aukake Classic Event for the Special Olympics at Waiau District Park in Pearl City. The ‘Aukake Classic is a two-day event in which athletes throughout the state compete in a multi-division 5-a-side soccer tournament, individual skills soccer competition, and traditional and unified bocce doubles competition. The coaches and athletes trained from June through August and competed in area and regional competitions in preparation for the event. The ‘Aukake Classic marks the end of the Special Olympics Summer season. The YMF members worked with the Special Operations Team to set up tents and chairs, fill coolers for the volunteers and water jugs for the athletes, place trash/recycle bins around the park, transport the food and merchandise, and other miscellaneous tasks. Thank you to the YMF volunteers for coming out to help and to Cindy Ujimori for coordinating this event!

Driving Range

On Saturday, July 21st, YMF held a driving range outing at the Newtown Driving Range in Aiea. Nineteen 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.

YMF Volunteers for coming out to help and to Cindy Ujimori for coordinating this event!
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.

Section News

We held our executive meetings on July 11 and August 8. We are looking for members in professional development, K12 STEM outreach, community outreach, and social committees. If you are interested in leading a committee or an event, please email Dian N. at swe.hsection@gmail.com.

Our first general meeting will be on August 27 at Maple Garden. There will be an introduction to SWE, dinner/networking, and a professional development panel on Work/Life Balance. Speakers of the panel are Dr. Sheryl Nojima, Dr. Olga Boric-Lubecke, and Kristen Yoshida. For an event flyer, please check our website at http://hi.swe.org.

Our second fall event is an interactive webinar on the topic of How to Get Company’s Sponsorship for Your Professional Society. On September 27. Email Dian N. at swe.hsection@gmail.com for registration and questions. GoToMeeting conference call number will be sent out prior to the live meeting.

SWE-HI is actively seeking donation for the Mae Nakatani Nishioka Scholarship Fund. Our goal is to raise $28,000 to endow the scholarship, which will be awarded yearly to women engineering students in the state of Hawaii. With the Nakatani Nishioka family’s generous matching up to $15,000, we are $9,000 away from reaching our goal. Please visit http://hi.swe.org/scholarships.html for information on Mae Nakatani Nishioka’s legacy and how to make the donation.

UHMCOE COMMEMORATES 110 YEARS

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students and faculty (from any of the 10 UH campuses) who seek to learn what it takes to be an entrepreneur and start a business venture. <https://www.eng.hawaii.edu/bpc18/>

Civil and environmental engineering students at UH Mānoa took top poster award honors at the annual Pacific Water Conference held February 6–8, in Honolulu. The three-day conference has become the premier event promoting best practices in water resources management across Hawai‘i. The annual meeting attracted more than 400 people, including environmental engineers, wastewater system operators, and other personnel in water, wastewater, and water quality fields. Topics focusing on drinking water, wastewater, water reuse and recycling and stormwater challenges were uniquely addressed for the state of Hawai‘i. <https://www.hawaii.edu/news/2018/02/20/uh-engineering-students-take-top-honors-at-water-conference/>

Research

Professor Yi Zuo, is developing ways to make bubbles last longer. The fact that bubbles don’t last long affects the quality of a product and Zuo and his research team are studying ways to make these bubbles last longer. They’ve developed an arbitrary waveform generator that can manipulate a droplet, enabling them to study the relationship between the deformation of the surface and external stresses. Learn more about his work at https://www.hawaii.edu/news/2018/06/28/new-method-of-making-bubbles-last-longer/or http://www.hawaii newsnow.com/story/38623607/a-uh-researchers-bubbly-breakthrough-could-be-a-boon-for-businesses.

In a study done by Professor Tao Yan, a correlation between the concentration of Salmonella in Honolulu wastewater and salmonellosis cases reported to health clinics was shown. The concentrations were monitored over a 54-week period and the results showed that municipal wastewater can be used as an indicator for infectious diseases in a community, a new way to protect human health. Assistant Professor Sangwoo Shin discovered that detergent is not the main reason that soil particles are removed from dirty laundry—it’s the sudden introduction of the freshwater rinse that gives cleaner laundry. Most people think it’s the detergent that removes the particles but Shin says the detergent helps to loosen the particles and the rinse actually accelerates particle remove from the pores of your clothes. Check out a video that shows this: https://www.hawaii.edu/news/2018/03/21/freshwater-rinse-is-real-laundry-hero/ Interim Associate Dean and Professor David Ma and his research group have filed an international patent for a method to increase low ambient energy test useable level. This invention is extremely useful for devices like wireless sensors, medical implants, and so forth that need long-term, unattended operation. This amazing device uses a mini electric generator made from droplet capacitors to harvest energy. A mini generator with three droplets produced enough voltage to light up 20 LEDs. Ma and his group believe this technique can be scaled up for large applications and could potentially revolutionize grid-level power.

Search for Permanent Dean

Since the departure of Peter Crouch from the College in August 2016, Dr. H. Ronald Riggins has been serving as our Interim Dean. The Chancellor’s Office is currently searching for a permanent dean for the College. Dr. Brian Taylor, Dean of the School of Ocean and Earth Sciences, is chairing the committee. Please see the search website (http://www.manoa.hawaii.edu/executivesearch/engy/) for details.