# ASCE BRUIN

SUMMER/FALL 2018



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END OF YEAR BANQUET 2018
Asia Reeves

ASCE GRADS & SUMMER ACTIVITIES

Kathy Woo



# A Letter FROM THE

Dear Alumni, Faculty, Students, and Sponsors,

**PRESIDENT** 

As another incredible year comes to an end, I am excited to present our Summer/Fall 2018 ASCE Bruin newsletter! This year was an especially remarkable year, with our ASCE chapter winning the Robert Ridgway Award for the first time in UCLA history. The Ridgway Student Chapter Award is presented to the most outstanding ASCE chapter in the country every year, and UCLA had the privilege of winning this out of 347 domestic and international schools. This is a historic accomplishment and would not have been possible without our hardworking officer board and members, who worked tirelessly throughout the year to make our chapter the best it could be.

We also received an ASCE national Letter of Recognition for Community Service for the second year in a row. In addition to our two community service-based projects Seismic Outreach and the Navajo Water Project, our chapter put on numerous separate community service events. These include events such as tree planting with TreePeople, a beach clean up with Heal the Bay, meal prepping with LA Kitchen, and much more. The large variety in these events showcase our extensive reach in the Los Angeles region and our members' desires to help the community.

Our eleven projects continued to work hard this year, with eight of them competing at the Pacific Southwest Conference (PSWC). Further awards this year included an overall fourth place finish at PSWC, with many of our projects finishing in the top 3. This included a first place finish from Concrete Sports, second place by Surveying, and third place with Concrete Canoe, Transportation, and the brand new Sustainability project. At the international EERI competition, our Seismic Design team won second place.

Our mission statement this year was "Creating Community and Enriching Experiences." With every event our officer board put on, we made sure to embody that statement to welcome new and returning members to our club. We put on over 120 events this year, not including project workdays, project socials, or IM sports. Our events spanned across a wide scope, from professional to social to community service. Many of these events were new this year, including Women & Waffles, the CEE concentrations workshop, GRE workshop, sushi-making social, and more.

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On the professional side, we had two career fairs, two networking nights, 18 company info sessions, 8 academic workshops, and numerous field trips. One significant newly introduced program was the Industry Shadow Program, which allowed students to shadow an industry professional one-on-one in a specific field of civil engineering for a day. We also revamped our Mentorship program, making it the most successful system in recent years, with four families, mentor/mentee pairings, and strong relationships between younger and older students.

We said goodbye to many of our passionate and hardworking seniors who graduated this past spring. They helped shaped our chapter into what it is during their time at UCLA and they will truly be missed. Additionally, our accomplishments this year would not have been possible without our alumni and advisors, the Civil and Environmental Engineering Department faculty and staff, and our company sponsors. Thank you for all of your guidance and support, and we look forward to continuing these relationships in years to come.

Looking forward to next year, we hope to continue traditions and build upon existing events while introducing new programs. We will have a strong officer board consisting of 4 Core Officers, 12 General Officers, 19 Project Managers, 36 Project Directors, and 5 Advisors. I am looking forward to next year and to see all the spectacular new things that we will accomplish as a chapter. Please do not hesitate to reach out to myself or any other officer if you ever have any questions about our chapter or wish to get more involved: <a href="mailto:msheykhsoltan@gmail.com">msheykhsoltan@gmail.com</a>. We are always excited to welcome new members to our ASCE family!

Thank you,

Mahsa Sheykhsoltan, President

ASCE at UCLA 2018-2019

Mahsa



**OFFICER TRANSITIONS** Our new president eating dinner and discussing the future of ASCE at UCLA with her fellow officers.











# **MEMBERSHIP**

#### **ALYSSA YIM**

ASCE at UCLA ended on a high note this year, breaking stigmas, breaking records, but never breaking hearts. With over 330 paying members, we have experienced over a 10% increase in membership as compared to last year. Our members are also showing increasing involvement in club events, with more students attending PSWC this year than in years past, as well as with steady attendance at info sessions, field trips, and community service events.

I now have the honor of introducing the incredible Yuen Lenh as your 2018-2019 Membership Chair. I have no doubt that next year, our club will continue to grow under her leadership as her kindness, inclusiveness and overall love for ASCE will entice people to join and find their welcoming place at UCLA. Furthermore, I predict growth in years to come as most people cite friends and word-of-mouth as ways in which they were introduced to the club, and the more members we have, the more our club will continue to grow. Next year, you should expect Yuen to exceed any expectation you have. I know that she will put her heart and soul into better integrating new members and building members' relationships.



ASCE BANQUET

Around 100 of our members celebrating the end of the school year with the annual banquet to recognize the hard work of project leaders and participants

# **INFO SESSION**

#### **CLAIRE KILLIAN**

To conclude a year of successful professional development events, UCLA's spring quarter played host to three info sessions; Burns & McDonnell, Wood Group, and Granite Construction all swung through campus to interact with our ASCE members and teach them about their respective industries! This lineup manifested one of my primary platform goals for the many info sessions ASCE at UCLA hosts: diversity. Burns & McDonnell is a massive, top civil engineering firm and their representatives shed light on the consulting engineering field to our curious students. Our very own Dr. Marty Hudson hosted the Wood Group info session, which quickly went down as one of the quirkiest info sessions in Speaker Coordinator history. While his light-hearted humor injected laughter into the dreary 5th week grind, he also provided valuable and insightful advice regarding the fascinating work of geotechnical engineers, the real benefits of a PhD, and graduate school in general. Finally, Granite Construction presented on the impactful work they do in heavy civil and federal emergency disaster relief with alumni Karan Patel as one of the speakers. We averaged around 20 students per info session-with an attendance high of 27 students—and an attendance profile ranging from freshmen to graduate students.

As we move into the upcoming year, I am delighted to announce our new Speaker Coordinator: Soham Gupta! He has exciting platforms, from continuing the diverse trend of info sessions to coordinating more interaction between industry alumni and projects. I have full confidence in his engaging personality and hard-working nature to carry on this role with excellence. Look out for great job opportunities, free dinner, and lots of Facebook event invites from Soham next year!

Thank you all for coming out to info sessions time and again this past academic year—it really means the world to me. I promise I will no longer bother you with Facebook invites every week, but catch me continuing to get everyone their dream jobs at the Career Fair!



**WOOD INFO SESSION** Dr. Marty Hudson leading the Wood info session in which he describes the work of geotechnical engineers and other miscellaneous topics such as graduate school



**GRANITE INFO SESSION** Guest speaker and alumni, Karan Patel helps lead Granite Construction's presentation on emergency disaster relief

# FIELD TRIPS

#### KERI SCHOLTE

Over the course of the last year, we visited a diverse set of relevant sites in the Los Angeles area. In the Fall, we learned about shoring design and various installation topics at the Condon-Johnson & Associates Inc. Margan Apartments Redevelopment project visit. In the Winter, the VP of Matt Construction showed us around the Academy Museum of Motion Pictures, the highly complex structure that will house the nation's first and largest comprehensive museum of movies. Then in the Spring, LADWP gave us a tour of the Upper Stone Canyon Reservoir, which is where UCLA and Westwood's water is sourced from. Lastly, the structural engineering consulting company, Englekirk, invited us into their DTLA office to tell us about their innovative work in new construction and seismic rehabilitation.

Looking ahead to the next year, the incoming Professional Outreach Chair, Keri Scholte, is hoping to improve the accessibility of our field trips by coordinating trips specific to each of the CEE introductory courses, freshman seminar course, and by presenting site visit opportunities during quarter breaks. Possible field trips for next year include the LA Rams Stadium, The Boring Company tunneling, and a historic tour of the fatal St. Francis Dam Failure. In conjunction with our developing Industry Shadow program, where ASCE members can experience the typical work day of a professional in various areas of work, our aim is that field trips will enrich and inform the experiences, connections, and opportunities for our members to real world civil and environmental engineering.

## **OUTREACH**

#### **JORGE BARRIO**

The first quarter at UCLA had some great events for ASCE Outreach! The main event of the quarter, or even the whole year, included the ASCE Spring BBQ to celebrate the success of the club over the year. Professor Stewart hosted the event and we had a great turnout for both professors and students. In addition, we planned an outing to the LA Galaxy game vs the San Jose Earthquakes. The purpose of Outreach is to place UCLA professors and students in a non-academic environment to provide a social boost to the club and meaningful relationships that will help bring potential opportunities for all parties.



**STUDENT PROFESSOR BBQ** Professor Goodin posing for a picture with Ada Chang and Heather Wong at the barbecue hosted by Professor Stewart

# **COMMUNITY SERVICE**

#### **CAYLA WHITESIDE**

This quarter, students attended an orange harvesting event with Food Forward. At this event, we learned how to harvest oranges and then spent a few hours picking the fruits in the California State University Northridge Orange Grove. All the produce collected was then donated to local charitable food organizations and food insecure families! This event had a strong turnout, with 15 students total. Orange harvesting was a lovely way to end such a great year of community service. From planting trees with TreePeople in central Los Angeles in the fall, to supporting high school students at the YMF Popsicle Stick Bridge Competition, to assisting with an art and music cultural event with Inner City Arts', to helping with meal preparation for vulnerable families with LA Kitchen, this year has been incredibly fun and diverse in the type of events ASCE at UCLA has volunteered at. It has been such a joy for me to organize and attend these community service events this year, and I will miss it greatly next year. However, I am extremely happy to introduce my replacement, Douglas Chambliss, who will be the Community Service Chair next year. I know Doug will plan some exciting events that give back to all aspects of our community!

#### DOUG CHAMBLISS

I am thrilled to be taking over as the Community Service Chair next year, and will be taking note of the successes of this past year when planning our future events. I'm planning to survey ASCE members and reach out to the organizations we enjoyed working with the most. You can also look forward to brand new service days in the works such as events run by Friends of the LA River and an animal sanctuary!

# ORANGE HARVESTING

ASCE student
members
spending a
Saturday morning
at California State
University
Northridge
Orange Grove to
help pick oranges
for food insecure
families.



# **ATHLETICS**

#### **RYAN WONG**

ASCE Athletics played a huge part in our spring quarter as we participated in PSWC along with our usual IM teams. For PSWC, we represented UCLA Civil Engineering by competing against numerous schools in our conference in sports such as Basketball, Soccer, Volleyball, Ultimate Frisbee, Kan Jam, and Tug of War. Our PSWC Soccer team, led by Karl Keck, faced UC San Diego (UCSD) in the first day of conference but ultimately fell short as we were eliminated with a score of 1-3. Our PSWC Basketball team, led by future-Athletics Director Gianna Furumoto, faced UCSD as well in the first round on the first day of our conference and won, but suffered a defeat by Northern Arizona University later. Carlo Dela Rosa and Scott Kawakami led our PSWC Volleyball team to third place at PSWC after last year's controversial defeat from San Diego State University (SDSU). Led by Kasey Murakami and Ryan Wong, we played hard in Kan Jam, but due to high winds suffered a defeat. Our Tug of War team, led by Alyssa Yim, historically have never seen much success at PSWC. This year, however, we were determined to prove history wrong and were able to pull out a first-time-in-history victory versus UCSD. In Ultimate Frisbee, we were led by Ryan Wong and Jacob Loo. Unfortunately, we experienced a disappointing early defeat as we were confident in our team, but it was something to brush off as we kept our heads high.

For IM's, we participated in Co-Rec Basketball and Co-Rec Sand Volleyball. Our Co-Rec Basketball team, Lavar's Other Kids, was unable to collect a win all season as we dropped all four of our regular season games. Our team was led by sophomore Claire Killian at point guard and graduate student Winston Boyce at power forward. Another intramural sport that we participated in this past quarter was Co-Rec Sand Volleyball. Our team name was That's What She Set and was led by Allison Woodworth and Trini Inouye.

Overall, it has been another extremely successful year for ASCE Athletics and we look forward to an even better one, led by Gianna Furumoto, for the 2018-2019 school year.



### PSWC ULTIMATE FRISBEE TEAM

Pictured from left to right: Yash Kansal, Lucas Hamera, Alyssa Yim, Brandon Duong, Jacob Loo, Ellen Key, Ryan Wong, Tristan Whisenant, and Alex Lee



**PSWC VOLLEYBALL** Our volleyball team competed well in Arizona versus SDSU as they finished in 4<sup>th</sup> place



END OF THE YEAR BONFIRE Several members roasting their marshmallows and hot dogs at the End of the Year bonfire

# **SOCIAL**

#### **ANNA PHILIPP**

At the start of the quarter, ASCE members made the journey to Knott's Berry Farm in Buena Park. The day was filled with Dippin' Dots and funnel cakes, rides and screams and most importantly laughter.

We also had a Cookies and Painting Social that was meant to alleviate some of the stress that our members had from midterms and leading up to finals. It was great to see everyone's creative sides as we tried to mimic the esteemed Bob Ross. Although we followed Bob step by step it was amazing to see the differences in everyone's final products.

Our final event of the quarter was the End of the Year Beach Day and Bonfire. Members played beach soccer, Kan Jam, and frisbee while others waded into the calm waters of Marina del Rey. The best part of the evening

was burning last year's structure and celebrating the builders' work, and getting everyone excited for the upcoming seismic competition.

I would like to thank Leighton Paradis for his dedication as the 2017-18 Social Chair and for making everyone feel so welcome to each event. For the 2018-19 term, I, Anna Philipp, will be the Social Chair. I am very excited to take on the responsibility of Social Chair and plan some great events. In the coming year you can expect to see all your favorite events happening again, like the ski trip, study marathons, and beach days. In addition, I would like to introduce more stress relief activities throughout the quarter such as hikes and yoga days.

Overall the general turnout of social events was great. For smaller events the amount of members to attend ranged from the low to high teens while larger events could bring up to forty members.

We would like to thank all of the members who consistently come out to events as this fosters the growth of the love, respect, and friendship that make ASCE such a wonderful club and close knit community. And to all the members who have never been to a social event, please come out, we would like to spend even more time with each and every one of you! And we would also like to thank all of our hosts and everyone that helped put events together. The year would not have been the same without the member's involvement.



**END OF THE YEAR BONFIRE** Anna Philipp and Claire Killian sitting in the sun saving the bonfire pit for the End of the Year Bonfire

**COVER PHOTO** Members from Seismic Design watch as their structure burns in the bonfire

# **MENTORSHIP**

#### **FRANCIS PARAS**

The four mentorship families continued to make memories as members spent many hours of enriching experiences together, once again documented through the use of family photo albums. Some of the fun activities include First Friday outings, ice cream trips, movie nights, family dinners, and group study sessions. This is on top of all the regular ASCE events and dining hall ventures that occupy the daily life of an ASCE member.

To celebrate this year's Mentorship program, we held an End of Year Potluck where all four families prepared dishes and then all the families met together for one final time. It was a delightful evening filled with smiles, laughter, and, most importantly, food. Here we also unveiled the Mentorship awards for the year, which acknowledged members for their involvement in Mentorship this year. Congratulations to Brandon Doung (Photobomb Award), Zohair Zulfigar and Vivian Chong (Pair of the Year), and Mahsa Sheykhsoltan (Mentorship MVP) for their achievements, and a special congratulations to BBB for winning Mentorship Family of the Year!

It was awesome to see so many people in the Mentorship Program grow their relationships while forming new friends along the way. I would like to thank the Family

> participated in Mentorship this year for making it an unforgettable experience for everybody involved.

> With that being said, I am excited to announce Vivian Chong as the next year's Mentorship Chair. Vivian plans to create strong relationships by co-hosting inter-family events with the Athletics Coordinator, Community Service Chair, and Membership Chair, and maintain many aspects that were introduced this year, such as the point system and family structure.

Heads and all members that

- Vivian Chong

"I don't know

where I would be

without the

mentorship

program, which

gave me the best

mentor I can ask for

(shoutout Zohair!),

unlimited resources for classes and

internships, and

friendships I know

will last a lifetime."



#### **OFFICER TRANSITIONS**

Old and new Mentorship chairs posing with a cola bottle that has the word "family" written on it



**CONCRETE CANOE AT PSWC 2018** Concrete Canoe team carrying their canoe to the water where they will begin their race



WOMEN AND WAFFLES Female members having waffles and showing each other support as fellow women in STEM

# **Pacific Southwest Conference 2018**

#### MAHSA SHEYKHSOLTAN



#### PSWC AWARDS CEREMONY

All 94 ASCE at UCLA students that attended PSWC 2018 in Arizona this year pose for a photo after the awards ceremony

This year, we had a record number of students attend the 2018 Pacific Southwest Conference (PSWC) in Tempe, Arizona, co-hosted by Arizona State University (ASU) and Northern Arizona University (NAU). On Wednesday, April 11, 94 UCLA students drove through the desert from Los Angeles to Tempe. The competition started early Thursday with canoe and bridge display day where the canoes and bridges were judged, and we were able to interact with other schools. Environmental Design, Concrete Canoe, Transportation, and the Daniel Mead Paper all had presentations on Thursday, and Environmental Design also constructed their system. We participated in various sports such as basketball, soccer, and the obstacle course. Our scavenger hunt team worked hard on Thursday and throughout the rest of the weekend to find the numerous landmarks in Tempe.

On Friday morning, we all went to the marina for canoe race day. Throughout the day, five different canoe races took place: women's endurance, men's endurance, women's sprints, men's sprints, and co-ed sprints. Overall, our paddling team had a strong second place overall finish in races. Our Design Build team constructed a small house during the races. We also participated in volleyball, where we finished in third place, and played Kan Jam, Tug of War, and Mystery Event.

Finally, on Saturday, GeoWall constructed their box, Steel Bridge built their bridge, and Concrete Sports threw their frisbees. Surveying had their competition on Saturday as well, in addition to the Sustainability presentation, Jeopardy, and Impromptu. That evening, all the schools attended banquet at Rawhide Event Center. We found out that Concrete Sports placed first, Surveying finished in second, and we had third place finishes in Sustainability, Concrete Canoe, and Transportation. Overall, UCLA finished fourth place at PSWC 2018 Sunday, all 94 UCLA students drove back to Los Angeles. It was another great conference and an incredible experience with many underclassmen in attendance. Next year, PSWC will be held at Cal Poly SLO and our Conference Coordinator is the one and only Johnny Schmidt. He will organize another amazing conference and our projects are already looking forward to PSWC 2019!

















# **CONCRETE CANOE**

#### **COLIN BURROWES**

Spring Quarter saw the team's thoughtful effort and labor come to fruition, as we presented our canoe at the Pacific Southwest Conference (PSWC) in Tempe, Arizona during Week 2. This conference, which serves as UCLA Concrete Canoe's regional competition, is always one of the most exciting times of the year as it hosts a variety of competitions related to civil engineering. The Concrete Canoe regional competition, much like the national competition, involves four individual categories: Design Report, Oral Presentation, Final Product, and Races. The team performed well, taking 3rd in Design Report, 5th in Oral Presentation, 3rd in Final Product, and 2nd in Races. All told, UCLA Concrete Canoe came to a strong finish this year, placing 3rd overall in the regional competition out of 18 total teams.

The events of PSWC began early Thursday morning as Concrete Canoe directors and project engineers arrived at the ASU Old Main, canoe in tow, to set up for display day. Display day marked the advent of preliminary judging, as all key deliverables of the project were evaluated for their proficiency and checked for rule infractions. Team members mounted the canoe on handcrafted, decorative stands as well as assembled an "Under the Sea" themed display table featuring concrete mix components, technical documents, and pictures taken over the course of the year. The opening day of conference offered the opportunity for team members to observe competitor projects and make note of innovations to exercise in the future, both by walking around the canoe display area and sitting in on Oral Presentations. In addition, many of UCLA's conference attendees cheered on from the audience as our project managers fearlessly and expertly delivered their very own oral presentation.

The second day of PSWC brought us to the shores of Lake Tempe near downtown Phoenix for race day. The possibility of looming storms led to unideal race conditions as conference organizers adjusted the racing schedule. Endurance races (which usually come first) were postponed to after the opening heats of the more exciting sprints and Coed races. The finals heats of these three races were also postponed, and eventually cancelled, leaving preliminary standings in the sprint categories for official scoring. Additionally, the high winds created surface currents and waves of greater magnitude than those at our practice facilities in Marina del Rey. Nevertheless, the paddling corp of UCLA Concrete Canoe persevered, and found great success in all categories. UCLA paddlers placed 2nd in Men's Endurance, 3rd in



**RACE DAY AT PSWC** Members pose with their concrete canoe after a long day of racing

Woman's Endurance, 2nd in Woman's Sprints and 3rd in Coed Sprints, culminating in a 2nd place finish overall, the best in recent memory for UCLA racing.

Following their admirable performance at conference, UCLA Concrete Canoe began its transition process to next year's leadership team. The new project managers Colin Burrowes and Lizzy Robinet are facilitating the knowledge transfer to next year's director team, featuring Ameya Patel, Anthony Garcia, Catherine Nguyen, Javier Gomez, Kristine Ocampo, Rachel Tam, Rahaf Barrkoudi and Yousef Almalla. This team features a great blend of highly motivated underclassmen and upperclassmen, all of whom have a common goal of having fun while working to take UCLA back to the national stage next year!

# **CONCRETE SPORTS**

#### JASON HEADINGTON

In April of this year, the Concrete Sports throwing team competed at PSWC and took 1st place! This was only possible due to the hard work put in by our mix team as well as our throwing team. We would like to thank everyone who attended workdays, throwing practices, or supported the project this year. Our success could not have been possible without you.

The end of Spring quarter was a time of celebration and transition for the project. We hosted our second annual pie social near the end of the quarter. This was a chance for everyone to relax, throw some frisbees, and eat lots of pie. In addition, Trevor Davis and Zac Puckett were selected as next year's Project Directors for Concrete Sports. Both were active project engineers this year, and look forward to pushing concrete sports to new heights next year.

Concrete Sports is preparing to make changes to the project in the coming year. The status of the project at the 2019 PSWC competition is uncertain, which changes our goals for the year. However, we have come up with new ideas and events for next year that will provide hands on engineering experience as well as fun competition. We look forward to sharing these ideas in due time and to a fantastic year!

# **ENVIRONMENTAL DESIGN**

#### **PAULINE NGUYEN**

Spring quarter was the most exciting time of the year for the Environmental Design project as we headed out to Tempe, Arizona for the annual regional Pacific Southwest Conference (PSWC). This past year, our project was posed with a challenging task: to create a handsfree, low-cost household water treatment system that can treat 9 gallons of wastewater without chemical addition besides chlorine.

Overall, we placed 8th out of 18 teams, a good showing considering the drastic rule changes in the past two years! At the competition, we were commended by the judges for having low turbidity effluent, thanks to our decision to use gelatin as an unconventional coagulant! We also attribute our improvement to the many construction runs we made to adequately prepare for the competition. It was also eye-opening to see how other schools like SDSU used innovative materials (guar gum) to remove the contaminants in the water.

The Environmental Design team wrapped up the school year by visiting the Hyperion Water Reclamation Plant and LA SAN's Environmental Learning Center. We were guided around the treatment plant where we learned about each step of the wastewater treatment process.

Next year's Environmental Design team will be led by Pauline Nguyen as Project Manager and Xuan Yu (XY) Lew as Assistant Project Manager, along with directors Vicki Friesen, Gurjot Kohli, Jackie Oehler, and Ingrid Spielbauer. We are excited to continue providing a holistic educational experience for aspiring environmental engineers and improve from the advancements made this year to do even better at next year's competition!



**ENVIRONMENTAL DESIGN COMPETITION**Students building the filtration system during the competition

# **GEOWALL**

#### **CAILEEN YU & RACHEL LIEN**

GeoWall is a competitive project in which students design and build a mechanically stabilized earth retaining wall out of kraft paper. It is the only undergraduate level project at UCLA that focuses on geotechnical engineering. During the timed competition, the wall is built and tested to hold back 500 pounds of sand. The team that uses the least amount of kraft paper and allows for the least deflection wins. This year's wall also withheld two vertical piles, and a vertical and horizontal surcharge.

In April, the team traveled to Tempe, Arizona to compete at the Pacific Southwest Conference (PSWC) hosted by Arizona State University. The team competed very well; placing 4th out of 16 schools overall, an improvement from their 8th place finish at nationals. The team also enjoyed meeting students from other teams and seeing how other schools approached this year's design challenge.

With PSWC marking the end of the competition season, the remainder of the academic year was spent transitioning from the 2017-2018 to the 2018-2019 project leadership. Co-Project Managers Caileen Yu and Rachel Lien are excited to work with next year's Project Directors Michala Li, Peter Lee, and Justin Qiu. Next year's project managers and directors anticipate a year full of memorable experiences and yet another exciting geotechnical challenge for GeoWall at UCLA.

# **CONSTRUCTION MANAGEMENT**

#### **CHESTON CHEUNG & ALEX LEE**

One of ASCE's eleven projects, UCLA Construction Management serves as the avenue through which students are provided a glimpse into the industry of construction management. This year, UCLA Construction Management was presented with the opportunity to expand its breadth of work by participating in two new competitions hosted at the annual Pacific Southwest Conference (PSWC): Design Build and Sustainability.

The Timber Strong Design Build project involved the planning and construction on site of a wood framed structure meant to be a scale model of a house. A report and poster were also required and included aspects such as overall costs, the structure's weight, structural calculations, and the sustainable systems to be included if such a building were to be constructed in reality. Overall, the team scored 8<sup>th</sup> out of the 16 competing schools. Tackling the never before seen PSWC Sustainability Project, our team of eight undergraduate students came together to develop and present a research-based report analyzing the current impact large conferences like PSWC have on our environment and providing appropriate solutions and mitigation techniques. Weekly workdays of research and writing and a presentation of our final product to a panel of judges and experts at PSWC culminated in a Third Place finish in the first-ever PSWC Sustainability Project Competition.

After PSWC, recap meetings were held to prepare for next year's competition. In addition, the Reno teams held a collective info session to give interested ASCE members a better idea of what the 67 competitions is about, allowing them to get a head start on thinking about next year's rosters. Construction Management as a whole also organized a successful Chipotle fundraiser, which notably attracted quite a few non-ASCE patrons as well.

Looking ahead to next year, Construction Management will be in experienced hands as the incoming project leadership consisting of Project Manager Alex Lee, Design Build Team Lead Yash Kansal, Mixed Use Team Lead Claire Killian, and Sustainability Team Lead Alyssa Yim have already begun preparation efforts to ensure that the project is able to hit the ground running come the beginning of the upcoming school year.

# SEISMIC DESIGN

#### LENN KUSHIGEMACHI & BRYAN ONG

The focus of the Seismic Design team at UCLA was to construct a structure for the annual international Earthquake Engineering Research Institute Seismic Design Competition (EERI SDC). After seeing a successful prototype performance during the end of the Winter Quarter, simple modifications on the design were implemented in the Spring to further lower the seismic impact by decreasing the overall stiffness of the structure. Using CAD and structural analysis softwares like SketchUp and SAP2000, the design for our structure was finalized, and the team proceeded with constructing the final model.

This year, the long awaited Seismic Design Competition was held on June 25th to 29th in our hometown of Los Angeles. There were 40 schools that came from all over the world, including countries like Romania, China, and Malaysia. Our team of passionate individuals placed an astounding 2nd place overall, which accounts for our seismic performance on the shake table, communication in the presentation and poster, and design proposal! This marks a huge victory in Seismic Design at UCLA's history, an accomplishment that truly shows our understanding of structural design of tall buildings. At the end of the day, the EERI SDC serves as grounds for networking with other students and professionals that are passionate about earthquake engineering, sharing challenges each team faced throughout the year, and ultimately having fun. Not only did our competition members connect with members of other schools, but also had an educational opportunity from looking at different design techniques and structural ideas other schools had presented.

Going into the new year, we will be expecting a new team to take over the Seismic Design Team. Returning members Lenn Kushigemachi and Bryan Ong will serve as next year's Co-Project Managers, both of whom have shown immense interest in structural as well as earthquake engineering. They will be working together with a strong team comprising of undergraduates from different classes, namely Eric Luu and Michelle Tran who will be the Structural Directors, Soham Gupta and Honor Fisher who will be the Construction Directors, Rodger Lee the CAD Design Director, and Olivia Kope the in-house Architect. They will be working tirelessly together to come up with a seismic design that is both structurally sound and architecturally admirable for next year's competition.

This coming year, we will be heading to Canada, or more specifically, Vancouver to compete in the 2019 Undergraduate Seismic Design Competition. We have big shoes to fill especially after this year's spectacular performance, and the team is already in the process of preparing for next year's competition. Over the summer, we will be looking into research papers and articles on various structural designs which we will narrow down to incorporate into the design of the structure. We will also be experimenting with different design, construction, and testing techniques, in hopes of applying what we have learned from practices in the real world, as well as increase the efficiency of our structure.



It has taken many generations of teams' effort and sacrifice to have brought us to where we are today—landing the first runner up position for the Seismic Design Competition held in our hometown. But the fight does not end here. We will be working diligently and meticulously to bring the team to even greater heights, but at the same time, emphasizing the need to fully understand what we are designing, and of course, have fun along the way! So we thank each and every one of you who has helped the team in any shape or form, and we only ask that you support us on our journey into the future! Go Bruins!

# **SEISMIC OUTREACH**

#### **TYLER PENN & BRANDON DUONG**

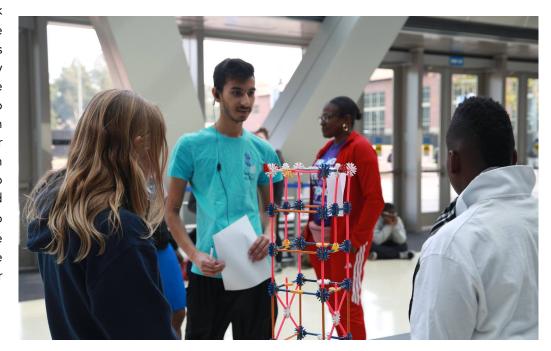
During the course of this past spring quarter, Seismic Outreach worked with Lincoln Middle School to implement our structural engineering program for their sixth grade classes. In total, we visited the middle school four times. On the very first visit to the school, we introduced our volunteers and gave a presentation on the fundamentals of structural and earthquake engineering. The second school visit consisted of the hands-on building project where the students were organized into teams and handed a packet of K'Nex pieces. Their goal was to design and build a structure that would be able to withstand the power of a shake table. Finally, the last school visit consisted of basic calculations regarding floor area, the cost of constructing the building as each piece had an associated cost, and the cost to area ratio. In addition to our regular school visits, our team organized a food challenge social that included a hot dog eating contest for our fantastic volunteers.

On May 29th, the Seismic Outreach team traveled to Lincoln Middle for Finale Day, the fourth time we had visited the school that quarter. Finale Day is the final event of our program where the students get a chance to test their structures on a shake table. Additionally, the students get a chance to work on their presentation skills as they present their work to a series of Seismic Outreach student judges. The event comprised of over 330 middle school students,—an astonishing record breaking amount in Seismic Outreach's history—3 teachers, 17 UCLA student volunteers, and approximately 15 parents. Once all of the testing and judging was completed, every single class gathered in the auditorium for an awards ceremony to, not only congratulate the winners of the competition, but also congratulate every single student that participated.

Before we look to the future, Tyler and Brandon would like to thank the graduating members of the 2017-2018 leadership team, Zohair Zulfiqar and Francis Paras. Without their good work, Seismic Outreach would not have been as successful as it was. We wish them all the best as they continue their educations at UC Berkeley and UCLA, respectively.

Now looking towards the 2018-2019 school year, Seismic Outreach's leadership team will comprise of Co-project managers Tyler Penn and Brandon Duong along with our wonderful project directors Claire Killian, Vivian Chong, and

Eliot Yang. We certainly look forward to continuing the growth of Seismic Outreach as an educational community service program. For the upcoming year, we plan to continue the current program of visiting one school per quarter. Additionally, our team will continue to reach out to working professionals and UCLA professors in order to help with judging at Finale Day. Thank you again, and we look forward to see you at our next Finale Day.



SEISMIC OUTREACH AT WORK Zohair Zulfigar judges the students' structure

# **SURVEYING**

#### **JOSHUA WIDJAJA**

What is surveying? It is the skill of determining the position of points on the land. We use surveying equipment to measure elevations, distances, angles, and any other data a civil engineer would need. With its own section on the PE exam, surveying is important for any civil engineer.

In this project, we learn the basics of surveying and send a team for the surveying competition at PSWC each year. We use professional surveying equipment such as the level, Philadelphia rod, tape measure, plumb bob, reflector rod, and total station to conduct surveys around the UCLA campus during our workdays.

Our competition team placed 2<sup>nd</sup> at PSWC 2018 in Arizona in another great year of competing. The competition consisted of three timed events and a speed set up. In the first event, we measured an extended distance through a meadow using a 100-foot steel tape and chaining methods. In the second event, we found the height of a point on a building using a total station and reflector rod. In the third event, we wound the bearing and distance between 2 points with the total station and reflector rod again. In the speed set-up, we set up the tripod and theodolite over a point as fast and as accurately as we could. Our thorough practices and preparation readied us to come in headstrong and adapt to each event with no difficulties.

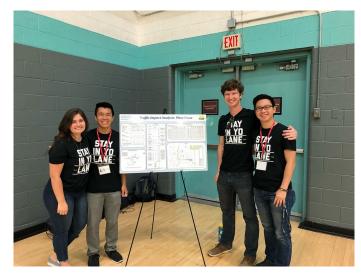
For the 2018-2019 school year, the Project Manager will be Joshua Widjaja and the Project Director will be Catherine Nguyen. We hope to continue teaching skills to other prospective members and look for potential team members to compete at PSWC 2019. Look out for workdays in the fall, where we will teach basic skills in surveying, survey the UCLA campus, and have fun. Hope to see you there!

# ITE-ASCE TRANSPORTATION

#### **BEATRICE MITITELU**

Transportation Design took our Traffic Impact Analysis report and poster board to Arizona to compete at PSWC and won 3rd Place, which is a huge success for being a relatively new project at UCLA! This year we were tasked with designing a retail and restaurant facility on a parcel of land and analyzing the impact it would have on the surrounding area in the coming years. Through many productive work days and many helpful hands we managed to construct a great report, poster, and presentation. Special thanks to everyone who came out and made our win possible, we couldn't have done it without your help.

While a majority of Spring Quarter was spent relaxing on the project front, we'll be back at it again Fall Quarter and hard at work preparing for PSWC 2019. Our leadership for next year includes Co-Project Managers Beatrice Mititelu and Scott Kawakami, as well as directors Anita Sie, Christian Clarion, Derrick Magee, and Walker Dai. We can't wait to get moving once the green light hits for Fall Quarter, so get excited and be on the lookout for our workdays!



**TRANSPORTATION PRESENTS** The Transportation team presenting their poster at PSWC

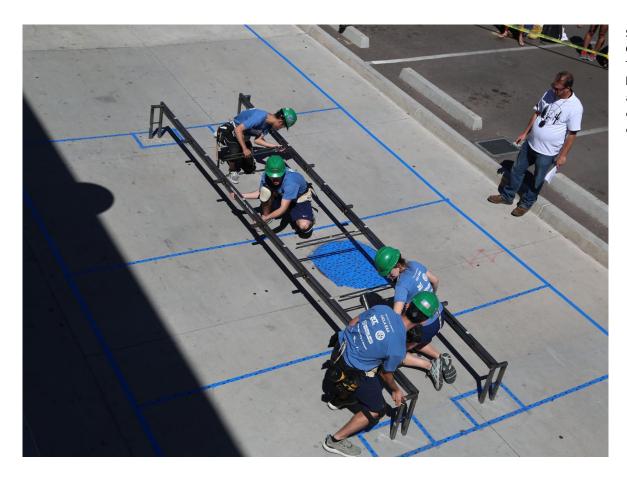
# STEEL BRIDGE

#### **JACOB STANLEY & JOCELINE SUHAIMI**

The grind never stops with Steel Bridge at UCLA. Each year, a new challenge is given to us in the summer to design, fabricate, and construct a bridge that meets specific requirements. The bridge is taken to Pacific Southwest Conference (PSWC), where it is judged on whether or not it meets the dimensional requirements, its weight, our construction speed, and the amount of deflection it undergoes from a distributed load of 2,500 pounds.

Last fall, we began our design process and chose to design an arch bridge. We taught incoming students how to use AutoCAD and SketchUp, and a design marathon was also held to test load cases in SAP2000. We also introduced the machines in the Student Machine Shop to new members using a fabrication project. Fabrication was in full swing in the winter, where we learned how to use CNC machinery for more accurate results. The fabrication process was greatly improved, thanks to the wonderful machine shop staff and our members for putting in so many hours into the project. This year, we achieved a competitive build time of 13 minutes and 52 seconds, the fastest build time that we have ever accomplished in recent years. Although we did not place at PSWC, we learned many lessons along the way.

Next year, project managers Jacob Stanley and Joceline Suhaimi, along with directors Justin Qiu, Pooja Gupta, Claire Killian, and Reion Richard Domingo will lead a team of new and old members through the entire design, fabrication, and construction process once again. This summer, we honed in our design skills with summer projects so that we can be ready for design in the fall.



#### STEEL BRIDGE COMPETITION The team building their arch bridge during the competition

# **EWB-ASCE NAVAJO PROJECT**

#### **RYAN WONG**

The Navajo Water Project is a collaboration between EWB and ASCE at UCLA that is devoted to designing and constructing off-grid pressurized water systems for families on the Navajo reservation who do not have access to the main water and power lines. During Spring quarter, the team focused on preparing for the summer implementation trip. The group finished testing the components of the system and purchasing all necessary tools and materials.

On June 18th, five members traveled to the Navajo reservation to construct a water system for the Tso family. During the implementation trip, the volunteers dug a hole for the 550 gallon water tank, dug a 30 foot trench for the grey water line, installed the input and output pipes, put together a stand for the solar panel, set up the electrical components, and wired up the electric water pump. After a busy four days, the team returned to UCLA on June 22nd. Once the family got the chance to fill the water tank, they confirmed that the system was functioning perfectly and were happy to have a working sink in their home. This year's goal of successfully installing a water system was achieved thanks to the hard work of all the project members, the five volunteers who went on the Summer implementation trip, and all those who donated to the Spark campaign earlier in the year.

Next year, Keely Watland and Vanessa Nguyen will take over as project managers. They will guide the team in developing improvements for the water systems as well as looking into ways of scaling up the installation process to efficiently reach more families.



HARD AT WORK Volunteers assembling the well's outer structure

# **END OF YEAR BANQUET 2018**

#### **ASIA REEVES**

This year, the ASCE End of the Year Banquet was held in the Faculty Center on June 2<sup>nd</sup>! We had around 113 people in attendance, including students, faculty, staff, and industry professionals. Additionally, we had the President of ASCE's Metropolitan Los Angeles Branch and the President of ASCE's Los Angeles Section both in attendance to present us with the Ridgway Award — the first time ASCE at UCLA has ever won the prestigious honor! This award recognizes us as the best chapter both domestically and internationally. Other awards presented included the awards for Professor of the Year to Professor Brandenburg, Lecturer of the Year to Dr. Hudson, and TA of the Year to Yi Tyan Tsai. Additionally, the PM of the



**BBB GIFTS** "BBB" Mentorship family leads receiving a surprise gift of handmade jerseys from their Mentorship families at banquet

year was voted to be Trini Inouye, PD of the year was voted to be Brandon Duong, and PE of the year was voted to



**RIDGWAY AWARD** ASCE Core Officers receiving the esteemed Ridgway award from the President of ASCE's Metropolitan Los Angeles Branch and the President of ASCE's Los Angeles Section

be Catherine Nguyen. The Ryan C. Worley Rising Star Scholarship saw Claire Killian and Soham Gupta as the Sophomore and Freshman winners, respectively. Lastly, the President of ASCE, Allison Woodworth, won the Richard T. Shimano Award.

The event was a lively time as guests dined on their choice of salmon, chicken, or ravioli, as well as crème brulee. Many pictures were taken and, all in all, the event ran very smoothly. Next year be on the lookout for whatever Heather Wong plans for ASCE! I am excited to see what location she decides on and how she will improve upon the past year's banquets!

### ASCE GRADS

#### **CONGRATULATIONS CLASS OF 2018!**





#### **CAYLA WHITESIDE**

ASCE at UCLA has been such a cornerstone of my time here at UCLA. Beginning with my freshman year as Industry Liaison, ASCE has been a source of friends, role models, professional development, project management, and fun for me. I have forged close bonds with so many in this club that I will be hard pressed to forget. This club has truly helped me grow as a person, in so many aspects, and my college career would not have been the same without it. I will miss ASCE at UCLA so much next year!



#### TRINI INOUYE

As a third generation Bruin, I have wanted to come to UCLA for as long as I can remember. When I got off the wait list and was accepted to UCLA, I was self-conscious about my grades and refused to join clubs in order to

focus on my academics. At the end of my sophomore year I became involved in ASCE and realized I should have joined so much sooner. During my time with ASCE, I met people who taught me how to study, get an internship, and be a leader. I am so thankful for the opportunities and friends ASCE has given me. It was by far the best part of my college experience and I can't wait to pay it forward next year by continuing to mentor younger members as a Graduate Advisor.





#### FRANCIS PARAS

Never thought the four years would go by so fast, but I am truly honored to graduate from the best university in the world! I cannot imagine how those years would have been without ASCE.

This organization gave me some of my closest friends, unforgettable experiences, and valuable guidance that I

will hold onto forever. The future of ASCE at UCLA is in good hands, and I am excited what the future holds for the next generation!



#### STEPHAN AHN

I met my closest friends through ASCE, and my favorite memories of UCLA involve ASCE. I love the people in this great organization, and they've made the past 4 years unforgettable. I can't imagine going through college without this club.



#### **ZOHAIR ZULFIQAR**

Only one word is needed to describe what ASCE meant to me during college.

"Family" - Dom Toretto

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