

# ASCE BRUIN

SUMMER/FALL 2017

UC LOS ANGELES

PSWC 2017 15  
EWB-ASCE NAVAJO PROJECT 24  
END OF YEAR BANQUET 2017 26

# CONTACT US

## ASCE BRUIN NEWSLETTER

American Society of Civil Engineers  
UCLA Student Chapter

Box 951593  
Los Angeles, CA 90095

EMAIL: [uclaasce@gmail.com](mailto:uclaasce@gmail.com)

**ALLISON WOODWORTH** President  
**ASIA REEVES** Vice President  
**AMBERLY BARK** Project Executive  
**NATHAN DE ROPP** Treasurer  
**GURJOT KOHLI** Secretary  
**ISAAC CARRERA** Media Director  
**DOUG CHAMBLISS** Historian  
**ALYSSA YIM** Membership Chair  
**FRANCIS PARAS** Mentorship Chair  
**CLAIRE KILLIAN** Speaker Coordinator  
**HEATHER WONG** Career Fair Coordinator  
**LUCAS HAMERA** Networking Night Coordinator  
**MAHSA SHEYKHSOLTAN** Conference Coordinator  
**CAYLA WHITESIDE** Community Service Chair  
**SIDDHANT JAIN** Field Trip Coordinator  
**JORGE BARRIO** Outreach Chair  
**RYAN WONG** Athletics Director  
**LEIGHTON PARADIS** Social Chair  
**CHESTON CHEUNG** ASC 67 PM  
**ALEX LEE** ASC 67 Design Build Leader  
**CLAIRE KILLIAN** ASC 67 Mixed Use Leader  
**AMBERLY BARK** ASC 67 Sustainability Leader  
**RYAN RIZEQ** ASC 67 Sustainability Leader  
**ADA CHANG** Concrete Canoe PM  
**YASH KANSAL** Concrete Canoe APM  
**ADAM WONG** Concrete Sports PM  
**EMMA SUCHARD** Environmental Design PM  
**THIEN PHAN** Environmental Design PM  
**TRINI INOUYE** GeoWall PM  
**BRYAN HONG** Seismic Design PM  
**KASEY MURAKAMI** Seismic Design APM  
**ZOHAIR ZULFIQAR** Seismic Outreach PM  
**CECILIA VONG** Steel Bridge PM  
**NANSHAN LI** Steel Bridge PM  
**GLYNN BACA** Surveying PM  
**JAMES SALEM** EWB-ASCE Navajo Project PM  
**RYAN WONG** EWB-ASCE Navajo Project PM  
**SUNGWOO JO** ITE-ASCE Transportation Project PM  
**TRINI INOUYE** CalGeo Liaison  
**ZOHAIR SULFIQAR** Chi Epsilon Liaison  
**YASH KANSAL** ITE Liaison  
**ERIC ROBERTS** EERI/SEAOC Liaison  
**HO-SHING CHAU** Graduate Advisor  
**DR. JIAN ZHANG** Faculty Advisor  
**BENJAMIN BAKER** Practitioner Advisor  
**DR. WILLIAM GOODIN** Practitioner Advisor

# WE'RE SOCIAL!



asceucla



@asce\_bruins



@asce\_bruins



ascebruins.org





<b>A LETTER FROM THE PRESIDENT</b>	<b>03</b>
Allison Woodworth	
<b>MEMBERSHIP</b>	<b>06</b>
Johnny Schmidt	
<b>INFO SESSIONS &amp; WORKSHOPS</b>	<b>07</b>
Damian Gutierrez	
<b>FIELD TRIPS</b>	<b>07</b>
Kasey Murakami	
<b>COMMUNITY SERVICE</b>	<b>09</b>
Leighton Paradis	
<b>OUTREACH</b>	<b>09</b>
Jorge Barrio	
<b>ATHLETICS</b>	<b>10</b>
Bryan Hong	
<b>SOCIAL</b>	<b>12</b>
Maxwell Armenta	
<b>MENTORSHIP</b>	<b>13</b>
Ryan Worley	
<b>PSWC 2017</b>	<b>15</b>
Mahsa Sheyksoltan	
<b>CONCRETE CANOE</b>	<b>17</b>
Nate de Ropp	
<b>CONCRETE SPORTS</b>	<b>18</b>
Francis Paras	
<b>ENVIRONMENTAL DESIGN</b>	<b>18</b>
Joseph Wildman	
<b>GEOWALL</b>	<b>19</b>
Arielle Sanghvi	
<b>SEISMIC OUTREACH</b>	<b>19</b>
Alyson Kim	
<b>ASC67</b>	<b>20</b>
Ho-Shing Chau	
<b>SURVEYING</b>	<b>21</b>
Cecilia Vong	
<b>ITE-ASCE TRANSPORTATION</b>	<b>21</b>
Michael Weyant	
<b>STEEL BRIDGE</b>	<b>23</b>
Kyle Evans	
<b>EWB-ASCE NAVAJO PROJECT</b>	<b>24</b>
Maxwell Armenta	
<b>END OF YEAR BANQUET 2017</b>	<b>26</b>
Cayla Whiteside	
<b>ASCE GRADS &amp; SUMMER ACTIVITIES</b>	<b>27</b>
Isaac Carrera	



# *A Letter* **FROM THE PRESIDENT**

Dear Alumni, Faculty, Students, and Sponsors,

I take great pleasure in being able to present our Summer/Fall 2017 Edition of ASCE Bruin to you. We just wrapped up another historic year for our student chapter, receiving both regional and national recognition for our projects and chapter.

As mentioned in the Spring Edition, our student chapter was recognized as the Outstanding Chapter of the Year in the ASCE LA Section. On top of this, our chapter was named the ASCE Region 9 Distinguished Student Chapter for the second year in a row. This award recognizes the most outstanding student chapter in each ASCE Region. UCLA was also recognized as a finalist for the Richard J. Scranton Outstanding Community Service Award, which identifies the student chapter that demonstrates the most outstanding record of service for the previous calendar year. We are very proud of these accomplishments, as it shows the level of excellence our chapter continually strives for.

*“Our projects had incredible success this year, and it is definitely a year that our project leaders will look to build upon during the upcoming year.”*

At the Pacific Southwest Regional Conference (PSWC) held in Irvine, California in early April, we placed 2nd out of 18 schools, which is a testament to the hard work of our project managers, directors, and members. Our Surveying team placed first at PSWC, with Concrete Canoe finishing second. On the topic of national appearances, our GeoWall team participated at the National Geo-Congress in Orlando, Florida and our Seismic Design team attended EERI Nationals in Portland, Oregon. Our projects had incredible success this year, and it is definitely a year that our project leaders will look to build upon during the upcoming year.

Along with these top finishes, we experienced fantastic growth as an organization. We had a 24-percent membership increase this year, and many of our members became more heavily involved. Our Seismic Outreach program has grown tremendously, hosting 3 different school outreach programs this year. We hosted a handful of academic workshops to improve our members' technical skills, such as an AutoCAD Workshop and a 2-part SAP2000 Workshop led by John A. Martin. We celebrated the close of spring quarter with the End of the Year Banquet in Carnesale Commons and an end of the year beach day and bonfire at Dockweiler State Beach.

This past spring, an extremely passionate, dedicated, and inspiring group of seniors graduated from our school and organization. They did so much for our club over the past four years and have helped to shape what it is today. We will miss having them around, but will take their advice and guidance with us as we continue to improve as an organization. With their departure, we welcome in our new Officer Board consisting of 4 Core Positions, 14 General Officer Board Positions, 20 Project Leaders, 35 Project Directors, 4 Liaisons, and 4 Advisors. I have the utmost faith in their ability to carry on the excellence of the organization.

Thank you to our alumni and advisors, the UCLA Civil and Environmental Engineering Department, and our corporate sponsors for their constant support and assistance; without them, it would not be possible to accomplish all that we have and all that we hope to in the future.

I could not be more excited for the upcoming year. We are proud of all that we did this past year; the progress that we have made is just a stepping stone towards what we hope and plan to accomplish going forward. If you ever have any questions about anything regarding ASCE at UCLA, or wish to get more involved, please do not hesitate to reach out to me or any of our officers. Feel free to contact me directly at [allisonwoodworth1@gmail.com](mailto:allisonwoodworth1@gmail.com).

Sincerely,



**Allison Woodworth**, President  
ASCE at UCLA 2017-2018



**END OF THE YEAR BANQUET** Our new CORE officers posing for one of their first pictures together at the annual banquet



# ASCE AT UCLA 2016-2017

# MEMBERSHIP

JOHNNY SCHMIDT

ASCE at UCLA was able to finish the year off strong, with a total of 300 paying members signed up by the end of the year. This was a massive increase from last year's 240 paying members, which just goes to show how more and more people have been interested in being a part of our organization. Although we had less events during spring quarter, we were still able to get good turnouts at the various workshops, and we were able to get a substantial amount of our membership base to vote in the officer elections, which shows that many of our members are committed to the future of the organization.

During the 2017-18 school year, our new membership chair, Alyssa Yim, will be bringing her friendliness and an endless supply of puns and great ideas to continue the development of the members of this club. This year, we hope to focus even more not just on member recruitment, but also on developing the members' friendships with each other, especially among those who are just joining the club.

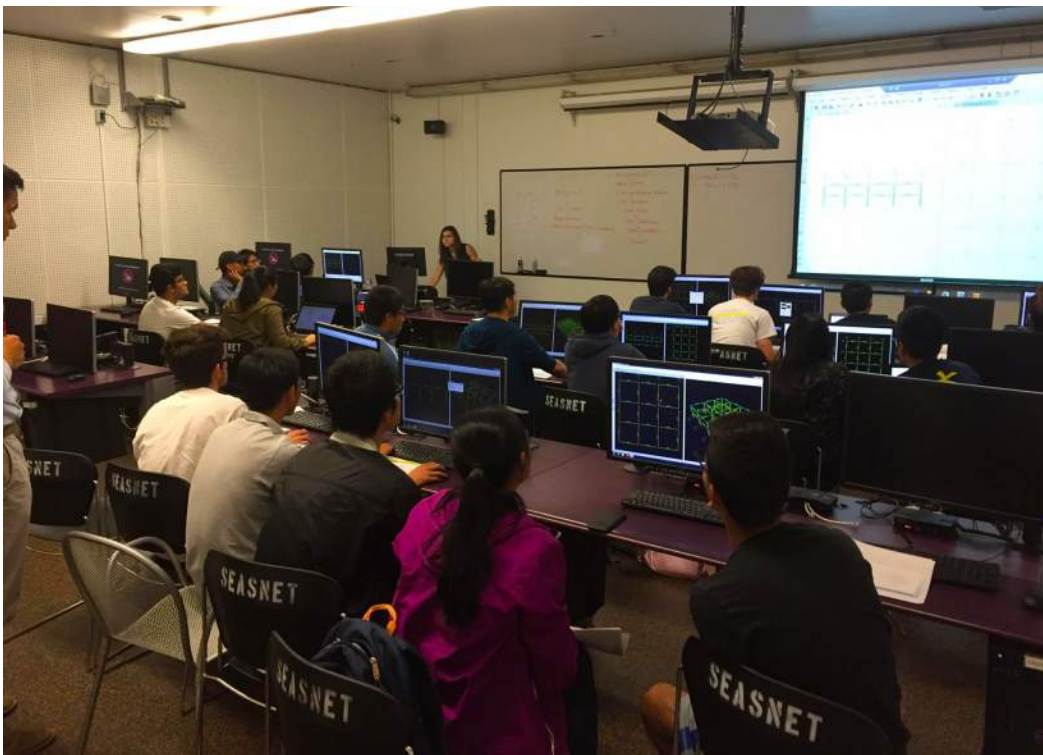


**PSWC AWARDS CEREMONY** Over 100 of our members celebrating their strong finishes at the awards ceremony for conference, held at UC Irvine this year

# INFO SESSIONS

**DAMIAN GUTIERREZ**

The 2016-2017 school year was a huge success as we increased overall turnout at info sessions. Students attending info sessions ranged from freshman to graduate students seeking to network with company representatives. The companies attending covered a wide variety of civil engineering disciplines including construction, general civil, water resources, environmental engineering, and structural engineering. Some of the companies included Pankow, Kennedy/Jenks, KPFF and Accenture, to name a few. Additionally, W.E. O'neil hosted various team-building workshops educating students on how to be an effective leader and team member. Claire Killian, the incoming Speaker Coordinator, is excited to build on last years success as we look forward to increase our quality relationships with companies.



## **SAP2000 WORKSHOP**

Members at the structural analysis software workshop hosted by engineering firm John A. Martin

# FIELD TRIPS

**KASEY MURAKAMI**

This year, ASCE went on many site tours and learned about many industries through field trips. We went on a total of 8 field trips to companies of various fields, including construction, structural, environmental and geotechnical. Some of the companies that hosted field trips include John A. Martin & Associates, Pankow, LADWP, and PCL. At each field trip, members would be briefed on the type of work the company did and were given background information about the projects. We would then embark on a site tour.

ASCE also went on an overnight field trip to the Hoover Dam this year. During the Memorial Day weekend, 14 members traveled to Nevada and went on the Hoover Dam Powerplant Tour. Members were able to walk around the visitor center and learn about the history of one of the largest feats of civil engineering. Next year, we hope to continue providing the opportunity to visit many projects while also connecting with various companies. With the guidance of Siddhant Jain the incoming Field Trip Coordinator, we hope to do another overnight trip.

**HOOVER DAM FIELD TRIP**  
Student members visiting the Hoover Dam during Memorial Day weekend



**LADWP FIELD TRIP**  
Members taking a tour of the Headworks Reservoir to learn about the project



# COMMUNITY SERVICE

## LEIGHTON PARADIS

During the spring quarter, ASCE served the local community by participating in two engineering showcases for children. The first event at Warner Avenue School's Science Slam featured two civil engineering demonstrations. For environmental engineering, ASCE member Joe Wildman led an oil spill cleanup activity, while another group used a shake table to demonstrate the geotechnical engineering concept of liquefaction. For Engineering Week, ASCE participated in an ESUC hosted Engineering Day at Pauley Pavilion. Hundreds of elementary school students came out to view and learn about different engineering concepts. Also for the first time ever, Seismic Outreach also had its third finale day of the year. This awesome event where students learned structural engineering concepts was held at Lincoln Middle School. Thanks to everyone who came out to each event this year and a special shout out to Cayla Whiteside, the incoming Community Service Chair. Cayla will raise the service bar next year with revolutionary events focusing on sustainability.

# OUTREACH

## JORGE BARRIO

Outreach enjoyed another successful quarter with a couple great events for the students and faculty. The C&EE Undergraduate Town Hall event allowed students to voice ideas about how to improve the civil engineering curriculum. The student turnout was great, and several professors from the C&EE department were present to listen to and discuss the student concerns. Another great event held near the end of the quarter was the student-professor BBQ. Many graduate and undergraduate student members attended the Hawaiian themed event held at Professor Stewart's home. Different icebreakers and games provided a great opportunity for students to interact with professors and other students. As Outreach Chair for the incoming school year, I plan in continuing to provide many opportunities for students and professors.



### STUDENT PROFESSOR BBQ

Professor Stewart posing for a picture with students at the lively event

# ATHLETICS

## BRYAN HONG

ASCE Athletics had a busy spring quarter. We participated in three IM sports: co-ed softball (One Hit Engineers), open ultimate frisbee (Game of Throws), and co-ed beach volleyball (How I Set Your Mother). Right off the bat, we realized softball was not an ASCE sport. We ended up losing every game, but we accomplished our goal of scoring 2 runs at our final game. On the other hand, we went into the playoffs for beach volleyball and ultimate frisbee undefeated. As a 4th seed in volleyball, we were unable to make it past round of 16 after a close game. However, as a 4th seed in ultimate frisbee, we won our first two games against the 13th seed (10-3) and the 5th seed (17 -1). For Semi Finals, we faced the 1st seed team. We were not phased and we focused on taking it one point at a time. As a result, we took the game with 10 – 6 and headed to the final. We faced Pi Kapp in the final. Even though they had several club players, we were determined to win our first ultimate frisbee IMs regardless of their athleticism and talent. As a result, we dominated the entire game and beat them 8 – 3, winning us our second ever IM league championship. Heroes get remembered, but legends never die.

During Engineering Week, ASCE hosted our 2nd Annual Engineering Clubs Ultimate Frisbee Tournament. About 60 engineering students and 6 clubs participated in the tournament and the event was a huge success. In the end, AICHE took the first-place trophy and ASCE got third.

This upcoming year, Ryan Wong will be our new Athletics Director. Something to look forward to this year be the first ever fantasy sports league. Ryan Wong will continue expanding the position and hosting fun events for all members.



**ASCE ULTIMATE FRISBEE TEAM** The ultimate frisbee team members pose for a picture after a dominating performance for the championship



### PSWC VOLLEYBALL

A student member goes for a spike during a competitive volleyball game at Newport Dunes



**SAN FRANCISCO TUNNELING FIELD TRIP** ASCE at UCLA members learning about the subway system in San Francisco



**MOONLIGHT ROLLERSKATING SOCIAL** Several members posing during the social at Moonlight Rollerway

# SOCIAL

## MAXWELL AREMENTA

Spring Quarter saw a mix of traditional and new social events. The first event of the quarter was a trip to Moonlight Rollerway. Every grade was represented at the social event (from 1st year to 5th year, and even an alumnus!), however the turnout was rather low. Regardless, everyone had a lot of fun.

Other fun events in the quarter included ASCE's March for Science and the End of the Year Bonfire. Other officer positions – such as mentorship chair, athletics chair, and field trip coordinator – hosted social events as well. This allowed members to have a wide variety of social events throughout the quarter.

ASCE's March for Science was an officer-organized effort to gather ASCE at UCLA members for the Los Angeles March for Science event. ASCE Officers organized groups which departed from UCLA and took public transportation to downtown Los Angeles for the event. This was a great low-budget event for a good cause.

The End of the Year Bonfire was held the day after the End of the Year Banquet. The athletics chair helped host a Beach Day in conjunction with this event – extending the fun. Volleyball and Kan Jam were played during the day. Hot dogs and s'mores were made by student members, and yet another seismic structure was burned. It was well-attended, and a wonderful way to relax before finals.

This quarter also had two collaborative socials with other schools and clubs. USC ASCE and UCLA-AIAA both co-hosted social events with ASCE at UCLA, allowing our members to network with civil engineers from another university, and to meet mechanical engineers at UCLA.

The quarter ended strong with another study marathon – the second one of the year – potentially establishing a new ASCE at UCLA tradition. This event was hosted by Leighton Paradis, the 2017-18 Social Chair. As a previous member of the Party Planning Committee (PPC), Leighton is well prepared to uphold the prestige of the social chair position. Members can rest well knowing that Leighton will be around to provide another year of exciting new socials and to maintain our many ASCE at UCLA traditions.



**END OF THE YEAR BONFIRE**  
Members roasting hot dogs at the annual event

# MENTORSHIP

RYAN WORLEY

Mentorship continued its program this past quarter with a variety of different socials and collaborations involving the family system. For those of you confused about what the ASCE family system is, please see below:

**A Lineage system (individual mentors):** Everyone who signs up will be eligible to be part of mentorship lineage. Each lineage will be made up of 4-6 students and will include 1st, 2nd, 3rd, and 4th year students. This is done to bring students of different ages together so that more experienced students can advise younger ones!

**Families:** Several mentorship lineages will be grouped together to form an ASCE family! You can think of your ASCE family as your team. Families will hold dinners and social events, and will be run by "Family Leaders." Families will also compete together in mentorship events, which are mentioned below.

**Mentorship Events:** ASCE will hold various mentorship and family events throughout each quarter! These will come in the form of competitions and socials, made for the sole purpose of bringing families and individuals closer together. Prizes will be given to the winners of these competitions! :) All families and members are allowed to participate in these events, making them inclusive to everyone in ASCE.

If you haven't already, please sign up for the ASCE Mentorship Family by contacting Francis Paras. The ASCE family is one of a kind, and has made a big school like UCLA, feel a heck of a lot smaller. Sign up with ASCE Mentorship, and I guarantee you will have a plethora of fun! This spring, we had an ASCE hike to the top of skull rock. We also hosted a clothing drive to clean out our closets and give back to the less fortunate. We look forward to having another excellent quarter for the ASCE at UCLA mentorship program. See you all around!

"This spring, we had an ASCE hike to the top of skull rock. We also hosted a clothing drive to clean out our closets and give back to the less fortunate."



## ASCE TAKES A HIKE

Several members attended the hike at Temescal Canyon park



**ASCE 2017 GRADUATING CLASS** Members from the 2017 graduating class posing for a fabulous picture



**HOOVER DAM FIELD TRIP** Members posing for a picture at a colorful landmark before reaching the Hoover Dam

# Pacific Southwest Conference 2017

MAHSA SHEYKHSOLTAN



## PSWC VOLLEYBALL TEAM

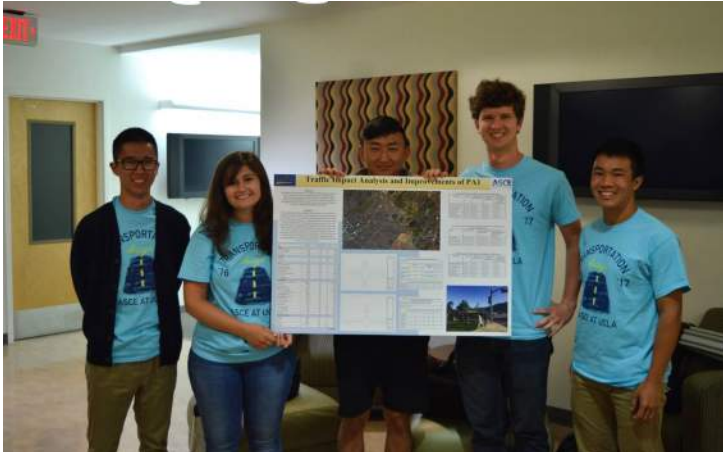
Members cheering on the volleyball team after one of their many impressive wins

This past spring quarter, 94 ASCE at UCLA students attended the Pacific Southwest Regional Conference (PSWC) at the University of California, Irvine. Throughout the course of three days, 8 of our projects competed in their respective events. We also participated in sports and the various events put on by UCI. Both older and newer members alike were able to compete together and exhibit the results of a year of hard work put into projects.

On Thursday, the schools all arrived in Irvine and set up their canoes and bridges to be scored by the judges. Environmental Design and the new Design Build team also competed on Thursday, and schools presented their technical papers. Concrete Canoe project managers gave their presentations on this day, and at night, everyone went out to dinner in smaller groups. Friday was canoe race day at Newport Dunes. We all came together to cheer on the canoe paddlers and participate in various sporting events on the beach. For dinner, we went out to a group Italian dinner and ate lots of pasta. On Saturday, Steel Bridge, GeoWall, Surveying, Transportation, and Concrete Frisbee all competed. From watching Surveying travel through the peaceful Aldrich Park to cheering on Frisbee throwers dressed as fruit, our large ASCE team was able to travel around the UCI campus and support all of the competing projects. That night, we attended a very enjoyable banquet before leaving for UCLA the next morning.

Overall, UCLA had a strong second place finish with many projects placing in the top 5. Surveying won first place, Concrete Canoe came in second, and Concrete Sports, GeoWall, and Steel Bridge all placed fourth. With the help of our hardworking and enthusiastic members, we also did well in many sporting events, including Kan Jam and Mystery Event. Senior Maxwell Armenta, who wrote this year's technical paper, won first place for UCLA. All members who attended PSWC had a fun and memorable weekend.

Next year, PSWC will take place in Arizona at the ASU campus and will be co-hosted by Northern Arizona University and Arizona State University. It will be April 12-14th, the second weekend of spring quarter. As next year's Conference Coordinator, I am extremely excited for our team to travel to Arizona for another incredible conference. Our chapter is looking forward to another year of projects and events, and we only hope to continue to learn and improve.



# CONCRETE CANOE

NATHAN DE ROPP

Just like every previous Spring Quarter, this one was again the most exciting period of the year for UCLA Concrete Canoe, mainly because of Pacific Southwest Conference (PSWC) at UC Irvine during Week 1. At this regional ASCE conference, which hosts a variety of competitions related to civil engineering, the UCLA Concrete Canoe team competes at the regional level. The Concrete Canoe regional competition, much like the national competition, involves four individual categories: Design Report, Oral Presentation, Final Product, and Races. Over the course of the competition, the team performed well, taking 1st in Design Report, 2nd in Oral Presentation, 4th in Final Product, and 5th in Races. Hence, UCLA Concrete Canoe maintained the strong performances in previous years by placing 2nd overall in the regional competition, led only by California Polytechnic University, San Luis Obispo in 1st place.

The Concrete Canoe Competition's four equally-weighted categories contribute towards the final score, which determines the overall standing. The first day of the competition began at 5:00am, when several team members arrived at UC Irvine by truck with the canoe and final product display in tow. Afterwards, team members who had arrived the night before unloaded and placed the Alice in Wonderland-themed canoe on its in-theme mushroom stands, before also setting up the in-theme tea party display table and representative canoe cutaway section to be evaluated by the competition's judges. Thus commenced the Product Display day, during which the team had the opportunity to walk around all morning to look at the other canoes and gather information about interesting innovations to be explored in the future. Later in the day, the team also had the opportunity to watch and learn from the Oral Presentations of other teams, as well as the UCLA Concrete Canoe team's very own oral presentation. For this presentation, most of UCLA's 90+ conference attendees cheered on from the audience as our very own project managers fearlessly and expertly delivered their presentation.

On the second day, everyone drove to Newport Dunes for arguably the most exciting day, Race Day. There are five different races that take place throughout the day: women's endurance, men's endurance, women's sprints, men's sprints, and co-ed sprints. UCLA competed well in all the races. After this long, fun-filled day by the beach, all of UCLA's conference attendees indulged in a hearty meal together.

Although the final day of the conference didn't involve any events related to Concrete Canoe, the team enjoyed supporting other projects and looked forward to the Awards Banquet to take place that night at the Anaheim Marriott Hotel. During the

announcement and distribution of awards, incorrect results were unfortunately conveyed to the audience; UCLA was not presented as top 3 finishers for the categories of Design Report, Oral Presentation, and Final Product. However, the overall concrete canoe results were announced correctly: UCLA finished in 2nd place. Ultimately, the team was proud of its achievements and celebrated the victories with fellow UCLA conference attendees.

Following this remarkable performance at the conference, next year's leadership has already begun preparations for next year. The new leadership consists of project managers Ada Chang and Yash Kansal, along with directors Carlo Dela Rosa, Colin Burrowes, David Thi, Elena Sviatoslavsky, Johnny Schmidt, Joshua Widjaja, Lizzy Robinet, Mahsa Sheykholtan, and Siddhant Jain. 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!



**RACE DAY AT PSWC** Members rowing to the start of the canoe race

# CONCRETE SPORTS

FRANCIS PARAS

Spring 2017 was a great, eventful quarter for the great folks here on the Concrete Sports team! Our crew worked hard all year to make the best Concrete Frisbee possible, and we finally got our chance to compete with it at PSWC 2017! During the week leading up to the competition, our throwing team had some final practices to fine tune their techniques. While that was going on, our aesthetics team was hard at work to make sure our Concrete Frisbee was beautiful and our costumes were ready for competition. We had a very fun theme this year, Fruit Ninja! To fit the theme, we painted our Frisbee to resemble a kiwi slice and we fitted our team in various fruit costumes, such as a watermelon and a banana! Finally, I dressed as the ninja!

At competition, our team performed very well, with Suraj Patel and William Tyler Penn performing exceptionally well in the distance and accuracy competitions. We also had one of the lightest Frisbees at competition, all of which culminated in a 4th Place finish at this year at PSWC 2017, an improvement over 2016's 5th Place finish. In order to celebrate a successful year, we decided to throw a Pie Eating Social for our ASCE buddies to come out and enjoy some slices of pie. (Fun Fact: We chose to serve pies as homage to the mold materials we used throughout the year, which were pie tins.) It has been an absolute pleasure to lead the Concrete Sports project and put my name alongside the greats that also led ASCE's most historic and prestigious project. That being said, I am extremely excited to announce that 2017-2018 Concrete Sports will be led by Project Manager Adam Wong with Project Directors Jason Headington and William Tyler Penn. I have worked with these guys all year, so I am very confident that they will do an excellent job. The future of Concrete Sports is good hands; expect more rigorous testing and prototyping, along with all the fun and excitement that is always associated with Concrete Sports. This year was a step in the right direction, and next year the project has nowhere to go but up! See you all at PSWC 2018 in Arizona!

# ENVIRONMENTAL DESIGN

JOSEPH WILDMAN



The Environmental Design Project is dedicated to learning how to design water and wastewater treatment systems. During the fall quarter, we set out to educate and prepare our new members with the fundamentals and technologies of the subject. Twice a week through our educational workshops, which include presentations and hands-on experiments, our members prime themselves with the knowledge and experience necessary to excel in the competition at the Pacific Southwest Conference, as well as giving themselves a head start for upper division classes later on in their curricula. Outside of these workshops, we also go on many field trips to local treatment plants where our members can see the real-world applications of what we have learned. For the coming school year, we hope to provide a wholesome and educational environment where our members can learn and create meaningful connections. The incoming leadership comprises of: Thien Phan as Project Manager, Emma Suchard as Assistant Project Manager, and Esther Woo, Jordan Coe, and Pauline Nguyen as Project Directors.

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

# GEOWALL

ARIELLE SANGHVI

GeoWall is a competitive project in which students design and build a mechanically stabilized earth retaining wall out of kraft paper, and 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.

In April, the team travelled to Irvine, California to compete at the Pacific Southwest Conference (PSWC) hosted by University of California, Irvine. It was a great opportunity to meet students from other teams and see all of the different designs they came up with. The competition tested the team's ability to work together and adapt to unexpected conditions under the pressure of a timed competition. GeoWall ended up in 6th place and helped UCLA win 2nd place overall.

With PSWC marking the end of the competition season, the remainder of the academic year was spent transitioning the 2017-2018 project leadership. Project Manager Trini Inouye will be working alongside Project Directors Becky Zhen, Caileen Yu, Rachel Lien, Tristan Whisenant, and Wyatt Iwanaga.

Over the summer, the team began preparations for next year while waiting for the competition rules to be released. Each year brings new rules and new challenges and this team will be ready to take them on.



**GEOWALL COMPETITION** Members quickly building the retaining wall for the sandbox

# SEISMIC OUTREACH

ALYSON KIM

This spring quarter, Seismic Outreach partnered with Lincoln Middle School, in Santa Monica, to complete our year with a record number of 955 students serviced. This was our first year participating in three programs in one academic year and was an overall success!

The school visits throughout the quarter were a nice change in commute from working with our winter program partners in Woodland Hills. Our students created strong structures and proved to us how smart and willing young minds can be. This quarter, more students used a variety of bracing within their structures and produced the lowest Cost-to-Area of the year!

This year the Finale Day venue changed locations from UCLA to the partnering middle school. We put our portable shake table to the test and transported it with us to Santa Monica. Along with our shake table, we brought twenty-five UCLA volunteers to spend their Friday afternoons judging and shaking their structures. We are so thankful for our volunteers, who constantly allow our passion to teach and encourage young students come to fruition. We hope to see more of you undergrads and graduate students this year to join us in this rewarding and exciting project!

Of course, this would not be possible without our incredible sponsors Walter P. Moore, Structural Engineers Association of Southern California (SEAOSC), Hope-Amundson, SSD Consultants, and the CAC Grant from UCLA. Thank you for your support in enriching engineering education!

# ASC 67

## HO-SHING CHAU

Following the ASC Regions 6&7 Competition, eight UCLA students competed in the PSWC Design Build competition. The competition was a new addition to the long list of conference activities, and for its first run, it did a great job of covering many key aspects of design build, including design, report, presentations, and physical construction. The given construction project was a strip of sidewalk on the UC Irvine campus, and at the end, students from all the participating schools had the opportunity to build it.

We started preparing for the competition in February by learning how to perform cost estimations in Microsoft Excel and how to design a sidewalk in AutoCAD Civil 3D. Knowing these skills were crucial to completing the preliminary design and report, which were due before the competition in early April. Then, in just a month, we worked tirelessly to create a suitable design for the UC Irvine campus and a report that detailed the schedule, cost, and information about our team. After receiving feedback, making many more changes, and finally submitting our work, we woke up by 6 AM on Thursday, April 6th to build the sidewalk! With our PPEs, trowels, and floats, four members from our team took turns pouring concrete and shaping the sidewalk. Once we completed our section of the sidewalk, our entire team presented to a panel of judges.

Overall, our school team placed seventh out of 15 teams. Given that none of us had prior experience in building a sidewalk, the competition was a fun learning experience for all of us. Now that we have many experienced students in construction management, we look forward to being stronger contenders for next year's competitions.



**CONSTRUCTION COMPETITION** Members paving the concrete sidewalk during the competition



## SEISMIC OUTREACH FINALE

Two student members judge the students' structure at Lincoln Middle School

# SURVEYING

**CECILIA VONG**

This past year, as surveying had workdays in both North and South Campus, wild surveyors appeared! With the help of the total station, we quickly located their coordinates and brought them onto our conference team. We spent the whole winter quarter training to become kings and queens of the total station, taping, and calculations. Our goal was to not only gain a better understanding of surveying and be able to adapt to various weather conditions, but to also level up and become the RULERS of conference!

How did we accomplish this? We got walkie talkies! These walkie talkies had a 23-mile range over the open waters, 6 mile range in mountains and valleys, and a 1-mile range in the neighborhoods. This was highly beneficial to us at conference, especially when we had to tape a distance of 50 feet over varying terrains. In addition to the walkie talkies, we also followed a strict training regimen. This included long hikes to North Campus to practice versatility, an after-hours work session in the lobby of the hotel the night before competition, and of course, our first and last dessert run before parting ways to get rest.

With all this preparation, we nailed it at conference and finished first out of 18 schools. To prepare for future years, we created a new YouTube video on our updated method of taping called, Taping: A Guide by UCLA Surveying. Next year, two of our outstanding conference team members will lead this project. Stay tuned for another exciting year as Project Manager Glynn Baca and Project Director Joshua Widjaja pass on their surveying knowledge to you! #GetOnOurLevel

# ITE-ASCE TRANSPORTATION

**MICHAEL WEYANT**

As California continues to grow, the importance of growing, improving, and maintaining our transportation network will be vital to ensure that congestion issues do not worsen. The ASCE-ITE Transportation Project is a practical, hands-on opportunity for students to collaborate on an engaging, real-world problem.

This year, our project was tasked with designing a new intersection in the City of Irvine that would connect a new housing development to Portola Parkway, one of the main residential arterial roads in the community. As a team, we were tasked with performing a traffic analysis of the area, which included identifying the current traffic conditions of Portola Parkway and the surrounding area, predicting the conditions when the development and intersection will be completed, providing a cost estimate of the intersection and improvements, and producing a collision report to reflect on the safety of the community. Ultimately, we were also expected to design what we believed would be an adequate intersection for the new neighborhood that would meet design standards for the City of Irvine. All these considerations culminated in a report that we sent to the judges about a month before PSWC.

At PSWC, we had the opportunity to present our design, which we believed went very well. Besides our own presentation, we were very impressed and felt that we learned a lot from the other schools that competed at PSWC too. We paid close attention in particular to Cal Poly SLO and Cal Poly Pomona (who finished 1st and 2nd, respectively in our competition) for how they presented, the software tools they used, and other fine details they used in their final product. Despite the fact that this was the first year we had a steady project, we went from merely participating in the competition the past two years to actually finishing 7th this year! We hope to make further strides next year and learn from some really silly mistakes we discovered after debriefing the project so that we can possibly crack the top 5 next year!

After PSWC, we transitioned our new leadership for next year and we expect nothing but the best from our returning project manager, Sungwoo "Chip" Jo, and our new project directors, Beatrice Mititelu and Scott Kawakami. During this past spring, we also had a social where Sungwoo made some delicious tacos for all of us. We are a young project, but I, Michael Weyant, have full faith that our new leadership is more than capable of helping us reach new heights next year with whatever The City of Phoenix (location of Arizona State University) has to throw at us!



### **SURVEYING COMPETITION**

Members working on the three surveying tasks during the competition

**TRANSPORTATION PRESENTATION**  
Project managers presenting their poster to the judges and other students in attendance



### **PSWC BUCKETBALL**

Members in the middle of an intense game of bucketball at Newport Dunes

# STEEL BRIDGE

KYLE EVANS

The Steel Bridge project begins late summer when our guidelines and rules are released, which each team is waiting anxiously for in order to get started. Urgency is a necessity because this is a big project with plenty to plan for. The basic idea is to construct a 20 foot model steel bridge that is designed to be quick to put together, lightweight, and sturdy enough to hold a roughly 2500 lb load with minimal deflections. Fall quarter is the design phase followed by fabrication during winter quarter. Finally we pack in as much build practice as possible before the PSWC competition.

This year we had a repeat of fourth place at PSWC with plenty of lessons learned. This year was unique because the guidelines brought back the choice to build a cantilever bridge, which many teams (including ours) decided to use. Considering this was a drastic new design, and the team was considerably young, I mark fourth place as an achievement and a great jumping off point for next year. We have already made contact with a few alumni who help us each year to get started on strategies for approaching next year's competition.

Our big events for spring were the Steel Bridge taco social and the AutoCAD workshop. The name for this social came from one of the connections on the bridge which looks like a taco shell and was a hallmark design feature. The social of course included plenty of taco consumption. Knowledge of AutoCAD is essential to being part of the steel bridge team as it is one of our main design software, and it is a great skill for any aspiring engineer to have. In the fall we covered the basics and our spring workshop included higher level tools and design skills. For the summer we continued AutoCAD work to keep the design team's skills fresh for when the project guidelines come in August.

Next Year's project will be lead by Nanshan Li and Cecilia Vuong with Josh Fidelis as assistant project manager. They have been with the project almost as long as I have and were involved in every step of the way with the design process. I have an abundance of faith that they will be able to improve upon what we accomplished this

year. I'll also be around for back up as well, not that they'll need it.



## STEEL BRIDGE COMPETITION

The team building their cantilever bridge during the competition

# EWB-ASCE NAVAJO PROJECT

## MAXWELL ARMENTA

The Navajo Water Project (NWP) started at the beginning of the 2016-17 academic year with a goal to implement a potable water system for a family on the Navajo Nation. This was originally envisioned as a system consisting of a tank, an electrical pump, potable piping, a solar panel, and batteries ("Phase 1"). The project quickly expanded in scope to include a drainage line, an extra sink, and a shower – complete with an in-line propane water heater ("Phase 2"). The goal for this year was to install 1 system for a family living off-grid.

The NWP Team spent Fall Quarter researching the climate and weather of the Navajo Nation. In Winter Quarter, the team began designing Phase 1 of the project, and during Spring Quarter the team worked hard to complete the design for Phase 2. During Spring Quarter, a fundraising team worked hard to secure partnerships with Coco's and Chipotle in Westwood, bringing in over \$200 in cash for the project. The team used these funds to assist with reimbursing the gas costs to travel to the Navajo Nation, and to purchase materials. The majority of the materials were purchased through Home Depot and delivered to Flagstaff for pick-up. Once the designs were complete and the materials were purchased, the team was ready to travel to construct the system.

The summer service trip consisted of 13 people, 2 groups, 4 days of travel, and 6 days of labor in record-breaking heat, literally. Hydration was key for the group. Breakfasts and lunches were prepared independently, and dinners were hosted by the family.

The team successfully installed the drainage line and got all the materials to the family's home—an hour's drive from the nearest paved road—successfully. The drainage line was 1.5" PVC at a slope of 0.02ft/ft. Utilizing Manning's equation with a roughness coefficient of 0.010 (PVC), the team calculated that this line could hold about 8 GPM of flow with a velocity exceeding 1 fps. When tested in the field, a length of 130-feet took – on-average – 2-minutes to drain, validating the team's calculations.

The team ran into some complications during the trip. One main complication was that the family/NGO had not been able to raise and recover their projected funds for full-sized batteries. Therefore, our team had to change plans and obtain smaller batteries that could only supply power to the pump.

In the end, the team was able to trench and install the drainage pipe, connect the batteries to the family's existing solar panels & bury the conduit, install all the plumbing using SharkBite PEX piping, bury the tank, and test the pump. The pressurized water system worked successfully, however there was a hairline crack in the pump which hindered it from self-priming properly and pressurizing the system to 60 psi. A new pump was sent to the family upon the team's return to California.

All-in-all, the family was very grateful, our team learned a lot, and our partnership with the NGO was strengthened. This project would not have been possible without the hard work from our dedicated members, our alumni and faculty mentors, and the generous funding from the UCLA Engineering Alumni Association and Alumnus Wayne Shen.

Next year, project leaders Ryan Wong and James Salem will stay on to lead the 2017-18 team. The goal is to continue to provide technical support for the project we implemented this year, and to expand the system to even more families on the reservation.



# END OF YEAR BANQUET 2017

## CAYLA WHITESIDE

To celebrate the culmination of a stellar year, ASCE hosted its annual End of the Year Banquet on June 2nd. This year, the banquet was hosted in Carnesale Commons Palisades Ballroom, a grand venue with a beautiful view of campus. The night kicked off with a networking hour (with an open bar!) that allowed students, professors, TAs, and industry reps to mingle and chat about the past year. Over 100 people attended the banquet, and everyone was dressed to impress.

Dinner kicked off with a salad and interactive table trivia. The winning table won fidget spinners! After that, the main entrée was served (lemon rosemary chicken or couscous stuffed bell pepper, depending on your dietary preference) as Suraj gave his final speech as President before handing over the ASCE reigns to Allison. Allison then presented next year's officer board. Next, each project manager came to the stage to give a recap of their year and introduce next year's project managers.

Finally, dessert (a delicious hazelnut crunch cake) was enjoyed as the ASCE awards were presented. Jay Higgins, the ASCE Region 9 Director, presented the YMF Chapter of the Year Award to ASCE at UCLA for our tremendous accomplishments over the past year and for our past secretary Mahsa's work on the Annual Report. This means our chapter was recognized as the best ASCE student chapter in the state of California!

For academic awards, Donald Kendall, Liz Baldo, and Mathieu Bauchy were awarded the Lecturer, TA, and Professor of the Year respectively. For project awards, Claire Killian, Stephan Ahn, and Cecilia Vong were selected as the Project Engineer, Director, and Manager of the year respectively. The R.C. Worley Rising Star Scholarship was awarded to Claire Killian and Bryan Hong. Finally, the prestigious Richard T. Shimano Leadership Award was presented to Maxwell Armenta. Congratulations to all of our truly deserving award winners!

The banquet was a wonderful celebration of a year of lessons, successes, friendships, and adventures. It has been an honor serving as your Vice President and hosting the End of the Year banquet was the best way to finish off such a great year. Here's to an even better next year!



### RICHARD T. SHIMANO AWARD

Maxwell Armenta posing for a photo after receiving the prestigious award

# ASCE GRADS & SUMMER ACTIVITIES

CONGRATULATIONS CLASS OF 2017!



## KYLE EVANS

UCLA easily began to feel like home as soon as I arrived. The campus is beautiful and welcoming and there are so many opportunities to find a passion and make friends. On top of that, ASCE made my undergrad education next level fulfilling with all the project synergy, socials, and career building events. I am excited to return in the fall for the masters program and finish off strong. This picture is me and my older brother.



**SURAJ PATEL** *Are you having fun?*



### **OMAR ISSA**

Working at Pankow this summer was a life-changing opportunity. As my first internship, this experience developed my interpersonal skills and taught me serious lessons in work-life balance. I was given the unique assignment of working at the headquarters in Pasadena, where I focused on multiple projects simultaneously and coordinated with the project engineers, project managers, and our subcontractors. One of my favorite parts was learning how to use BIM software and perform clash-detection tests with different coordination models. Performing these tests and seeing all the trades work together to produce an extremely accurate 3D model was amazing.

### **GURJOT S KOHLI**

This summer, I interned over at JPL in Pasadena, CA on the Oceans Melting Greenland Mission. I was primarily focused on change in glacial positions and validating data for an instrument that detects ice thickness and surface elevation. It is truly a great campus to work on with a wealth of people who are incredibly passionate about what they do, nearly identical to my educational experience at UCLA!



### **KEY CHUNG**

This summer, I had the opportunity to work with MATT Construction on their AMMP (Academy Museum of Motion Pictures) project in West LA. As a project engineer, I learned how to manage subcontractor activities and interpret architectural drawings. The project is really awesome because it will feature a renovated 1930s built May Company, with the addition of a completely new theater that will be devoted to exploring the process of film-making.

### **JORGE BARRIO**

This past summer I interned with Matt Construction, where I helped build suite residences at Caltech in Pasadena. I also had lots of time for other activities such as visiting friends in Westwood. Additionally, I took time to go home and visit family and friends in Texas and Berkeley. I'm excited as usual for the upcoming school year! Every year just gets better!

### **CLAIRE KILLIAN**

This summer I interned with Brokaw Design, an engineering consulting firm in Petaluma. I worked with the electrical engineers and designed electrical, lighting, and power plans for apartment complexes, getting great practice with AutoCAD! I also went on a two week trip to the East Coast and visited D.C., NYC, and Martha's Vineyard, as well as spending time with all my friends from home!

# OUR SILVER/GOLD PROJECT SPONSORS



WALTER P MOORE



PACIFIC METAL  
CUTTING



BRYAN  
CARPENTIER

ALSO, THANK YOU

ENGINEERING ALUMNI ASSOCIATION (EAA)

# ASCE BRUIN



SUMMER/FALL 2017

**PSWC 2017 15**  
**EWB-ASCE NAVAJO PROJECT 24**  
**END OF YEAR BANQUET 2017 26**

(alternate cover)