A LETTER FROM THE PRESIDENT
Claire Killian

MEMBERSHIP
Joseph Lee

INFO SESSIONS
Ayla Dvoretzky

CAREER FAIR
Youngbo Shim

NETWORKING NIGHT
Nick Borov

PROFESSIONAL OUTREACH
Anjali Swamy

COMMUNITY SERVICE
Anna Philipp

ATHLETICS
Shauna Patel

SOCIAL
Jacob Stanley

MENTORSHIP
Kristida Chhour

PSWC 2020
Vivian Chong

CONCRETE CANOE
Catherine Nguyen

CONCRETE SPORTS
Trevor Davis

SURVEYING
Katherine Acero

ENVIRONMENTAL DESIGN
Ingrid Spielbauer & Vicki Friesen

CONSTRUCTION MANAGEMENT
Alyssa Yim

SEISMIC DESIGN
Soham Gupta

SEISMIC OUTREACH
Eliot Yang

GEOWALL
Maan Alhamdan

TRANSPORTATION
Walker Dai

STEEL BRIDGE
Reion Domingo

EWB-ASCE NAVAJO PROJECT
Nadia Maher & Trevor Huffaker
Hello Alumni, Faculty, Sponsors, and Students!

Fall 2019 was another whirlwind quarter for ASCE at UCLA: we hosted 41 events for our members, and this does not even include any project workdays, intramural games, or CEE 1 workshops. From our zero week recruitment efforts to the last week of the quarter, it warms my heart to continually see all the new friendly faces in our chapter week in and week out. As of now, we have around 250 members!

We began the quarter tabling at the Enormous Activities Fair and at Engineering Welcome Day, where our officers met so many incoming freshmen and transfer students. We followed that with our Fall General Meeting which attracted over 170 students, as well as our Project Open House where over 100 members came to Boelter Penthouse to chat with our Project Managers and learn more about each of our 12 technical projects. During the first weekend of the quarter, our officer board made the annual trip up to Big Bear and spent three days bonding with activities like hiking, jeopardy, and relay races, while also planning out the remaining events of the quarter as a team.

In terms of our professional development events, we had another highly successful quarter with 17 total events, among which were our 11 info sessions and three field trips. We hosted our Fall Networking Night at SUR in WeHo where 40 industry recruiters networked with our students the evening before the Fall Career Fair, which in turn drew over 180 students and 44 different companies from both construction management and all disciplines of civil engineering.

We also participated in two student-chapter oriented events hosted by Los Angeles Younger Member Forum, the Student Chapter Mixer and Mini-PSWC. At these events, our members were able to meet and develop relationships with officers from other ASCE student chapters in the LA area while also being involved in some friendly competition of volleyball, canoe races, and a particularly intense game of Jeopardy: ASCE Edition! To help our members better develop connections with our CEE faculty, we hosted the Fall 2019 ASCE Student-Professor BBQ at Professor Stewart’s home where students and faculty had the opportunity to meet and chat over great Hawaiian BBQ.
alumni, and sponsors. We really appreciate all your help and we are working hard to ensure our projects can compete at the highest level possible.

While we take this winter break to decompress a little from the stresses and pace of this past quarter, we always welcome any feedback regarding our chapter. Please feel free to contact me or any officer with any questions or suggestions you may have. We are proud of everything ASCE at UCLA has accomplished this Fall Quarter, and we are looking forward to building upon that success for a fantastic 2020!

Cheers,

Claire Killian, President
ASCE at UCLA 2019-2020

BLUE SKIES,
FULL HEARTS,
CAN'T LOSE
The general officer board and Project Managers made their way to Big Bear at the beginning of fall quarter to prepare for the rest of the year!
With the conclusion of Fall quarter, ASCE at UCLA boasts a substantial membership of 285 paid members, in comparison to the 333 paid members we accrued by the end of last year. With upcoming events and the winter career fair, ASCE is projected to continue growing to our end goal of 350 paid members by the end of the year. Our membership consists of a myriad of members with majors not only in Civil Engineering, but also majors in Mechanical Engineering, Material Science, Environmental Science, and much more.

The enormous activity fair was a great success this year as many of the upperclassmen and second years were able to talk to students interested in ASCE and help them learn about the different projects, professional opportunities, and social connections ASCE can offer to its members. We loved seeing the new faces we saw at the Enormous Activities Fair at the Fall General Meeting, and eventually all around ASCE events as they became official members.

As a club we are very privileged to be able to have both general and project aspects that members can participate in. With 11 different projects and member attendance of 5-20 every workday, ASCE at UCLA worked hard fall quarter to prepare for future competitions and the annual Pacific Southwest Conference we compete in every year. For our professional development events, we had an average of 25 students attend an impressive 11 different info sessions held by civil engineering and construction companies in our area. For our general events, we had an average of 6 students at our community service events and 31 students at our social events.

NEW FACES FOR FALL New students wait to check in to the first General Meeting of the school year during Fall Quarter.

FLYING AND FLYERING INTO FALL QUARTER! President Claire Killian super excited to get to be sharing the beauty of ASCE with new people at the Enormous Activities Fair during zero week.
INFO SESSIONS
AYLA DVORETZKY

Fall Quarter was busy but full of successful info sessions. We had a wide variety of companies attend including several construction companies, heavy civil contractors, environmental engineering organizations, and more. Over the entire quarter, we hosted a total of 11 info sessions, with excellent attendance. Nearly all of our info sessions had over 20 students, with an overall average of 25 attending each info session. Company representatives enjoyed delicious food, packed rooms, and enthusiastic students eager to learn and network. Many of these companies successfully collected resumes and found valuable job and internship candidates this quarter thanks to our professional development events like these.

We have especially appreciated the many chances to connect with representatives this year, especially UCLA alumni sent to present and share their company experiences. The legacy of their involvement in ASCE at UCLA is a huge encouragement to attendees and a reminder of where our education at UCLA can take us. Our members really enjoy hearing anecdotes about company culture, exciting projects, and career advice from each unique representative that joins us.

Over the course of Winter and Spring of 2020, we will likely focus more on design firms and generally try to increase the variety of our info sessions to ensure that they help ASCE at UCLA students have the resources to explore and pursue these exciting fields. We are looking forward to these slightly less frequent, but no less exciting and informative events in 2020.
CAREER FAIR
YOUNBO SHIM

The 32nd annual ASCE Fall Career Fair on October 31, 2019 in the Ackerman Grand Ballroom was an absolute success! A stellar 185 eager students came out to pursue summer internships and full-time positions, and were able to speak with 115 industry professionals from 44 different companies. As career fair coordinator, one of my main goals was to encourage first year students to pursue internships, so seeing students from all grade levels securing interviews and summer internships was incredible.

Looking forward, we hope to keep this momentum going with the Winter Career Fair, which shall take place on January 30, 2020, in the Ackerman Grand Ballroom. 42 companies and organizations have already confirmed attendance at the writing of this article, and more are expected. As an ASCE member, or alumni, if your company is interested in hiring top engineering talent from UCLA, please do not hesitate to contact me at shimyounqbo123@gmail.com, for more information or questions.

NETWORKING NIGHT
NICK BOROV

Networking Night is an opportunity for ASCE at UCLA’s members to introduce themselves and get to know industry professionals in a much more casual setting the night before the Career Fair. This allows both our students and the company representatives to learn about each other more personally in advance of the much more formal Career Fair, allowing for a bit of an advantage over those that choose not to attend the event. The Fall Networking Night was a great success: hosted at SUR Restaurant in West Hollywood, 84 attendees (44 Students, 40 Industry Professionals) enjoyed drinks and appetizers over friendly conversations in the restaurant’s beautiful Hidden Garden.

Looking ahead to Winter Quarter, ASCE at UCLA will be hosting another Networking Night. Maintaining that crucial atmosphere, we plan to return to a location where we’ve had success in the past: The Den on Sunset. Keeping a similar level of attendance to avoid overcrowding, the event will hopefully be just as enjoyable as the Fall Networking Night, if not even better!
This fall quarter, students were able to learn about the many facets of Civil Engineering through three field trips and industry shadow opportunities with four companies. The first field trip of the quarter was to Smith Emery Laboratories, a material testing and inspection services company where we had 10 students see how construction materials such as concrete and rebar are tested to ensure that they meet design requirements. Our second field trip was just down the street from UCLA, with PCL Construction’s UCLA Housing project. Fifteen students were given a very detailed presentation about the process of demolishing the existing building and the stages of construction that had led up to its current stage which we toured afterwards. Our last field trip was with LA Bureau of Engineering to their 6th Street Viaduct site where students were able to see a construction project from the owner’s perspective. These field trips allowed students to learn about the different paths they can take within Civil Engineering.

This past fall also had 22 shadowing opportunities with four different companies through the industry shadow program. Students were able to shadow engineers at Wood, Black & Veatch, KPFF Civil and KPFF Structural, whom we have worked with on this program before, along with a first-time partner in this program, CDM Smith. This opportunity allowed students with interests in each main branch of Civil Engineering to get a taste of what their daily work life could look like.

Next quarter, we will continue to show students different sides of Civil Engineering through field trips to Hathaway Dinwiddie’s Santa Monica City Services Building project which will be one of the greenest buildings in the world, an on-campus field trip to view the Seismic Retrofit of Franz Hall, and a hands-on field trip to see what 1% of Civil Engineers do as part of a task force for Urban Search and Rescue. We will also be continuing our partnership with our previous industry shadow program companies while working to add more partners to the list.
We had a busy quarter back at UCLA. Our members took a trip to the Kindred Spirits Care Farm which is a sanctuary for mistreated farm animals where they can live out the rest of their lives surrounded by love and care. Members helped weed the gardens, planted vegetables, spread mulch throughout the farm, and hung out with the pigs, alpacas, sheep and geese.

Members also ventured across town to CSULA to help their ASCE student chapter and LA YMF with their Girl Scout Day. Over 100 Girl Scouts arrived to earn their Engineering patches and badges. We helped give tours of the engineering facilities at CSULA, answered all the girls’ questions about our college lives and what we do as engineering students, and helped them through their engineering workshops.

Finally, CSUN challenged us to a Thanksgiving Canned Food Drive. Members got into the spirit of giving as they collected cans for those less fortunate during the holiday season.

Next quarter you can look forward to many more Community Service Events. We will be hosting another Girl Scouts Day but this time hosted at UCLA. There will also be a Big Sister Little Sister outreach event at the Archer School For Girls where ASCE members will teach the middleschool girls about structural engineering and help them build bridges out of toothpicks and marshmallows that will be able to withstand loading. We will also be back at Kindred Spirits Farm as our members cannot get enough of Peanut the pig and all of the other animals.
ATHLETICS

SHAINA PATEL

This past fall quarter, we participated in three different intramural sports: co-rec volleyball, co-rec dodgeball, and open-league football. We proceeded to the second round of playoffs for volleyball and the semi-finals for dodgeball! All three teams had a really fun time working with new people and playing against challenging teams.

We are looking forward to continuing playing intramural sports as ASCE this upcoming winter quarter and trying out new sports. We will also be forming teams and beginning to practice for the sports at PSWC! Lastly, I am planning on hosting an ASCE dance workshop to introduce members to both western dance forms as well as some Asian-fusion dance forms.

SOCIAL

JACOB STANLEY

This past quarter, our members attended many social events, including a succulent planting and pot painting social, a student-professor barbecue for students and faculty to intermingle, a UCLA football tailgate to reunite with past ASCE alumni, a study marathon to help students prepare for their finals, and even a trip to downtown Los Angeles to decorate pumpkins. We had almost 130 attendees at all of our social events this quarter, so thank you to everyone who came out! Next quarter will be equally busy, as we will be having our annual Ski trip to Big Bear, as well as more ExploreLA events to help students experience the amazing activities available in the LA area.
MENTORSHIP

KRISTIDA CHHOUR

We kicked off the year with Mentorship Reveal! Mentors and mentees found their counterparts by putting together a puzzle with their family. Each puzzle formed a picture related to this year’s pillars: BREAD! Each of the four families got to meet each other and come up with a family name. The families are YA YEAST (headed by Gianna and Cheston), ckrustables (headed by Eliot and Jacob), philenh it ;) (headed by Anna and Yuen), and Peppa Pig Extraterrestrial Dinosaurs (headed by Vivian and Bailey)!

After ten weeks full of mentorship, we wrapped up the quarter with a Holiday Potluck that doubled as a cooking competition. Each family got up to cook up their best dishes and get them scored by a panel of judges. We got to feast on foods ranging from green eggs and ham to Korean fried chicken! It was a delicious time and everybody really brought out their inner chef.

If you’re not in mentorship, it’s not too late to join! The application is available year-round at tinyurl.com/ASCEmentorship2019. Fill it out and get in on all the events to come in winter quarter! I can’t wait to see all the families bond and make more memories in 2020!

Pacific Southwest Conference 2020

VIVIAN CHONG

We are so excited to be headed to PSWC 2020 hosted at Cal State Fullerton coming up on April 1-4! The link to register is here: www.tinyurl.com/uclapswc2020.

At PSWC, our projects will be competing in the technical events, as well as nontechnical events and sports we will be competing in technical events, with fun activities such as Family Feud and mystery event, and lastly sports, including ultimate frisbee, basketball, and volleyball.

Please let me, Shaun Howard, or Joseph Choi know if you have any other questions!
This year, concrete canoe is looking forward to competing regionally at PSWC 2020. Each team is judged on four equally weighted categories: Final Product, Technical Proposal, Oral Presentation and Races. Fall Quarter was incredibly busy and exciting, beginning with the release of a newly reformed set of rules likening the project to a small-scale construction project.

This year's project leadership, consisting of two project managers and nine specialized directors, faced these challenges head-on by carefully examining rules and ensuring that each component of the canoe met requested standards. New and returning members participated in the iterative design, testing, and construction processes necessary to help the project reach its technical goals, gaining hands-on experience and knowledge along the way. As a team we have already contributed over 600 person-hours, and formed close bonds through workdays, director meetings, and project socials.

We faced restraints on project budget due to our 2019 Nationals attendance and chapter-wide preparation for hosting PSWC 2021. As such, we placed emphasis on acquiring sponsorship and reusing existing inventory, such as last year’s CNC milled foam mold. Through rigorous outreach to companies and increased participation in events hosted by the American Concrete Institute, we completely offset our projected annual budget via monetary and material donations and made smart purchases to ensure material needs for future teams.

Fall Quarter was also the time for technical development. We tested hull modifications for drag and turning ability using CFD analysis. Despite reuse of last year’s mold, new members were educated on the mold construction process through completely refurbishing past years’ molds, learning how to properly sand, paint, epoxy, and contact paper a foam surface. Finally, members have been attending tri-weekly paddling practices at the Marina Aquatic Center in preparation for PSWC races.

Meanwhile, our mix team was faced with the challenge of developing concrete mix without latex for the first time in nine years per new regulations. Obtaining the perfect balance between strength and workability was difficult since latex had previously been the main source of batch water. In response we utilized new admixtures and adopted a pre-wetting aggregate process. We also adjusted our aggregate-cementitious material proportioning to the canoe weight. Results have been promising so far, as we have casted over 30 unique mixes and have produced a final mix with comparable workability and strength to previous years.

As we continue to prepare for our Casting Day on January 11th, we also look ahead to the remainder of Winter quarter, when we will continue to work hard in preparation for PSWC. Along with sanding and finishing the canoe surface, we will write our technical paper, construct a display table and stands, and add aesthetic elements to our canoe. With our team of dedicated and passionate members, we are ready to take on these tasks with fervor in order to compete with the best!
CONCRETE SPORTS

TREVOR DAVIS

This past quarter was a successful first quarter for Engineering X. We held workdays that helped us develop the rules and guidelines for Engineering X. We also created the first designs for competition and started running hand calculations to test our designs. Lastly, we held the first CEE 1 Workshop focused on structural engineering and materials engineering which turned out to be a huge success.

This upcoming quarter we plan to start building our first obstacles and preparing for competition. We will work with USC to move forward and make the inaugural competition a success. Our big upcoming event for the quarter will be the Engineering X Field Day which will be a competition involving past concrete sport events, great prizes, and a bbq. The last quarter was a great start to this new project and we’ll aim to keep the momentum in this upcoming quarter.

SURVEYING

KATHERINE ACERO

In this project, we learn the basics of surveying and send a team to PSWC for the surveying competition each year. What is surveying? It is the skill of determining the position of points on the land that can be used for maps and layouts. We use professional surveying equipment such as the automatic level, Philadelphia rod, tape measure, plumb bob, reflector rod, and total station to conduct surveys to gather data on the elevations, distances, and angles of points around the UCLA campus. With its own section on the PE exam, surveying is important for any civil engineer.

This quarter we will be finalizing our team for competition and holding closed practices led by Project Manager Katherine Acero, with the help of project director, Milton Mak. The competition events for PSWC this year include pacing, differential leveling, building stakeout, and determining depth and cuts for a proposed sewer line. We look forward to applying our skills at PSWC 2020!
The Environmental Design project began the school year with an exciting and productive fall quarter. Most of the time during workdays was spent researching both fundamental and novel water treatment processes, reviewing the PSWC competition prompt, and bonding as a team. This year’s competition has tasked students with building a small-scale water treatment system that can be implemented in the event that a devastating earthquake and drought in Southern California impairs its current water resources. Contaminants include crushed concrete, fertilizer, motor oil, salt, vinegar, lemonade and ferrous sulfate. UCLA Environmental Design has already identified several promising treatment methods and looks forward to continuing the project’s progress.

Winter quarter will provide the opportunity to continue both testing innovative contaminant removal methods and determining their successful incorporation into our system. During triweekly workdays, Environmental Design members will have the opportunity to test water quality in on-campus research laboratories, construct system prototypes, and contribute to a technical paper explaining the treatment system. Moreover, a workshop open to students of all majors will occur in January; this will allow attendees to gain hands-on engineering experience, see water treatment processes in action, and have the opportunity to become involved for the rest of the school year.

Leading a team of 20 active members are Project Managers Ingrid Spielbauer and Vicki Friesen as well as Project Directors Allison Lee, Justin Duong, Mathew Gutierrez and Patience Olsen. With such a strong group of engineers contributing, the Environmental Design project looks forward to preparing for PSWC in April in hopes of another successful competition.
CONSTRUCTION MANAGEMENT

ALYSSA YIM

The Construction Management projects work to provide students with the opportunity to gain exposure to both the logistical and practical sides of the construction management industry. At the ASC 67 Student Competition in the winter, UCLA is represented in three categories: Design Build, Mixed Use, and Sustainable Building. Our Timber Strong Design Build team competes at both the NCSEA Structural Engineering Summit in the fall and PSWC in the spring. The team leads for Design Build, Mixed Use, Sustainable Building, and Timber are Ameya Patel, Nick Borov, Matthew Gutierrez, and Gianna Furumoto respectively.

In general, we kicked off fall quarter by hosting general workdays that focused on teaching students basic construction management practices and principles. For ASC 67, we hosted interviews to help better select our teams in the hopes of improving our results at competition, and we have since been hosting category-specific workdays. We’ll be ramping up preparation in the coming weeks with professional industry workshops and mentoring, as well as mock presentations. Through this, we hope to not only be as strong as ever at our ASC 67 showing, which will be mid-winter quarter, but also give our members a great catalyst to start their careers.

For Timber Strong Design Build specifically, we design and construct a small wood frame house to meet the specifications in the design prompt we are given for each competition. This past November we worked on a 10.5’ two-story structure that was designed to withstand gravity, seismic, and wind loads. We were also tasked with designing other components such as a cantilever floor beam, the floor diaphragm, the roof diaphragm, windows, and a door. Scoring points was divided between strength and durability analysis, sustainability, construction, presentation and display board, and creativity/aesthetics. After the structure had been designed, we cut the raw materials and prefabricated the walls. On the day of competition, we connected the first and second story walls, constructed the floor, and constructed the roof. After the construction time was over, the structure was loaded to measure deflection, and we gave a presentation aided by our poster.

The first annual national NCSEA Timber-Strong Design Build competition in November was our first time working on a two-story structure, but with a lot of hard work and dedication we were able to get second place. It was a great opportunity for members to get hands-on experience right at the beginning of the year, and good practice for our competition at the annual Pacific Southwest Conference in the spring. Our goals for next quarter are to get members more involved in the design process, and to make the construction process more efficient by setting aside more practice time.
Seismic Design is a structural and earthquake engineering project focused on competing in the annual Earthquake Engineering Research Institute’s Seismic Design Competition (EERI SDC). The goal is to design, model, and construct a 5-foot tall balsa wood structure to be tested on a shake table to determine seismic resilience. In addition to the physical structure, competitors must also submit a design proposal, informational poster, and seismic performance prediction as well as give a short presentation on the construction process, architecture, and structural design.

UCLA’s 2020 Seismic Design team is led by Project Manager Soham Gupta and Assistant Project Managers Honor Fisher and Rodger Lee, all of whom are juniors. Supporting them are Structural Directors Jonathon Tai and Varun Tankha, along with construction directors Anjali Swamy and Nick Borov. A cast of general project engineer members also help make this project possible.

This year, the EERI competition rules changed drastically, primarily in terms of the building footprint. The team is required to design a building that is L-shaped for the first five floors, then transitions into a full square floor plan for the remaining 15 floors, essentially cantilevering 40% of the building for the higher floors. The team has been hard at work, having already finished a prototype during the Fall Quarter. This prototype was then tested at the end of the quarter, and successfully survived! However, the team has been working over winter break to further improve the structure in order to receive a higher score. The main goal of the structure is to find a sweet spot between the peak roof acceleration and peak roof displacement. The added challenge to this year’s design, thanks to an asymmetric building footprint, is the additional torsion.

The international competition this year will take place from March 2nd to March 6th, in San Diego. In preparation for this, the team is inviting all individuals interested to come out and help create the final structure. The team will follow a similar schedule to the Fall quarter, first finalizing the design, and then proceeding with construction. We hope to repeat the success that we have experienced in the last couple of years, placing second in both of the last two competitions.
Seismic Outreach is one of two community service projects in ASCE at UCLA. It is a project dedicated to inspiring future generations of structural and environmental engineers by going to middle school classrooms and teaching them about the fundamentals of civil engineering. Our quarterly program focuses on one middle school and consists of three school visits and a finale day—a day where students can have their structures shaken on a real shake table and showcase their final K’Nex structures to a panel of judges.

During the fall quarter, we worked with Paul Revere Middle School, serving about 250 students. The Seismic Outreach volunteers gave them a brief introduction to earthquakes and earthquake engineering and a prompt for their project to build their K’Nex structures on the first school visit. The second and third school visits featured our UCLA volunteers helping the students build their K’Nex structures in a structurally sound and cost-efficient manner. Finally, the students of Paul Revere Middle School came to UCLA and shook their structures on the shake table and gave presentations to our UCLA student volunteers as well as our industry professional volunteers from the US Army Corps of Engineers. Finale Day was hosted in Ackerman Grand Ballroom, and lunch was provided by ASUCLA Catering. To conclude Finale Day, we awarded prizes to the best groups and gave all the students a tour of UCLA’s magnificent campus. Next quarter, we will be working with Lincoln Middle School and will have just as much fun as we did this past quarter.
TRANSPORTATION

WALKER DAI

The Transportation Design Project is an ASCE project that focuses on the transportation engineering field of civil engineering. This year, our task is to prepare a proposal for a signal modification and median redesigning plan for Crescent Avenue in the city of Anaheim. The proposal will include a design of our plan, a detailed schedule, a cost estimation sheet, and a detailed description of our team.

Our team includes Walker Dai, the project manager, Sophia Tan, Nathan Sharafian and Nathan vardas, the project directors, and a lot of dedicated members who contribute to the project every workday.

In the fall quarter, we held six successful workdays and a CEE 1 workshop. In the first two workdays, we introduced the concept of transportation engineering to new members, and showed everyone our past projects. The CEE 1 workshop was a transportation field day where members had the chance to collect traffic data in a real life scenario. During the second half of the quarter, we introduced more complicated concepts such as Level of Service calculation and Collision analysis. We received the Request for Proposal during week seven and started working on it immediately. In winter quarter, we will have two workdays a week, and will analyze the problem thoroughly. Eventually, we will finish the report by March 15th and prepare for the competition in early April during PSWC. We are all ready for the winter quarter and are very excited about this project.

GEOWALL

MAAN ALHAMDAN

Fall quarter was a challenging and productive 10 weeks for GeoWall. This year’s competition rules introduced a new wall type, a three-sided soil-nail wall with kraft paper reinforcements taped to it, and calls for the design to hold back more than 500 pounds of sand. We conducted various lab experiments to test the properties of the sand and wall facing properties. Using these properties, our members used design calculations utilized in the field to find the optimal length and spacing of the reinforcements. Our last design had only 4.41g of reinforcements holding back all that sand!

During Winter, GeoWall will be building a new wooden box to be used during our competitions and as always, we will be painting the box. We will also be preparing for our national competition happening February 25-28 in Minneapolis, Minnesota in addition to our regional competition happening during PSWC. Winter quarter workdays will be filled with our two competing teams practicing building our wall, so they can construct the wall in the allotted time provided during both competitions. We look forward to the journey that awaits us!
STEEL BRIDGE

REION DOMINGO

Steel Bridge is coming off an exciting Fall quarter with new and familiar faces alike demonstrating lots of dedication to this year's bridge. We are thankful to everyone who came out to workdays thus far and new faces are always welcome as we continue into the grind of Winter quarter.

Our project is tasked with the design, fabrication, and construction of a 22 foot long steel bridge for entry into the 2020 AISC Student Steel Bridge Competition, coinciding with this year’s Pacific Southwest Regional held at Cal State Fullerton, on April 1st. This past quarter, we developed an arch design for this year’s bridge through analysis in SAP 2000 and planned out the fabrication of our bridge using models in SketchUp and AutoCAD. We also assigned a new Mini Bridge project to get our team engaged with machining and give everyone good practice in the machine shop for the fabrication of our bridge. In addition to our Mini Bridge project and a rebuild of last year’s bridge, we held weekly design workdays for members to learn and contribute to our model in SAP. Overall, we made a conscious effort to give our members an overarching understanding of the project this year.

As the calendar turns to January, we are holding a baking social at the beginning of Winter quarter to get everyone pumped for the fabrication process. All quarter, you can find us grinding away in the machine shop, as we cut our steel members to size and gain hands-on experience in subtractive manufacturing using mill and lathe machines. Around the middle of the quarter, we will hold tryouts for our build team, which is responsible for constructing our bridge at the AISC regional competition in Spring.

The grind never stops at UCLA Steel Bridge, and we are eager to get cracking with our trusty team to bring our design to life!
The Navajo Water Project works towards designing and implementing an off-grid solar powered water system for families on the Navajo reservation in Northern Arizona who do not have access to the main power and water lines. Each year we find a family to work with and customize a system to best fit their needs. The project started in 2016 as an ASCE - EWB joint project, and we have now implemented three systems for three different families on the reservation. The systems usually consist of a distribution system with a tank, pump, sink and the necessary piping for greywater distribution as well as a power system with a solar panel and wiring to power the pump. Our project is divided into teams that each have their own role in the design of the system. These teams are Civil Design, Power Systems, Drafting and Construction, and Marketing and Finance. Students can choose one team, or float between teams and this allows them to learn multiple skills from civil, electrical and mechanical engineering, as well as gain experience in acquiring funding. Each of these teams put their individual skills to use and contribute toward a successful project that is both functional and sustainable.

For the 2019-2020 school year our project managers are Trevor Huffaker and Nadia Maher. We have 7 directors leading our 4 teams. The Civil Design Team is led by Sam Hwang and Ellie Kim, Power Team led by Aanchal Mehndiratta and Brian Yee, CAD team led by Jared Rivera and Margit Maple, and Finance and Marketing Team led by Sriram Kotta. Our project members consist of engineers from many majors including civil, mechanical, electrical and materials.

This past fall quarter we spent most of our meetings educating our members on the complex history of the Navajo nation and past systems we have created. We held one-hour meetings twice a week where we either focused on a topic as a whole group or split into groups to learn from the directors about team specific skills. We also finalized which family on the reservation we will be working with this year and were able to send a team of 7 students out to the reservation in mid December to meet the family and take measurements. This assessment team consisted of our two project managers, a director from our power team, and 4 general members. The group drove out to the reservation early December 13th, took measurements and photos and spoke to the family about their specific needs and were able to head back by mid day on the 14th. Now that we have specific details about the home, we will be able to spend this next quarter focusing on design and ordering of parts. We also hope to work more with alumni and utilize the mentorship they can provide us, as well as launch a spark fund and reach out to more companies for sponsorship.
OUR PLATINUM/GOLD PROJECT SPONSORS

OUR SILVER/BRONZE PROJECT SPONSORS

ALSO, THANK YOU ENGINEERING ALUMNI ASSOCIATION (EAA) AND BRUCE TRUONG!