

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

EDUCATION

- Ph.D. University of California, Berkeley** - Structural Engineering and Mechanics of Materials
Thesis: Seismic Response of Single-Tower Cable Stayed Bridges
- M.S. University of California, Berkeley** - Structural Engineering and Mechanics of Materials
Highest Honors
- B.S. University of California, Berkeley** - Civil Engineering
Highest Honors/First in Class/College of Engineering

CERTIFICATION AND LICENSING

Licensed Professional Engineer, CA C68066
Governor's Office of Emergency Services, Safety Assessment Program, State Employee, SAPS61366

ACADEMIC EXPERIENCE

09/21-Present **Associate Dean of Engineering (Safety and Infrastructure):** 6,200+ UG/MS students, 304 T/TT/FT/PT Faculty, 14 UG Programs, 11 MS Programs, 80+ Laboratories. California Polytechnic State University, San Luis Obispo, CA

Significant Management Duties and Notable Accomplishments

- *Responsible charge of 589 College of Engineering (CENG) spaces*
- *Managed interdisciplinary endowment funded CPConnect*
- *Implemented safety processes in response to a CSU CO audit across students, lab, shop, techs, faculty, and EH&S leaning in to RSS and Canvas training*
- *Led Graduate Programs Self-Study and Review across 11 MS Programs (21/22)*
- *Managed all IT and facilities projects in CENG*
- *Participated in various phases of collaborative appropriations request to Air Force Research Laboratories (ARFL) in Cybersecurity and Advanced Manufacturing.*

09/17-08/21 **Department Chair, Civil and Environmental Engineering:** 950 UG/MS students, 22 T/TT faculty, one associate chair, one program director, two post-doc teaching/research fellows, 36 part/full time lecturers, six support staff, and numerous student assistants. California Polytechnic State University, San Luis Obispo, CA

Significant Management Duties and Notable Accomplishments

- *Led Successful ABET visit (2020/21) for programs in Civil and Environmental Engineering*
- *\$5M in endowment funds in support of a minor in Heavy Civil Engineering Construction*
- *Funded (through giving) a High Technology classroom to support distance learning (\$150k)*
- *Created a soft-money supported Media Specialist in support of a pay-for-access model*
- *Successfully lobbied seven new T/TT lines including a three-person cluster hire*
- *Created a BIM computer lab (\$75k)/Funded an external central server system (\$50k) for remote access*
- *Transformed our Industrial Advisory Board to an independent fundraising, curricular, and alumni engagement entity*
- *Initiated a CE Partners' Scholars program for freshman engagement in research*
- *Launched a fee-for-service ENVE laboratory*

09/16-08/17 **Associate Department Chair, Civil and Environmental Engineering:** California Polytechnic State University, San Luis Obispo, CA

08/15-05/16 **Profesor Visitante de Ingeniería:** Tecnológico de Monterrey, Campus Querétaro, Querétaro, México

09/03-08/21 **Professor:** California Polytechnic State University, San Luis Obispo, CA
Associate Professor (09/09-08/15); Assistant Professor (09/03-08/09)

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] | [REDACTED]

DEVELOPMENT and LEADERSHIP

Development: Direct and Indirect

Industrial Partnership Program – Founded a CE/ENVE department level program leveraging company access to students as a fundraising tool in support of students/club, labs, student/faculty activities, and classroom technology advancements. Grew the program from **\$2000 (AY 16/17)** annual soft money cooperate partnership gifts to **\$180k (AY 20/21)** with seven 5-year term laboratory sponsorships.

Endowment Funded Minor (18/19): Granite (\$3M), Beavers' Charitable Trust (\$1M) Endowment, Caterpillar (\$1M) Endowment – Secured a \$3M endowment in direct support of an Interdisciplinary Faculty Hire in collaboration with the Construction Management Department to oversee an interdisciplinary Minor in Heavy Civil Engineering. \$2M in additional gifts were provided to support Women and Underrepresented Minorities going into the Construction Industry. The program's first graduates expected June 2022.

Departmental non-endowment/non-scholarship advancement activity (FY 2018-2020) including in-kind gifts: \$863k/514 donors

Leadership/Management Training

Cal Poly Academic Leadership Academy (Fall, 2020) – Nominated by the Dean of Engineering to participate in a 20-person Cal Poly Academy for Emerging Academic Leaders. The course focused on reframing leadership for success in a university environment.

Advancement Academy Training: Fundraising for Academic Leaders (Feb, 2019) – The workshop focused on the fundamentals of advancement and donor development. The short course provided training for shaping a compelling story.

Enhancing Leadership for Faculty Engagement and Innovation – TTI Success Insights (Fall, 2019) – Management/Leadership Training emphasizing tools for strengthening one's natural style in the context of curricular innovation, difficult personality management, and successful delegation.

Cal Poly Staff Annual Evaluations Training (Summer, 2018) – Cal Poly led workshop centered on effective staff management. Topics included written positive language to enhance staff engagement, key topics in the CSUEU collective bargaining agreement, and process for disciplinary action.

CSU Chair Training (Fall, 2017) – CSU Department Chair Training Workshop (Long Beach, CA) focused on Unit 3 CBA pertaining to entitlements and CFA order of work.

Department Chairs and Heads Workshop (ASCE) (06/17 – Brigham Young University (BYU), Provo, UT; 06/18 – Drexel University, Philadelphia, PA; 06/19 – Southern Methodist University (SMU), Dallas, TX; 06/20 – Virtual (served on panel discussing time management tools for new department chairs) – Annual 3-day workshop and leadership training for department chairs.

State/National Leadership

Academic Council for International Programs (ACIP) (3 years, 09/12–08/15), Reappointed, 08/18. (Chair of the standing subcommittee for Academic and Fiscal Affairs (AFAC), 2014/15; Interim Chair of the standing subcommittee for Faculty Affairs, 2018/9; Chair of ACIP, 20/21, Ex Officio Appoint by CO 21/22).

Appointed currently by the Chancellor's Office as Ex Officio to the CSU study abroad program housed in Office of International Programs at the Chancellor's office. Current ACIP duties include: organizing and attending two, daylong 40 member meetings with membership across the 23 campuses of the CSU; working on the Executive Committee directly with the CSU OIP (Office of International Programs) Director; and guiding the agenda for the four subcommittee Chairs.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

Interim Chi Epsilon National President (1 year, 12/21-Present); Pacific District National Councilor/Director, Chi Epsilon, Civil Engineering Honor Society (XE) (4 year, 04/18-Present)
Serve on the National Board of Directors for XE representing the 15 West Coast University Chapters (CPP, CPSLO, UH, UCB, UCI, CSUN, CSUF, SJSU, UCLA, UCD, CSF, CSULB, SDSU, CSUC, and USC). This National Board position manages the annual **\$1.0M** operating and scholarship fund. The board directs strategic planning, operational guidelines, and oversees collectively the current 126 active national chapters.

American Society of Civil Engineers (ASCE) Committee on Student Conferences and Competitions (Corresponding Member) (1 year, 12/20-10/21) – Serve as the liaison to the DH/DC council representing the collective of US Civil Engineering university departments.

American Society of Civil Engineers (ASCE) National Department Chairs and Heads Coordinating Council (1year, 10/20 – 10/21)
National level committee oversees the 287 ASCE represented departments of Civil Engineering across the US. This is an elected position representing non-Ph.D granting universities to the coordinating council and to national ASCE leadership.

SERVICE

CSU System/Multi-University

Independent Programmatic Reviewer – CSU Los Angeles – Department of Civil and Environmental Engineering (12/20)

Served on a remote evaluation team with UCLA CE Department Chair to provide recommendations to the Vice Provost for Undergraduate Education and Dean of Engineering on growth strategies for the M.S. Program in Civil Engineering.

Independent Programmatic Reviewer – CSU San Jose – Department of Civil and Environmental Engineering (11/19)

Provided recommendations to the Vice Provost for Undergraduate Education for curriculum improvement of both the undergraduate and graduate Civil and Environmental Engineering programs.

Created and Launched a Three-way study abroad program with Biberach, Germany, Cal Poly, SLO, and Cal Poly Pomona (Launched Summer, 2017)

The collaborative paired German and US students together during a summer program focusing on sustainability in construction.

Created and Launched “Engineering in Mexico” (Launched AY 15/16)

Launched an exchange program through CSU IP between the CSU system and Tecnológico de Monterrey, Campus Querétaro, Mexico. Program launched during my DIP year, 2014/15. The program is still active and has changed the lives of a number of students.

Academic and Fiscal Affairs Committee (ACIP), Office of International Programs, CSU Chancellor’s Office. Chair, 09/14-06/15

University

2019 Golden Beavers Awards Dinner (Jan/2019) – Represented Cal Poly CE/ENVE at a Heavy Civil networking and awards event hosted by the Beavers’ Heavy Civil Charitable Foundation. 2500 in attendance.

Created and Launched “Engineering in Paris” in collaboration with CEA Study Abroad Consortium (Launched Fall, 2019)

Specific program for second-year engineering students to study abroad during their Fall quarter. Classes approved through a blanket substitution process.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

International Center Advisory Council: Chair (1 year, 01/21), Executive Board (4 years, 09/15-Present), Member (6 years, 09/13-Present),
Advised the Cal Poly Director of International Programs on strategic direction, vision, curricular internationalization, and peripheral international center items.

Curricular Internationalization Task Force (1 year, 09/14-06/15)
Provided recommendations to Cal Poly President on best practices for helping internationalize Cal Poly curriculum, in conjunction with International Center Director Cari Vanderkar.

International Symposium Planning Committee (Fall, 2014)
Served in support of the Cal Poly International Center and the University to plan an international symposium to promote curricular internationalization.

Cross College Committee for a Joint CE-CM Masters (1 year, 09/13-06/14)
CE/CM collaborative to developed a MS certificate program. Committee was unsuccessful.

Adult Programs Committee Member (3 years, 09/08-06/11)
Liaison between the Adult Degree Programs (ADP) and the College of Engineering.

Project Based Learning Working Group (PBLI) (1 year, 09/08-06/09)
Working committee formed to present findings and recommendations of a methodology for incorporating Project Based Learning as a university mantra to Provost Durgin.

Cal Poly Faculty to China to foster international collaboration in research (08/07)
Traveled to China to meet with research colleagues in an effort to set up a “sister” school and international partnership.

Faculty Hearing Panel (3 years, 09/11-08/14)
Serve as a member of an administrative panel to hear faculty grievances.

College

Search Committee– Assistant Dean of Advancement: (09/19)
Served as a chair representative to the College of Engineering on this fast track search using an external search agency.

EWB (Engineers without Borders) Faculty Advisor (Nicaragua Team): (08/17)
Served as the faculty advisor/mentor for Engineers without Borders; Nicaragua project. Traveled to Nicaragua to evaluate the close out of one project and the opening of another.

2013-14 Budget Task Force (03/13 – 06/13)
Served in an advisory capacity to the Dean of the College of Engineering to make recommendations on budgetary changes for academic/fiscal year 2013-14.

EWB (Engineers without Borders) Faculty Advisor (India Team): (1 year, 09/12-07/13)
Served as the faculty advisor for Engineers without Borders; India project. Traveled to India with six Cal Poly students over the summer (2013) and acted as their Construction Manager for building the foundation of a sedimentation tank.

College Senior Project Exposition Committee: (4 years, 09/11-08/15)
Serve as the Civil Engineering representative to the group that plans and executes the college-wide expo for showcasing Senior Design Projects.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

College International Programs Committee, CE Representative: (3 years, 09/11-08/15)

Served as the liaison between Civil Engineering and the College of Engineering Study Abroad Programs. Reviewed applicants from Civil Engineering wishing to study abroad through the College of Engineering study abroad program.

Scholarship Review Committee, CE Representative: (10 years, 09/04-06/13; 09/18-06/19)

Select students to receive college wide scholarships.

PBLI (Project Based Learning Institute) Academic Steering Committee (2 years, 09/07-06/08)

Committee formed to find a channel for interdepartmental collaboration around senior capstone design.

Department

Faculty Search Committee (Construction Engineering), Participant: (1 year, 09/15-06/16)

Served remotely while on sabbatical to hire a new faculty in Construction Engineering.

Senior Advisor, Senior Project Advisor, and CE466/7 Course Coordinator: (4 years, 09/10-06/2015)

Managed and organized all Jr/Sr advising, managed and organized all Senior Design projects in Civil Engineering, Course Coordinator for the Senior Design Capstone Service course. AY2011/12 – **147 Students**, AY2012/13 – **136 Students**, AY2013/14 – **142 Students**, AY2014/15 – **139 Students**

CE207 Common Final Coordinator: (6 years, 09/10-06/15)

Wrote, coordinated, and graded CE207 Mechanics of Materials common final exam.

Graduate Certificate in Civil Engineering Committee, Chair: (3 years, 09/12-06/15)

Worked in coordination with other CE faculty to develop a self-supporting graduate certificate in Civil Engineering in cooperation with Construction Management with the end goal of a Const Eng MS degree

Strategic Planning Committee, Member: (2 year, 09/10-06/12)

The committee successfully developed the Strategic Plan for the department under direction for both the Department Chair and Dean's office.

Faculty Search Committee (Clean Water Technologies), Participant: (1 year, 09/12-06/13)

Interviewed all candidates for the recent Clean Water Technologies hire to gauge their interest and qualifications to participate in the department Senior Design capstone course.

Faculty Search Committee (Infrastructure Faculty), Chair: (1 year, 09/12-06/13)

Developed the job description for a new faculty in Infrastructure (as a cross over position between Structures, Construction, and Transportation Engineering). This committee is currently tabled. The position was not funded.

Graduate Studies Committee (Structures Representative), Member: (3 year, 09/12-06/15)

Served in an advisory role to help improve the Civil Engineering Graduate program.

Curriculum Committee (Structures Representative), Member: (2 year, 09/13-06/15)

Participate in governance of course curriculum improvement to the catalog as the representative of the Structures Faculty.

Faculty Search Committee (Structures Faculty), Chair: (1 year, 09/07-06/08)

Helped prepare job announcement and conducted phone and on-site interviews.

Laboratory Facilities Committee, Member/Chair: (5 years, 09/08-06/13)

Evaluated and oversaw department laboratory technicians, assessed current and future needs of laboratories within Civil and Environmental Engineering.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

Department Scholarship Review Committee, Chair: (10 years, 09/04-06/13, 09/18-06/19)

Selected students to receive department level scholarships.

Parsons Earthquake Engineering Laboratory Director: (7 years, 09/06-6/13)

Oversaw all aspects of the Earthquake Engineering Lab located in the Cal Poly's Advanced Technologies Laboratory including routine maintenance, safety protocols, direction of laboratory research, and new equipment purchases.

Structures Laboratory Director: (12 years, 09/05-06/17)

Oversaw all aspects of the Civil Engineering Laboratory located in 13-120 including routine maintenance, safety protocols, and new equipment purchases.

CE204/CE207 Teaching Assistant Coordinator: (1 year, 09/05-06/06)

Hire and oversee graduate student Teaching Assistants for lower division mechanics service courses to the college of engineering.

Laboratory Technician Search Committee, Chair: (1 year, 09/05-06/06)

Wrote job description and performance expectations, conducted phone and campus interviews, and led department deliberations.

Committee for New Senior Project Course (CE466/CE467) Curriculum: (1 year, 09/04-06/05)

Developed curriculum for a senior project model incorporating ABET recommendations of interdisciplinary group learning and the Cal Poly project based learning initiative.

Faculty Search Committee (Geotechnical Faculty), Member: (1 year, 09/04-06/05)

Aided in selection of new hires in the area of Geotechnical Engineering.

SFI Committee, Member: (9 years, 09/04-06/13)

Aided to oversee the distribution of Student Fee Initiative money by elected student SFI representatives.

Faculty Advisor to Chi-Epsilon: Cal Poly State University (15 years, 09/03-11/20)

Advised and oversaw the Chi Epsilon Civil Engineering Honor Society. Attended the Pacific Regional Conference every year as a member of the Pacific District Council for Chi Epsilon (and most recently as the District Councilor).

Community/Professional

ASCE Wood Education Committee, Member: ASCE (8 years, 09/11-Present)

Professional Society Committee (Structural Engineering Institute) for the promotion of wood education. Meetings take place at the annual Structures Congress.

Subcommittee on Emerging Analysis Methods in Earthquake Engineering: ASCE (6 years, 04/08-06/13)

Professional Society Committee (Structural Engineering Institute) to evaluate emerging analytical methods in Earthquake Engineering. Meetings take place at the annual Structures Congress.

Seismic Task Force: Chamber of Commerce, San Luis Obispo, CA (5 years, 01/07-06/11)

Committee to provide advice to San Luis Obispo Community building owners and local businesses on the importance, and the order of, local building seismic retrofits.

Pacific District Council, Member: Western Chapters of Chi-Epsilon (18 years, 11/04-Present)

Committee to oversee Chi-Epsilon chapters for all Universities west of Colorado. Committee resolves Chi-Epsilon student disputes and aids in coordination of the annual Chi-Epsilon West Coast Conference.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED]

PE Review Session Leader (Seismic): San Luis Obispo, California (04/05, 10/05, 04/06, 10/06, 04/07)
Presented a short adult education class geared to students preparing to take the Seismic Portion of the California Professional Engineering Exam. Review sessions are held twice a year.

Assistant Newsletter Editor, ASCE Local Branch: San Luis Obispo, California (1 year, 09/05-09/06)
Prepare a monthly article highlighting local active members of the San Luis Obispo area chapter of ASCE.

NCEES Fundamentals of Engineering Exam Standard Setting Study. Atlanta, GA, (12/05)
A member of 12 people nationwide to sit on a committee to set the passing score for the nationwide Fundamentals of Engineering Exam.

TEACHING RELATED ACTIVITIES

Courses and Laboratories Taught

Undergraduate Courses

| | |
|---------|--|
| M1003 | Statics - 3 semester units - (FL15) |
| M2023 | Mechanics of Materials 1 - 3 semester units - (SP16) |
| CE111 | Introduction to Civil Engineering – 1 units – (FL18, FL19, FL20, FL21) |
| CE205 | Advanced Mechanics of Materials - 2 units - (FL03, WT04, FL04) |
| CE207 | Advanced Mechanics of Materials - 3 units - (SP07, SP11) |
| CE251 | Programming Applications in Engineering (SP17) |
| CE351 | Structural Analysis (WT05, WT06, WT07, WT08, WT09, WT11, WT15) |
| CE352 | Structural Engineering (WT17) |
| CE355 | Design of Reinforced Concrete (WT05, SM05, FL05) |
| CE452 | Advanced Reinforced Concrete Design (SP05, SP06, SP07, SP08, SP09) |
| CE455 | Design of Timber Structures (WT04, SP04, SP05, SM05, FL05, SP06, FL06, FL07, FL08, FL10, FL11, FL12, FL13, FL14, FL16) |
| CE466 | First Quarter Senior Design (WT06, WT07, WT08, WT09, WT11) |
| CE467 | Second Quarter Senior Design (SP06, SP07, SP08, SP09, SP11) |
| CE466/7 | As course coordinator: (WT/SP12, WT/SP13, WT/SP14, WT/SP15) |

Graduate Courses

| | |
|--------|--|
| CEx503 | Nonlinear Analysis and Structural Modeling (WT05) |
| CE552 | Advanced Reinforced Concrete Design (SP11, SP12, SP13, SP14, SP15, SP17, SP19) |

New Course Development

CE352 – Structural Engineering

Restructured the CE Structural Engineering sequencing using CE 352 as a gateway course. The course brings in ASCE7 loads and covers the basics of seismic design principals in an effort to prepare CE students to pass the CA PE special seismic exam.

CE452 – Advanced Reinforced Concrete Design

Proposed and developed this second course in reinforced concrete. Course emphasis was placed on reinforced concrete behavior and seismic design. Topics include moment curvature analysis and plastic hinge modeling, strut and tie, design of structural walls, design of concrete moment frames and seismic detailing.

CE455 – Design of Timber Structures

Proposed the year I started, I developed this course that teaches students the basics of timber design. The class is formulated with a strong lab component evaluating the behavior of wood materials as well as a class project. The course focuses on the “learn by doing” philosophy though a major group project due at the end of the term. Upon completion of this class, students can comfortably work in any design office the practices in the area of structural design of timber systems.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

CE503x – Nonlinear Structural Analysis

This proposed experimental course was offered only during the winter quarter 2005. The course covered the nonlinear analysis methodologies used in current seismic design. The class was dropped due to low enrollment and was taught to a small number of students that took the class as CE500 independent study. The class was never converted and adopted into the regular curriculum.

CE455s – Design of Timber Structures (Summer)

Proposed CE455 for summer instruction in a hybrid format with a long weekend workshop. The target students for the course were not from Cal Poly. Class was canceled due to lack of enrollment.

CE552 – Advanced Reinforced Concrete Design

This was previously CE452; however, in an effort to grow the graduate program and offer more CE500 level courses, this class we repackaged at the graduate level. While the instruction mode remained constant, the level of material was enhanced.

CE371/CM371 – Construction Management and Project Planning

The course was developed in conjunction with Construction Management to fit an interdisciplinary need that arose from Civil Engineering senior exit surveys. Development of the course by censuses with all parties took roughly a year.

CE475/ARCE475 – Civil Infrastructure and Building Systems

The course was developed in conjunction with Architectural Engineering (ARCE) and Construction Management. The cross-listed course satisfied requirements in both departments acting as a catch all for Structural Engineering students studying in Civil Engineering as well as ARCE students studying in the College of Architecture.

Major Revisions and Innovations in Existing Courses

CE466/CE467 – Senior Capstone Design

As a decision at the department level and executed within a committee (in which I was a member), our senior design was changed from individual projects to group based projects in 2006. The annual group based project is one that is multidisciplinary within Civil Engineering satisfying many ABET requirements. As one of four instructors, I teach modules in the area of Timber, Masonry, Bridge Design, and two sections on Seismic Design. In addition, I sit on a panel with local practitioners to evaluate the student projects at the termination of the winter and spring quarters. This course in the new format was a 2006 award winner of the NCEES (National Council of Examiners for Engineering and Surveying) Educational Engineering Award.

CE455 – Timber Design

Co-chaired the development of the Wood Education Institute (WEI). Within the framework of the WEI, I developed a large number of teaching modules and integrated the technology into the classroom and created a hybrid learning environment. The course was launched with support by NEES-hub and delivered from their Learning Management System (LMS). Student reviews and data analysis showed that the educational objectives were met with greater success than the non-flipped classroom.

CE466/CE467 – Senior Capstone Design as the Course Coordinator

In 2011, I took the lead responsible role of the CE466/7 Senior Design Capstone course. As the Course Coordinator, I created a secondary leadership position for the class bringing in a colleague as a Project Coordinator. The division of the labor created a better class experience for the students. Additionally, I revamped and reorganized the course to better mimic the Civil Engineering practice. The class consists of eight licensed professional course evaluators, 14-16 recruited guest speakers, the Project Coordinator, the Course Coordinator, and three faculty serving as Section Instructors/Technical Advisors. The course centers on a real local Civil Engineering Project handpicked in consultation with local City and County practitioners. The course teaches interpersonal professional communication and teamwork, presentation

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED]

skills (both oral and written), soft engineering skills necessary for success in the practice, and technical skills required for passing the Civil Engineering Professional Licensing exam. The course serves as the largest contributor to data provided for ABET accreditation. The course is the crown jewel of the Civil Engineering program and provides the consistent culminating experience that has given our department great success and notoriety.

Senior Projects or Student Research Supervised

- *Senior Projects (Completed while as CE 466/7 Capstone Coordinator) – 624 Students*
- *Senior Projects (Completed in traditional format) – 35 Students*
- *Chaired Thesis Committee's (Completed) – 9 Students*
- *Chaired Thesis Committee's (Ongoing) – 3 Students*
- *Thesis Committee Non-Chair Advisees – 10 Students*
- *Chaired Comprehensive Exam Committees – 11 Students*

Project Coordinator - Senior Capstone Group Projects - 624 Students

- 2012** - DESIGN OF PARKING and STREET IMPROVEMENTS SAN LUIS OBISPO COUNTY REGIONAL AIRPORT
- 2013** - DESIGN OF HIGHWAY REALIGNMENT and BRIDGES CALIFORNIA DEPARTMENT OF TRANSPORTATION NEAR SAN SIMEON, CA ON ROUTE 1
- 2014** – DESIGN OF HOUSING and PARKING IMPROVEMENTS SAN LUIS COASTAL UNIFIED SCHOOL DISTRICT
- 2015** - DESIGN OF STUDENT HOUSING, PARKING and BRIDGE IMPROVEMENTS CALIFORNIA POLYTECHNIC STATE UNIVERISTY

Senior Projects (Completed) – 35 Students

- David Rafiee and Shane Judd – *Evaluation of Strength Reduction in Drilled Holes for Glue Laminated Beam Headers Subject to Bending.*
- Luke Griffis – *Capacity Analysis of Steel Frames in Primarily Timber Construction Systems.*
- Xavier Pfister – *Civil Engineering in Land Development: A Project Based Approach.*
- Kristopher Maskal and Danny McCamish – *Design and Construction Support for a Bridge Crossing of Huerhuero Creek off Geneseo Rd., Paso Robles.*
- Nick Minicilli – *Summary and Recommendations of the CUREE-Caltech Wood Project.*
- Michael King – *Report on the Processes for the Development of Land from Acquisition to Permitting.*
- Martian Scheiber – *Design of a Residential Timber Structure.*
- Nelson Amaral and John Wiersma – *Design and Construction of a Residential House with Scaled Model.*
- Jeremy Stanley – *Rocking Behavior of Wine Barrel Stacks.*
- Kevin Watson – *Structural Modeling of the SAC Steel Buildings to Establish Load Protocols for Base Plate Testing.*
- Amanda Kathryn Gallagher – *Structural Testing and Evaluation of Timber Framed Walls with Non-Structural Finishes.*
- Jeremy Kellogg – *Structural Testing and Evaluation of Steel Stud Framed Walls with Non-Structural Finishes.*
- David Hoopfer, Robert Roumiguere, Sean Naismith, and Anthony Gallo – *Design, Testing, and Recommendations for Non-symmetric Timber Floor Diaphragms from Shake Table Testing.*

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

Joel Duguay and Gabe Del Porto – *Testing and Evaluation of Joint Shear Demands in Glulam Headers from Mounted Structural Walls.*

Kristen Roberts and Kristen Salinas – *Land Development of a Winery with emphasis Grading, Permitting, and Specific Requirements for Wineries.*

Mark Phillips – *Data Reduction and Seismic Hazard Analysis of Specific Local Wineries from Shake Table Data.*

Timothy Tsukamoto and Brian Rickars – *Testing and Evaluation of Straw Bail Materials used in Structural Design.*

Ben Grobe-Heintz and Jordan Denio – *Side by Side Testing of a Simpson Strong Wall, Hardy Frame, and standard Shear Wall.*

John Fisher and Andy Coughlin – *Design and Construction of a Full Scale Tree House.*

Vanessa Apodaca – *Civil Engineering and Structural Design of a 3 Story Residential Home.*

Derrick Fischer and Mark Broughton – *Evaluation and Design of Tortilla Flats Unreinforced Masonry Seismic Upgrade.*

Andrew Borrelli – *Development of Visual Basic Software to Aid in Design of Timber Buildings.*

Marty Bardales – *Direct Evaluation of Shear Strength in Glue Laminated Timber.*

Graduate Student Research Supervised

Chaired Thesis Committee's (Completed) – 9 Students

Abram Haen – *Structural Fuse for Service Level Damage of Light Weight Timber Construction.*

Nick Wetzel – *Friction Bearing Device to Limit Service Level Damage of Lightweight Structures.*

D. Townsend Brown – *Investigation into the Slide-Rock Seismic Response of Wine Barrel Stacks and an Alternate Stacking Method to Mitigate the Rocking Response.*

Darius Dodge – *Investigation of Seismic Performance of Timber Shear Walls Utilizing Spray-Applied Polyurethane Foam.*

William (Chris) Murphy – *Testing the Effects of Reinforcement and Load Distribution of 4 Bolt Anchorages Loaded in Shear.*

Jeff Lyon – *Implementation of an FRP Model in Visual Basic and Comparison of Model and Test Data for the Prediction of Nonlinear Behavior FRP on Concrete.*

Tim Melin – *Sustainable Techniques in Laminated Veneer Lumber Manufacturing using Environmentally Friendly Wood Welding Techniques.*

Kyle Brennen – *Development of a Safe Wine Barrel Stack (Converted to Testing Option, 2013).*

Matt Porter – *Analysis and Modeling of a cubic Polynomial Seismic Bearing (Converted to Testing Option, 2013).*

Chaired Thesis Committee's (Ongoing/Incomplete) - 3 Students

Horacio Heredia – *Analysis and Modeling of Long Span Cable-Stayed Bridges for Nonlinear Dynamic Resonance between Vertical and Lateral Mode Shapes.*

Lynsey Willadsen – *Evaluation of the Economics of High Rise Construction in the US with by Case Study.*

Stephen Gordon – *Numerical Modeling and Analysis of the Distributed Knee Brace system for Soft Story Timber Construction.*

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

Thesis Committee Advisees – 10 Students

- Kevin Stanton (Thesis Committee) - *Investigation of Parameters Influencing Reverse Fault Rupture Propagation to the Ground Surface.*
- Brian Weber (Thesis Committee) – *Behavior of FFRP Beams under High Temperature.*
- Marc Mitchell (Thesis Committee) – *Evaluation and FEM analysis of Nail Slip.*
- Dan Cronquist (Thesis Committee) – *Size Effects of Strut and Tie Modeling in Concrete Beams.*
- Anthony Rossetti (Thesis Committee) – *Behavior of FRP retrofitted URM's.*
- Neda Saeedy (Thesis Committee) – *In-Ground Plastic Hinge Analysis for Piles used in Offshore Oil Platforms.*
- Connor Williamson (Thesis Committee) – *Seismic Performance of Symmetric Steel Moment Frames with Random Reactive Weights and Distributions.*
- Jeni Tures (Thesis Committee) – *Implementation and Validation of Fault-Rupture Response Spectrum Analysis Procedures in CSI Bridge for Bridges Crossing Earthquake Fault Ruptures.*
- Juan Sanchez (Thesis Committee) – *Seismic Rehabilitation of Steel Moment Frames Vulnerable to Soft-Story Failures Through Implementation of Rocking Cores.*
- Francisco Sanchez (Thesis Committee) – *Seismic Rehabilitation of Steel Concentrically Braced Frames Vulnerable to Soft-Story Failure through Implementation of Rocking Cores.*

Chaired Comprehensive Exam Committees – 11 Students

- 2008-2009 Clayton Riggins
- 2009-2010 Ian Shoebridge, Justin Reynolds
- 2010-2011 Chris Winden
- 2011-2012 Tadei Shayo
- 2012-2013 Riley Jones, Kevin Galloway, Ryan Simpson, Sean Hart
- 2016-2017 Jason Hsia, Devin Pettipas

PROFESSIONAL GROWTH AND DEVELOPMENT ACTIVITIES

Grants and Contracts (Proposed and Funded)

Co-PI: MRI: Acquisition of Structural Testing System to Simulate Earthquake Loading (NSF FAIM-2019098) (\$340,373) – a collaboration between CENG/CAED equipment grant for project based learning in earthquake engineering.

Faculty Mentor: S-STEM “ENGAGE: Engineering Neighbors: Gaining Access, Growing Engineers” (NSF DUE-1834128; 1834154) (\$5M) – a collaboration between the Cal Poly CENG and Allan Hancock College (AHC) and Cuesta College (local community colleges). ENGAGE is designed to build on and strengthen collaborative efforts to increase the number of low-income, academically talented students with demonstrated financial need who begin their engineering education at AHC or Cuesta, transfer to Cal Poly, are retained in and graduate with a B.S. degree, and enter the STEM workforce or graduate program.

Course Redesign with Technology: CSU Internal Grant/Chancellor’s Office (2/17) (Proposed \$80,000, **Funded at \$20,000**). Proposers withdrew proposal. The CSU provided stipend was insufficient to do the work stipulated in the proposal.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

Co-PI: NSF Grant Award #1431845 (9/14-9/17)

Interdisciplinary and Inter-University NSF award (**\$299,926**). Title: "Increasing success of lower division & articulation of transfer students through the use of teaching tools-COINS"

Senior Personnel: NSF NEESsoft #1041631 (04/11-04/14)

NEESsoft (**\$1.2M**) was a multi-university consortium to develop design guidelines for retrofit of existing soft-story timber frame systems. Cal Poly was provided a material grant (**\$3,000**) for testing a retrofit strategy.

Recipient: NSF Travel Grant, NEES-wood Project (07/09)

NSF Travel Grant (**\$2500**): Sponsored to attend the July 14, 2009 MCE testing of the 7-Story Wood Condominium Tower at the Hyogo Earthquake Engineering Research Center, Japan.

PI: Student Fee Initiative, Cal Poly SFI Committee. Cal Poly 2807 (01/09-07/09)

Spearheaded major laboratory renovation project in Building 13-120 (**\$90,000**). Project entailed removing an existing partition wall, relocating equipment, and updating existing facilities.

PI: Oryzatech, Inc. (11/08-11/09)

Stack Block Shear Wall Testing (**\$8500**). Project sponsors a graduate student to construct four shear walls made of compressed straw block and pseudo-statically test them using a cyclic earthquake type loading protocol.

PI: Wood Education Institute with Support by Wood Works, Inc. (09/08-06/09)

Development of an Online Virtual Laboratory (**\$6700**). Project sponsors two students to help develop part of an online course in Wood Education. This is part of a large grant awarded to the Wood Education Institute (WEI).

PI: Wood Testing of Manilkara Bidentata, Inc. (2/09)

Laboratory Sponsorship from Tollhouse Energy Company to test lumber using ASTM D1990 Methodology (**\$3400**).

Co-PI: Student Fee Initiative Project – Special Consultant (06/08-09/08)

Film instructional videos for student support for foundation material (prerequisite material). The videos created are property of SFI for use by Cal Poly Civil and Environmental Students (**\$33,600**).

Co-PI/Board Member: Wood Education Institute (WEI) with Support by Wood Works, Inc. (09/08-06/14)

Part of a multi-University team to launch a pilot program to enhance wood education in U.S. Universities. The Principal Investigator is funded through Cal Poly Pomona and I am the Cal Poly SLO representative. Upon completion of the project, WEI was to serve as a vehicle for the development, dissemination, and maintenance of education materials for use by universities for undergraduate, graduate, continuing education, and instructor development education programs (**\$150,000**).

Co-PI: California Central Coast Research Partnership (C3RP) ONR (01/08-12/08)

US-China Collaborative Soil-Structure-Interaction Research (**\$47,800**). This program seeks to establish a joint testing program between Nanjing University of Technology (NJUT) and Cal Poly.

Co-PI: Cal Poly, Support for Faculty Efforts to Obtain Extramural Funding (02/07)

Proposal Development for Structural Performance and Seismic Risk Analysis of Straw Bale Construction (**\$12,500**).

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED]

Co-PI: California Department of Conservation, Strong Motion Instrumentation Program (CSMIP)
(06/01/06-06/30/07)

Evaluation of current nonlinear static procedures using strong motion data recorded from five reinforced concrete buildings. (**\$102,626**). Contract Number 1005-832

PI: Space Age Controllers, Inc. (10/06)

Testing and Analysis of material used in Displacement Transducers in exchange for testing equipment (**\$1000**). Project involved testing 3 wires under various load conditions, data analysis and data reduction, and report generation.

PI: NCFI, Inc. (08/06- 08/07)

Industry sponsored (**\$21,150**) testing of increased structural performance of spray polyurethane foam installed into typical structural wood shear walls. Project supported one graduate student and two undergraduate researchers. This ongoing project covered many facets of structural earthquake testing and evaluation including analysis, prototyping, experimental set up, CUREE-Caltec Seismic load protocols, data reduction, nonlinear structural modeling from acquired data, and report generation. In addition, the project performed material testing on small samples using an image analysis of sequenced photographs over a period of time to establish displacement and strain gradients for material quantification.

PI: Bruno Brace Inc. (06/06-06/07)

Industry sponsored project (**\$9500**) to test the newly patented KwickerKicker for support of concrete shoring systems and to establish both a design basis and product strength. The project supported one graduate student, and two undergraduate researchers. The project involved design and development of the testing apparatus, working with the client to set up a testing protocol, data reduction, and creation of preliminary design information to the client. The final report is in progress.

PI: California Central Coast Research Partnership (C3RP) ONR (06/04-12/06)

Received two sponsored grants (**Year 1, \$40,000 – Year 2, \$35,600**) to study the behavior of wine barrel stacks using portable steel racks subject to seismic ground excitation. The project consisted of both phenomenological and physical modeling of rigid body rocking in an effort to better understand wine barrel stack collapse. The team included a co-PI, a graduate student, and two undergraduate students.

PI: Quest, Cal Poly State University, CA (06/05-06/06)

Sponsored exploratory grant (**\$3000**) to develop a patented device for protection of light frame timber structures subject to service level earthquakes. The research included analytical development and prototyping of a device and device testing both pseudo-statically and dynamically.

Scholarly Activities Completed

Peer Reviewed Conference Publications

*Ferguson, J., **Chadwell, C.B.**, M. Gershfeld, J. van de Lindt, (2017) “Retrofit of Soft Story Light Frame Timber Buildings with the DKB System using Steel Knee-Braces”, *Proceedings of the 16th World Conference on Earthquake Engineering*, Santiago, Chile.

Gershfeld, M., **C.B. Chadwell**, J. van de Lindt, W. Pang, E. Ziaei, S. *Gordon, M.O. *Amini (2014) “Distributed knee-brace (DKB) system as a complete or supplemental retrofit for soft story woodframe buildings”, *Proceedings of the 10th National Conference on Earthquake Engineering*, Anchorage, AK.

Gershfeld, M., **C.B. Chadwell**, E. *Jennings, E. *Ziaei, W. Pang, X. Shao, J. van de Lint., et al (2014) “Seismic Performance of Distributed Knee-Brace (DKB) System as a Retrofit for Soft-Story Wood-Frame Buildings”, *Proceedings of the World Conference on Timber Engineering*, Quebec City, Quebec, Canada.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

- Qu, B., Goel, R., and **Chadwell, C.B.** (2014). “Evaluation of ASCE/SEI 7 Provisions for Determination of Seismic Demands on Nonstructural Components.” *Proceedings of the 10th National Conference on Earthquake Engineering*, Anchorage, AK.
- *Hart, S., R. *Simpson, **C.B. Chadwell**, (2014) “Parametric Study of Reinforced Concrete Columns”, *Proceedings of the 10th National Conference on Earthquake Engineering*, Anchorage, AK.
- Gershfeld, M. , **C.B. Chadwell**, J.van de Lindt, W. Pang, E. *Zaiei, S. *Gordon, M.O. *Amini (2014) “Distributed Knee-Brace (DKB) System as a Complete or Supplemental Retrofit for Soft Story Low-rise Woodframe Buildings”, *Proceedings of the ASCE Structures Congress*, Boston, MA.
- Chadwell, C.B.**, M. Gershfeld, J. van de Lindt, (2012) “Dissemination of Earthquake Related Research Activities through the use of Online Modules”, *Proceedings of the 15th World Conference on Earthquake Engineering*, Lisbon, Portugal.
- Gershfeld, M., **C.B. Chadwell**, (2012). “Online modules for Wood Design courses through NEESacademy” *Proceedings of ASEE Conference*, San Antonio, TX.
- Chadwell, C. B.**, K. R. *Brennan, and M. W. *Porter (2008), “Seismic Isolation of Wine Barrel Stacks on Portable Steel Racks”, *Proceedings of the 14th World Conference on Earthquake Engineering*, Beijing, China.
- *Dodge, D. P., **C. B. Chadwell** (2008) “Comparison of the IBC2006 Equivalent lateral Force Procedure to FEMA356/ASE41 Life Safety Criterion for Timber Structures”, *Proceedings of the 14th World Conference on Earthquake Engineering*, Beijing, China.
- Chadwell, C. B.**, *Stanley, J., and J. Marrow (2006), “Analytical Modeling of Wine Barrel Stack Collapse”, *Proceedings of the 8th National Conference on Earthquake Engineering*, San Francisco, CA.
- Chadwell, C. B.**, G. L. Fenves, and S. A. Mahin (2004), “Numerical Investigation of Seismic Isolation of Single-Tower Cable Stayed Bridges”, *Proceedings of the 13th World Conference on Earthquake Engineering*, Vancouver, British Columbia.
- Chadwell, C. B.**, G. L. Fenves, and S. A. Mahin (2002), “Cable Stayed Bridge Behavior Under Earthquake Excitation – A Case Study”, *Proceedings of the 7th National Conference on Earthquake Engineering*, Boston, MA.

Conference Publications/Workshops

- Gershfeld, M., **C.B. Chadwell** (2015) “Seismic Performance of Distributed Knee-Brace (DKB) system as a retrofit for soft-story wood-frame buildings”, *Proceedings of the 8th Congreso Internacional Ingenieria Civil*, Querétaro, Mexico.
- Gershfeld, M., **C.B. Chadwell** (2013) “DKB System as Complete or Partial Retrofit of wood-frame Soft-story Buildings”, *Quake Summit Presentation*, Reno, NV.
- Gershfeld, M., **C.B. Chadwell**, J. van de Lindt, W. Pang et all. (2013) “DKB System as Complete or Partial Retrofit of wood-frame Soft-story Buildings” *Proceedings of the SEAOC Convention*, San Diego, CA.
- *Heredia, H., and **C. B. Chadwell** (2010) “Nonlinear Modeling of the Post Peak Degradation of Nonstructural Components in Light Frame Structural Systems”, *Proceedings of the ASCE Structures Congress*, Orlando, FL.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED]

- *Camann, K.R., **C. B. Chadwell**, D.C. Jansen, and B.Z. Korman (2010) "Design and Performance of Load Bearing Shear Walls Made from Composite Rice Straw Blocks", *Proceedings of the ASCE Structures Congress*, Orlando, FL.
- Chadwell, C.B.** (2009), "Seismic Support System for Wine Barrel Stacks", *Poster Session for the American Society for Enology and Viticulture*, Napa, CA.
- Chadwell, C. B.**, K. R. *Brennan, and M. W. *Porter (2009), "Seismic Isolation of Wine Barrel Stacks on Portable Steel Racks", *Proceedings of the ASCE Structures Congress*, Austin, TX.
- Goel, R. K. and **C. B. Chadwell** (2008) "Evaluation of ASCE-41 Nonlinear Static Procedures Using Recorded Motions of Reinforced-Concrete Buildings", *Proceedings of the ASCE Structures Congress*, Vancouver, Canada.
- *Dodge, D. P. and **C. B. Chadwell** (2008) "Experimental and Analytical Investigation of Seismic Performance of Spray Polyurethane Foam Infill Timber Shear Walls", *Proceedings of the ASCE Structures Congress*, Vancouver, Canada.
- Goel, R. K. and **C. B. Chadwell** (2007) "Evaluation of Current Nonlinear Static Procedures for Concrete Buildings Using Recorded Strong-Motion Data", *California Strong Motions Instrumentation Program Workshop*, Sacramento, CA.
- *Rafiee, D., and C. B. Chadwell (2005), "Panel Zone Shear Failure in Glue Laminated Wood Beams", *Proceedings of the 2005 SEAOC Convention*, San Diego, CA.
- Chadwell, C. B., and R. A. Imbsen (2004), "XTRACT: A Tool for Axial Force – Ultimate Curvature Interactions", *Proceedings of the ASCE Structures Congress*, Nashville, TN..
- Sarraf, M., R. Imbsen, and **C. B. Chadwell** (2004), "Pushover Analysis of Bridges", *Proceedings of the 4th National Seismic Conference & Workshop on Bridges & Highways*, Memphis, TN.
- Sarraf, M., R. Imbsen, and **C. B. Chadwell** (2003), "Pushover Analysis of Bridges", *Western Bridge Conference*, Reno, NV., October 2003.
- Chadwell, C. B. (2003), "Seismic Response of Single Tower Cable-Stayed Bridges", *Dissertation*, University of California, Berkeley, August, 2003.
- Chadwell, C. B.**, G. L. Fenves, and S. A. Mahin, "Near Source Earthquake Effects on the Ji Lu Cable-Stayed Bridge in the 21 September 1999 Chi-Chi Taiwan Earthquake", *Proceedings of the NSF-TUIBITAK Grantee Workshop for the Turkey and Taiwan Earthquakes of 1999*, Antalya, Turkey, Sept. 2001.

Other Publications

- Hendrix T., "A Whole Lot of Shakin' Goin' On." - Cal Poly Magazine, Spring Issue, 06 (Note: *this article is about me, not by me*).
- Hardesty K., "Cal Poly devises quake-resistant barrel rack.", *Wines & Vines*, Volume 87, Issue 10, pg. 53., March, 2007 (Note: *this article is about me, not by me*).
- Contributor - "Preliminary Observations on the December 22,2003, San Simeon Earthquake ", *Earthquake Engineering Research Institute Newsletter*, March 2004, Volume 38, Number 3.
- Goel, R., **C. B. Chadwell**, "Preliminary Report on September 28, 2004 Parkfield Earthquake ", *Earthquake Engineering Research Institute*, Web Publication, <http://www.eeri.org>, October 2004.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

Research Positions (non- Cal Poly)

Research and Development: Imbsen Software Systems, Sacramento, CA (04/02-12/02)

Designed and developed a fully functional 2D nonlinear pushover analysis program for the capacity evaluation of bridges and buildings. The software, CAPP, created for both educational research and professional practice brings together ease of use with computational power. Nonlinear elements implemented for CAPP include: Multi-linear nonlinear axial spring and rotational hinges; axial force/bending interaction hinges defined with a multi-linear surface; and pile elements that contain varying nonlinear P-Y and T-Z curves with elastic-plastic yielding and element strain hardening along the pile length.

Graduate Student Researcher: SEMM Department, UC Berkeley, Berkeley, CA (05/00-08/03)

Conducted extensive field reconnaissance of buildings, bridges, dams and other structures damaged during the September 1999 Taiwan earthquake. With funding from NSF (Mahin and Fenves, PIs), undertook a comprehensive investigation of bridge performance, with special emphasis on the Ji-Lu Bridge. This cable stayed bridge, located in the epicentral region, was under construction at the time of the earthquake and suffered extensive damage. Both elastic and nonlinear dynamic analyses were performed to identify the ability of various analytical methods and modeling idealizations to predict observed damages. The effect of various ground motion and structural characteristics on predicted response and implications of this behavior for the design of seismic-resistant structures was studied in detail. In conducting the analyses, the newly developed OpenSEES (Open System for Earthquake Engineering Simulation) computational platform was utilized and several new capabilities were added. A model for draped cables was developed that includes material and geometric nonlinearities (based on a large deformation, three dimensional, co-rotational formulation) and special gap elements were devised to represent the complex three-dimensional contact-slip-uplift-pounding behavior experienced at the abutments.

Independent Researcher: Pacific Earthquake Engineering Research Center, Berkeley, CA (01/00-08/00)

Developed a three-dimensional modeling graphical user interface (OSP) for post processing analytical results output from OpenSees. The interface linked with the scripting language used as input to generate realistic graphical models. Full nonlinear time histories can be played in the simulation program while simultaneously viewing local time history traces of individual elements.

Research Assistant: Earthquake Engineering Research Center, Berkeley, CA (05/99-08/99)

Assisted in steel erection and system identification testing for sub-assemblages of bi-directional elevated shake table tests. Responsible for material procurement, material transportation, and element construction.

Research Assistant: The National Laboratory of Civil Engineering, Lisbon, Portugal (05/98-08/98)

Worked with researchers on educational software for the visualization of the behavior of ductile reinforced concrete cross sections under biaxial bending.

Patents/Invention Disclosures

Chadwell, C. B., "Seismic Isolation for Barrel Stacks and Method of Isolation", Provisional Patent Application Number #61105337, EFS ID. #4113921.

Chadwell, C. B., T. Ourston, "Bearing support rack (seismic rack) for portable wine barrel racks to allow wine barrel racks to be stacked up to 6 barrels high while protecting them from instability due to ground shaking during earthquakes.", *Invention Disclosure*, August 2, 2006.

Chadwell, C. B., T. Ourston, "Bearing support device (seismic tray) for portable wine barrel racks to allow wine barrel racks to be stacked up to 6 barrels high while protecting them from instability due to ground shaking during earthquakes.", *Invention Disclosure*, August 2, 2006

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED]

Chadwell, C. B., G. J. Hall, "Seismic energy dissipation, force control, and post-earthquake re-centering devices for light frame timber construction using shape memory alloys with composite bearings", *Invention Disclosure*, June 3, 2004.

Reviews

External Anonymous Promotion Review. University of Oklahoma

Takeuchi, Ida, Yamada, Suzuki, "Estimation of cumulative deformation capacity of buckling restraint braces", *Journal of Structural Engineering*, Manuscript ST/2006/25181

Nawawi, C., H. Hao, "Significance of SSI on non-uniform near-fault motion in bridge girder poundings", *Journal of Structural Engineering*, Manuscript ST/2003/24026, In Revision.

Nawawi, C., H. Hao, "Significance of SSI on non-uniform near-fault motion in bridge girder poundings", *Journal of Structural Engineering*, Manuscript ST/2003/24026R, In Publication.

Vargas, R., M. Bruneau, "Seismic Response and Design of Buildings with Metallic Structural Fuses", *Journal of Structural Engineering*, Manuscript ST/2004/24678, Declined.

Technical Workshops

Wood Education Symposium, April, 2018

Mason's Workshop for Professors, June, 2010

California Strong Motions Instrumentation Program Workshop, Sacramento, CA. July, 2007

Office of Emergency Services Safety Assessment Program Workshop, San Francisco, CA. May, 2006

OpenSEES Workshop, Berkeley, CA, July, 2003

Third National Seismic Conference and Workshop on Bridges and Highways, Portland, OR, April, 2002

Conferences Attended (leadership roles noted in bold)

33rd/34th Chi Epsilon Pacific District Conference (**District Director/Steering committee lead**), CPSLO (Virtual March 2021 & In-Person Nov, 2021)

32nd Chi Epsilon Pacific District Conference (**District Director/Steering committee lead**), CSU LA, CA Nov, 2019

ASCE Department Chairs and Heads conference and Educational Symposium. Dallas, TX, June, 2019

Foundation for Interdisciplinary Studies – 2nd Symposium **Steering Committee and Guest Speaker** (March, 2019) – Planned the second symposium for a Building Professionals consortium crossing the disciplines of Civil/Environmental Engineering, Architecture, Structural Engineering, and Construction Management in the Build Environment.

31st Chi Epsilon Pacific District Conference (**District Director/Steering committee lead**), UC Berkeley, CA Nov, 2018

ASCE Department Chairs and Heads conference. Philadelphia, PA, June, 2018

2018 Chi Epsilon National Conclave, Arlington, TX, March, 2018

30th Chi Epsilon Pacific District Conference (**steering committee member**), SDSU, CA Nov, 2017

ASCE Department Chairs and Heads conference. Provo, UT, June, 2017

Wood Education Symposium (**steering committee member**), Denver, CO, April, 2017

16th World Conference on Earthquake Engineering, Santiago, Chile, Jan, 2017

29th Chi Epsilon Pacific District Conference (**steering committee member**), UC Irvine, CA Nov, 2016

ACE/AIEA International Collaborative. Building an International Curriculum for Everyone, Washington D.C. Feb, 2015

27th Chi Epsilon Pacific District Conference (**steering committee member**), CSU Fullerton, CA Nov, 2014

10th National Conference on Earthquake Engineering, Anchorage, AK, July 2014

2014 Chi Epsilon National Conclave, Salt Lake City, UT, March, 2014

26th Chi Epsilon Pacific District Conference (**steering committee member**), UC Davis, CA Nov, 2013

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED] [REDACTED]

- 25th Chi Epsilon Pacific District Conference (**steering committee member**), CSU Long Beach, CA Nov, 2012
- 15th World Conference on Earthquake Engineering, Lisbon Portugal, Oct, 2012
- 2012 Chi Epsilon National Conclave, Los Angeles, CA, March, 2012
- 2011 ASCE Structures Congress, Las Vegas, NV, April, 2011
- 24rd Chi Epsilon Pacific District Conference (**steering committee member**), Cal Poly Pomona, CA Nov, 2010
- 2010 Chi Epsilon National Conclave, Birmingham, AL, March, 2010
- 23rd Chi Epsilon Pacific District Conference (**steering committee member and host**), Cal Poly, SLO, CA Nov, 2009
- 2009 ASCE Structures Congress, Austin, TX, April, 2009
- 22st Chi Epsilon Pacific District Conference, University of Southern California, CA Nov, 2008
- 2008 Chi Epsilon National Conclave, Los Angeles, CA, March, 2008
- 14th World Conference on Earthquake Engineering, China, Oct. 2008.
- 2008 ASCE Structures Congress, Vancouver, Canada, April 2008.
- 21st Chi Epsilon Pacific District Conference (**steering committee member**), Berkeley, CA Nov 2007
- 20st Chi Epsilon Pacific District Conference (**steering committee member**), Long Beach, Nov 2006
- 8th National Conference on Earthquake Engineering, San Francisco, CA, July 2006
- 19st Chi Epsilon Pacific District Conference (**steering committee member**), San Jose, Nov 2005
- 2005 SEAOC Convention, San Diego, CA, September 2005
- 18st Chi Epsilon Pacific District Conference (**steering committee member**), Los Angeles, Nov 2004
- 13th World Conference on Earthquake Engineering, Vancouver, British Columbia, August 2004
- 2004 ASCE Structures Congress, Nashville, TN, May 2004
- 4th National Seismic Conference & Workshop on Bridges & Highways, Memphis, TN, February 2004
- 17st Chi Epsilon Pacific District Conference (**steering committee member**), San Diego, Nov 2003
- Western Bridge Conference, Reno, NV., October 2003
- 7th National Conference on Earthquake Engineering, Boston, MA, July 2002

Participation in Professional Associations and Organizations

Earthquake Engineering Research Institute, Past Member
American Concrete Institute, Faculty Network Member
American Society of Civil Engineers (Structural Engineers Institute), Member
American Society of Civil Engineers (Engineers Without Borders), Member
American Society of Civil Engineers, Associate Newsletter Editor Emeritus, SLO Branch
Chi Epsilon Civil Engineering Honor Society, Faculty Advisor, Pacific Council Advisory Board
Chi Epsilon Civil Engineering Honor Society, District Councilor, Pacific Council Advisory Board
Structural Engineers Association of Southern California, Past Member, Civil Engineering Faculty Representative

Related Profession Experience

Consultant: Chadwell Consulting Engineers, San Luis Obispo, CA (10/05-Present)

Projects include: Educational module development as part of the Wood Educational Institute, 114/116 W Branch St (AG) Façade renovation, dry rot repair/retrofit (Cambria), assorted small timber construction projects, contract administration of a seismic retrofit at 116 W Branch St. (AG), timber bridge retrofit to accommodate a concrete truck type loading (3645 Alisos Rd, Arroyo Grande, CA 93420), retrofit of an existing hay barn to upgrade assembly level occupancy. Select students were employed and mentored on all consulting projects.

Engineering Software Consultant: Imbsen Software Systems (TRC), Sacramento, CA (08/01-Present)

Provide consulting services as the technical supervisor for engineering software development, program maintenance, and upgrades. Implemented training on XTRACT (formerly UCFyber) source code and graphical user interface design techniques using Microsoft's Visual Basic software.

CHARLES B. CHADWELL - CURRICULUM VITAE

College of Engineering • Cal Poly State University • San Luis Obispo, CA 93407 • [REDACTED]

Chief Executive Officer: ZEevent, Structural Engineering Software, Inc., Berkeley, CA (01/00-Present)

Started successful online software company for retailing engineering software to professional engineers. Developed, designed and implemented the feature product UCFyber. UCFyber is a graphical tool for designing and analyzing structural cross sections subjected to biaxial bending under constant or varying axial loads. The software allows users to create sections of any arbitrary shape within a graphical interface by utilizing an automated discretization algorithm. The software uses nonlinear stress-strain material models combined with a choice of nonlinear numerical solution strategies to generate the moment curvature response, the axial force-moment interaction relation, and the moment-moment interaction relation of any structural section. Output data from various analyses of various sections is post processed for comparative studies of section behavior. To date, UCFyber has been downloaded 2,500 times, is used in more than 30 countries, and has a strong presence in earthquake engineering design offices throughout the world. <http://www.zevent.com>. UCFyber software copyright sold to Imbsen Software Systems 08/01/01.

Structural Design Intern Engineer: Degenkolb Engineers, San Francisco, CA (05/97-08/97)

Assessed existing buildings for seismic vulnerability using the FEMA 178 document recommendations. The vulnerability study established which of 15 structures required detailed evaluation and probable retrofit. Assisted in parameter correlation study for the FEMA 273 document. Developed design tables for bolted design timber connection using a capacity design approach. Created a MATHCAD script file for calculation of inelastic curvature and displacement ductilities utilizing nonlinear material models.

Structural Design Intern: Bridge Group, Department of Public Works, San Francisco, CA (03/96-07/96)

Evaluated seismic upgrade strategies for various San Francisco bridges as an independent design reviewer. Performed seismic vulnerability analysis of the Gilman Pedestrian Overcrossing using SAP 90 and X-Section. Designed moment curvature analysis software for use in Excel using Visual Basic.

Construction Intern Engineer: Water Group, Department of Public Works, San Francisco, CA (01/96-03/96)

Executed construction support duties for Contract D of Islais Creek Transport Structure that included: responding to requests for information, approving submittals, checking shop drawings, and performing engineering construction cost estimates.

Fellowships

Pacific Earthquake Engineering Research Center Taiwan Field Mission Fellowship Recipient (05/02)

National Science Foundation Graduate Research Fellowship Recipient (08/97-08/00)

Henry Ford Foundation Academic Fellowship Recipient (08/96-05/97)

Honors

Certificate of Appreciation, CSU International Programs (2015)

Chancellor White personal Thank You card (2014)

Multicultural Engineering Program Faculty/Staff appreciation award (2013)

Certificate of Appreciation, Faculty Advisor, EWB India (2012)

Nominated for College of Engineering Northrop Grumman Space Technology Excellence in Teaching Award (2006, 2008, 2015)

Who's Who in America (2006)

Chapter Honor Member for Chi-Epsilon (06/05)

Outstanding Graduate Student Instructor Award (05/99)

Berkeley Engineering Alumni Society Academic Award Citation Recipient (04/97)

Beavers Heavy Construction Scholarship Award (01/97)

American Society of Civil Engineers, Golden Gate Branch, Essay Scholarship Award Winner (11/96, 11/ 97, 11/98)