



The California Geotechnical
Engineering Association

Annual Conference

Pasadena, CA

April 14-16, 2016



Come Smell The  Roses In Pasadena



Early Bird Registration by February 22, 2016

Conference Program

April 14, 2016 Day01



Golfers, set your clock for an early tee time and a morning of fun sport and camaraderie! Sponsored by Farrell Design-Build, the "Pasadena Putt" golf tournament will take place at Brookside Golf Club, reminiscent of an earlier era, and steeped in 75 years of golf tradition. Designed by famed golf architect William P. Bell, Brookside Golf Club's 36 holes are nestled in the golden foothills of Pasadena next to the world famous Rose Bowl.

The CalGeo Past Presidents in attendance will be treated to a long, leisurely lunch in which they will have the opportunity to discuss the issues of the day and how they can help direct us to the best solutions.

Registration will begin in the early afternoon, and the Exhibitors will use this afternoon to set up their exhibits. Our conference will open with the General Membership meeting where we will vote in our new Board, introduce any new members, and bring the group up-to-date on the state of the organization.

That evening we'll hold our Welcome Reception. This is the perfect time to relax, enjoy some great food and drink, and mingle with old and new friends.

April 15, 2016 Day02



MORNING — SESSION ONE

The Emergence of Geotechnical Practice in California (1945-Present)



Dr. J. David Rogers holds the Karl F. Hasselmann Chair in Geological Engineering at the Missouri University of Science & Technology. Prior to accepting his current position in 2001, he served on the civil engineering faculty at U.C. Berkeley (from 1994-2001). He grew up in West Covina, CA, where his neighbor was J. Robert Davis, CEO of Converse-Davis & Associates of Pasadena during the 1960s and 70s. This association led to his interest in engineering geology and geotechnical engineering.

The need for soil mechanics and foundation engineering services came about largely as a consequence of the March 1933 Long Beach Earthquake, which triggered passage of the Riley and Field Acts, requiring that schools, hospitals, auditoriums and other public buildings be designed to resist earthquake loading. This was followed in quick succession by a series of floods in 1934, 1937, and 1938 which brought in a large number of joint-local sponsor federal agency public works projects. In 1952 the City of Los Angeles enacted the nation's first excavation and grading code, which was adopted by most other cities and counties in the major urban centers of California, often after these areas suffered damage from landslides. The *California Building Code* was established in 1988. It combined the *Uniform Building Code* (CBC) with the addition of California's more stringent seismic design parameters, as determined by *California Building Standards Commission*. The 1989 Loma Prieta and 1994 Northridge earthquakes triggered substantive legislation and changes in the CBC aimed at mitigating seismic site response problems in California, chiefly near-field acceleration, liquefaction potential, and seismically-induced landslides. The current economic slump, which began in October 2008, has witnessed a dramatic re-structuring of the geotechnical and geoenvironmental services sector, with less emphasis on new construction.

Urban Geology



Ms. Susan Kirkgard, CEG has over 30 years of experience as an engineering geologist with LeRoy Crandall and Associates, LAW/ Crandall, MACTEC, Geodesign and Geocon West. Susan specializes in investigating faults in an urban environment utilizing a combination of exploration techniques when standard trenching methods cannot be performed. She has authored and co-authored professional papers on urban fault investigation techniques that have been presented in both national and international forums and

is a member of AEG, GSA and SSA.

Surface fault rupture has been observed to create differential offsets of up to several meters. It is imperative to identify the locations of fault rupture surfaces to properly site structures away from faults and to evaluate the potential hazards that may be located over the fault traces. The most direct method of investigation is to excavate trenches and visually identify discontinuities in the stratigraphy that may indicate a seismogenic origin. In an urban environment, this may not be possible due to physical constraints and geologists are now using an array of different exploration techniques to evaluate the potential for surface fault rupture.

Millennium Fault Study



Michael Reader, PE, GE is the CEO of Group Delta. Mr. Reader has over 29 years of demonstrated experience in conducting and managing geotechnical investigations for a wide range of major projects in Southern California including some of the largest design/build transportation projects and master plan developments.

The Hollywood Millennium project is proposed to be developed at, and adjacent to, parking lots the site used by iconic Capitol Records tower building. The fault rupture

study performed for the Millennium Hollywood Project, and adjacent sites, is perhaps the most controversial fault rupture hazard investigation ever performed in California. The proposal for the Millennium Hollywood project itself pre-dated the publication of the Alquist-Priolo Map for the Hollywood Quad. However, due to intense public opposition and scrutiny, the CGS moved forward with publication of the draft map and utilized the attention to raise funding for the department. The original basis for the map in the area of the Hollywood Millennium project was based on scant subsurface information and was inferred solely on groundwater data (later dropped by CGS) and presumed fault related topography (also later revised). Group Delta was contracted by 4 adjacent site owners to conduct fault rupture hazard studies using trenches, CPTs, and corings. All of the 4 investigations were approved by the City of Los Angeles, in spite of frequent negative public comments from the CGS. The main result of the investigation was that the fault identified by CGS as being active had in fact last been active more the 125,000 years ago; the 4 investigations all showed no active faulting was present. CGS has refused to change the map.

AFTERNOON — SESSION TWO

Luncheon Presentation

Polyurethane Foam Injection for Stabilizing and Lifting Concrete

Lunch sponsor, **Foundation Support of California**, is an expert foundation repair contractor serving throughout California. They provide high quality foundation repair, concrete lifting and leveling, and earthquake retrofitting services for all commercial properties.



Presenter **Jeff Kortan, PE** is a geotechnical engineer and the Director of Engineering for Foundation Supportworks. Jeff is involved in product design, product verification testing, preliminary design applications, project consulting, conducting installation, sales and marketing training, as well as developing and presenting education-based material.

Polyurethane foam is used to create a variety of products from weather stripping to automobile parts. In recent years, the technology has been optimized for use in geotechnical and structural applications. This presentation focuses on how polyurethane foam injection is used for stabilizing and lifting concrete.

2016 Labor and Employment Law Update

Van Allyn Goodwin is a Senior Shareholder in the San Diego Office of Littler Mendelson, P.C. Van has been a frequent presenter at past CalGeo programs regarding California prevailing wage and other employment law topics. His practice covers the full spectrum of labor and employment law, and he is one of the firm's experts in the area of State and federal prevailing wage laws. He also devotes a significant portion of his practice to counseling



and representing employers in all facets of employment and labor law, including wage and hour matters.

Mr. Goodwin's presentation will include a summary of key labor and employment decisions and important new legislation affecting California employers, with an emphasis on those that specifically affect geotechnical consulting firms. It will also include a lively and informative discussion of recent Prevailing Wage Law developments.

The Reconnaissance of Alta California by Jedediah Smith in 1826-28; Or How Geology Controls Everything in California

Dr. J. David Rogers will be joining us again for this afternoon's presentation. Famed Mountain Man Jedediah Smith led two back-to-back explorations of the Great Basin, and blazed the first overland trail into southern California, which took him to the Los Angeles and San Diego areas in the fall of 1826. Smith discovered Cajon and Tejon Passes, then reconnoitered the Kern and Tulare Basins, and the San Joaquin Valley. The journals of Smith's secretary Harrison Rogers survived the massacre and their publication hastened future explorations of California, by American trappers, gold seekers, and railroad surveyors, who followed the same paths blazed by Smith, which were controlled by the underlying geologic structure. This presentation will demonstrate how faults control the springs, and springs controlled the routes taken by all the early explorers and surveyors, which were then followed by railroads and highways.

The afternoon and evening of Day Two is open for your own leisure activity.

April 16, 2016 Day03



MORNING — SESSION THREE

Geo-Alchemy (Turning Sand Into Sandstone) and Other Biogeotechnologies



Dr. Edward Kavazanjian is the Ira A. Fulton Professor of Geotechnical Engineering and a Regents Professor at Arizona State University (ASU). He is the Director of the Center for Bio-mediated and Bio-inspired Geotechnics, a collaborative effort of ASU, U.C. Davis, Georgia Tech, and New Mexico State University that was recently funded with an \$18.5 million grant from the National Science Foundation.

Biogeotechnical engineering is based upon the premise that through 3.8 billion years of trial and error (i.e., evolution)

nature has developed some efficient and sustainable solutions to many of the problems that vex geotechnical engineers. The biogeotechnology that has gained the most attention over the past 15 years is bio-mediated calcium carbonate precipitation, wherein microbes are used to induce precipitation of calcium carbonate (calcite) in granular soils, turning cohesionless sand into a sandstone-like material. Other biogeotechnologies currently being explored by geotechnical engineers include development of root-inspired earth reinforcement and foundation systems, in situ creation of barriers to contaminant transport, enhanced soil penetration systems, and motile subsurface investigation probes.

Geotechnical Insurance Claims & Risk Management Practices for Site Characterization

Presenter **Dr. Pat Lucia, PhD, PE, GE** is Adjunct Professor of Civil Engineering University of California, Davis and Chairman Emeritus at Geosyntec Consultants.

In an increasingly litigious society, lawsuits against geotechnical engineers seemingly are inevitable. In a recent research project at the University of California at Davis approximately 900 claims, made against geotechnical engineers throughout the United States, over a 25 year period were studied to develop a broader understanding of the factors that can lead to a claim. This project was intended to develop a better understanding of the nature of the claims against practicing geotechnical engineers and those business and technical practices that can mitigate the risk for potential claims. These



recommendations lead to suggested changes in the standard of care for geotechnical work in the development of a scope of work in proposals that, it is believed, will make unknown conditions easier to defend in litigation against geotechnical engineers. In addition to discussing the recommendations of the recent work, Dr. Lucia will discuss how the standard of care is decided in court based on his experiences in over 50 litigation cases defending geotechnical engineers.

AFTERNOON — SESSION FOUR

Outstanding Project Awards Luncheon

Following our morning session, CalGeo will be hosting our annual Outstanding Project Awards luncheon lead by immediate Past President, Mike Laney. Mike will announce the winning project(s). Each winning firm will give us a brief overview of the project and be presented with a beautiful trophy. Our Student Outreach committee will also present the Rising Star Award to this year's winning student chapter.

Sustainable Pavement Solutions



Marco Estrada is the Director of Business Development for Pavement Recycling Systems of California. Marco is a graduate of the University of Texas at Austin, School of Engineering. Over the last 25 years, he has been involved in both the engineering and construction industries, specializing in soil stabilization and asphalt recycling.

Because of the substantial economic and environmental benefits yielded through the use of Sustainable Engineered Technologies, the County of Los Angeles has been implementing these technologies as a part of their pavement reconstruction program.

Due to widespread distress, base failure and yielding subgrade on these Community Roadway Improvement Projects, the County recycled the existing asphalt pavement for use as the structural base course asphalt through the Cold Central Plant Recycling (CCPR) process, as well as stabilizing the subgrade/base layer through the in-place processing of a Cement Stabilized Pulverized base (CSPB). The use of the Sustainable Engineering Technologies resulted in reducing reconstruction costs by almost 50%, for a combined savings of \$3.5M, reduced Energy Consumption by 68%, and reduced greenhouse gas (GHG) emissions by 60%.

The U.S. and California Economic Outlook



Esmael Adibi, PhD, is director of the A. Gary Anderson Center for Economic Research and Anderson Chair of Economic Analysis at Chapman University. Dr. Adibi has co-authored two textbooks, *Econometric Analysis - An Applications Approach*, and *The Practice of Econometrics with EVIEWS*. His articles have been published in newspapers including *The Los Angeles Times*, and the *Orange County Register*, as well as professional journals.

A rapid rise in home prices and tight inventory fueled construction spending. That, along with a pickup in consumer spending, became a key driver of this recovery. But home price appreciation is slowing down, the Federal Reserve is ending its easy monetary policy, Europe is still struggling and Chinese economic growth is slowing down. Dr. Adibi will discuss the U.S. and California economic outlook and will provide answers to the following questions; What can power the economy forward? Will the pace of job creation accelerate? What's the outlook for the interest rates? Will higher interest rates dampen economic recovery? What is the outlook for the real estate market? What are the new knowns and unknowns?

Close of Conference

Get your *Game On* and join us for our "Tailgate" Closing Party! Score some fun and enjoy your last night with new and old friends until next time. We encourage you to wear your college team's colors. Which college will be the best represented? We will also be holding our ever-popular silent auction to raise money for our Student Outreach Program. Your donated items for the auction would be greatly appreciated.



...The Langham Hotel



1401 South Oak Knoll Avenue, Pasadena, CA

Classic luxury amidst California's natural beauty. The elegance of Southern California. The grandeur of a bygone era. 23 acres of lush gardens, historic ballrooms, and spacious guest rooms all nestled at the base of the majestic San Gabriel Mountains National Monument.

Conference attendees and guests will be on their own for breakfasts during the conference; we recommend The Terrace restaurant on the property.



...Hotel Reservations



CalGeo's room block will be open for reservations through April 1, 2016. Please make your room reservations early. The hotel cannot guarantee room availability after the April 1st cut-off date. Group rates are based on single or double occupancy. There is no additional charge for kids 17 and younger when accompanied by an adult, using existing bedding. Maximum room occupancy is (3) people. Group rates are available three (3) days pre and post conference dates, based on availability. CalGeo's special conference rate is for a Deluxe Room – at \$239/day (does not incl. taxes/fees). Overnight Valet parking is \$27/day. There is no resort fee. Room fee includes daily newspaper, in-room internet, coffee in lobby, and access & use of fitness facilities.

To make your hotel reservations:

Call for Reservations at (626) 568-3900 before April 1, 2016 and ask for CalGeo's group rate.

...Optional Activities

"The Pasadena Putt" Golf Tournament, Thursday, April 14, 2016 (golfers should arrive the night before).

Separate registration form enclosed.



Chuan Spa at The Langham gives 10% off spa treatments (Monday through Thursday) – call (626) 585-6414



...Conference Registration

Mail: All registration materials are included in the package. Please complete the appropriate forms and return them to CalGeo along with your check made payable to CalGeo. Mail payments to: CalGeo, P.O. Box 1693, Placerville, CA 95667-1693. **Early bird registration is until February 22, 2016.**

Pay with a credit card: To register on line, and pay by credit card, go to www.calgeo.org, click on "2016 Annual Conference" under "Upcoming Events". Please note that you **MUST FAX or email the completed registration page(s) from this packet to CalGeo when you register on line at (530) 344-0834 to complete your registration process.**

Questions? Call CalGeo at (530) 344-0644



CalGeo Annual Conference

April 14-16, 2016

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REGISTRANT INFORMATION

Your Name

Spouse/Guest Name

Company Name

Company Street Address

City/State/Zip

Company Telephone

E-mail Address

Name(s) of Added Guest
& Child Registrants *

REGISTRANT FEES

Full Registration for Members includes all functions except optional activities (see schedule). Breakfast is NOT included.

Spouse/Guest Registration includes: Thursday Welcome Reception and Saturday Closing Event. Breakfast is NOT included.

*If bringing your children, please call CalGeo office for pricing to attend guest events.

REGISTRANT TYPE	Early Bird (By Feb. 22)	Regular (Feb. 23 – Apr.1)	Late (After Apr. 1)	AMOUNT
Member Full Registration	\$675	\$800	\$900	\$
Member Spouse/Guest @	\$375	\$450	\$500	\$
Friday Only Sessions**	n/a	\$300	\$350	\$
Saturday Only Sessions**	n/a	\$300	\$350	\$
Non-Member Full Registration	n/a	\$900	\$1,000	\$
Non-Member Spouse/Guest	n/a	\$500	\$600	\$

** Friday and Saturday One-Day Only registration includes luncheon, and sessions for that day. One-day registration does not include Thursday events or Saturday night closing event. To attend both Friday and Saturday events, you must register as a full registrant. One-Day Only sessions are not available for spouse/guest.

OPTIONAL

"The Pasadena Putt" Golf Tournament - Self

\$75

\$

Spouse/Guest Golf Tournament

@

\$75

\$

Please include all "Optional Event" sign-up forms with this registration.

Do you have any special menu requirements? (we are able to accommodate vegetarian, vegan, gluten free)

GRAND TOTAL \$

PAYMENT INFORMATION

Registration and payment to CalGeo must be POSTMARKED NO LATER THAN APRIL 1, 2016. (Early Bird by February 22, 2016). If you wish register and pay by credit card, you may do so at our website, www.calgeo.org.

In addition to paying on line, you will need to fax or email all registration forms (this and optional activity forms) to:

CalGeo at 530.344.0834.

HOTEL reservation deadline is April 1, 2016. CONFERENCE registration deadline is April 1, 2016

:::OVER::: for more info

CALCULATING YOUR REGISTRATION FEES:

- ✓ Registration fee amounts are based on POSTMARK dates.
- ✓ "Early Bird" registration fees apply to registrations postmarked on or before February 22, 2016.
- ✓ "Regular" registration fees apply to registrations postmarked between February 23 and April 1, 2016.
- ✓ "Late" registration fees apply to any registration postmarked April 2nd, or later.
- ✓ Non-member rates are higher, but the same postmark dates apply.
- ✓ Incorrectly calculated registration fees will be invoiced to the company.
- ✓ If you or your guest decide to participate in an event for which you did not pre-register or pay for, your firm will be invoiced after the conference.
- ✓ Be sure to include your Optional Event registration forms, with your payment.
- ✓ Please... keep a copy of your registration information for your files.
- ✓ If you have any questions regarding completion of these forms, please call Marsha Myers at 530.344.0644 or e-mail her at mmyers@calgeo.org.

Don't forget your hotel reservations! Call for Reservations at (626) 568-3900 before April 1, 2016 and ask for group CalGeo's group rate. Room rates revert to "rack rates" after their reservation deadline (April 1, 2016), and the hotel cannot guarantee room availability after that date. Don't delay on this step! You may cancel your hotel reservation directly with the hotel 48 hours or more prior to arrival without a charge. Also, any reductions to your length of stay must be received 48 hours or more prior to arrival, or you will be charged for the full original length of stay.

Please calculate the GRAND TOTAL amount due based on your choices shown on the front. You may register and pay online at calgeo.org or make your check payable to CalGeo and mail it to:

CalGeo-Annual Conference Registration
P.O. Box 1693
Placerville, CA 95667-1693

After the registration is received, a confirmation e-mail will be sent to you at the address shown on the other side. (You should also receive a confirmation from the hotel for your room reservations). Those who wish to play golf will want to arrive Wednesday, April 13, 2016 in order to accommodate the early tee times Thursday. (You will receive tee times and pairing information from Dave Hamilton and/or Mike Cazeneuve). Non-golfers will want to arrive early enough to check in and register prior to Thursday afternoon & evening events, April 14, 2016.

If there will be more than one attendee from your firm, please *submit one form per employee*.

Cancellation Policy: Cancellation of your registration is permitted up to April 1, 2016. Cancellation must be written and faxed to 530.344.0834, or via e-mail to mmyers@calgeo.org. Note that any cancellation request received AFTER end of business on April 1, 2016 is not subject to refund, however substitutions are allowed.

Please contact the CalGeo office at 530.344.0644 if you have any questions.

CalGeo Annual Conference

April 14-16, 2016 *Come Smell The  Roses In Pasadena*

Conference Schedule

Thursday, April 14, 2016

- 7:00 a.m. "The Pasadena Putt" – Golf Tournament
- 12:45 p.m. Past Presidents' Advisory Council Luncheon Meeting
- 2:00 p.m. Conference Check-In/Registration & Vendor Display Set-up
- 3:30 p.m. General Membership Meeting
- 6:30 p.m. Welcome Reception (*for registered individuals*)

Friday, April 15, 2016

Please note that attendees and guests will be on their own for breakfast. We recommend The Terrace restaurant at the hotel.

- 8:30 a.m. The Emergence of Geotechnical Practice in California (1945-Present)
Presented by: Dr. J. David Rogers, PhD, PE, PG, CEG, CHG
- 10:00 a.m. Urban Geology
Presented by: Susan Kirkgard, PG, CEG
- 11:00 a.m. Millennium Fault Study
Presented by: Michael Reader, PE, GE
- 12:00 p.m. Luncheon Presentation: Polyurethane Foam Injection for Stabilizing and Lifting Concrete
Sponsored by Foundation Support of California and presented by: Jeff Kortan, PE
- 1:15 p.m. 2016 Labor and Employment Law Update
Presented by: Van Goodwin, Esq.
- 2:30 p.m. The Alta California Reconnaissance by Jedediah Smith; Or How Geology Controls Everything in California
Presented by: Dr. J. David Rogers, PhD, PE, PG, CEG, CHG
- 3:30 p.m. Free Time

Saturday, April 16, 2016

Please note that attendees and guests will be on their own for breakfast. We recommend The Terrace restaurant at the hotel.

- 8:30 a.m. Geo-Alchemy (Turning Sand Into Sandstone) and Other Biogeotechnologies
Presented by: Dr. Edward Kavazanjian, PhD, PE, GE
- 10:00 a.m. Geotechnical Insurance Claims & Risk Management Practices for Site Characterization
Presented by: Dr. Pat Lucia, PhD, PE, GE
- 11:30 a.m. Outstanding Project Awards Luncheon
Presented by: Immediate Past President Mike Laney
- 1:00 p.m. Sustainable Pavement Solutions
Presented by: Marco Estrada
- 2:15 p.m. The U.S. and California Economic Forecast
Presented by: Dr. Esmael Adibi, PhD
- 6:00 p.m. "Tailgate Party" Closing Night Banquet (*for registered individuals*)
Student Outreach Fundraising Auction

CalGeo Annual Conference

April 14-16, 2016

Come Smell The  Roses In Pasadena

"Pasadena Putt" Golf Tournament
Brookside Golf Club, Pasadena, CA

Golf Tournament Registration Form Date of Play: Thursday, April 14, 2016

Your Name:	_____
Spouse/Guest Name:	_____ (if playing golf)
Company Name:	_____
Company Telephone:	_____
Company Fax:	_____
Company E-mail:	_____
Do you have any pairing preferences? (if so, please specify)	
Self:	Spouse/Guest: (if playing)
_____	_____
_____	_____

Sponsored By:



Date of tournament: Thursday, April 14, 2016
Cost: \$75. Golf fee includes continental breakfast, green fees, cart, range balls. Club rentals are available.
Proper golf attire is required.
Tee times will be advised once all golfers are registered. We will start early!
We recommend golfers arrive at the hotel on April 13th.

Please return this completed form with your registration documents to:

CalGeo – Annual Conference
P.O. Box 1693
Placerville, CA 95667-1693
V: 530.344.0644
F: 530.344.0834
E/M: mmyers@calgeo.org