The Concrete Convention and Exposition

Program Book

October 15-19, 2017
Disneyland® Hotel, Anaheim, CA, USA

As to Disney properties/artwork: ©Disney.
## Convention Sponsors

Sponsors are listed as of 9/20/17

### Route 66 Sponsor
- **American Concrete Institute**
  - Southern California Chapter – ACI
- **Vulcan Materials Company**
  - Vulcan Materials Company

### Santa Monica Boulevard Sponsors
- **ACE Mentor**
- **Boral Resources**
- **Cemex**
- **Clark Construction Group**
- **Hathaway Dinwiddie Construction**
- **National Ready Mixed Concrete Co.**
- **Stego Industries**
- **WJE**
- **Webcor Builders**

### Pacific Coast Highway Sponsor
- **Baker Concrete Construction**
- **CalPortland**
- **Largo Concrete Inc.**

### Sunset Boulevard Sponsors
- **ACE Mentor**
- **Boral Resources**
- **Cemex**
- **Clark Construction Group**
- **Hathaway Dinwiddie Construction**
- **National Ready Mixed Concrete Co.**
- **Stego Industries**
- **WJE**
- **Webcor Builders**

### Harbor Boulevard Sponsors
- **Associated Ready Mix**
- **Carolina Chapter – ACI**
- **CTS Cement/Rapid Set**
- **Eastern Pennsylvania and Delaware Chapter – ACI**
- **E-Z Mix, Inc.**
- **Foam Concepts Inc./P.A.G. Foam**
- **Greater Michigan Chapter – ACI**
- **Las Vegas Chapter – ACI**
- **Lehigh Hanson**
- **Louisiana Chapter – ACI**
- **Mitsubishi Cement Corporation**
- **Nevada Cement**
- **Oldcastle Precast**
- **Pittsburgh Area Chapter – ACI**
- **Robertson’s Salt River**
- **San Antonio Chapter – ACI**
- **Smith-Emery of San Francisco Inc.**
- **Superior Gunite**
- **Western Construction Group**

### Mullholland Drive Sponsors
- **Associated Ready Mix**
- **Carolina Chapter – ACI**
- **CTS Cement/Rapid Set**
- **Eastern Pennsylvania and Delaware Chapter – ACI**
- **E-Z Mix, Inc.**
- **Foam Concepts Inc./P.A.G. Foam**
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- **San Antonio Chapter – ACI**
- **Smith-Emery of San Francisco Inc.**
- **Superior Gunite**
- **Western Construction Group**

### Lanyard Sponsor
- **The Conco Companies**

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### Southern California Chapter Convention Committee

#### Committee Co-Chairs
- **Kirk McDonald**, CalPortland
- **Chris Forster**, Largo Concrete, Inc.

#### Secretary
- **Rod Elderton**

#### Treasurer
- **Gary Kirk**, CalPortland

#### Finance
- Robert Cleeland, Vulcan Materials Company
- Pat Murena, Solomon Colors
- Ed Luce, Vulcan Materials Company
- Marty Hansberger, Holliday Rock Co., Inc.
- Ken Sears, Boral Resources

#### Technical Committee
- **Paul Heis**, BASF Corporation
- **Ann Harrer, Wiss, Janney, Elstner Associates, Inc.**
- **Chris Garcia, Pankow**

#### Guest Program
- **Heather Caya**, Southern California Chapter – ACI

#### Social Program
- **Tina McIntyre**, CalPortland
- **Janeen Oliver**, CalPortland

#### Student Program
- **Neal Lynch**, Cemex
- **Josh Hamilton**, GCP Applied Technologies

#### Exhibits
- Charles Kerzie, Trinity Lightweight
- Stefan Reder, Hi-Grade Materials

#### Publicity
- **George Smith**, Holliday Rock Co., Inc
- **Jon Sanson**, Morley Builders

#### Contractors’ Day
- **Donald Kahn**, Largo Concrete, Inc.

#### Hot Topic
- Robert Graine, Associated Ready Mixed Concrete
- David Nau, Cemex

#### CC Liaison
- Dawn Miller
Download the Convention App!

Search “ACI Convention” on your Apple or Android device.

Detailed program information and program changes can be found in the Convention App!
ACI President’s Welcome

ACI Members and Guests:

It is a great pleasure to welcome you to sunny Anaheim, CA, for The ACI Concrete Convention and Exposition. As a premier leisure and business destination, Anaheim continues to grow and evolve in ways that will surprise and delight our attendees. While visiting, make lasting memories at the Disneyland® Resort and discover the city's revitalized downtown, new shops, foodie hotspots, and award-winning craft breweries at the Anaheim Packing District and Center Street Promenade.

The Southern California Chapter – ACI has been looking forward to hosting this convention and has devoted their time and effort to ensure you enjoy the ACI Convention and Anaheim. Be sure to attend some of their sessions: SoCal Modernism—Preserving Concrete Modernist Structures and Making Connections—The Future of Our Infrastructure. Please join me in thanking the chapter for their exceptional work by stopping by the chapter desk in the exhibit hall.

None of this could be possible without the aid and support from our outstanding exhibitors and sponsors. Anyone who is wearing an exhibitor badge or sponsor ribbon has played an integral role in the success of this convention. Please be sure to thank them while at the convention and stop by their booths to see the newest products and services on the market today.

This week is going to be jam-packed with exciting and interesting sessions, committee meetings, and networking events such as the International Lunch, 10th Anniversary Sustainability Forum, student competitions, and the Opening Session, just to name a few. I encourage you to make the most of your convention experience by participating in these events. On Tuesday, if you are running on empty, cruise on over to the Magic Kingdom lawn for a roaring good time at the Concrete Mixer. The Southern California Chapter – ACI doesn’t want to toot their own horn, but they have put together a magical evening that will ignite your imaginations.

On behalf of Latifa and myself, we are honored and excited to be able to share this week with you, and we hope you will enjoy all that Anaheim has to offer. Thank you for attending the convention and for your continued involvement with ACI.

Kind Regards,
Khaled Awad
ACI President

President
Khaled Awad

Vice Presidents
David A. Lange
Randall W. Poston

Directors
JoAnn P. Browning
Cesar A. Constantino
Frances T. Griffith
H. R. Trey Hamilton III
Doug R. Hooton
Joe Hug
Kimberly Kayler
William M. Klorman
Neven Krstulovic-Opara
Tracy D. Marcotte
Antonio Nanni
Roberto Stark

Past President
Board Members
Michael J. Schneider
Sharon L. Wood
William E. Rushing Jr.

Executive Vice President
Ron Burg
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<th>ACI Sustaining Members</th>
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General Information

For detailed program information and program changes, download the Convention App.

Convention App
Download the ACI Convention App and have all the information you need for the week ahead at your fingertips. Updated schedules, exhibitor and sponsor information, and more are all available through the app. Search "ACI Convention" on your Apple or Android device. This app is the same one from the Detroit Convention.

Schedule Changes
Cancellations, additions, and location changes to the convention schedule will be posted daily on a monitor in the exhibit area, as well as in the convention app.

Exhibit Hall Refreshments—D-South Exhibit Hall
Beverages are available courtesy of ACI during the following hours:

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<td>1:00 pm – 4:00 pm</td>
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ACI Store—D-South Exhibit Hall
Visit the ACI Store to receive 10% off ACI publications. To learn more about the new ACI membership benefits and how to become a member, visit the ACI Store. The ACI Store is open during the following hours:

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ACI University—A new global and online learning resource providing on-demand access to a wide range of topics on concrete materials, design, and construction. Learn more at the ACI University booth, located near the ACI Store.

ACI Foundation—A nonprofit subsidiary of ACI that facilitates industry research, collaboration, and student fellowships/scholarships. Learn more at the ACI Foundation booth, located near the ACI Store.

Career Center—ACI’s online job search engine is specifically designed to target jobs in the industry. Learn more at the Career Center, located near the ACI Store.

ACI Cyber Café and Meeting Spot—D-South Exhibit Hall
Stop by the ACI Cyber Café and Meeting Spot—the perfect place to stay connected with work and family or network with ACI attendees during refreshment breaks. Use the computers to browse the web, print on demand, or catch up on email.

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Looking for Exercise?
Meet up with other ACI attendees in the Main Lobby at the Disneyland® Hotel before heading out for your morning run or walk. Local area maps are available at the hotel concierge desk. All are welcome.

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Morning yoga classes will be offered in D-Sleeping Beauty at the Disneyland® Hotel for those who are interested in putting a little balance into a hectic week. Led by ACI Member and yoga teacher Kimberly Kayler, this intro to yoga class requires no experience. Registration is not required and a limited quantity of yoga mats will be provided.

*Please consult your physician to determine if you are fit for this type of activity. Run/walk at your own risk.

Session Handouts on Demand
Handouts are available from speakers who have elected to provide and post them to the ACI website. Stop by the Cyber Café or go to www.aciconvention.org/handouts to download or print a copy of the handouts for the sessions you plan to attend. If you do not find a handout for a particular session, please contact the speaker for more information.

Suitcasing
Attendees, sponsors, or exhibitors found to be “suitcasing” (soliciting business in session and committee meeting rooms, aisles, or the booth of another exhibitor) will be asked by staff to cease this practice. Should this continue, they will be asked to leave the show floor immediately and will forfeit any exhibitor points earned for that show.

Local Information—D-North Lounge
The Southern California Chapter Convention Committee members will be happy to answer general convention questions and provide information about the local area. Stop by the information desk during the following hours:

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General Information

Resort Dining

**Disneyland® Hotel**

The Coffee House

Hours: Sunday – Thursday 6:30 am – 12:00 am; Friday – Saturday 6:30 am – 1:00 am

Goofy’s Kitchen

Hours: Monday - Thursday 7:00 am – 11:30 am and 5:00 pm – 9:00 pm; Friday - Sunday 7:00 am – 1:30 pm and 4:00 pm – 9:00 pm

The Lounge at Steakhouse 55

Hours: Monday – Sunday 4:30 pm – 10:30 pm

Steakhouse 55

Hours: Monday – Sunday 7:00 am – 11:00 am and 5:00 pm – 10:00 pm

Tangaroa Terrace

Hours: Monday – Sunday 7:00 am – 10:00 pm

Trader Sam’s Enchanted Tiki Bar

Hours: Monday – Sunday 11:30 am – 1:30 am

Room Service

Hours: Monday – Sunday 6:00 am – 12:00 am

**Disney's Paradise Pier® Hotel**

Disney’s PCH Grill

Hours: Monday – Thursday 7:00 am – 11:00 am and 5:30 pm – 9:00 pm; Friday – Sunday 7:00 am – 11:30 am and 5:30 pm – 9:00 pm

Surfside Lounge

Hours: Monday – Sunday 6:00 am – 12:00 am

Room Service

Hours: Monday – Sunday 6:00 am – 11:30 am and 5:30 pm – 12:00 am

**Disney's Grand Californian Hotel® & Spa**

Hearthstone Lounge

Hours: Monday – Sunday 6:00 am – 1:30 am

Napa Rose

Hours: Monday – Sunday 5:30 pm – 10:00 pm

Napa Rose Lounge

Hours: Sunday – Thursday 5:00 pm – 10:00 pm; Friday and Saturday 5:00 pm – 11:00 pm

Storytellers Café

Hours: Monday – Friday 7:00 am – 11:25 am, 11:30 am – 4:55 pm, and 5:00 pm – 10:00 pm; Saturday and Sunday 7:00 am – 11:25 am, 11:30 am – 1:55 pm, 2:00 pm – 4:55 pm; and 5:00 pm – 10:00 pm

Room Service

Hours: Monday – Sunday 12:00 am – 11:59 pm

Additional restaurants are available at Downtown Disney® District. Visit [https://disneyland.disney.go.com/dining/downtown-disney-district/](https://disneyland.disney.go.com/dining/downtown-disney-district/) to view restaurant options and hours.

Continuing Education

All sessions approved by the American Institute of Architects (AIA) are noted with AIA/CES and the number of hours. ACI is an AIA/CES Registered Provider.

Earn CEUs/PDHs for Session Attendance

Attend the entire duration of a session and record the codes given out during the session using the spaces provided next to the session details in the program book. In most cases, one contact hour is equal to one Professional Development Hour (PDH). Check with your state board for acceptance criteria. Please note: ACI does not track and cannot provide documentation confirming attendee participation or attendance at any ACI session held during the convention.

For attendance certificates:
1. Visit [www.concrete.org](http://www.concrete.org) and sign in.
2. Hover over My ACI and click on My ACI CEU/PDH.
3. Select the convention, day, and title of the session for which you are submitting session codes.
4. After successfully submitting the session codes, your certificate will be available under the session title.

If you earned a certificate for a session and would like ACI to report your CEUs/PDHs to the Florida Board of Professional Engineers or AIA, email your Professional Engineer’s or Architecture license number to Eva Korzeniewski at emk@concrete.org.

**Speaker Ready Room—D-South Lounge**

The Speaker Ready Room is available to moderators, speakers, and committee Chairs during the following hours:

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<tr>
<th>Day</th>
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<td>Wednesday</td>
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All speakers are requested to check in at the Speaker Ready Room 1 day prior to their session to ensure that their presentations have been uploaded and work properly on the ACI computers.

**The Concrete Convention and Exposition**

**Spring 2018 | Salt Lake City, UT—D-North Lounge**

Mark your calendars for The Concrete Convention and Exposition in Salt Lake City, UT, March 25-29, 2018, at the Grand America & Little America Hotel. Stop by the Intermountain Chapter Convention Committee desk Saturday through Tuesday to learn more about the convention!
### Where’s That Meeting Room?

**D** = Disneyland® Hotel  **P** = Disney’s Paradise Pier® Hotel

<table>
<thead>
<tr>
<th><strong>Disneyland® Hotel</strong></th>
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<tbody>
<tr>
<td>Room Name</td>
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<td>D-South Exhibit Hall</td>
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</tbody>
</table>
The ACI Concrete Convention and Exposition – Hotel Map

1. Exhibit Hall, Registration, ACI Store, Student Competition, Beverage Breaks
2. Speaker Ready Room
3. Opening Session, Convention Orientation Breakfast, International Lunch, Student Lunch, Contractors’ Day Lunch
4. Concrete Mixer
5. Child Care Drop-off/Pick-up
6. Guest Social, Women in ACI Reception
7. Speaker Development Breakfast
8. Sessions
9. Young Professional Networking Event
Disney’s Paradise Pier® Hotel Meeting Space Maps

MAIN LEVEL

SECOND FLOOR

© Disney
ACI would like to thank all exhibitors for their participation in and support of The Concrete Convention and Exposition. To learn more about each of these exhibitors, stop by their booth or visit the convention app.

<table>
<thead>
<tr>
<th>Exhibitors</th>
<th>Booth(s)</th>
<th>URLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquafin, Inc.</td>
<td>#55</td>
<td><a href="http://www.aquafin.net">www.aquafin.net</a></td>
</tr>
<tr>
<td>BASF Corporation</td>
<td>#28</td>
<td><a href="http://www.master-builders-solutions.basf.us">www.master-builders-solutions.basf.us</a></td>
</tr>
<tr>
<td>Bekaert Corporation</td>
<td>#59 &amp; 60</td>
<td><a href="http://www.bekaert.com">www.bekaert.com</a></td>
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<tr>
<td>Burgess Pigment Company</td>
<td>#17</td>
<td><a href="http://www.OPTIPOZZ.com">www.OPTIPOZZ.com</a></td>
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<tr>
<td>Buzzi Unicem USA</td>
<td>#74</td>
<td><a href="http://www.buzziunicemusa.com">www.buzziunicemusa.com</a></td>
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<tr>
<td>CalPortland</td>
<td>#7</td>
<td><a href="http://www.calportland.com">www.calportland.com</a></td>
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<tr>
<td>Cervenka Consulting</td>
<td>#48</td>
<td><a href="http://www.cervenka.cz">www.cervenka.cz</a></td>
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<tr>
<td>ChemCo Systems Inc.</td>
<td>#6</td>
<td><a href="http://www.chemcosystems.com">www.chemcosystems.com</a></td>
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<tr>
<td>Clark Construction Group LLC</td>
<td>#65</td>
<td><a href="http://www.clarkconstruction.com">www.clarkconstruction.com</a></td>
</tr>
<tr>
<td>Concrete Reinforcing Steel Institute</td>
<td>#29</td>
<td><a href="http://www.crsi.org">www.crsi.org</a></td>
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<tr>
<td>Concrete Sealants, Inc.</td>
<td>#56</td>
<td><a href="http://www.conseal.com">www.conseal.com</a></td>
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<tr>
<td>CRC Press, Taylor and Francis</td>
<td>#64</td>
<td><a href="http://www.crcpress.com">www.crcpress.com</a></td>
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<tr>
<td>Dayton Superior</td>
<td>#57</td>
<td><a href="http://www.daytonsuperior.com">www.daytonsuperior.com</a></td>
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<tr>
<td>Decon USA Inc.</td>
<td>#68</td>
<td><a href="http://www.deconusa.com">www.deconusa.com</a></td>
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<tr>
<td>Design Data</td>
<td>#69</td>
<td><a href="http://www.sds2.com">www.sds2.com</a></td>
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<tr>
<td>DPR Construction</td>
<td>#61</td>
<td><a href="http://www.dpr.com">www.dpr.com</a></td>
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<tr>
<td>ELE International</td>
<td>#58</td>
<td><a href="http://www.ele.com">www.ele.com</a></td>
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<tr>
<td>The Euclid Chemical Company</td>
<td>#53</td>
<td><a href="http://www.euclidchemical.com">www.euclidchemical.com</a></td>
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<tr>
<td>FARO Technologies, Inc.</td>
<td>#11</td>
<td><a href="http://www.FARO.com">www.FARO.com</a></td>
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<tr>
<td>FiberForce Fibers by ABC Polymers</td>
<td>#4</td>
<td><a href="http://www.abcpolymerindustries.com">www.abcpolymerindustries.com</a></td>
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<tr>
<td>Foam Concepts Inc./P.A.G Foam</td>
<td>#22 &amp; 23</td>
<td><a href="http://www.foamconcepts.net">www.foamconcepts.net</a>; <a href="http://www.pagfoam.com">www.pagfoam.com</a></td>
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<tr>
<td>FORTEC STABILIZATION SYSTEMS</td>
<td>#32</td>
<td><a href="http://www.fortecstabilization.com">www.fortecstabilization.com</a></td>
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<tr>
<td>GCP Applied Technologies</td>
<td>#16</td>
<td><a href="http://www.gcpat.com/construction/en-us">www.gcpat.com/construction/en-us</a></td>
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<tr>
<td>Germann Instruments, Inc.</td>
<td>#9 &amp; 10</td>
<td><a href="http://www.germann.org">www.germann.org</a></td>
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<tr>
<td>Giatec Scientific Inc.</td>
<td>#42</td>
<td><a href="http://www.giatec.ca">www.giatec.ca</a></td>
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<tr>
<td>Headed Reinforcement Corp. (HRC)</td>
<td>#19</td>
<td><a href="http://www.hrc-usa.com">www.hrc-usa.com</a></td>
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<tr>
<td>Humboldt Mfg. Company</td>
<td>#37</td>
<td><a href="http://www.humboldtmgf.com">www.humboldtmgf.com</a></td>
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<tr>
<td>Hycrete, Inc.</td>
<td>#26</td>
<td><a href="http://www.hycrete.com">www.hycrete.com</a></td>
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<tr>
<td>ICC Evaluation Service</td>
<td>#50</td>
<td><a href="http://www.icc-es.org">www.icc-es.org</a></td>
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<tr>
<td>International Concrete Repair Institute</td>
<td>#54</td>
<td><a href="http://www.icri.org">www.icri.org</a></td>
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<td>International Zinc Association</td>
<td>#47</td>
<td><a href="http://www.zinc.org">www.zinc.org</a></td>
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<tr>
<td>Kryton International Inc.</td>
<td>#40</td>
<td><a href="http://www.kryton.com">www.kryton.com</a></td>
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<tr>
<td>Largo Concrete Inc.</td>
<td>#2</td>
<td><a href="http://www.largoconcrete.com">www.largoconcrete.com</a></td>
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<tr>
<td>Matt Construction</td>
<td>#41</td>
<td><a href="http://www.mattconstruction.com">www.mattconstruction.com</a></td>
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<tr>
<td>Morley Construction Company</td>
<td>#30 &amp; 31</td>
<td><a href="http://www.morleybuilders.com">www.morleybuilders.com</a></td>
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<tr>
<td>Myers Construction Materials Testing Equipment</td>
<td>#27</td>
<td><a href="http://www.myerstest.com">www.myerstest.com</a></td>
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<tr>
<td>NASA Centennial Challenges 3D-Printed Habitat</td>
<td>#8 &amp; 8A</td>
<td><a href="http://www.nasa.gov/directorates/spacetech/centennial_challenges/index.html">www.nasa.gov/directorates/spacetech/centennial_challenges/index.html</a></td>
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<tr>
<td>Nickel Institute</td>
<td>#20</td>
<td><a href="http://www.nickelinstitute.org">www.nickelinstitute.org</a></td>
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<tr>
<td>Owens Corning Infrastructure Solutions LLC</td>
<td>#33</td>
<td><a href="http://www.aslanfrp.com">www.aslanfrp.com</a></td>
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<tr>
<td>Pentair</td>
<td>#3</td>
<td><a href="http://www.pentair.com">www.pentair.com</a></td>
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<td>PERI Formwork Systems, Inc.</td>
<td>#13 &amp; 14</td>
<td><a href="http://www.peri-usa.com">www.peri-usa.com</a></td>
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<td>Plexxis Software</td>
<td>#24 &amp; 25</td>
<td><a href="http://www.plexxis.com">www.plexxis.com</a></td>
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<tr>
<td>Poraver North America Inc.</td>
<td>#34</td>
<td><a href="http://www.poraver.com">www.poraver.com</a></td>
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<tr>
<td>Portland Cement Association</td>
<td>#18</td>
<td><a href="http://www.cement.org">www.cement.org</a></td>
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<tr>
<td>Premier CPG</td>
<td>#66</td>
<td><a href="http://www.premiercpg.com">www.premiercpg.com</a></td>
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<tr>
<td>Proceq USA, Inc.</td>
<td>#46</td>
<td><a href="http://www.proceq.com">www.proceq.com</a></td>
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<tr>
<td>Radarview LLC/UCT</td>
<td>#67</td>
<td><a href="http://www.radarviewllc.com">www.radarviewllc.com</a></td>
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<tr>
<td>Reinforced Earth</td>
<td>#21</td>
<td><a href="http://www.reinforcedearth.com">www.reinforcedearth.com</a></td>
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</tbody>
</table>

Exhibitors are listed as of 9/20/17.
## Exhibitor Demonstration Schedule

### Monday, October 16, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Company Organization</th>
<th>Presentation/Demo Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 pm – 12:30 pm</td>
<td>Giatec Scientific Inc.</td>
<td>BlueRock—Wireless concrete humidity sensor</td>
</tr>
<tr>
<td>1:45 pm – 2:15 pm</td>
<td>AQUAFIN Inc.</td>
<td>Stop Leaks in Concrete with Chemical Grout</td>
</tr>
<tr>
<td>3:30 pm – 4:00 pm*</td>
<td>Cervenka Consulting</td>
<td>Come and see how engineers are using advanced FE modeling with ATENA in reinforced concrete design.</td>
</tr>
</tbody>
</table>

### Tuesday, October 17, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Company Organization</th>
<th>Presentation/Demo Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:45 am – 10:15 am</td>
<td>Trinity Lightweight</td>
<td>What’s New in Lightweight Aggregate and Lightweight Concrete?</td>
</tr>
<tr>
<td>10:30 am – 11:00 am*</td>
<td>Plexxis Software</td>
<td>The Connected Contractor: Mobile Change Orders, Drawings, Documents and Timecards</td>
</tr>
<tr>
<td>1:00 pm – 1:30 pm*</td>
<td>Vulcan Materials</td>
<td>Concrete Aggregates and Quality Control</td>
</tr>
<tr>
<td>1:45 pm – 2:15 pm</td>
<td>International Zinc Association</td>
<td>Bend It, Form It—Galvanized Rebar to the Rescue!</td>
</tr>
<tr>
<td>3:30 pm – 4:00 pm*</td>
<td>Slag Cement Association</td>
<td>Demonstration of Ready Mixed Concrete Life Cycle Assessment Calculator for Slag Cement and SCA Website Tools</td>
</tr>
</tbody>
</table>

*Indicates a time when there is a break in between sessions.

Demonstration schedule listed as of 9/20/2017. For the most up-to-date list of exhibitor demonstrations, please stop by the ACI Registration Desk or check the digital monitor in the exhibit hall.
### Daily Program

For detailed program information and program changes, download the Convention App.

✓ = Separate fee required  ★ = Guest-only event  
D = Disneyland® Hotel  P = Disney's Paradise Pier® Hotel

#### Friday, October 13, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 pm - 9:00 pm</td>
<td>Committee Meetings</td>
<td>See Numeric or Convention App for detailed list</td>
</tr>
<tr>
<td>7:00 am - 9:00 pm</td>
<td>Committee Meetings</td>
<td>See Numeric or Convention App for detailed list</td>
</tr>
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</table>

#### Saturday, October 14, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 10:00 am—Sessions</td>
<td>FRPRCS A1—Bond and Anchorage of FRP Bars, Grids, and Laminates to Concrete</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>8:00 am - 5:15 pm</td>
<td>✓ International Workshop on Structural Concrete</td>
<td>D-Magic Kingdom 3</td>
</tr>
<tr>
<td>10:15 am - 12:15 pm—Sessions</td>
<td>FRPRCS A2—Bond and Anchorage of FRP Bars, Grids, and Laminates to Concrete</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>10:30 am - 12:30 pm—Sessions</td>
<td>FRPRCS A4—Global Codes and Standards</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>12:00 pm - 1:30 pm</td>
<td>✓ International Workshop on Structural Concrete Lunch</td>
<td>D-Magic Kingdom 4</td>
</tr>
<tr>
<td>1:30 pm - 3:30 pm—Sessions</td>
<td>FRPRCS A3—Emerging FRP Systems</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>2:00 pm - 6:00 pm</td>
<td>ACI Store</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>3:00 pm - 5:30 pm—Sessions</td>
<td>FRPRCS A4—Global Codes and Standards</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>6:00 pm - 7:30 pm</td>
<td>✓ International Workshop on Structural Concrete Reception</td>
<td>D-Magic Kingdom 4</td>
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<tr>
<td>6:00 pm - 8:00 pm</td>
<td>✓ FRPRCS Reception</td>
<td>D-Mark Twain</td>
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<tr>
<td>8:00 pm - 10:00 pm</td>
<td>Student Networking Reception</td>
<td>D-Magic Kingdom 1</td>
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#### Sunday, October 15, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>5:00 am and 6:00 am</td>
<td>Run/Walk Meet-Up</td>
<td>D-Disneyland Main Lobby</td>
</tr>
<tr>
<td>7:00 am - 10:00 am</td>
<td>* Guest Hospitality</td>
<td>D-Sleeping Beauty</td>
</tr>
<tr>
<td>7:00 am - 6:00 pm</td>
<td>Coffee Break</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>Convention Orientation Breakfast</td>
<td>D-Magic Kingdom 3</td>
</tr>
<tr>
<td>8:00 am - 10:00 am—Sessions</td>
<td>FRPRCS A1—Bond and Anchorage of FRP Bars, Grids, and Laminates to Concrete</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>8:00 am - 9:00 am</td>
<td>Early-Age Property Development in Concrete with Supplementary Cementing Materials, Part 1 of 2</td>
<td>D-Disneyland South B</td>
</tr>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>Field Experience and Structural Performance of Self-Consolidating Concrete in High-Rise and Bridge Construction</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>ACI Store</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:00 am - 5:30 pm</td>
<td>Committee Meetings</td>
<td>See Numeric or Convention App for detailed list</td>
</tr>
<tr>
<td>9:00 am - 9:30 am</td>
<td>Student Competition Check-In</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>9:30 am - 4:00 pm</td>
<td>Student Egg Protection Device Competition</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>10:00 am - 11:30 am</td>
<td>ACI International Forum</td>
<td>D-Magic Kingdom 4</td>
</tr>
<tr>
<td>10:00 am - 9:00 pm</td>
<td>* Guest Lounge</td>
<td>D-Sleeping Beauty</td>
</tr>
<tr>
<td>10:15 am - 12:15 pm—Sessions</td>
<td>FRPRCS A6—FRP Reinforcement of Concrete and Masonry Walls</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>10:30 am - 12:30 pm—Sessions</td>
<td>Early-Age Property Development in Concrete with Supplementary Cementing Materials, Part 2 of 2</td>
<td>D-Disneyland South B</td>
</tr>
</tbody>
</table>

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Daily Program

For detailed program information and program changes, download the Convention App.
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<table>
<thead>
<tr>
<th>Sunday, October 15, 2017</th>
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<tbody>
<tr>
<td>11:30 am - 1:30 pm</td>
<td>Performance-Based Design D-Disneyland North B</td>
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<tr>
<td>11:30 am - 1:30 pm</td>
<td>International Lunch D-Magic Kingdom 3</td>
</tr>
<tr>
<td>12:30 pm - 4:00 pm</td>
<td>Student Eco Concrete Competition D-South Exhibit Hall</td>
</tr>
<tr>
<td>1:00 pm - 3:00 pm—Sessions</td>
<td>ACI 201.2R-16: Updated Guidance on Concrete Durability D-Disneyland South B</td>
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<tr>
<td>1:00 pm - 3:00 pm—Sessions</td>
<td>Influence of Early-Age Properties on Crack Development and Long-Term Durability, Part 1 of 2 D-Disneyland North B</td>
</tr>
<tr>
<td>1:00 pm - 4:00 pm</td>
<td>Afternoon Soda Break D-South Exhibit Hall</td>
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<tr>
<td>1:15 pm - 3:15 pm—Sessions</td>
<td>FRPGRCS A7—Effects of Extreme Events on FRP-Reinforced/ Strengthened Structures D-Disneyland South A</td>
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<tr>
<td>3:00 pm - 4:00 pm—Mini Session</td>
<td>Quality in Concrete: Auditing P-Crystal Cove</td>
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<tr>
<td>3:30 pm - 5:30 pm—Sessions</td>
<td>FRPGRCS A8—Design and Performance Under Long-Term Loading and Environmental Exposure D-Disneyland South A</td>
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<tr>
<td>5:45 pm - 7:00 pm</td>
<td>Opening Session &amp; Keynote Presentation D-Disneyland Center</td>
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<tr>
<td>7:00 pm - 8:00 pm</td>
<td>Opening Reception D-South Exhibit Hall</td>
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<tr>
<td>8:00 pm - 10:00 pm—Session</td>
<td>Hot Topic Session: Modules of Elasticity Impacting Constructability D-Disneyland North A</td>
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<tr>
<td>9:00 pm - 10:30 pm</td>
<td>Young Professional Networking Event ESPN Zone–Downtown Disney</td>
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<thead>
<tr>
<th>Monday, October 16, 2017</th>
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<tbody>
<tr>
<td>5:00 am and 6:00 am</td>
<td>Run/Walk Meet-Up D-Disneyland Main Lobby</td>
</tr>
<tr>
<td>6:00 am - 6:45 am</td>
<td>Morning Yoga Class D-Sleeping Beauty</td>
</tr>
<tr>
<td>6:30 am - 8:00 am</td>
<td>Workshop for Technical Committee Chairs (by invitation only) D-Disneyland Center</td>
</tr>
<tr>
<td>7:00 am - 8:30 am</td>
<td>Speaker Development Breakfast D-Safari</td>
</tr>
<tr>
<td>7:00 am - 10:00 am</td>
<td>Guest Hospitality D-Sleeping Beauty</td>
</tr>
<tr>
<td>7:00 am - 10:00 am</td>
<td>Coffee Break D-South Exhibit Hall</td>
</tr>
<tr>
<td>7:15 am - 7:00 pm</td>
<td>Speaker Ready Room D-South Lounge</td>
</tr>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>ACI Registration D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>ACI Store D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:30 am - 10:30 am—Sessions</td>
<td>Concrete with Recycled Materials, Part 1 of 3 D-Disneyland South B</td>
</tr>
<tr>
<td>10:00 am - 11:30 am</td>
<td>Research in Progress, Part 1 of 2 D-Disneyland North A</td>
</tr>
<tr>
<td>10:00 am - 11:30 am</td>
<td>Reshoring and Early-Age Building Behavior D-Disneyland South A</td>
</tr>
<tr>
<td>11:00 am - 1:00 pm—Sessions</td>
<td>What I Wish I Knew: Negotiating Early Job Offers D-Disneyland North B</td>
</tr>
<tr>
<td>11:00 am - 1:00 pm—Sessions</td>
<td>ACI Student Forum D-Safari</td>
</tr>
<tr>
<td>11:30 am - 1:30 pm</td>
<td>Guest Lounge D-Sleeping Beauty</td>
</tr>
<tr>
<td>11:15 am - 12:15 pm—Mini Session</td>
<td>ACI 123 Concrete Research Poster Session D-Center Lounge</td>
</tr>
<tr>
<td>11:15 am - 12:15 pm—Mini Session</td>
<td>Concrete and Digital Fabrication: Perspectives, Challenges, and Developments, Part 1 of 2 D-Disneyland North B</td>
</tr>
<tr>
<td>11:15 am - 12:15 pm—Mini Session</td>
<td>Concrete with Recycled Materials, Part 2 of 3 D-Disneyland South B</td>
</tr>
<tr>
<td>11:15 am - 12:15 pm—Mini Session</td>
<td>Making Connections—The Future of Our Infrastructure D-Disneyland South A</td>
</tr>
<tr>
<td>11:15 am - 12:15 pm—Mini Session</td>
<td>Research in Progress, Part 2 of 2 D-Disneyland North A</td>
</tr>
<tr>
<td>12:00 pm - 12:30 pm—Exhibitor Demo</td>
<td>Performance Specifications for SCC in a North American Perspective D-Monorail A-C</td>
</tr>
<tr>
<td>12:00 pm - 12:30 pm—Exhibitor Demo</td>
<td>Contemporary Design of Building Materials and Structures for Energy Efficiency and Hazard Resilience P-Redondo</td>
</tr>
</tbody>
</table>
## Daily Program

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D = Disneyland® Hotel  P = Disney's Paradise Pier® Hotel

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00 pm - 2:00 pm</td>
<td><strong>Mini Session</strong>&lt;br&gt;Issues in Parking Garage Construction</td>
<td>P-Pacific Ballroom A</td>
</tr>
<tr>
<td>1:00 pm - 4:00 pm</td>
<td>Afternoon Break</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>1:30 pm - 3:30 pm</td>
<td><strong>Sessions</strong>&lt;br&gt;Concrete and Digital Fabrication: Perspectives, Challenges, and Developments, Part 2 of 2</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D-Disneyland South B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>Design and Modeling Considerations for Concrete Joints, Connections, and Systems, Part 1 of 2</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td></td>
<td>Performance-Based Seismic Design of RC Buildings: State of the Practice, Part 1 of 3</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>1:45 pm - 2:15 pm</td>
<td><strong>Exhibitor Demo</strong>&lt;br&gt;AQUAFIN Inc.</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>3:30 pm - 4:00 pm</td>
<td><strong>Exhibitor Demo</strong>&lt;br&gt;Cervenka Consulting</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>3:30 pm - 5:00 pm</td>
<td>★ Guest Social</td>
<td>D-Rose Court Garden (D-Sleeping Beauty in inclement weather)</td>
</tr>
<tr>
<td>4:00 pm - 6:00 pm</td>
<td><strong>Sessions</strong>&lt;br&gt;Case Studies on Nano-Enhanced Concrete on Commercial Jobsite</td>
<td>D-Disneyland South B</td>
</tr>
<tr>
<td></td>
<td>Connecting New Practices to Real World Applications with Soil Cement</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td></td>
<td>Design and Modeling Considerations for Concrete Joints, Connections, and Systems, Part 2 of 2</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td></td>
<td>Performance-Based Seismic Design of RC Buildings: State of the Practice, Part 2 of 3</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td>5:30 pm - 6:30 pm</td>
<td>Women in ACI Reception</td>
<td>D-Rose Court Garden (D-Sleeping Beauty in inclement weather)</td>
</tr>
<tr>
<td>6:30 pm - 8:30 pm</td>
<td><strong>Session</strong>&lt;br&gt;123 Forum: Can Structural Health Monitoring Provide Actionable Information?</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td>6:30 pm - 10:00 pm</td>
<td>✓ The Excellence in Concrete Construction Awards Gala (doors open at 5:30 pm)</td>
<td>D-Disneyland Center</td>
</tr>
<tr>
<td><strong>Tuesday, October 17, 2017</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 am and 6:00 am</td>
<td>Run/Walk Meet-Up</td>
<td>D-Disneyland Main Lobby</td>
</tr>
<tr>
<td>6:00 am - 6:45 am</td>
<td>Morning Yoga Class</td>
<td>D-Sleeping Beauty</td>
</tr>
<tr>
<td>7:00 am - 6:30 pm</td>
<td>Committee Meetings</td>
<td>See Numeric or Convention App for detailed list</td>
</tr>
<tr>
<td>7:00 am - 10:00 am</td>
<td>★ Guest Hospitality</td>
<td>D-Sleeping Beauty</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>7:00 am - 6:00 pm</td>
<td>Speaker Ready Room</td>
<td>D-South Lounge</td>
</tr>
<tr>
<td>7:30 am - 4:00 pm</td>
<td>California Science Center Tour</td>
<td>D-Disneyland Main Lobby</td>
</tr>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>ACI Registration</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td></td>
<td>ACI Cyber Café &amp; Meeting Spot</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>ACI Store</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td></td>
<td>Exhibits</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:30 am - 9:30 am</td>
<td><strong>Mini Session</strong>&lt;br&gt;Flashing Window/Door Openings in ICF Walls, Use of Fiber Reinforcement in ICF Construction</td>
<td>D-North Hall J</td>
</tr>
<tr>
<td>8:30 am - 10:30 am</td>
<td><strong>Sessions</strong>&lt;br&gt;Creep and Shrinkage of Concrete—Honoring Professor Adam Neville, Part 1 of 2</td>
<td>D-Disneyland South B</td>
</tr>
<tr>
<td></td>
<td>Performance-Based Seismic Design of RC Buildings: State of the Practice, Part 3 of 3</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>SoCal Modernism—Preserving Concrete Modernist Structures</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td></td>
<td>Ward R. Malisch Concrete Construction Symposium, Part 1 of 4</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td>9:45 am - 10:15 am</td>
<td><strong>Exhibitor Demo</strong>&lt;br&gt;Trinity Lightweight</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>10:00 am - 4:00 pm</td>
<td>★ Guest Lounge</td>
<td>D-Sleeping Beauty</td>
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<tr>
<td>10:30 am - 11:00 am</td>
<td><strong>Exhibitor Demo</strong>&lt;br&gt;Plexxis Software</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>11:00 am - 1:00 pm</td>
<td><strong>Sessions</strong>&lt;br&gt;Cracking and Durability in Sustainable Concretes, Part 1 of 2</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>Creating Aesthetic Concrete in Southern California</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td></td>
<td>Creep and Shrinkage of Concrete—Honoring Professor Adam Neville, Part 2 of 2</td>
<td>D-Disneyland South B</td>
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<td></td>
<td>Ward R. Malisch Concrete Construction Symposium, Part 2 of 4</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td>11:30 am - 1:30 pm</td>
<td>★ Contractors’ Day Lunch</td>
<td>D-Magic Kingdom 1</td>
</tr>
<tr>
<td>1:00 pm - 3:00 pm</td>
<td><strong>Mini Session</strong>&lt;br&gt;Smart Concrete Using Nanocomposites</td>
<td>P-Pacific Ballroom B</td>
</tr>
</tbody>
</table>
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<tbody>
<tr>
<td>7:00 am - 2:00 pm</td>
<td>Speaker Ready Room</td>
<td>D-South Lounge</td>
</tr>
<tr>
<td>7:30 am - 6:00 pm</td>
<td>Committee Meetings</td>
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</tr>
<tr>
<td>8:00 am - 12:00 pm</td>
<td>ACI Registration</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td></td>
<td>ACI Store</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:00 am - 2:00 pm</td>
<td>ACI Cyber Café &amp; Meeting Spot</td>
<td>D-South Exhibit Hall</td>
</tr>
<tr>
<td>8:30 am - 10:30 am</td>
<td>Sessions</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>ACI/JCI Joint Seminar on Existing Structures, Part 2 of 4</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>Evaluation of Concrete Bridge Behavior Through Load Testing—International Perspectives, Part 1 of 2</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td>10:00 am - 9:00 pm</td>
<td>*Guest Lounge</td>
<td>D-Sleeping Beauty</td>
</tr>
<tr>
<td>11:00 am - 1:00 pm</td>
<td>Sessions</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>ACI/JCI Joint Seminar on Existing Structures, Part 3 of 4</td>
<td>D-Disneyland North B</td>
</tr>
<tr>
<td></td>
<td>Evaluation of Concrete Bridge Behavior Through Load Testing—International Perspectives, Part 2 of 2</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td></td>
<td>Finite Element Modeling of Concrete Walls Subjected to Extreme Loads, Part 1 of 3</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td>1:30 pm - 3:30 pm</td>
<td>Sessions</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>ACI/JCI Joint Seminar on Existing Structures, Part 4 of 4</td>
<td>D-Disneyland South A</td>
</tr>
<tr>
<td></td>
<td>Finite Element Modeling of Concrete Walls Subjected to Extreme Loads, Part 3 of 3</td>
<td>D-Disneyland North A</td>
</tr>
<tr>
<td>10:15 am - 5:00 pm</td>
<td>Board of Direction</td>
<td>D-Safari</td>
</tr>
</tbody>
</table>

**Tuesday, October 17, 2017**

- Vulcan Materials: D-South Exhibit Hall
- Afternoon Soda Break: D-South Exhibit Hall
- **1:30 pm - 2:30 pm—Mini Session**
  - New Research in Lightweight Aggregate Concrete: Service Life Modeling and Lightweight Aggregate for Mass Concrete: D-Castle B
- **1:30 pm - 3:30 pm—Sessions**
  - Contractors’ Day Session: Mega Projects—Challenging the Southern California Concrete Industry: D-Disneyland South B
  - Cracking and Durability in Sustainable Concretes, Part 2 of 2: D-Disneyland South A
  - Open Topic Session, Part 1 of 2: D-Disneyland North A
  - Ward R. Malisch Concrete Construction Symposium, Part 3 of 4: D-Disneyland North B
- **1:45 pm - 2:15 pm—Exhibitor Demo**
  - International Zinc Association: D-South Exhibit Hall
- **2:00 pm - 3:00 pm—Mini Session**
  - The Effects of SCMs on Chloride-Induced Corrosion Initiation: D-Monorail B-C
- **2:30 pm - 6:10 pm**
  - 10th Anniversary Concrete Sustainability Forum: D-Magic Kingdom 4
- **3:30 pm - 4:00 pm—Exhibitor Demo**
  - Slag Cement Association: D-South Exhibit Hall
- **4:00 pm - 6:00 pm—Sessions**
  - ACI/JCI Joint Seminar on Existing Structures, Part 1 of 4: D-Disneyland South A
  - Contractors’ Day Session: 3-D Scanning Technology, The Future is Now: D-Disneyland South B
  - Open Topic Session, Part 2 of 2: D-Disneyland North A
  - Ward R. Malisch Concrete Construction Symposium, Part 4 of 4: D-Disneyland North B
- **5:30 pm - 6:30 pm**
  - Faculty Network Reception: D-Sleeping Beauty
- **6:30 pm - 8:30 pm**
  - Concrete Mixer: D-Magic Kingdom Lawn (D-Disneyland Center in inclement weather)

**Wednesday, October 18, 2017**

- 5:00 am and 6:00 am: Board of Direction D-Safari
- Run/Walk Meet-Up: D-Disneyland Main Lobby
- 6:00 am - 6:45 am: Morning Yoga Class D-Sleeping Beauty
- 7:00 am - 10:00 am: President’s Reception D-Magic Kingdom Lawn (D-Disneyland South A-B in inclement weather)
- **10:15 am - 5:00 pm**
  - President’s Reception: D-Magic Kingdom Lawn (D-Disneyland South A-B in inclement weather)

**Thursday, October 19, 2017**

- **10:15 am - 5:00 pm**
  - Board of Direction: D-Safari
## Numerical Committee Meeting Listing

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<table>
<thead>
<tr>
<th>Code</th>
<th>Committee</th>
<th>Day</th>
<th>Time</th>
<th>Room Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACI/ASCE-SEI</td>
<td>ACI/ASCE/SEI</td>
<td>Sun</td>
<td>4:00 pm - 5:30 pm</td>
<td>D-Western</td>
</tr>
<tr>
<td>ACIFdn</td>
<td>ACI Foundation</td>
<td>Wed</td>
<td>8:00 am - 11:30 am</td>
<td>D-Amazon</td>
</tr>
<tr>
<td>BOD</td>
<td>Board of Direction</td>
<td>Thu</td>
<td>10:15 am - 5:00 pm</td>
<td>D-Safari</td>
</tr>
<tr>
<td>CAC</td>
<td>Chapter Activities</td>
<td>Mon</td>
<td>2:00 pm - 3:00 pm</td>
<td>D-Wilderness</td>
</tr>
<tr>
<td>CAC-TG</td>
<td>Chapter Activities Committee Student Competition TG</td>
<td>Wed</td>
<td>10:00 am - 11:30 am</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>CAC-TG</td>
<td>Chapter Activities Committee International Activities TG</td>
<td>Wed</td>
<td>1:30 pm - 3:00 pm</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>CC</td>
<td>Convention Committee</td>
<td>Tue</td>
<td>3:00 pm - 4:00 pm</td>
<td>D-Safari</td>
</tr>
<tr>
<td>CLC</td>
<td>Construction Liaison</td>
<td>Sun</td>
<td>8:00 am - 10:30 am</td>
<td>D-Castle C</td>
</tr>
<tr>
<td>CPC</td>
<td>Certification Programs</td>
<td>Tue</td>
<td>2:00 pm - 5:00 pm</td>
<td>D-Castle A</td>
</tr>
<tr>
<td>CRC</td>
<td>Concrete Research Committee</td>
<td>Mon</td>
<td>5:00 pm - 6:30 pm</td>
<td>D-Nile</td>
</tr>
<tr>
<td>CRC</td>
<td>Concrete Research Council</td>
<td>Tue</td>
<td>11:00 am - 1:00 pm</td>
<td>D-Magic Kingdom 2</td>
</tr>
<tr>
<td>CSAO</td>
<td>Committee on Codes &amp; Standards Advocacy &amp; Outreach</td>
<td>Mon</td>
<td>3:30 pm - 5:30 pm</td>
<td>D-Western</td>
</tr>
<tr>
<td>C601</td>
<td>Certified Quality Technical Manager</td>
<td>Mon</td>
<td>3:00 pm - 4:30 pm</td>
<td>D-North Hall H</td>
</tr>
<tr>
<td>C601-D</td>
<td>Decorative Concrete Finisher</td>
<td>Sun</td>
<td>10:00 am - 11:30 am</td>
<td>D-Mississippi</td>
</tr>
<tr>
<td>C601-E</td>
<td>Concrete Construction Sustainability</td>
<td>Tue</td>
<td>7:30 am - 9:00 am</td>
<td>D-North Hall I</td>
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<tr>
<td>C601-F</td>
<td>NDT Certification</td>
<td>Mon</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-North Hall H</td>
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<tr>
<td>C601-G</td>
<td>Self-Consolidating Concrete Testing</td>
<td>Mon</td>
<td>11:30 am - 1:00 pm</td>
<td>D-North Hall H</td>
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<tr>
<td>C601-I</td>
<td>Shotcrete Inspector Subcommittee</td>
<td>Sun</td>
<td>1:00 pm - 2:00 pm</td>
<td>P-San Diego</td>
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<tr>
<td>C610</td>
<td>Field Technician Cert</td>
<td>Mon</td>
<td>8:30 am - 11:00 am</td>
<td>P-Pacific Ballroom C-D</td>
</tr>
<tr>
<td>C620</td>
<td>Laboratory Tech Cert</td>
<td>Tue</td>
<td>8:30 am - 10:00 am</td>
<td>P-Redondo</td>
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<tr>
<td>C621</td>
<td>Cement Tester Certification</td>
<td>Wed</td>
<td>8:30 am - 9:30 am</td>
<td>D-Monorial B</td>
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<tr>
<td>C630</td>
<td>Construction Inspector Cert</td>
<td>Mon</td>
<td>1:00 pm - 2:30 pm</td>
<td>D-Congo</td>
</tr>
<tr>
<td>C631</td>
<td>Conc Transportation Const Insp</td>
<td>Tue</td>
<td>10:00 am - 11:30 am</td>
<td>P-Redondo</td>
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<tr>
<td>C640</td>
<td>Craftsman Cert</td>
<td>Sun</td>
<td>11:00 am - 2:00 pm</td>
<td>D-North Hall J</td>
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<tr>
<td>C650</td>
<td>Tilt-up Certification Committee</td>
<td>Sun</td>
<td>11:30 am - 1:00 pm</td>
<td>D-Explorer</td>
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<tr>
<td>C655</td>
<td>Foundation Constructor Certification</td>
<td>Mon</td>
<td>11:30 am - 1:00 pm</td>
<td>D-Congo</td>
</tr>
<tr>
<td>C660</td>
<td>Shotcrete Nozzleman Cert</td>
<td>Sun</td>
<td>10:00 am - 12:00 pm</td>
<td>D-Castle B</td>
</tr>
<tr>
<td>C670</td>
<td>Masonry Technician Certification</td>
<td>Wed</td>
<td>9:30 am - 10:30 am</td>
<td>D-Monorial B</td>
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<tr>
<td>C680</td>
<td>Adhesive Anchor Installer—Joint CRSI</td>
<td>Sun</td>
<td>11:30 am - 1:00 pm</td>
<td>D-Safari</td>
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<tr>
<td>C681</td>
<td>Adhesive Anchor Installation Inspector Certification</td>
<td>Mon</td>
<td>4:30 pm - 5:30 pm</td>
<td>D-North Hall H</td>
</tr>
<tr>
<td>C690</td>
<td>Concrete Quality Technical Manager Certification</td>
<td>Wed</td>
<td>10:30 am - 11:30 am</td>
<td>D-Monorial B</td>
</tr>
<tr>
<td>EAC</td>
<td>Educational Activities</td>
<td>Tue</td>
<td>8:00 am - 12:00 pm</td>
<td>D-Castle C</td>
</tr>
<tr>
<td>EB</td>
<td>Editorial Board</td>
<td>Sun</td>
<td>10:00 am - 11:00 am</td>
<td>D-North Hall G</td>
</tr>
<tr>
<td>E701</td>
<td>Materials for Concrete Construction</td>
<td>Sun</td>
<td>9:00 am - 10:30 am</td>
<td>D-Amazon</td>
</tr>
<tr>
<td>E702</td>
<td>Designing Concrete Structures</td>
<td>Mon</td>
<td>9:00 am - 10:30 am</td>
<td>D-Columbia</td>
</tr>
<tr>
<td>E703</td>
<td>Concrete Construction Practices</td>
<td>Mon</td>
<td>4:00 pm - 6:00 pm</td>
<td>D-Frontier Board Room</td>
</tr>
<tr>
<td>E706</td>
<td>Repair Application Procedures</td>
<td>Sun</td>
<td>8:00 am - 10:00 am</td>
<td>D-Castle A</td>
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<tr>
<td>E707</td>
<td>Specification Education</td>
<td>Tue</td>
<td>11:30 am - 1:00 pm</td>
<td>D-Congo</td>
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<tr>
<td>E710</td>
<td>ACI University Programs</td>
<td>Sun</td>
<td>10:30 am - 12:00 pm</td>
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<tr>
<td>HTC</td>
<td>Hot Topic</td>
<td>Sun</td>
<td>2:30 pm - 4:00 pm</td>
<td>D-Castle C</td>
</tr>
<tr>
<td>IAC</td>
<td>International Advisory Committee</td>
<td>Tue</td>
<td>9:30 am - 11:30 am</td>
<td>D-Adventure</td>
</tr>
<tr>
<td>IC-Cert</td>
<td>International Certification</td>
<td>Sun</td>
<td>1:30 pm - 3:00 pm</td>
<td>D-Monorail C</td>
</tr>
<tr>
<td>IC-Conf</td>
<td>International Conferences</td>
<td>Mon</td>
<td>7:15 am - 8:30 am</td>
<td>D-Columbia</td>
</tr>
<tr>
<td>IPAC</td>
<td>International Project Awards Committee</td>
<td>Tue</td>
<td>7:00 am - 8:30 am</td>
<td>D-Castle A</td>
</tr>
<tr>
<td>ITG-10</td>
<td>Alternative Cementitious Materials</td>
<td>Sun</td>
<td>10:30 am - 1:30 pm</td>
<td>D-Monorail C</td>
</tr>
<tr>
<td>MEMC</td>
<td>Membership</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Mississippi</td>
</tr>
<tr>
<td>SYPAC</td>
<td>Student and Young Professional Activities</td>
<td>Wed</td>
<td>8:00 am - 9:30 am</td>
<td>D-Nile</td>
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<th>Committee</th>
<th>Day</th>
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<td>Tolerances</td>
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<td>Creep and Shrinkage</td>
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<td>Models Applicability and Uncertainty</td>
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<td>Proportioning with Ground Limestone and Material Fillers</td>
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<td>Curing-Guide</td>
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</tr>
<tr>
<td>308-B</td>
<td>Curing-Specifications</td>
<td>Tue</td>
<td>4:00 pm - 5:30 pm</td>
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</tr>
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<td>309</td>
<td>Consolidation</td>
<td>Sun</td>
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<td>D-Mississippi</td>
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<td>310</td>
<td>Decorative Concrete</td>
<td>Sun</td>
<td>3:00 pm - 5:30 pm</td>
<td>D-Mark Twain</td>
</tr>
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<td>310/308-TG2</td>
<td>Curing Decorative Concrete Joint TG</td>
<td>Sun</td>
<td>2:00 pm - 3:00 pm</td>
<td>D-Mark Twain</td>
</tr>
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<td>310-J</td>
<td>Polished Finishes</td>
<td>Tue</td>
<td>10:00 am - 12:30 pm</td>
<td>P-Pacific Ballroom B</td>
</tr>
<tr>
<td>311</td>
<td>Inspection</td>
<td>Tue</td>
<td>12:30 pm - 2:30 pm</td>
<td>D-Nile</td>
</tr>
<tr>
<td>314</td>
<td>Simplified Design of Buildings</td>
<td>Sun</td>
<td>8:30 am - 10:30 am</td>
<td>D-North Hall J</td>
</tr>
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<td>315</td>
<td>Details of Concrete Reinforcement</td>
<td>Sun</td>
<td>2:00 pm - 5:00 pm</td>
<td>P-Pacific Ballroom B</td>
</tr>
<tr>
<td>318</td>
<td>Building Code</td>
<td>Wed</td>
<td>8:00 am - 6:00 pm</td>
<td>D-Magic Kingdom 2</td>
</tr>
<tr>
<td>318-A</td>
<td>General Concrete Construction</td>
<td>Tue</td>
<td>1:30 pm - 6:00 pm</td>
<td>D-North Hall F</td>
</tr>
<tr>
<td>318-B</td>
<td>Anchorage and Reinforcement</td>
<td>Mon</td>
<td>2:00 pm - 5:00 pm</td>
<td>D-Castle C</td>
</tr>
<tr>
<td>318-B</td>
<td>Anchorage and Reinforcement</td>
<td>Tue</td>
<td>8:00 am - 12:30 pm</td>
<td>D-Magic Kingdom 3</td>
</tr>
<tr>
<td>318-C</td>
<td>Serviceability/Safety</td>
<td>Tue</td>
<td>8:00 am - 12:30 pm</td>
<td>D-Monorail B-C</td>
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<td>318-D</td>
<td>Members</td>
<td>Tue</td>
<td>1:30 pm - 6:00 pm</td>
<td>P-Redondo</td>
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<td>Section and Member Strength</td>
<td>Mon</td>
<td>10:00 am - 1:00 pm</td>
<td>D-Castle C</td>
</tr>
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<td>318-E</td>
<td>Section and Member Strength</td>
<td>Tue</td>
<td>7:30 am - 12:30 pm</td>
<td>D-Castle B</td>
</tr>
<tr>
<td>318-F</td>
<td>Foundations</td>
<td>Tue</td>
<td>8:00 am - 12:30 pm</td>
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<td>318-G</td>
<td>Precast and Prestressed Concrete</td>
<td>Tue</td>
<td>8:00 am - 12:30 pm</td>
<td>P-Pacific Ballroom A</td>
</tr>
<tr>
<td>318-H</td>
<td>Seismic Provisions</td>
<td>Tue</td>
<td>1:30 pm - 6:00 pm</td>
<td>D-Adventure</td>
</tr>
<tr>
<td>318-J</td>
<td>Joints and Connections</td>
<td>Tue</td>
<td>1:30 pm - 6:00 pm</td>
<td>D-Wilderness</td>
</tr>
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<td>318-L</td>
<td>International Liaison</td>
<td>Mon</td>
<td>2:30 pm - 4:00 pm</td>
<td>D-Congo</td>
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<td>Nonlinear Dynamic Analysis</td>
<td>Sun</td>
<td>1:00 pm - 5:00 pm</td>
<td>D-Adventure</td>
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<td>318-R</td>
<td>High Strength Reinforcement</td>
<td>Tue</td>
<td>1:30 pm - 6:00 pm</td>
<td>P-Pacific Ballroom A</td>
</tr>
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<td>318-S</td>
<td>Spanish Translation</td>
<td>Mon</td>
<td>11:00 am - 12:30 pm</td>
<td>D-Magic Kingdom 1</td>
</tr>
<tr>
<td>325</td>
<td>Pavements</td>
<td>Tue</td>
<td>3:30 pm - 5:30 pm</td>
<td>P-Pacific Ballroom B</td>
</tr>
<tr>
<td>325-A</td>
<td>Pavements-Design</td>
<td>Tue</td>
<td>9:00 am - 10:00 am</td>
<td>P-Crystal Cove</td>
</tr>
<tr>
<td>325-C</td>
<td>Pavements-Prestressed and Precast</td>
<td>Tue</td>
<td>10:30 am - 11:30 am</td>
<td>P-Crystal Cove</td>
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<td>325-E</td>
<td>Accelerated Paving</td>
<td>Tue</td>
<td>2:00 pm - 3:30 pm</td>
<td>P-Crystal Cove</td>
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<td>Concrete Pavement Overlays</td>
<td>Tue</td>
<td>12:00 pm - 1:00 pm</td>
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</tr>
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<td>325-TG1</td>
<td>Task Group on Thin Concrete Pavements</td>
<td>Tue</td>
<td>1:00 pm - 2:00 pm</td>
<td>P-Crystal Cove</td>
</tr>
<tr>
<td>327</td>
<td>RCC Pavements</td>
<td>Tue</td>
<td>11:00 am - 1:00 pm</td>
<td>D-Frontier Board Room</td>
</tr>
<tr>
<td>329</td>
<td>Performance Criteria for Ready Mixed Concrete</td>
<td>Wed</td>
<td>9:30 am - 11:30 am</td>
<td>D-Nile</td>
</tr>
<tr>
<td>330</td>
<td>Parking Lots and Site Paving</td>
<td>Wed</td>
<td>8:00 am - 12:00 pm</td>
<td>D-Safari</td>
</tr>
<tr>
<td>332</td>
<td>Residential Concrete</td>
<td>Tue</td>
<td>1:30 pm - 5:00 pm</td>
<td>D-Columbia</td>
</tr>
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<td>332-B</td>
<td>Residential Concrete Materials and Placement</td>
<td>Sun</td>
<td>4:00 pm - 5:30 pm</td>
<td>D-Castle A</td>
</tr>
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<td>332-D</td>
<td>Residential Concrete-Footings &amp; Foundation Walls</td>
<td>Tue</td>
<td>8:30 am - 11:30 am</td>
<td>D-Columbia</td>
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</tbody>
</table>

For detailed program information and program changes, download the Convention App.

D = Disneyland® Hotel  P = Disney’s Paradise Pier® Hotel
<table>
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<tr>
<th>Code</th>
<th>Committee</th>
<th>Day</th>
<th>Time</th>
<th>Room Name</th>
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<tr>
<td>332-E</td>
<td>Residential Concrete-Above Grade Walls</td>
<td>Tue</td>
<td>11:30 am - 1:00 pm</td>
<td>D-Columbia</td>
</tr>
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<td>332-F</td>
<td>Residential Concrete-Slabs</td>
<td>Tue</td>
<td>10:30 am - 12:00 pm</td>
<td>D-North Hall G</td>
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<td>Shells</td>
<td>Mon</td>
<td>5:00 pm - 7:00 pm</td>
<td>D-Congo</td>
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<td>335</td>
<td>Composite and Hybrid Structures</td>
<td>Sun</td>
<td>11:30 am - 1:00 pm</td>
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<td>336</td>
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<td>Sun</td>
<td>1:30 pm - 5:30 pm</td>
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<td>341</td>
<td>Earthquake-Resistant Bridges</td>
<td>Sun</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-North Hall F</td>
</tr>
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<td>Earthquake Resistant Bridges-Columns</td>
<td>Sun</td>
<td>10:00 am - 11:30 am</td>
<td>D-Congo</td>
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<td>Earthquake Resistant Bridges-Pier Walls</td>
<td>Sun</td>
<td>11:30 am - 12:30 pm</td>
<td>D-Congo</td>
</tr>
<tr>
<td>341-C</td>
<td>Earthquake Resistant Bridges-Retrofit</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Congo</td>
</tr>
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<td>341-D</td>
<td>Perf-Based Seismic Design</td>
<td>Sun</td>
<td>9:00 am - 10:00 am</td>
<td>D-Congo</td>
</tr>
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<td>342</td>
<td>Bridge Evaluation</td>
<td>Sun</td>
<td>8:30 am - 10:30 am</td>
<td>D-Monorail C</td>
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<td>343</td>
<td>Bridge Design</td>
<td>Mon</td>
<td>10:00 am - 12:00 pm</td>
<td>P-San Diego</td>
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<td>343-G</td>
<td>Editorial</td>
<td>Sun</td>
<td>3:00 pm - 4:00 pm</td>
<td>D-Zambezi</td>
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<td>345</td>
<td>Bridge Construction, Maintenance, and Repair</td>
<td>Sun</td>
<td>1:30 pm - 3:30 pm</td>
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<td>347</td>
<td>Formwork for Concrete</td>
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<td>2:00 pm - 7:00 pm</td>
<td>D-North Hall F</td>
</tr>
<tr>
<td>347</td>
<td>Formwork for Concrete</td>
<td>Sun</td>
<td>8:00 am - 12:00 pm</td>
<td>D-Western</td>
</tr>
<tr>
<td>348</td>
<td>Structural Reliability and Safety</td>
<td>Mon</td>
<td>2:00 pm - 3:30 pm</td>
<td>D-Zambezi</td>
</tr>
<tr>
<td>349</td>
<td>Nuclear Structures</td>
<td>Tue</td>
<td>1:30 pm - 5:00 pm</td>
<td>D-Magic Kingdom 3</td>
</tr>
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<td>349/359/370</td>
<td>349/359/370 Joint Committee Task Group</td>
<td>Tue</td>
<td>10:00 am - 12:00 pm</td>
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<td>349-A&amp;B</td>
<td>Nuclear Structures-Design &amp; Materials</td>
<td>Mon</td>
<td>1:00 pm - 4:30 pm</td>
<td>D-Monorail B-C</td>
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<td>Nuclear Str-Anchorage</td>
<td>Mon</td>
<td>8:00 am - 11:00 am</td>
<td>D-Magic Kingdom 1</td>
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<td>Environmental Structures</td>
<td>Wed</td>
<td>8:00 am - 4:00 pm</td>
<td>D-Magic Kingdom 3</td>
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<tr>
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<td>Env Str-General &amp; Concrete</td>
<td>Tue</td>
<td>1:00 pm - 5:00 pm</td>
<td>D-Congo</td>
</tr>
<tr>
<td>350-B</td>
<td>Env Str-Durability</td>
<td>Mon</td>
<td>8:30 am - 1:00 pm</td>
<td>D-Wilderness</td>
</tr>
<tr>
<td>350-C</td>
<td>Env Str-Reinf &amp; Development</td>
<td>Sun</td>
<td>8:30 am - 11:30 am</td>
<td>P-Pacific Ballroom C</td>
</tr>
<tr>
<td>350-D</td>
<td>Env Str-Structural</td>
<td>Mon</td>
<td>8:30 am - 6:30 pm</td>
<td>D-North Hall I</td>
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<td>350-E</td>
<td>Env Str-Precast/Prestressed</td>
<td>Sun</td>
<td>1:00 pm - 5:00 pm</td>
<td>P-Pacific Ballroom C</td>
</tr>
<tr>
<td>350-F</td>
<td>Env Str-Seismic</td>
<td>Tue</td>
<td>8:30 am - 12:30 pm</td>
<td>P-Del Mar</td>
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<td>Tightness Testing &amp; Hazardous Materials</td>
<td>Mon</td>
<td>8:00 am - 12:00 pm</td>
<td>D-Oasis</td>
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<td>Env Str-Editorial</td>
<td>Mon</td>
<td>12:30 pm - 2:00 pm</td>
<td>D-Oasis</td>
</tr>
<tr>
<td>350-J</td>
<td>Env Str-Education</td>
<td>Tue</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Tiki</td>
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<td>350-L</td>
<td>Env Str-Specification</td>
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<td>5:00 pm - 6:00 pm</td>
<td>D-Oasis</td>
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<tr>
<td>350-SC</td>
<td>Env Str-Steering Comm</td>
<td>Sun</td>
<td>11:30 am - 1:00 pm</td>
<td>P-Pacific Ballroom C</td>
</tr>
<tr>
<td>351</td>
<td>Foundations for Equipment and Machinery</td>
<td>Tue</td>
<td>10:00 am - 12:00 pm</td>
<td>P-Oceanside</td>
</tr>
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<td>Equipment Foundations Dynamic Foundations</td>
<td>Mon</td>
<td>4:30 pm - 6:30 pm</td>
<td>D-Columbia</td>
</tr>
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<td>352</td>
<td>Joints</td>
<td>Sun</td>
<td>2:00 pm - 5:00 pm</td>
<td>D-Safari</td>
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<tr>
<td>352-TG1</td>
<td>Slab-Column Joints &amp; Connections</td>
<td>Mon</td>
<td>12:00 pm - 1:30 pm</td>
<td>P-Oceanside</td>
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<td>352-TG2</td>
<td>Beam-Column Joints &amp; Connections</td>
<td>Sun</td>
<td>5:00 pm - 5:30 pm</td>
<td>D-Safari</td>
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<td>355</td>
<td>Anchorage</td>
<td>Sun</td>
<td>1:30 pm - 5:00 pm</td>
<td>D-Magic Kingdom 1</td>
</tr>
<tr>
<td>357</td>
<td>Offshore and Marine</td>
<td>Tue</td>
<td>8:00 am - 11:00 am</td>
<td>D-Outpost</td>
</tr>
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<td>360</td>
<td>Slabs on Ground</td>
<td>Sun</td>
<td>12:30 pm - 2:00 pm</td>
<td>D-North Hall F</td>
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<td>360</td>
<td>Slabs on Ground</td>
<td>Mon</td>
<td>2:00 pm - 6:30 pm</td>
<td>D-Magic Kingdom 2</td>
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<td>362</td>
<td>Parking Structures</td>
<td>Mon</td>
<td>1:00 pm - 5:00 pm</td>
<td>P-Pacific Ballroom A</td>
</tr>
<tr>
<td>362-A</td>
<td>Updating Guide to Struct Maint of Pkg Struct Doc</td>
<td>Sun</td>
<td>1:00 pm - 4:00 pm</td>
<td>D-Western</td>
</tr>
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<td>363</td>
<td>High-Strength</td>
<td>Sun</td>
<td>2:30 pm - 5:00 pm</td>
<td>D-Monorail B</td>
</tr>
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<td>363-A</td>
<td>High-Strength Lightweight Concrete</td>
<td>Tue</td>
<td>3:30 pm - 5:00 pm</td>
<td>D-Outpost</td>
</tr>
<tr>
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<td>Rehabilitation</td>
<td>Mon</td>
<td>1:00 pm - 4:00 pm</td>
<td>P-Pacific Ballroom B</td>
</tr>
<tr>
<td>364-A</td>
<td>Rehabilitation-Editorial Subcommittee</td>
<td>Mon</td>
<td>9:30 am - 11:00 am</td>
<td>D-Tiki</td>
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<td>364-TG1</td>
<td>Rehabilitation Editorial Subcommittee</td>
<td>Mon</td>
<td>11:00 am - 12:00 pm</td>
<td>D-Tiki</td>
</tr>
<tr>
<td>365</td>
<td>Service Life</td>
<td>Mon</td>
<td>9:00 am - 11:00 am</td>
<td>P-Oceanside</td>
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<td>Code</td>
<td>Committee</td>
<td>Day</td>
<td>Time</td>
<td>Room Name</td>
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<td>Seismic Repair and Rehab</td>
<td>Mon</td>
<td>2:00 pm - 6:00 pm</td>
<td>P-San Diego</td>
</tr>
<tr>
<td>369-A</td>
<td>General Provision</td>
<td>Sun</td>
<td>10:00 am - 12:00 pm</td>
<td>D-Wilderness</td>
</tr>
<tr>
<td>369-C</td>
<td>Frames</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Tiki</td>
</tr>
<tr>
<td>369-D</td>
<td>Walls</td>
<td>Sun</td>
<td>10:00 am - 12:00 pm</td>
<td>D-North Hall H</td>
</tr>
<tr>
<td>369-E</td>
<td>Diaphragms and Foundations</td>
<td>Sun</td>
<td>3:00 pm - 5:30 pm</td>
<td>D-Tiki</td>
</tr>
<tr>
<td>369-F</td>
<td>Retrofit</td>
<td>Sun</td>
<td>3:00 pm - 5:30 pm</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>370</td>
<td>Blast and Impact Load Effects</td>
<td>Sun</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-Castle B</td>
</tr>
<tr>
<td>371</td>
<td>Elevated Tanks with Concrete Pedestals</td>
<td>Mon</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-Outpost</td>
</tr>
<tr>
<td>372</td>
<td>Tanks Wrapped with Wire/Strand</td>
<td>Tue</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-Oasis</td>
</tr>
<tr>
<td>374</td>
<td>Seismic Design</td>
<td>Mon</td>
<td>8:30 am - 12:00 pm</td>
<td>D-Castle A-B</td>
</tr>
<tr>
<td>375</td>
<td>Design for Wind Loads</td>
<td>Mon</td>
<td>1:00 pm - 3:30 pm</td>
<td>P-Crystal Cove</td>
</tr>
<tr>
<td>376</td>
<td>RLG Containment Structures</td>
<td>Mon</td>
<td>1:00 pm - 4:00 pm</td>
<td>D-Columbia</td>
</tr>
<tr>
<td>376-01</td>
<td>Steering Subcommittee</td>
<td>Sun</td>
<td>10:30 am - 12:00 pm</td>
<td>D-North Hall F</td>
</tr>
<tr>
<td>376-A</td>
<td>Code, Education &amp; Publication Subcommittee</td>
<td>Mon</td>
<td>10:00 am - 12:00 pm</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>376-B</td>
<td>Materials Subcommittee</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Outpost</td>
</tr>
<tr>
<td>376-C</td>
<td>Analysis Subcommittee</td>
<td>Sun</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-Outpost</td>
</tr>
<tr>
<td>376-D</td>
<td>Design &amp; Construction Subcommittee</td>
<td>Mon</td>
<td>8:00 am - 10:00 am</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>377</td>
<td>Performance-Based Structural Integrity &amp; Resilience of Concrete Structures</td>
<td>Mon</td>
<td>10:00 am - 12:30 pm</td>
<td>P-Pacific Ballroom B</td>
</tr>
<tr>
<td>378</td>
<td>Concrete Turbine Tower</td>
<td>Mon</td>
<td>8:15 am - 9:30 am</td>
<td>P-Monterey</td>
</tr>
<tr>
<td>408</td>
<td>Bond and Development of Steel Reinforcement</td>
<td>Sun</td>
<td>8:30 am - 11:30 am</td>
<td>D-Magic Kingdom 1</td>
</tr>
<tr>
<td>408-A</td>
<td>Mechanical Reinforcing Bar Anchorages and Splices</td>
<td>Sun</td>
<td>1:30 pm - 3:30 pm</td>
<td>P-Oceanside</td>
</tr>
<tr>
<td>421</td>
<td>Reinf Slabs</td>
<td>Sun</td>
<td>10:00 am - 1:00 pm</td>
<td>D-Adventure</td>
</tr>
<tr>
<td>423</td>
<td>Prestressed</td>
<td>Mon</td>
<td>8:30 am - 12:30 pm</td>
<td>P-Pacific Ballroom A</td>
</tr>
<tr>
<td>423-C</td>
<td>Corrsn &amp; Repr Grtd Tendons</td>
<td>Sun</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-Amazon</td>
</tr>
<tr>
<td>423-F</td>
<td>Sustainable Prestressed Concrete</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Zambezi</td>
</tr>
<tr>
<td>423-G</td>
<td>Specification for Unbonded Single-Strand Tendon Materials</td>
<td>Mon</td>
<td>4:00 pm - 6:00 pm</td>
<td>D-Zambezi</td>
</tr>
<tr>
<td>423/445</td>
<td>Adhoc Grp on Shear in Prestress Conc</td>
<td>Sun</td>
<td>4:00 pm - 5:30 pm</td>
<td>D-Zambezi</td>
</tr>
<tr>
<td>423-TG1</td>
<td>Unbonded Tendons Task Group</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>P-Pacific Ballroom D</td>
</tr>
<tr>
<td>423-TG2</td>
<td>Anchorage Zone Task Group</td>
<td>Sun</td>
<td>4:00 pm - 5:30 pm</td>
<td>P-Pacific Ballroom D</td>
</tr>
<tr>
<td>435</td>
<td>Deflection</td>
<td>Mon</td>
<td>3:00 pm - 6:00 pm</td>
<td>D-Mississippi</td>
</tr>
<tr>
<td>437</td>
<td>Strength Evaluation</td>
<td>Mon</td>
<td>10:30 am - 12:30 pm</td>
<td>D-Columbia</td>
</tr>
<tr>
<td>439</td>
<td>Steel Reinforcement</td>
<td>Mon</td>
<td>8:30 am - 10:30 am</td>
<td>D-North Hall J</td>
</tr>
<tr>
<td>439-A</td>
<td>Steel Reinf-Wire</td>
<td>Sun</td>
<td>3:30 pm - 5:00 pm</td>
<td>D-Oasis</td>
</tr>
<tr>
<td>440</td>
<td>Fiber-Reinforced Polymer</td>
<td>Tue</td>
<td>8:00 am - 11:00 am</td>
<td>D-Disneyland Center</td>
</tr>
<tr>
<td>440-F</td>
<td>FRP-Repair Strengthening</td>
<td>Mon</td>
<td>4:00 pm - 6:00 pm</td>
<td>D-Magic Kingdom 3</td>
</tr>
<tr>
<td>440-H</td>
<td>FRP-Reinforced Concrete</td>
<td>Mon</td>
<td>12:30 pm - 4:00 pm</td>
<td>D-Magic Kingdom 3</td>
</tr>
<tr>
<td>440-J</td>
<td>FRP Stay-in-Place Forms</td>
<td>Mon</td>
<td>10:00 am - 11:30 am</td>
<td>D-Magic Kingdom 3</td>
</tr>
<tr>
<td>440-M</td>
<td>FRP-Repair of Masonry Str</td>
<td>Mon</td>
<td>8:30 am - 10:00 am</td>
<td>D-Magic Kingdom 3</td>
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<tr>
<td>440-TG3</td>
<td>Anchorage Task Group</td>
<td>Mon</td>
<td>11:00 am - 12:30 pm</td>
<td>D-Adventure</td>
</tr>
<tr>
<td>441</td>
<td>Reinforced Columns</td>
<td>Mon</td>
<td>11:30 am - 2:00 pm</td>
<td>D-North Hall J</td>
</tr>
<tr>
<td>444</td>
<td>Structural Health Monitoring and Instrumentation</td>
<td>Tue</td>
<td>8:00 am - 10:00 am</td>
<td>D-Oasis</td>
</tr>
<tr>
<td>445</td>
<td>Shear and Torsion</td>
<td>Mon</td>
<td>2:00 pm - 6:00 pm</td>
<td>D-Magic Kingdom 4</td>
</tr>
<tr>
<td>445-A</td>
<td>Shear &amp; Torsion-Strut &amp; Tie</td>
<td>Sun</td>
<td>9:30 am - 12:30 pm</td>
<td>D-North Hall I</td>
</tr>
<tr>
<td>445-B</td>
<td>Shear &amp; Torsion-Seismic Shear</td>
<td>Sun</td>
<td>9:30 am - 11:30 am</td>
<td>D-Zambezi</td>
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<tr>
<td>445-C</td>
<td>Shear &amp; Torsion-Punching Shear</td>
<td>Sun</td>
<td>1:00 pm - 3:00 pm</td>
<td>D-Castle B</td>
</tr>
<tr>
<td>445-D</td>
<td>Shear &amp; Torsion-Database</td>
<td>Sun</td>
<td>2:00 pm - 5:00 pm</td>
<td>D-North Hall I</td>
</tr>
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</table>

For detailed program information and program changes, download the Convention App.
## Numerical Committee Meeting Listing

For detailed program information and program changes, download the Convention App.

*D = Disneyland® Hotel  P = Disney's Paradise Pier® Hotel*

<table>
<thead>
<tr>
<th>Code</th>
<th>Committee</th>
<th>Day</th>
<th>Time</th>
<th>Room Name</th>
</tr>
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<tbody>
<tr>
<td>445-E</td>
<td>Shear &amp; Torsion-SOA Torsion</td>
<td>Sun</td>
<td>12:30 pm - 2:00 pm</td>
<td>D-North Hall I</td>
</tr>
<tr>
<td>446</td>
<td>Fracture Mechanics</td>
<td>Mon</td>
<td>8:30 am - 10:00 am</td>
<td>P-Pacific Ballroom B</td>
</tr>
<tr>
<td>447</td>
<td>Finite Element Analysis</td>
<td>Mon</td>
<td>11:00 am - 1:30 pm</td>
<td>P-Pacific Ballroom C-D</td>
</tr>
<tr>
<td>506</td>
<td>Shotcreting</td>
<td>Tue</td>
<td>8:30 am - 11:30 am</td>
<td>P-San Diego</td>
</tr>
<tr>
<td>506-A</td>
<td>Shotcreting-Evaluation</td>
<td>Mon</td>
<td>12:30 pm - 2:30 pm</td>
<td>D-Amazon</td>
</tr>
<tr>
<td>506-B</td>
<td>Shotcreting-Fiber Reinforced</td>
<td>Mon</td>
<td>2:30 pm - 4:00 pm</td>
<td>D-Amazon</td>
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<tr>
<td>506-C&amp;E</td>
<td>Shotcreting-Guide &amp; Shotcreting-Specifications</td>
<td>Mon</td>
<td>8:30 am - 11:00 am</td>
<td>D-Amazon</td>
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<tr>
<td>506-F</td>
<td>Shotcreting-Underground</td>
<td>Mon</td>
<td>4:00 pm - 5:00 pm</td>
<td>D-Amazon</td>
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<tr>
<td>506-H</td>
<td>Shotcreting-Pools</td>
<td>Sun</td>
<td>2:00 pm - 3:00 pm</td>
<td>P-San Diego</td>
</tr>
<tr>
<td>515</td>
<td>Protective Systems</td>
<td>Tue</td>
<td>9:00 am - 11:00 am</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>522</td>
<td>Pervious Concrete</td>
<td>Tue</td>
<td>8:00 am - 11:00 am</td>
<td>D-Safari</td>
</tr>
<tr>
<td>523</td>
<td>Cellular Concrete</td>
<td>Tue</td>
<td>8:30 am - 10:30 am</td>
<td>D-Amazon</td>
</tr>
<tr>
<td>524</td>
<td>Plastering</td>
<td>Mon</td>
<td>8:30 am - 10:00 am</td>
<td>D-Nile</td>
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<tr>
<td>526</td>
<td>Autoclaved Aerated Concrete</td>
<td>Mon</td>
<td>2:00 pm - 6:00 pm</td>
<td>D-Tiki</td>
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<tr>
<td>526</td>
<td>Autoclaved Aerated Concrete</td>
<td>Tue</td>
<td>10:30 am - 1:00 pm</td>
<td>D-Amazon</td>
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<tr>
<td>533</td>
<td>Precast Panels</td>
<td>Mon</td>
<td>8:30 am - 10:00 am</td>
<td>P-San Diego</td>
</tr>
<tr>
<td>543</td>
<td>Piles</td>
<td>Mon</td>
<td>8:30 am - 11:30 am</td>
<td>D-Congo</td>
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<tr>
<td>544</td>
<td>Fiber-Reinforced Concrete</td>
<td>Tue</td>
<td>3:00 pm - 5:30 pm</td>
<td>P-Pacific Ballroom C-D</td>
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<tr>
<td>544-A</td>
<td>FRC-Production &amp; Applications</td>
<td>Mon</td>
<td>2:00 pm - 5:00 pm</td>
<td>D-Explorer</td>
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<tr>
<td>544-C</td>
<td>FRC-Testing</td>
<td>Tue</td>
<td>2:00 pm - 3:00 pm</td>
<td>P-Pacific Ballroom C-D</td>
</tr>
<tr>
<td>544-D</td>
<td>FRC-Structural Uses</td>
<td>Tue</td>
<td>12:00 pm - 1:30 pm</td>
<td>D-Western</td>
</tr>
<tr>
<td>544-E</td>
<td>FRC-Mechanical Properties</td>
<td>Mon</td>
<td>5:00 pm - 6:30 pm</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>544-F</td>
<td>FRC-Durability</td>
<td>Tue</td>
<td>10:30 am - 12:00 pm</td>
<td>D-North Hall F</td>
</tr>
<tr>
<td>544-SC</td>
<td>FRC-Steering Committee</td>
<td>Mon</td>
<td>8:30 am - 10:00 am</td>
<td>D-Frontier Board Room</td>
</tr>
<tr>
<td>546</td>
<td>Repair</td>
<td>Mon</td>
<td>9:30 am - 11:00 am</td>
<td>D-Adventure</td>
</tr>
<tr>
<td>546-D</td>
<td>Bagged Materials</td>
<td>Mon</td>
<td>8:00 am - 9:30 am</td>
<td>D-Adventure</td>
</tr>
<tr>
<td>546-E</td>
<td>Corrosion Studies</td>
<td>Sun</td>
<td>10:00 am - 11:30 am</td>
<td>D-Explorer</td>
</tr>
<tr>
<td>548</td>
<td>Polymers and Polymer Adhesives for Concrete</td>
<td>Tue</td>
<td>8:30 am - 11:30 am</td>
<td>D-Western</td>
</tr>
<tr>
<td>548-A</td>
<td>Polymers-Overlays</td>
<td>Mon</td>
<td>1:00 pm - 3:00 pm</td>
<td>P-Del Mar</td>
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<tr>
<td>548-B</td>
<td>Adhesives in Concrete</td>
<td>Mon</td>
<td>3:00 pm - 5:00 pm</td>
<td>P-Del Mar</td>
</tr>
<tr>
<td>548-TG1</td>
<td>Updating Guide for the Use of Polymers in Concrete</td>
<td>Mon</td>
<td>11:00 am - 12:30 pm</td>
<td>P-Del Mar</td>
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<tr>
<td>549</td>
<td>Thin Reinforced Cementitious Products and Ferrocement</td>
<td>Sun</td>
<td>11:00 am - 1:00 pm</td>
<td>D-Nile</td>
</tr>
<tr>
<td>549-L</td>
<td>Liaison</td>
<td>Tue</td>
<td>11:30 am - 5:00 pm</td>
<td>D-Zambezi</td>
</tr>
<tr>
<td>550</td>
<td>Precast Structures</td>
<td>Sun</td>
<td>3:00 pm - 5:00 pm</td>
<td>D-Monorail C</td>
</tr>
<tr>
<td>551</td>
<td>Tilt-up</td>
<td>Sun</td>
<td>9:00 am - 11:00 am</td>
<td>D-Safari</td>
</tr>
<tr>
<td>552</td>
<td>Cementitious Grouting</td>
<td>Tue</td>
<td>4:00 pm - 5:30 pm</td>
<td>D-North Hall J</td>
</tr>
<tr>
<td>552-TG1</td>
<td>Additive Manufacturing</td>
<td>Sun</td>
<td>2:00 pm - 3:30 pm</td>
<td>D-Frontier Board Room</td>
</tr>
<tr>
<td>555</td>
<td>Concrete with Recycled Materials</td>
<td>Mon</td>
<td>5:00 pm - 6:30 pm</td>
<td>D-Amazon</td>
</tr>
<tr>
<td>560</td>
<td>Design &amp; Constr ICFs</td>
<td>Tue</td>
<td>8:30 am - 10:30 am</td>
<td>D-North Hall J</td>
</tr>
<tr>
<td>562</td>
<td>Evaluation, Repair, and Rehab</td>
<td>Sun</td>
<td>1:00 pm - 5:00 pm</td>
<td>D-Magic Kingdom 2</td>
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<tr>
<td>562-A</td>
<td>General</td>
<td>Sat</td>
<td>12:00 pm - 4:00 pm</td>
<td>D-Nile</td>
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<tr>
<td>562-B</td>
<td>Loads</td>
<td>Sun</td>
<td>8:00 am - 10:00 am</td>
<td>D-Oasis</td>
</tr>
<tr>
<td>562-C</td>
<td>Evaluation</td>
<td>Sat</td>
<td>4:00 pm - 5:00 pm</td>
<td>D-Monorail A</td>
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<tr>
<td>562-D</td>
<td>Design</td>
<td>Sat</td>
<td>6:00 pm - 8:00 pm</td>
<td>D-Monorail A</td>
</tr>
<tr>
<td>562-E</td>
<td>Coordination</td>
<td>Mon</td>
<td>8:00 am - 10:00 am</td>
<td>D-Outpost</td>
</tr>
<tr>
<td>562-F</td>
<td>Durability</td>
<td>Sat</td>
<td>6:00 pm - 9:00 pm</td>
<td>D-Castle A</td>
</tr>
<tr>
<td>563</td>
<td>Specs Repair of Sruct Concrete in Buildings</td>
<td>Tue</td>
<td>1:00 pm - 5:00 pm</td>
<td>D-Amazon</td>
</tr>
</tbody>
</table>
Saturday, October 14, 2017

8:00 am – 10:00 am

**FRPRCS A1—Bond and Anchorage of FRP Bars, Grids, and Laminates to Concrete—D-Disneyland South A**

Sponsored by ACI Committee 440
Moderated by Maria Lopez de Murphy, Modjeski and Masters; and William J. Gold, BASF Corporation

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of the bond and anchorage behavior of FRP bars, plates, and tendons to concrete.

8:00 am: Simulation of Delamination Failures in RC Members Strengthened with CFRP Rod Panels and Laminates
Issam E. Harik, University of Kentucky; and Akram Jawdhari, University of Kentucky

8:30 am: 2-D Debonding Evolution in FRP Strengthened Plates Under Combined Loading
Shai Feldfogel, Technion-Israel Institute of Technology; and Oded Rabinovitch, Technion-Israel Institute of Technology

9:00 am: Enhancing FRP-to-Concrete Bond Behavior by Epoxy Interlocking
Baolin Wan, Marquette University; Cheng Jiang, City University of Hong Kong; and John Omboko, Marquette University

9:30 am: Evaluation and Classification of Anchorage Systems Used to Enhance the Flexural Performance of FRP-Strengthened Concrete Members
Robin Kalfat, Swinburne University of Technology; Riadh S. Al-Mahaidi, Swinburne University of Technology; and Scott Thomas Smith, Southern Cross University

2 AIA/CES LU

PDH Codes: __________________ __________________ __________________

8:00 am – 10:00 am

**FRPRCS B1—Strengthening of Concrete Structures Using FRP Systems—D-Disneyland North A**

Sponsored by ACI Committee 440
Moderated by Raafat El Hacha, University of Calgary; and Lijuan Cheng, University of California, Davis

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites for the strengthening of reinforced concrete structures.

8:00 am: Post-Tensioned NSM CFRP for Upgrading Concrete Bridges: Modeling, Testing, and Field Application
Yail Jimmy Kim, University of Colorado Denver; Hee Young Lee and Wonseok Chung, Kyung Hee University; and Jong-Sup Park, Woo-Tai Jung, Korea Institute of Civil Engineering and Building

8:25 am: An Analytical Model to Predict Flexural Behavior of NSM FRP-Strengthened RC Beams Subject to Debonding Failure
Lijuan Cheng, University of California, Davis; and Cheng Chen, Shenzhen University

8:50 am: Analytical Load-Deflection Behavior of Prestressed Concrete Girders Strengthened with FRP
Kimberly Waggle Kramer, Kansas State University; and Hayder A. Rasheed, Kansas State University

9:15 am: Experimental Study on Full-Scale Girders Strengthened with Prestressed NSM Tendons
Woo-Tai Jung, Korea Institute of Civil Engineering and Building Technology; and Jong-Sup Park, Jae-Yoon Kang, and Hee-Beom Park, Korea Institute of Civil Engineering and Building Technology

9:40 am: Influence of the Positioning of CFRP Laminates for Improving Punching Shear Capacity of Column-to-Slab Connections
Hikmatullah Akhundzada, Kingston University; and Ted Donchev, Diana Petkova, and Abdul Mahboob Samsoor, Kingston University

2 AIA/CES LU

PDH Codes: __________________ __________________ __________________
8:00 am – 7:30 pm

✓ **International Workshop on Structural Concrete and Reception**

$75 U.S. per person
Sponsored by ACI Committee 318
Co-Chaired by Jack Moehle, University of California, Berkeley; and James Cagley, Cagley & Associates, Inc.

Workshop: 8:00 am – 5:15 pm—*D-Magic Kingdom 3*
Lunch: 12:00 pm – 1:30 pm—*D-Magic Kingdom 4*
Reception: 6:00 pm – 7:30 pm—*D-Magic Kingdom 4*

The International Workshop on Structural Concrete: Technology Advancement and Adoption in the Americas is held every 18 to 24 months in conjunction with The ACI Concrete Convention and Exposition. The primary purpose of this workshop is to gather and share information on the development and application of concrete design standards throughout the Americas and beyond. Following the workshop, network with colleagues at an evening reception featuring a poster session with Young Practicing Engineers. An assortment of food and beverages will be available. Registered guests may attend this reception for an additional fee of $50.

**PREREGISTRATION IS REQUIRED TO ATTEND.** Tickets may be purchased at the ACI Registration Desk based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

8:00 am – 8:15 am
**Welcome Remarks**
Moderated by James R. Cagley, Cagley & Associates Inc.; and Jack P. Moehle, University of California, Berkeley

8:15 am – 9:45 am
**Session 1—New Tools from ACI**
Moderated by James K. Wight, University of Michigan

Presentation 1: New Spanish Translations (ACI 301, Tolerances ACI 117, IPS-1 updated to ACI 318-14)
Jose M. Izquierdo Encarnacion, PORTICUS CSP

Presentation 2: ACI 318 Chapter 26
Dean A. Browning, Pankow Builders

Presentation 3: Update for ACI 318-19
Jack P. Moehle, University of California, Berkeley

Discussion
James K. Wight, University of Michigan

10:15 am – 12:00 pm
**Session 2—Nonlinear Analysis in Earthquake-Resistant Design**
Moderated by Jack P. Moehle, University of California, Berkeley

Presentation 1: USA—Examples
Ronald Klemencic, Magnuson Klemencic Associates

Presentation 2: Chile—Examples
Rene F. Lagos, Rene Lagos Engineers

Presentation 3: ACI 318 N: Nonlinear Dynamic Analysis
Luis E. Garcia, Universidad de los Andes

Discussion
Jack P. Moehle, University of California, Berkeley

12:00 pm – 1:30 pm
**International Workshop on Structural Concrete Lunch—D-Magic Kingdom 4**

BIM (Building Information Modeling)
William Klorman, Klorman Construction

1:30 pm – 3:00 pm
**Session 3—Seismic Design of Walls**
Moderated by Kenneth B. Bondy, Consulting Structural Engineer

Presentation 1: Chile—Use of 318 14 and Walls
Leonardo M. Massone, University of Chile

Presentation 2: Colombia—Thin Walls
Carlos Arteta, Universidad Del Norte

Presentation 3: Mexico—318 14 and Walls
Roberto Stark, Prodigy Network

Presentation 4: Summary of the Speakers and Where 318-H is Headed
Andrew G. Taylor, KPFF Consulting Engineers

Discussion
Kenneth B. Bondy, Consulting Structural Engineer

3:30 pm – 5:00 pm
**Session 4 – New News**
Sponsored by ACI Committee 318
Moderated by James R. Cagley, Cagley & Associates Inc.

Presentation 1: Strut and Tie Update
Lawrence C. Novak, Portland Cement Association

Presentation 2: High Strength Reinforcing
Dominic J. Kelly, Simpson Gumpertz & Heger

Presentation 3: A First Look at the M8.2 Tehuantepec Mexico Earthquake of September 7, 2017
Sergio Alcocer, National University of Mexico

Discussion
James R. Cagley, Cagley & Associates Inc.

5:00 pm – 5:15 pm
**Closing Remarks**
Moderated by James R. Cagley, Cagley & Associates Inc.; and Jack P. Moehle, University of California, Berkeley

6:00 pm – 7:00 pm
**International Workshop on Structural Concrete Reception featuring the Young Practicing Engineers Poster Session—D-Magic Kingdom 4**

Retrofit and Revitalization of Historic Southern Pacific Warehouse Building
Eric Velazquez, Englekirk Structural Engineers

Ministry of Taxation, Baku, Azerbaijan
Lizabeth DuBay, Thornton Tomasetti

Westfield University Town Center
Andy Luu, KPFF

Cable Stay Bridge Over the Magdalena River—Colombia
Francisco A. Galvis, Universidad de los Andes

Museu do Amanha
Rafael Timerman, Engeti-Consultora and Fabricio Gustavo Tardivo, Engeti-Consultora

SOMA Hotel
Catherine Chen, ARUP
Sessions & Events
For detailed program information and program changes, download the Convention App.
✓ = Separate fee required ★ = Guest-only event
D = Disneyland® Hotel P = Disney’s Paradise Pier® Hotel

Saturday, October 14, 2017
10:15 am – 12:15 pm

**FRPRCS A2—Bond and Anchorage of FRP Bars, Grids, and Laminates to Concrete—D-Disneyland South A**
Sponsored by ACI Committee 440
Moderated by Shawn P. Gross Villanova University; and Scott Thomas Smith, Southern Cross University

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of the bond behavior of different FRP-concrete systems.

**10:15 am: Quantitative Image Analysis of Concrete-Epoxy Fracture Surfaces**
Yoseok Jeong, Chungnam National University; Maria Lopez de Murphy, Modjeski and Masters; and Charles E. Bakis, Pennsylvania State University

**10:45 am: Improving Bond Behavior of Corroded Reinforced Concrete Beams with FRCM Repair**
Rania Al-Hammoud, University of Waterloo; and Miranda Susanne. Anderson, University of Minnesota–Duluth

**11:15 am: FRP Bond Strength to Concrete Using Bio-Sourced Resin Wet Layup**
Anne McIsaac; Queen’s University; and Amir Fam, Queen’s University

**11:45 am: Effect of Surface Characteristics of FRP Bars on Bond Behavior**
Sandor Solyom, Budapest University of Technology and Economics; and Matteo Di Benedetti and Gyorgy L. Balazs, Budapest University of Technology and Economics

PDH Codes: 2 AIA/CES LU

1:15 pm – 3:15 pm

**FRPRCS A3—Emerging FRP Systems—D-Disneyland South A**
Sponsored by ACI Committee 440
Moderated by Yail Jimmy Kim, University of Colorado; and John J. Myers, Missouri University of Science and Technology

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using emergent FRP systems in concrete infrastructure.

**1:15 pm: Development of a Multifunctional Photovoltaic Integrated Insulated Concrete Sandwich Panel**
An Chen, Iowa State University; and Mostafa Yossef and Austin Downey, Iowa State University

**1:40 pm: A Hybrid FRP-Reinforced Slab-On-Truss Girder System for Short and Medium Span Bridges**
Mamdouh M. El-Badry, University of Calgary; Mohammad Moravvej, University of Calgary; and Parham Joulani, COWI North American

**2:05 pm: Novel Composites Jacket for Repair of Concrete Structures**
Allan Manalo, University of Southern Queensland; and Ali Abdulkareem Mohammed and Ginghis Maranan, University of Southern Queensland

**2:30 pm: Steel-Free Multi-Girder Hybrid Deck System—Design Considerations and Construction Challenges**
Raaafat El-Hacha, University of Calgary

**2:55 pm: Flexure Strengthening of Reinforced Concrete Beams with Fabric Reinforced Cementitious Mortar (FRCM)**
Trevor N.S. Billows, University of British Columbia; and Ahmad Rteil, University of British Columbia

PDH Codes: 2 AIA/CES LU

10:15 am – 12:15 pm

Sponsored by ACI Committee 440
Moderated by Sami Rizkalla, North Carolina State University; and Radhouane Masmoudi, University of Sherbrooke

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of FRP material characteristics.

**10:15 am: Nonlinear Angle-Ply Model for Stay-in-Place Tubes by Inverse Mechanics Approach**
Hayder A. Rasheed, Kansas State University

**10:45 am: Deterioration of Tensile and Shear Strength of GFRP Bar**
Maria A. Polak, University of Waterloo; and Paulina Arczewska and Alexander Penlidis, University of Waterloo

**11:15 am: Bond Behavior of CFRP Bars Prestressed in Self-Consolidating Concrete Beams**
Slamah S. Krem, University of Waterloo; and Khaled A. Soudki, University of Waterloo

**11:45 am: Statistical Characterization of Unidirectional Tensile Strength of FRP Composites**
Yihua Zeng, Ghent University; Robby Caspeele, Stijn Matthys and Luc R. Taelwe, Ghent University

PDH Codes: __________________ __________________ __________________
1:15 pm – 3:15 pm

**FRPRCS B3—Strengthening of Concrete Structures Using FRP Systems—D-Disneyland North A**
Sponsored by ACI Committee 440
Moderated by Pedro F. Silva, George Washington University; and Hayder A. Rasheed, Kansas State University

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites for the strengthening of reinforced concrete structures.

**1:15 pm: Strengthening Short Concrete Columns using Longitudinally Bonded CFRP Laminates**
Pedram Sadeghian, Dalhousie University; and Koosha Khorramian, Dalhousie University

**1:40 pm: Shear Strengthening of RC Beams with NSM FRP—Influencing Parameters and a Theoretical Model**
Amir Mofidi, McGill University; Lijuan Cheng, University of California, Davis; Omar Chaallal, University of Quebec; and Yixin Shao, McGill University

**2:05 pm: Shear Strengthening of Large-Scale Concrete Bridge Sections Using CFRP Sheets and Anchors, and Quality-Control Procedures**
Wassim M. Ghannoum, University of Texas at San Antonio; Nawak K. Alotaibi, Kuwait University; Chang Hyuk Kim, Sungkyunkwan University; Ungon Kim, Daegu University; Douglas Pudleiner, Intelligent Engineering Services; Kevin Quinn, Haris Engineering; Neil Satrom, Dudley Williams and Associates, William Shekarchi, Jacobs Engineering; Wei Sun, Lanzhou University; Helen Wang, Bechtel OG&C, Inc.; and Jose Garcia and James O. Jirsa, University of Texas at Austin

**2:30 pm: Analysis of the Role of Horizontal and Vertical Component of CFRP Grid in Shear Strengthening for RC Beam**
Ngoc Linh Vu, Tokyo Metropolitan University; and Kimitaka Uji, Tokyo Metropolitan University

**2:55 pm: Strengthening of Damaged Reinforced Concrete Beams using Externally Bonded Fiber Reinforced Polymer**
Salah Altoubat, University of Sharjah; and Abdul Saboor Karzada and Mohammed Maaleja, University of Sharjah

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3:30 pm – 5:30 pm

**FRPRCS A4—Global Codes and Standards—D-Disneyland South A**
Sponsored by ACI Committee 440
Moderated by Vicki Brown, Widener University; and Ravindra Kanitkar, KL Structures Group

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP-reinforced or strengthened concrete structures and will be aimed at providing insights needed for improving existing design guidelines.

**3:30 pm: Effect of GFRP Compression Reinforcement on Long-Term Deflections**
Stephanie L. Walkup, Villanova University; and Shawn P. Gross and Eric S. Musselman, Villanova University

**4:00 pm: ACI 440.2R and the New Seismic Strengthening Guidelines using FRP**
Pedro F. Silva, The George Washington University; and Ravindra Kanitkar, KL Structures Group

**4:30 pm: Case-Specific Parametric Analysis as Research-Directing Tool for Analysis and Design of GFRP-RC Structures**
Marco Rossini, University of Miami; Eleonora Bruschi and Antonio Nanni, University of Miami; and Fabio Matta, University of South Carolina

**5:00 pm: Confinement Model for Concrete Columns Reinforced with GFRP Spirals**
Priyank Sankholkar, Concrete Timber Steel Engineering Ltd.; and Chris P. Pantelides, University of Utah

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**3:30 pm – 5:30 pm**

**FRPRCS B4—Advances in Uses of FRP in Concrete and Masonry—D-Disneyland North A**
Sponsored by ACI Committee 440
Moderated by Issam E. Harik, University of Kentucky; and Pedram Sadeghian, Dalhousie University

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP-reinforced or strengthened concrete structures.

**3:30 pm: Confinement of Concrete Elements with FRCM Composites: What Do We Know So Far?**
Lesley H. Sneed, Missouri University of Science and Technology; and Jamie Gonzales-Libreros, Carlo Pellegrino, Cristian Sabau, and Gabriel Sas, Lulea University of Technology
Saturday, October 14, 2017

4:00 pm: Experimental and Analytical Investigations on CFST Columns with FRP Internal Bars Under Axial Cyclic Compression Loading
Radhouane Masmoudi, University of Sherbrooke; and Asmaa Abdeldaim Ahmed, University of Sherbrooke

4:30 pm: Review of FRCM Strengthening Solutions for Structural Wall Panels
Cristian Sabau, Lulea University of Technology; and Cosmin Popescu, Gabriel Sas, Thomas Blanksvard, and Bjorn Taljsten, Lulea University of Technology

5:00 pm: Research and Development of Concrete-Infilled FRP Pultruded Tubes
Thiru Aravinthan, University of Southern Queensland; and Weena Lokug and Ali Umran Alsaddi, University of Southern Queensland

6:00 pm – 8:00 pm

✓ FRPRCS Reception—D-Mark Twain
$54 U.S. per person
Sponsored by ACI Committee 440

Join us after the first day of sessions for a cocktail reception. The reception will provide great networking opportunities with global leaders in the use of FRP for concrete and masonry structures. You can interact directly with speakers and gain valuable insight into the research and applications of FRP reinforcement and strengthening of structures.

PREREGRISTRATION IS REQUIRED TO ATTEND. Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

8:00 pm – 10:00 pm

Student Networking Reception—D-Magic Kingdom 1
Sponsored by ACI Student and Young Professional Activities Committee

The ACI Student and Young Professional Activities Committee (SYPAC) invites all students, faculty advisors, and convention mentors to the Student Networking Reception. This casual and fun environment is an opportunity to engage with future concrete professionals and professors. Students will be entered into a drawing for door prizes. In addition, pizza and beverages will be provided for free on a first-come, first-served basis.

Sunday, October 15, 2017

8:00 am – 9:00 am

Convention Orientation Breakfast—D-Magic Kingdom 3
Moderated by Lawrence Homer Taber, Black & Veatch.

First-time convention attendees are invited to join a member of the ACI Convention Committee for a continental breakfast and brief session to orient you to the week ahead. Attendees will have the opportunity to meet other first-time convention attendees, connect with convention mentors, and learn about what The ACI Convention and Exposition has to offer.

8:00 am – 10:00 am

Early-Age Property Development in Concrete with Supplementary Cementing Materials, Part 1 of 2—D-Disneyland South B
Sponsored by ACI Committees 231, 232, and 236
Moderated by Narayanan Neithalath, Arizona State University; and Gaurav N. Sant, University of California, Los Angeles

A wide variety of cement replacement materials are being used in concrete. It is important to understand and predict the early-age response of concrete containing these materials. This session will cover all aspects of early-age property development in concrete with supplementary cementing/cement replacement materials, including laboratory investigations and field practices. The session will provide attendees with state-of-the-art information on early-age response of concrete with multiple-blend binders, advances in early-age property characterization methods, and simulation of the early-age response, in an effort to design and proportion sustainable binders.

8:00 am: X-Ray Fluorescence to Measure Composition of Cementitious Pore Solutions Containing Supplementary Cementitious Materials
W. Jason Weiss, Oregon State University; Prannoy Suraneni, ETH Zurich; and Marisol Chung, Oregon State University

8:20 am: Experimental and Numerical Methods Quantifying Tricalcium Silicate Hydration with Metakaolin and Silica Fume
Aditya Kumar, Missouri University of Science and Technology; Rachel Cook, Arizona State University; and Jonathan Lapeyre and Dimitri Feyes, Missouri University of Science and Technology

8:40 am: Investigating the Functionality of Limestone Powders as Mineral Plasticizers in Cement-Based Materials
Scott Z. Jones, National Institute of Standards and Technology; Didier Lootens, Sika Technology AG; and Dale P. Bentz and Paul Stutzmann, National Institute of Standards and Technology

9:00 am: Analytical and Quantitative Measurement of Surface Moisture Transport, Strain Distribution, and Plastic Shrinkage Cracking in Early-Age Mortar with Wollastonite
Barzin Mobasher, Arizona State University; Mehdi Bakshi, AECOM; Yiming Yao and Mansour Zenouzi, Arizona State University; and Amir Bonakdar, The Euclid Chemical Company

9:20 am: Early-Age Behavior of Metakaolin-PLC Combinations
Behnaz H. Zaribaf, Georgia Institute of Technology; and Kimberly E. Kurtis, Georgia Institute of Technology
Sessions & Events
For detailed program information and program changes, download the Convention App.

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✓ = Separate fee required  ★ = Guest-only event

9:40 am: Early-Age Fracture Resistance of Cementitous Materials, An Experimental Investigation
Christian Hoover, Arizona State University

8:00 am – 10:00 am

Field Experience and Structural Performance of Self-Consolidating Concrete in High-Rise and Bridge Construction—D-Disneyland North B
Sponsored by ACI Committee 237
Moderated by Kamal H. Khayat, Missouri University of Science and Technology

The use of self-consolidating concrete (SCC) in precast and cast-in-place applications has been growing steadily worldwide, with SCC becoming the material of choice to facilitate concrete placement in highly restricted sections and in extreme placement conditions. This includes high-rise building construction, such as the One World Trade Center in New York City, Burj Khalifa in Dubai, and the Jeddah Tower in Saudi Arabia. The objective of this session is to highlight recent projects involving design and construction of SCC for high-rise building and major bridge construction projects, and the potential obstacles to further implementation of SCC. Lessons learned for concrete producers, structural designers and architects, and contractors will be addressed. Several important examples regarding the structural performance of SCC will be highlighted, including strength development, elastic moduli, bond strength to embedded steel, prestress losses, shrinkage, and permeability. The session will be beneficial to practicing professionals dealing with the structural design and construction of SCC.

8:00 am: Successful High-Performance Concrete for Tall Buildings in North America
William S. Phelan, The Euclid Chemical Company

8:20 am: Performance of Self-Consolidating Concrete Developed for Iconic and High-Rise Structures in North America
Van K. Bui, BASF Construction

8:40 am: VDOT's SCC Applications in Beams and Lessons Learned
H. Celik Ozylidirim, Virginia Transportation Research Council

8:00 am – 10:00 am

FRPRCS A5—Seismic Resistance of Concrete Structures Using FRP Materials—D-Disneyland South A
Sponsored by ACI Committee 440
Moderated by Lijuan Cheng, University of California, Davis; and William J. Gold, BASF Corporation

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites in seismic structural applications.

8:00 am: Rapid Seismic Repair of Severely Damaged Precast Reinforced Concrete Bridge Piers with CFRP Shell
Chris P. Pantelides, University of Utah; and Ruoyang Wu, University of Utah

8:30 am: Seismic Performance of Interior GFRP-RC Beam-Column Joints
Ehab F. El-Salakawy, University of Manitoba; and Shervin Khalili Ghomi, University of Manitoba

9:00 am: Seismic Evaluation of RC Frame Members Strengthened with CFRP NSM Bars
Elias I. Saqan, American University in Dubai; Hayden A. Rasheed, Kansas State University; and Tarek Alkhrdaji, Structural Technologies

9:30 am: Seismic Strengthening of Reinforced Concrete Columns with Straight Carbon Fiber-Reinforced Polymer (CFRP) Anchors
Enrique Del Rey Castillo, University of Auckland; Jason Ingham, University of Auckland, and Michael Griffith, The University of Adelaide

8:00 am – 10:00 am

FRPRCS B5—Strengthening of Concrete Structures Using FRP Systems—D-Disneyland North A
Sponsored by ACI Committee 440
Moderated by Raafat El-Hacha, University of Calgary; and Maria Lopez de Murphy, Modjeski and Masters

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites for the strengthening of reinforced concrete structures.

8:00 am: Investigation of CFRP Torsional Strengthening of RC Beams Using DIC Photography
Ghaidak Ahmed Fadhil Al-Bayati, Swinburne Institute of Technology; and Riadh S. Al-Mahaidi and Robin Kalfat, Swinburne University of Technology
Sessions & Events
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✓ = Separate fee required ★ = Guest-only event
D = Disneyland® Hotel  P = Disney's Paradise Pier® Hotel

Sunday, October 15, 2017

8:30 am: Shear Strengthening of Reinforced Concrete Beams Using Externally Bonded Small-Diameter Carbon Strands
Judy Soliman, Ain Shams University; Tarek K. Hassan, Ain Shams University; and Sami H. Rizkalla, North Carolina State University

9:00 am: Behavior of Concrete Columns Under the Confinement of Lateral Steel Hoops and FRP
Ahmed Abd El Fattah, King Fahd University of Petroleum and Minerals; Mukhtar Azeez King Fahd, University of Petroleum and Minerals; and Hayden A. Rasheed, Kansas State University

9:30 am: Influence of EB-CFRP on Cracks for Reinforced Concrete Beams Strengthening
Emmanuel Ferrier, Claude Bernard University Lyon 1; and Carmelo Caggegi and Laurent Michel, Claude Bernard University Lyon 1

9:30 am – 4:00 pm

Student Egg Protection Device Competition—D-South Exhibit Hall
Sponsored by ACI Committee S801
Moderated by Walter H. Flood IV, Flood Testing Labs Inc.

The objective of this competition is to design and build the highest-impact, load-resistant, plain or reinforced concrete egg protection device (EPD). Students will learn about and report on concrete's impact resistance, reinforcing steel design, and other real-life aspects that an EPD simulates. Testing will begin early and continue until only crushed EPDs and mangled reinforcing bar remain. The winners will be announced during the Student Lunch, and the top three entries will receive prizes. Check-in for this competition begins at 9:00 am.

10:00 am – 11:30 am

ACI International Forum—D-Magic Kingdom 4
Chaired by Vice President David A. Lange, University of Illinois

The ACI International Forum provides an opportunity for convention attendees to meet and learn from ACI International partners, ACI chapter representatives, and ACI leadership about worldwide events, activities, initiatives, and common themes of interest to the concrete materials, design, and construction industry.

Speakers include: Hasan J. Al Nawadi and Rafal Anay Wadee, Iraq Chapter – ACI; Chang-Sik Choi, Korea Concrete Institute (KCI); Paolo Casadei, Italy Chapter – ACI; Hitoshi Shiohara, Japan Concrete Institute (JCI); Surendra Mani rekar, India Chapter – ACI; Nemkumar Banthia, Canada India Research Center of Excellence; Jordan Concrete Association/Jordan Engineering Association (JCA/JEA) speakers; Andres Lee, INCYC Nicaragua; and others.

10:15 am – 12:15 pm

FRPRCS A6—FRP Reinforcement of Concrete and Masonry Walls—D-Disneyland South A
Sponsored by ACI Committee 440
Moderated by Carol Shield, University of Minnesota; and Rudi Seracino, North Carolina State University

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites for the reinforcement of concrete and masonry walls.

10:15 am: Assessment of FRP Strengthening Configurations and Anchorages for URM Walls Under In-Plane Loading
Nancy Torres, Escuela Colombiana de Ingenieria; and Julio Garavito and Gustavo Tumialan, Simpson Gumpertz & Heger Inc.; and Camilo Vega, Ingetec Ingenieros Consultores

10:45 am: Evaluation of FRP and FRCM Composites for the Strengthening of Reinforced Masonry Walls
John J. Myers, Missouri University of Science and Technology; and Zuhair K. Al-Jaber and Mohamed A. ElGawady, Missouri University of Science & Technology

11:15 am: Masonry Walls Reinforced with FRP Bars Subjected to Out-of-Plane Loading
Gustavo Tumialan, Simpson Gumpertz & Heger Inc.; and Nancy Torres and Alfonso Quintana, Escuela Colombiana de Ingenieria, and Julio Garavito and Antonio Nanni, University of Miami

10:15 am – 12:15 pm

FRPRCS B6—Field Applications and Case Studies—D-Disneyland North A
Sponsored by ACI Committee 440
Moderated by John Busel, American Composites Manufacturers Association; and Sarah Witt, Consultant

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize field applications and case studies of using FRP composites for internal reinforcement of concrete.

10:15 am: Implementation of Closed GFRP Stirrups in FRP-RC Design of Traffic Barriers
Paolo Rocchetti, University of Miami; and Guillermo Claure, Francisco de Caso y Basalo, and Antonio Nanni, University of Miami
Sessions & Events

For detailed program information and program changes, download the Convention App.

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✓ = Separate fee required  ★ = Guest-only event

10:45 am: A Design Approach for FRP Anchors in FRP-Strengthened RC Structures
Enrique del Rey Castillo, University of Auckland; Jason Ingham, University of Auckland; Scott Thomas Smith, Southern Cross University; Ravi Kanitkar, KL Structures Group; and Michael Griffith, University of Adelaide

11:15 am: State-of-the-Practice of Global Manufacturing of FRP Rebar and Specifications
Alvaro Ruiz Empananza, University of Miami; Raphael Kampa- mann, Florida State University; and Francisco de Caso y Basalo, University of Miami

11:45 am: Evaluation of Prestress Stress Relaxation Losses and Harping Strength Reduction of Prestressing CFRP Cables and Bars
Abdeljdell Belarbi, University of Houston; Hamidreza Tashiri and Mina M. R. Dawood, University of Houston; and Bora Genceturk, University of Southern California

12:00 pm: The Effect of Slag Cement Composition on Concrete Early-Age Properties
Kyle Austin Riding, University of Florida; and Abla Zayed, Ananya Markandeya, and Natalia Shanahan, University of Florida

10:30 am – 12:30 pm

Performance-Based Design—D-Disneyland North B
Sponsored by ACI Committee 341
Moderated by Shahria Alam, University of British Columbia; and Ahmed M. Abdel-Mohti, Ohio Northern University
This session aims to provide the current knowledge in performance-based design of bridges. Bridges are a critical component of our infrastructure system and failure of bridges is a safety issue. More progress has been made in performance-based design in seismic analysis of buildings than that of bridges. AASHTO seismic requirements are based on the level of ductility of structural members, importance of the structure, level of deformation, and soil conditions. On the other hand, performance-based design is based on having bridge performance achieve defined performance criteria such as strength, ductility, or deformation. The session contains presentations of experimental and/or analytical research focusing on the performance-based design of bridges and bridge components.

10:30 am: Design Alternatives and Evaluation of Performance-Based Designed Bridge Pier
Shahria Alam, University of British Columbia

10:50 am: Seismic Design of Shape Memory Alloy Reinforced Concrete Bridge Pier
AHM Muntasir Billah, University of British Columbia; and Shahria Alam, University of British Columbia

11:10 am: A Probabilistic Approach to Evaluate the Effect of Viscous Damping Modeling Characteristics of Concrete Bridges on the Seismic Demands
Mohamed Moustafa, University of Nevada, Reno

11:30 am: Comparing the Seismic Performance of Conventional and Novel Structural Systems Using PBEE
Dawn E. Lehman, University of Washington; Charles W. Roeder, University of Washington; and Max Stephens, Stephens & Johnson Operating Company

11:50 am: Performance of Horizontally Curved Highway Bridge with Seismic Isolation
Eric V. Monzon, University of Nevada, Reno

12:10 pm: Performance Limit States of Reinforced Concrete Filled Steel Tube Drilled Shafts
Diego A. Aguirre-Realpe, North Carolina State University

Early-Age Property Development in Concrete with Supplementary Cementing Materials, Part 2 of 2—D-Disneyland South B
Sponsored by ACI Committees 231, 232, and 236
Moderated by Narayan Neithalath, Arizona State University; and Gaurav N. Sant, University of California, Los Angeles
The session description for this session may be found in the Part 1 listing; refer to page 28.

10:30 am: Influence of Silica Fume and PCE Dispersant on Hydration Mechanisms of Cement
Aditya Kumar, Missouri University of Science and Technology; and Piyush Lunkad, Kamal H. Khayat, and Weina Meng, Missouri University of Science and Technology

10:45 am: The Filler Effect: The Influence of Filler Content and Type on the Hydration Rate of Tricalcium Silicate
Gaurav N. Sant, University of California, Los Angeles; Jeffrey W. Bullard, National Institute of Standards and Technology; Tandre Oey, University of California, Los Angeles; and Aditya Kumar, Missouri University of Science and Technology

11:00 am: Impact of Remediated and Reclaimed Fly Ash on Early-Age Properties
Maria G. Juenger, University of Texas at Austin; and Raisa P. Ferron, Saif Al-Shmaisani, and Ryan Kalina, University of Texas at Austin

11:15 am: The Effect of Temperature and Supplementary Cementing Materials on the Strength Development of Concrete
Anton Karel Schindler, Auburn University

11:30 am: The Influence of Curing on the Early-Age Properties of Ternary Concrete
Jan Olek, Purdue University; Tommy Edward Nantung, Indiana DOT; and Mateusz Radlinski, Exponent

11:45 am: High-Volume Fly Ash Concrete—Early-Age Properties and Specifications
Karthik H. Obla, National Ready Mixed Concrete Association
Sunday, October 15, 2017

11:30 am – 1:30 pm

✓ International Lunch—D-Magic Kingdom 3
$30 U.S. per person
Topic: Cooperative Efforts between Academia and Industry for the Development of Concrete Technology in Korea
Sponsored by the ACI International Advisory Committee
Speakers: Jae-Hoon Lee, Yeungnam University; and Hong Gun Park, Seoul National University

This presentation will introduce Korean experience in developing national standards and concrete technology since the 1960s, when large-scale construction of buildings and infrastructures began. At the early stage as a developing country, a lot of effort was needed due to very limited knowledge and information on concrete technology. During the last two decades, various research programs have been conducted to develop more rational design code and concrete technology, which enables Korean engineers to design and construct diverse civil structures and buildings in Korea. Particularly, in this presentation, the roles of the Korea Concrete Institute and universities on the development of concrete technology and construction of Korea will be presented, showing several instances of infrastructures and mega-buildings.

PREREGISTRATION IS REQUIRED TO ATTEND. Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

12:30 pm – 4:00 pm

Student Eco Concrete Competition—D-South Exhibit Hall
Sponsored by ACI Committee S801 and ACI Subcommittee 130-G
Moderated by Walter H. Flood IV, Flood Testing Labs Inc.

This new student competition aims to promote the idea of environmental performance in concrete mixture design as an important aspect of sustainability. For the first-time run of the new student competition, 20 teams have the mission to develop an innovative concrete mixture that must have the lowest possible environmental impact while maintaining optimal mechanical and durability performance. After designing their concrete mixture, teams are asked to perform a simplified lifecycle assessment (LCA) and present their results in a written report. At the competition, teams will have a poster to present their innovative concrete to the audience and judges, with an emphasis on environmental aspects considered in their design, and their mixture will be checked for durability by testing the resistivity. Winners will be announced on Monday at the Student Lunch. Check-in for this competition begins at 9:00 am.

1:00 pm – 3:00 pm

ACI 201.2R-16: Updated Guidance on Concrete Durability—D-Disneyland South B
Sponsored by ACI Committee 201
Moderated by Thomas J. Van Dam, Nichols Consulting Engineers; and R. Doug Hooton, University of Toronto

This session is organized to introduce the new ACI 201.2R-16, “Guide to Durable Concrete.” In the presentations, the chapter leaders discuss various aspects of what makes concrete “durable.” Topics include mass transport, susceptibility to freezing and thawing, alkali-aggregate reactivity, sulfate attack, aggressive chemicals, physical salt attack, corrosion, and abrasion. All engineers and contractors responsible for designing, specifying, and constructing with concrete should attend to learn about the most recent findings with regards to concrete durability.

1:00 pm: Introduction: What is Durable Concrete?
Thomas J. Van Dam, Nichols Consulting Engineers

1:15 pm: Early-Age Properties and Their Influence on Cracking
durability.

1:00 pm – 3:00 pm

Influence of Early-Age Properties on Crack Development and Long-Term Durability, Part 1 of 2—D-Disneyland North B
Sponsored by ACI Committees 201, 211, 224, 225, 231, 232, 233, 325, and 365
Moderated by Jussara Tanesi, SES Group Associates; and Benjamin E. Byard, Tennessee Valley Authority

The causes for concrete pavement cracking and how they are related to the development of early-age properties and their effect on long-term durability will be explored during this session. This includes:

• The effect of mixture design (including materials used and proportion of materials) on early-age properties and bridge deck and/or concrete pavement cracking
• The impact of construction practices on early-age properties and bridge deck and/or concrete pavement cracking
• The relationship between bridge deck and/or concrete pavement cracking caused by early-age properties development and the reduction of long-term durability
• Early-age measurement techniques that can evaluate early-age properties that are most related to bridge deck and/or concrete pavement cracking
• Quality assurance practices to prevent cracking
• Case studies

1:00 pm: Application of Non-Contact Ultrasonic System for Estimating Saw Cut Timing Window of Concretes
Quang Ngoc Vinh Tran, University of Illinois at Urbana-Champaign; and John S. Popovics and Jeffery R. Roesler, University of Illinois at Urbana-Champaign

1:20 pm: Use of Superabsorbent Polymers to Reduce Shrinkage Cracking in Concrete Elements
W. Jason Weiss, Oregon State University; Armen Amirkhanian, University of Illinois at Urbana-Champaign; Luca Montanari, Oregon State University; and Prannoy Suraneni, ETH Zürich

1:45 pm: Early-Age Temperature Evolution in Concrete Pavements Containing Microencapsulated Phase Change Materials: Design Insights from Finite Element Modeling
Gabriel Falzone, University of California, Los Angeles; Benjamin Young, Zhenhua Wei, Laurent Pilon, and Gaurav Sant, University of California, Los Angeles; and Narayanan Neithalath, Arizona State University

2:10 pm: A Case Study of Very Early-Age Concrete Cracking in Airfield Pavement
Mateusz Radlinski, Exponent; Brian McDonald, Exponent; and Amal Puthur-Jayapalan, Georgia Institute of Technology

2:35 pm: A Field and Laboratory Study of the Effect of Early-Age Cracking Mitigation Measures on Stress Development in Realistic Concrete Mixtures
Dhanushika Vidarshanee Gunatilake, University of South Florida; and Ananya Markandeya, Ahmadreza Sedaghat, Natalia Shanahan, K.A. Riding, and A. Zayed, University of South Florida

1:15 pm: Post-Fire Evaluation of FRP Reinforcement in RC Slabs
Guillermo Clauhe, University of Miami; and Francisco de Caso y Basalo and Antonio Nanni, University of Miami

1:45 pm: Numerical Simulation of AFRP Rod NSM RC Beams Under Falling-Weight Impact Loading
Masato Komuro, Muroran Institute of Technology, Japan; Yusuke Kurihashi and Tomoki Kawarai, Muroran Institute of Technology; and Norimitsu Kishi, National Institute of Technology, Japan

2:15 pm: Impact Tests of RC Beams Flexurally Strengthened with CFRP Material
Norimitsu Kishi, National Institute of Technology, Japan; Masato Komuro and Yusuke Kurihashi, Muroran Institute of Technology, Japan; and Hiroshi Mikami, TRI of Sumitomo-Mitsui Construction Co., Ltd

2:45 pm: CFRP Repairing System at Openings in Reinforced Concrete T-Beams Cracked by Impact Loads
Nazar Oukaili, University of Baghdad; and Abeer Al-Shammari, University of Baghdad

2 AIA/CES LU

PDH Codes: __________________ __________________ __________________

1:15 pm – 3:15 pm

FRPRCS B7—Effect of Environment on Durability—D-Disneyland North A
Sponsored by ACI Committee 440
Moderated by Brahim Benmokrane, University of Sherbrooke; and Maria A. Polak, University of Waterloo

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of the effects of the environment on the durability of FRP-reinforced or -strengthened concrete structures.

1:15 pm: Advantages of Pre-Saturated FRP Systems for Extending Service Life of Concrete Members in Wet and Dry Environments
Erlblina Vokshi, Neptune Research Inc.

1:45 pm: Interface between Carbon Fiber-Reinforced Polymer Sheets and Concrete Exposed to Freeze-Thaw Cycles
Wanting Wang, University of Colorado, Denver; and Yail Jimmy Kim, University of Colorado, Denver

2:15 pm: Characteristics of FRP Pretensioned Concrete Beams after Long-Term Exposure
Hiroyumi Watanabe, Kawada Construction Company, Ltd.; Hiroshi Nakai, Maeda Kohsen Co., Ltd; and Tsuyoshi Enomoto, Tokyo Rope Company, Ltd.; and Takeo Uomoto, Public Works Research Institute

2:45 pm: Flexural Behavior of GFRP-UCF Composite Beams under Moderately High Temperature
Isuru Sanjaya Kumara Wijayawardane, Saitama University; and Hiroshi Mutsuyoshi, Saitama University

2 AIA/CES LU

PDH Codes: __________________ __________________ __________________
3:00 pm – 4:00 pm

MINI SESSION: Quality in Concrete: Auditing—P-Crystal Cove
Sponsored by ACI Committee 121
Moderated by Michelle E. Walters, Hatch

How can we determine the health of an organization in terms of an organized approach, efficiency, and control of processes? What is the role of quality in the organization? How far-reaching is the Quality Management System? Does it concern only quality control, or does it look beyond testing and inspection, and into overall management of the organization to include continuous improvement, customer feedback, and employee training and involvement? Does the scale of it fit the organization? Is it for real or only a dusty old book on a shelf? Auditing is one tool of an overall quality management program that can indicate the health of a system by checking the earmarks of good practices. How does an audit occur? What questions do you ask? This mini-session will address the audit process of various disciplines within the concrete industry, including both the Contractor and Architect-Engineer, and provide examples of audit processes on projects.

3:00 pm: Introductions
Michelle E. Walters, Hatch

3:10 pm: 121.1R-16 – Guide to Quality Management Auditing in the Concrete Industry
Thomas G. Tyler, Skanska USA Civil Northeast

3:30 pm: Quality Auditing Guide and Industry Practices
Jinesh K. Mehta, Alta Vista Solutions, Inc.; and Divyesh B. Vora, California Department of Transportation

3:30 pm – 5:00 pm

FRPRCS A8—Design and Performance Under Long-Term Loading and Environmental Exposure—D-Disneyland South A
Sponsored by ACI Committee 440
Moderated by Antonio Nanni, University of Miami and Doug Gremel, Owens Corning Infrastructure Solutions, LLC

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites for concrete and masonry structures.

3:30 pm: Testing and Finite Element Analysis of GFRP Reinforced Concrete Frame Joints
Nader Sleiman, University of Waterloo; and Ryan Barrage, Graeme J. Milligan, and Maria A. Polak, University of Waterloo

4:00 pm: FRP Shear Friction Reinforcement for Concrete Joints
Amr Abdel Fattah El Ragaby, University of Windsor; and Faouzi Ghrib, Jehad Alkatan, and Mofrihe Alruwaili, University of Windsor

4:30 pm: Column-Footing Connection Evaluation of Hollow-Core Composite Bridge Columns
Mohamed A. ElGawady, Missouri University of Science and Technology; and Mohanad M. Abdulazeez, Ahmed Ghen, and Omar I. Abdelkarim, Missouri University of Science and Technology

5:00 pm: Size Effect in FRP RC Beams with and without Shear Reinforcement
Szymon Cholostjaw, University of Sheffield; Matteo Di Benedetti and Maurizio Guadagnini, University of Sheffield; and Emanuele Zappa, Polytechnic University of Milan

3:30 pm – 5:30 pm

FRPRCS B8—Advances in Uses of FRP in Concrete and Masonry—D-Disneyland North A
Sponsored by ACI Committee 440
Moderated by Amir Fam, Queen's University and Stephanie L. Walkup, Villanova University

This international symposium attracts interest from researchers, practitioners, and manufacturers involved in the use of fiber-reinforced polymers (FRPs) as reinforcement for concrete structures. This includes the use of FRP reinforcement in new construction and FRP for strengthening and rehabilitation of existing structures. This session will emphasize the experimental, analytical, and numerical validations of using FRP composites for concrete and masonry structures.

3:30 pm: Very Stiff Pultruded FRP Elements for Non-Continuous Reinforcement of Concrete
Ardavan Yazdanbaksh, City College of New York; and Lawrence C. Bank, City College of New York

4:00 pm: Durability of GFRP Reinforcement in Seawater Concrete
Morteza Khatibnasrjedi, University of Miami; and Antonio Nanni, University of Miami

4:30 pm: Meso-Scale Concrete Model for Failure Simulation in Glass FRP Reinforced Concrete Structures
Sina Khodaie, University of South Carolina; and Fabio Matta, University of South Carolina

PDH Codes: __________________ __________________ __________________
3:30 pm – 5:30 pm

**Influence of Early-Age Properties on Crack Development and Long-Term Durability, Part 2 of 2—D-Disneyland North B**
Sponsored by ACI Committees 201, 211, 224, 225, 231, 232, 233, 325, and 365
Moderated by Jussara Tanesi, SES Group Associate; and Benjamin E. Byard, Tennessee Valley Authority
The session description for this session may be found in the Part 1 listing; refer to page 32.

3:30 pm: Low-Shrinkage Fiber-Reinforced Concrete for Improved Crack Control and Durability
Amir Bonakdar, The Euclid Chemical Company

3:50 pm: Evaluating Crack-Reduction Technologies for Settlement Cracking in Concrete Bridge Decks
James D. Lafikes, University of Kansas; and Rouzbeh Khajehdehi, Muzai Feng, Eman Khalid Ibrahim, Matthew O’Reilly, and Dave Darwin, University of Kansas

4:10 pm: Modified ASTM C157 Test Method to Measure Early-Age Deformation of Concrete
Muzai Feng, University of Kansas; and Eman Khalid Ibrahim, Rouzbeh Khajehdehi, James D. Lafikes, Matthew O’Reilly, and David Darwin, University of Kansas

4:30 pm: Field Evaluation of Early-Age Cracking in Concrete Bridge Decks and its Impact on Long-Term Durability
Aleksandra Radlinska, Pennsylvania State University; and Farshad Rajabipour, Pennsylvania State University

4:50 pm: Early-Age Thermal Cracking in Concrete Structures: Mechanisms and Control
Vinh Dao, The University of Queensland; and Pietro Lura, EMPA Switzerland

5:10 pm: Thermal Effects on Early-Age Bridge Deck Cracking — A Case Study

5:45 pm – 7:00 pm

**Opening Session & Keynote Presentation—Disrupt or be Disrupted—D-Disneyland Center**
The Opening Session is the official start to the ACI Convention and will begin with a welcome address by ACI President Khaled Awad. Next, the emcee for the night, George Seegebrecht, will introduce our featured keynote speaker, Josh Linkner, who will give a presentation on “Disrupt or be Disrupted.” Linkner will present fresh approaches to innovation, growth, and transformation. Linkner is passionate about helping people and organizations seize their full potential. He consistently brings the perfect balance of an energizing performance blended with real-world experience and credibility. This is an Opening Session you don’t want to miss!

7:00 pm – 8:00 pm

**Opening Reception—D-South Exhibit Hall**
Immediately following the Opening Session and Keynote Presentation, attendees are invited to the South Exhibit Hall for this evening reception. Reunite with colleagues, network with new acquaintances, and learn about the products and services offered by the exhibitors. A cash bar and light refreshments will be available.
Sponsored by the ACI Student and Young Professional Activities Committee

The Student and Young Professional Activities Committee invites all young professionals and convention mentors to a casual networking exchange following the Opening Reception. Attendees will establish connections with fellow young professionals, SYPAC members, ACI staff, and mentors. ACI will have a reserved area inside ESPN Zone. Attendees will need to pass through security to enter the area. Please wear your ACI convention badge and bring your business card to be entered into a drawing for door prizes.
8:30 am: Self-Consolidating Concrete (SCC) with Hybrid Fibers
Ahmed Ibrahim, University of Idaho

8:50 am: Is the Use of RCA in Concrete Environmentally Sustainable?
Ardavan Yazdanbakhsh, City College

9:10 am: Sustainable Pavement Technology Using Concrete with High Recycled Content
Moncef L. Nehdi, Western University

9:30 am: A Practical Approach to Promote the Use of RCA in a Number of Applications
Medhat H. Shehata, Ryerson University

9:50 am: Effect of Original Concrete Properties on Performance of RCA Concrete
Martin Noel, University of Ottawa

10:10 am: Modulus of Elasticity of Concretes Containing Recycled Concrete Aggregate
Daniel C. Jansen, California Polytechnic State University; and Brett Schoppe, TRC Engineers, Inc.

2 AIA/CES LU
PDH Codes: __________________ __________________ __________________

8:30 am – 10:30 am

Research in Progress, Part 1 of 2—D-Disneyland North A
Sponsored by ACI Committee 123
Moderated by Matthew O’Reilly, University of Kansas; and Ali Ghaheemaninezhad, University of Miami

This session will feature presentations of original, unpublished results from ongoing research projects and leading-edge concrete technology and research throughout the world.

8:30 am: Modifying Concrete Mixture Proportions to Minimize Thermal Deformation
Robert J. Thomas, Utah State University; and Andrew D. Sorensen and Marc Maguire, Utah State University

8:45 am: Carbonation of Portland Limestone Cement (PLC) Concrete Systems
Jose Eduardo Garcia, University of Texas at Austin; and Nicolas B. Tibuurzi, Thano Drimalas, and Kevin J. Folliard, University of Texas at Austin

9:00 am: Toward a Better Understanding of the Placement of Shotcrete: Nozzles and Velocities
Pierre Siccardi, Laval University; and Benoit Bissonnette, Simon Berube, and Marc Jolin, Laval University

9:15 am: Effect of Superplasticizer Combinations and Retempering on Properties of High Performance SCC: A Case Study of Natural Pozzolan Blended Cement
Hessam AzariJafari, University of Sherbrooke; and Javad Berenjian, Tabari Institute of Higher Education

9:30 am: Durability of Seawater Mixed Concrete against Rebar Corrosion in Cold Temperature Condition
Aung Kyaw Min, Chiyoda Corporation; Nobuaki Otsuki, Tokyo and Mitsugasu Iwanami, Institute of Technology; and Keisuke Matsukawa, Chiyoda Corporation

9:45 am: Thermal Properties of Geopolymer Concrete at Elevated Temperatures
Casey J. Sundberg, University of Minnesota Duluth; and Mary U. Christiansen, University of Minnesota Duluth

10:00 am: Effect of Curing Method on Concrete Resistivity Testing
Wassay Gulrez, Oklahoma State University

10:15 am: Alkali Leaching Properties of Waste Glass-Based Geopolymers
Corey Schlosser, University of Minnesota Duluth; and Mary U. Christiansen, University of Minnesota Duluth

2 AIA/CES LU
PDH Codes: __________________ __________________ __________________

8:30 am – 10:30 am

Reshoring and Early-Age Building Behavior—D-Disneyland South A
Sponsored by ACI Committees 347 and 435
Moderated by Phil Jones, EllisDon

This cosponsored session will provide progressive learning for reshoring designers, contractors, and base building engineers in several key areas of reshoring design and early-age building performance, illustrating relationships with the base building deflection design assumptions, early-age concrete, and construction tolerances. The session will detail an overview to the updated ACI 347.2R, “Guide to Shoring/Reshoring of Concrete Multistory Buildings,” exemplifying best practices to reshoring design by better understanding early-age concrete behaviors, limitations of existing code and standards, and early-age loading effects on deflections.

8:30 am: Introduction to ACI 347.2R-17, Guide to Shoring/Reshoring of Concrete Multistory Buildings
Robert G. McCracken, EFCO Corporation

8:50 am: Shoring/Reshoring Operations—Economy and Safety
Pericles C. Stivars, GEI Consultants, Inc.

9:10 am: Post-Tensioning Effects on Reshore Design
Mary Bordner-Tanck, RH Bordner Engineering Company

9:30 am: Early-Age Concrete Behavior & Properties
Hani H. Nassif, Rutgers, The State University of New Jersey

9:50 am: Surveyed Performance of RC and PT Flat Slabs in Multi-Story Buildings: Implications for Design
David Shook, Skidmore, Owings & Merrill LLP; and Mark P. Sarkisian, Skidmore, Owings & Merrill LLP

10:10 am: Deflection Modeling, Monitoring, and Investigation
Eamonn F. Connolly, James McHugh Construction Company; Michael E. Ahern, Pivot Engineers, and Aaron K. Larosche, Pivot Engineers

2 AIA/CES LU
PDH Codes: __________________ __________________ __________________
Sessions & Events

Monday, October 16, 2017
8:30 am – 10:30 am

What I Wish I Knew: Negotiating Early Job Offers—D-Disneyland North B
Sponsored by ACI Committee S806
Moderated by Matthew P. Adams, New Jersey Institute of Technology; and Megan Huberty, American Engineering Testing, Inc.

Whether negotiating your very first job offer or transferring jobs early in your career, this session will be a great, interactive panel discussion with young professionals and young faculty who have recently gone through this process themselves.

8:30 am: Panel Discussion
Lauren G. McCauley, Balfour Beatty Construction; Somaye Nassiri, Washington State University; Matthew P. Adams, New Jersey Institute of Technology; Destry Kenning, Nox-Crete; and Megan Huberty and Patrick Barnhouse, American Engineering Testing, Inc.

PDH Codes: __________________ __________________ __________________

10:00 am – 11:30 am

ACI Student Forum—D-Safari
Sponsored by the ACI Student and Young Professional Activities Committee
Moderated by Kanette S. Worlds, American Concrete Institute

The ACI Student Forum provides an opportunity for student chapters and competition teams to exchange ideas and best practices. Student speakers will deliver presentations about the activities and achievements of their student chapter or competition team. A limited number of presentation spots are available. Speakers may present as a group or individually.

10:30 am – 12:00 pm

ACI 123 Concrete Research Poster Session—D-Center Lounge
Sponsored by ACI Committee 123
Moderated by Robert J. Thomas, Utah State University; and Jan Vosahlik, CTL Group

The ACI 123 Concrete Research Poster Session complements the existing Research in Progress and Open Topic sessions and provides further opportunity for the presentation of original, unpublished results from ongoing research projects and leading-edge concrete technology throughout the world.

Non-Destructive In-Place Concrete Compressive Strength Estimating Using Post-Installed Concrete Pullout Test—Methodology and Field Experience
Zhenggi Li, Terracon Consultants Inc.; and Jigar B. Desai, Terracon Consultants Inc.

Behavior of Precast Prestressed I-Girders Employing 0.7-in. Diameter Strands Under Shear-Critical Loadings
Hyun Su Kim, University of Texas at Austin; Hossein Yousefpour, Babol Noshirvani University of Technology; and Rodolfo Bonetti, Alistair Longshaw, Trevor Hrynyk, and Oguzhan Bayrak, University of Texas at Austin

Prediction of Shear Cracks in RC Flexural Beams Using a Rigorous Nonlinear Approach
Alaeldin Abouelleil, Kansas State University; and Hayward A. Rasheed, Kansas State University

Review on Electro-Kinetic Decontamination for Radioactivate Concrete Waste
Chanyong Kim, Ulsan National Institute of Science and Technology; and Myoungsu Shin, Ulsan National Institute of Science and Technology

Effect of Compositional Variation on the Compressive Strength of Glass as a Pozzolan in Concrete
Colton Moore, University of Minnesota Duluth; and Mary Christiansen, University of Minnesota Duluth

On the Interaction Between Superabsorbent Polymers (SAPs) and a Cementitious Matrix
Khashayar Fazanian, University of Miami; and Ali Ghahremaninezhad, University of Miami

Functionization of Cement-Based Materials with Silica-Based Hybrid Nanoparticles by Surface Treatment
Pengkun Hou, University of Jinan

Cost-Effective and Sustainable Rehabilitation of Infrastructure in Mid-Atlantic Region Using Fiber-Reinforced Polymer (FRP) Wraps
Hai Nguyen, Marshall University; and Wael Zatar, Marshall University

Flexural Stress-Strain Responses of Micro Fiber-Reinforced Sulfur Polymer Composites
Myoungsu Shin, Ulsan National Institute of Science and Technology; and Seongwoo Gwon, Seong-Pil Kim, Chanyoung Kim, and Enjong Ahn, Ulsan National Institute of Science and Technology

Effectiveness of Diffuse Ultrasound on Nondestructive Evaluation of Micro-Damage Condition in Concrete
Eunjong Ahn, Ulsan National Institute of Science and Technology; and Seongwoo Gwon, Seong-Pil Kim, Chanyoung Kim, and Myoungsu Shin, Ulsan National Institute of Science and Technology; and John Popovics, University of Illinois at Urbana-Champaign

Hydration Characteristics of CSA Cement Systems Containing Redispersible Polymer Powder
Seongwoo Gwon, Ulsan National Institute of Science and Technology; and Myoungsu Shin, Ulsan National Institute of Science and Technology

Effects of Curing Time and Mixture Design on Real-Time Formation Factor and Pore System Parameters
Somayeh Nassiri, Washington State University; and Milena Rengelov, Washington State University

Activation of Copper Tailing for Use as a Supplementary Cementitious Material
Felipe Vargas, Pontifical Catholic University of Chile; and Mauricio Lopez, Pontifical Catholic University of Chile

Durable High-Early-Strength Concrete
Yadira Alejandra Porras, Kansas State University

The Use of UHPC as a Laminate for Tensile Reinforcement on Precast Concrete Beams
Alexander Alvarado, Virginia Military Institute; and Matthew Twenty, Virginia Military Institute
11:00 am – 1:00 pm

**Concrete and Digital Fabrication: Perspectives, Challenges, and Developments, Part 1 of 2—D-Disneyland North B**

Sponsored by ACI Committees 236 and 238
Moderated by Sean Monkman, CarbonCure Technologies; and Mohammed Sonebi, Queen’s University Belfast

This pair of sessions, co-organized with RILEM (Technical Committee DFC: Digital fabrication with cement-based materials and RILEM 266-MRP – Measuring Rheological Properties of Cement-Based Materials) seeks to present the latest developments on the topic of 3-D printing of concrete. This new frontier in building materials technology investigates methods and materials that will allow concrete to be made rapidly, at a lower cost, in unique designs and without formwork. This revolutionary idea exists at an intersection between concrete materials science and advanced processing technologies.

11:00 am: Digital Construction with Cementitious Materials: Activities of the RILEM Technical Committee
Nicolas Roussel, French Institute of Science and Technology for Transport, Spatial Planning, Development and Networks

11:20 am: 3-D Printing of Concrete Structures—Challenges, Opportunities and Advantages of the Selective Binding Method
Dirk Lowke, Braunschweig University of Technology; and Daniel Weger and Christoph Gehlen, Technical University of Munich

11:45 am: Optimizing Fresh Properties of Concrete for Extrusion 3-D Printing
Arnaud Perrot, Blaise Pascal University; Mohammed Sonebi, Queen’s University Belfast; Sofiane Amziane, Blaise Pascal University; and Damien Rangeard, Institute National des Sciences Appliquees de Lyon

12:10 pm: Additive Manufacturing with Cementitious Materials
Scott Z. Jones, National Institute of Standards and Technology

12:35 pm: Printing Concrete in Four Dimensions: Time-Dependent Rheology and Strength Development
Peter Stynoski, U.S. Army Construction Engineering Research Laboratory; and Ghassan Al-Chaar and Michael Case, U.S. Army Construction Engineering Research Laboratory

11:00 am – 1:00 pm

**Concrete with Recycled Materials, Part 2 of 3—D-Disneyland South B**

Sponsored by ACI Committee 555
Moderated by Mohamed A. Mahgoub, New Jersey Institute of Technology; and Ahmed Ibrahim, University of Idaho

The session description for this session may be found in the Part 1 listing; refer to page 36.

11:00 am: Property Evaluation and Characterization of Fiber-Reinforced Rubberized Concrete
Jiaqing Wang, Michigan Technological University; and Ruizhe Si, Shuaicheng Guo, and Qingli Dai, Michigan Technological University

11:20 am: The Use of Animal Fibers to Reinforce Cementitious Composites
Alessandro P. Fantilli, Polytechnic University of Turin

11:40 am: Flowable Fill Using Recycled Concrete Aggregate (RCA)
Mohab Hussein, New Jersey Institute of Technology; and David Washington, New Jersey Institute of Technology

12:00 pm: Long-Term Service Load Deformations of Prestressed RCA Concrete Beams: Measured and Predicted Behavior
Yahya C. Kurama, University of Notre Dame

12:20 pm: Durability Aspects of RCA Concrete—Alkali-Silica Reactivity and Freeze-Thaw Behavior
Michael McGinnis, University of Texas at Tyler

12:40 pm: Strength and Durability Properties of the Concrete Containing Recycled Ground Glass Fiber and Recycled Glass Powder as Supplementary Cementitious Materials
Prasad Rao Rangaraju, Clemson University; and Hassan Rashidian-Dezfouli and Kaveh Afsinnia, Clemson University
Monday, October 16, 2017

11:00 am – 1:00 pm

**Making Connections—The Future of Our Infrastructure—D-Disneyland South A**
Sponsored by ACI Chapter Activities Committee and ACI Subcommittee 325-C
Moderated by Chris Garcia, Pankow Builders; and Paul Heis, BASF

This session will highlight a diverse range of infrastructure project types on the U.S. West Coast and the innovative uses of precast concrete, cast-in-place concrete, and grout to solve complex engineering issues. Various applications of concrete pavements will also be discussed from both the client and designer perspective to understand the current serviceability challenges and advancements geared toward producing longer-lasting concrete pavements.

11:00 am: Caltrans’ Approach to Longer-Lasting Pavements
Thomas Pyle, Caltrans

11:20 am: Airfield Pavements—A Growing Crisis
Robert Gilbert, Los Angeles World Airports

11:45 am: Concrete in the Tunneling Industry—Present & Future
Chad Mathes, Dragados USA; and Francisco Gonzalez-Fernandez, Dragados USA

12:10 pm: Concrete Applications for the Gerald Desmond Bridge Project
Tanya Wyckoff, Caltrans; and Zephaniah Varley, WSP/Parsons Brinckerhoff

12:35 pm: Cementitious and Non-Cementitious Grouting Techniques for Underground Construction
Luis Piek, Walsh-Sha Corridor Constructors

PDH Codes: __________________ __________________ __________________

11:00 am – 1:00 pm

**Research in Progress, Part 2 of 2—D-Disneyland North A**
Sponsored by ACI Committee 123
Moderated by Matthew O’Reilly, University of Kansas; and Ali Ghahremaninezhad, University of Miami

The session description for this session may be found in the Part 1 listing; refer to page 37.

11:00 am: Towards Developing a Mechanistic Design Procedure for Pervious Concrete Pavements
Somayeh Nassiri, Washington State University; and Othman Alshareedah, Washington State University

11:15 am: Application of Automated Image Classification Tool for Post-Earthquake Assessment
Anahid Behrouzi, University of Illinois at Urbana-Champaign; and Maria Pantoja, California Polytechnic State University

11:30 am: Shear Capacity of Hollow-Core Slabs with Concrete Filled Cores
Matthew Ryan McDermott, University of Minnesota Duluth

11:45 am: The Effect of Concrete Compressive Strength and Embedment Depth on the Bond Behavior of Post-Installed GFRP
Muhammad S. Bajwa, University of Minnesota Duluth; Rania Al-Hammoud, University of Waterloo; and Ben Dymond, University of Minnesota Duluth

12:00 pm: Evaluation on the Effect of Bottom Bar Splice Location on Performance of Beams in Reinforced Concrete Perimeter Frames
Jorge A. Rivera Cruz, University of Massachusetts Amherst; and Sergio F. Brena, University of Massachusetts Amherst

12:15 pm: Macrosynthetic Fibers for End Region Crack Control
Glenda Diaz Acosta, University of Florida; and H. R. Trey Hamilton, University of Florida

12:30 pm: Establishing Selection Criteria for Structural Fibers in Thin Concrete Overlays
Manik Barman, University of Minnesota Duluth; and Bryce R. Hansen, University of Minnesota Duluth

12:45 pm: Assessment of Portland-Limestone Cement for Structural Applications
Ahmad A. Shalan, Georgia Institute of Technology; and Lawrence F. Kahn and Kimberly E. Kurtis, Georgia Institute of Technology

PDH Codes: __________________ __________________ __________________
MINI SESSION: Contemporary Design of Building Materials and Structures for Energy Efficiency and Hazard Resilience—P-Redondo

Sponsored by ACI Committee 122
Moderated by Jeffrey F. Speck, Trinity Lightweight

Thermally massive building structures (for example, reinforced concrete) have enormous capability to store thermal energy, providing potential to reduce buildings’ energy consumption and adapt to today’s fast-changing environment. However, conventional building practice follows a point-based process where the primary focuses of structural design are not related to other aspects of building performance (for example, energy efficiency). As a result, the structural system has very limited impact on a building’s energy efficiency during operation. This session addresses an energy solution for thermally massive buildings by rethinking the role of the building structural system in its life-cycle energy strategy. The goal is to leverage the thermal mass embodied in heavy building elements and imbue the building structure with dual roles: it serves both as the primary load-bearing system and thermal system. A holistic structural-energy design paradigm will be discussed that strategically utilizes the mechanical and thermophysical properties of construction materials and structural components for a building’s structural resilience and energy efficiency.

1:00 pm: Mechanical and Thermophysical Properties of Concrete and Cementitious Composites

Hongyu Zhou, University of Alabama in Huntsville
Monday, October 16, 2017

1:30 pm – 3:30 pm

Concrete with Recycled Materials, Part 3 of 3—
D-Disneyland South B
Sponsored by ACI Committee 555
Moderated by Mohamed A. Mahgoub, New Jersey Institute of Technology; and Ahmed Ibrahim, University of Idaho

The session description for this session may be found in the Part 1 listing; refer to page 36.

1:30 pm: An Assessment of Efficiency Factors of Recycled Aggregate Concrete Bottle-Shaped Struts
Anant Ray Parghi, Sardar Vallabhbhai National Institute of Technology, Surat; Shiwandan Suryawanshi, B. Kondraivndhan; and C.D. Modhersa, Sardar Vallabhbhai National Institute of Technology, Surat

1:50 pm: Behavior and Efficiency of Recycled Aggregate Concrete Isolated Bottle-Shaped Struts
Anant Parghi, Indian Institute of Technology Roorkee; and Suryawanshi SR, Bhupinder Singh, and Pradeep Bhargava, Indian Institute of Technology Roorkee

2:10 pm: Mechanical Properties of Cementitious Composites Containing Recycled Glass Powder (RGP) as a Partial Replacement of Cement
Anant Parghi, University of British Columbia; and Shahria Alam, University of British Columbia

2:30 pm: Durability and Behavior of Concrete Incorporating Amorphous Silica Residue
Arezki Tagnit-Hamou, University of Sherbrooke

2:50 pm: Recycling Fresh Concrete and Utilizing Recycled Asphalt and Concrete as Aggregate
Juan Gonzalez and Alana Guzzetta

3:10 pm: High-Strength Recycled Aggregate Concrete (HRAC)
Mohamed A. Mahgoub, New Jersey Institute of Technology

1:30 pm – 3:30 pm

Design and Modeling Considerations for Concrete Joints, Connections, and Systems, Part 1 of 2—
D-Disneyland North A
Sponsored by Joint ACI-ASCE Committee 352
Moderated by Thomas Kang, Seoul National University

This session includes a variety of topics regarding design and modeling considerations for concrete joints, connections, and frame systems, as well as their in-service and near-collapse behavior. In large part, the session deals with performance-based earthquake engineering and seismic rehabilitation of cast-in-place and precast concrete joints, connections, and systems. The components that are covered are reinforced concrete beam-column joints and connections, reinforced concrete slab-edge barrier wall joints of parking structures, precast concrete member connections with cast-in-place concrete, and reinforced concrete beam-column and slab-column frame systems.

1:30 pm: Reinforced Concrete Building Exterior Joints with Substandard Details
Chris P. Pantelides, University of Utah; Lawrence D. Reaveley, University of Utah; and M. J. Ameli, University of Utah

1:50 pm: Seismic Design of Slab-Column Connections: Requirements and Recommendations
Mary Beth D. Hueste, Texas A&M University; and Damon R. Fick, Montana State University

2:15 pm: Strength and Ductility of Beam-Column Connections with High-Strength Steel Reinforcement
Hung-Jen Lee, National Yunlin University of Science and Technology

2:40 pm: Design and Detailing Considerations for Precast Diaphragm Connectors and Reinforcement
Robert B. Fleischman, University of Arizona; and Dichuan Zhang, Nazarbayev University

3:05 pm: Design Considerations for Slab-Wall Joints in Edge Barriers in Parking Structures
Mohammad Iqbal, Iqbal Group

1:30 pm – 3:30 pm

Performance-Based Seismic Design of RC Buildings: State of the Practice, Part 1 of 3—D-Disneyland South A
Sponsored by ACI Committee 374
Moderated by Jeffrey J. Dragovich, Consulting Structural Engineer; and Insung Kim, Degenkolb Engineers

This session presents the state of practice for the performance-based seismic design (PBSD) of reinforced concrete buildings. The use of PBSD for new construction is expanding, as evidenced by the design guidelines that are available and the stock of completed building projects. These presentations bring together the implementation of PBSD through state-of-the-art project examples, the current design guidelines employed, and research that supports PBSD.

1:30 pm: The Performance-Based Seismic Design of the New Tocumen International Airport South Terminal in Panama City, Panama
Xiaonian Duan, Foster + Partners; Andrea Solignon and Jeng Neo, Foster + Partners; and Anindya Dutta, Simpson Gumpertz & Heger Inc.

1:50 pm: Revitalizing a Community Space Using Performance-Based Seismic Design
Saeed Fathali, Structural Technologies; and Bret Lizundia and Francesco Parisi, Rutherford + Chekene

2:15 pm: First Performance-Based Seismic Design Tower in Oakland, CA

2:40 pm: Increased Reliability and Cost Efficiencies with Performance-Based Seismic Design
David Shook, Skidmore, Owings & Merrill LLP; and Mark P. Sarkisian and Eric Long, Skidmore, Owings & Merrill, LLP

3:05 pm: Seismic Design in the New Age of PBD
Joe Ferzell, Cary Kopczynski & Company; and Mark Whiteley and Cary S. Kopczynski, Cary Kopczynski & Company
Sessions & Events

For detailed program information and program changes, download the Convention App.
✓ = Separate fee required ★ = Guest-only event
D = Disneyland® Hotel P = Disney's Paradise Pier® Hotel

4:00 pm – 6:00 pm
Case Studies on Nano-Enhanced Concrete on Commercial Jobsite—D-Disneyland South B
Sponsored by ACI Committee 241 and ACI Subcommittee 241-A
Moderated by Jon S. Belkowitz, Intelligent Concrete, LLC
Nanoparticles designed for cement composites and concrete have been successfully used in limited applications over the last 20 years to enhance both the strength and durability of concrete. The following session will identify case studies on novel technologies, additives, and admixtures for concrete that focus on employment of nanoparticles in concrete meant for commercial projects. Pros and cons will be discussed in the case studies to facilitate a realistic view for new solutions to increase the strength and durability of concrete.

4:00 pm: Colloidal Silica Admixture for ASR in Concrete
Jon S. Belkowitz, Intelligent Concrete, LLC

4:30 pm: Carbon-Nanotube Enhanced Concrete
Robert W. Cavallero, Eden Innovations LLC

5:00 pm: Winter Shield Concrete
Whitney Belkowitz, Intelligent Concrete, LLC

5:30 pm: Nano-Engineered Finishing Aids
Jared Murray, Formulations International, Inc.

2 AIA/CES LU

PDH Codes: __________________ __________________ _________________

4:00 pm – 6:00 pm
Connecting New Practices to Real World Applications with Soil Cement—D-Disneyland North B
Sponsored by ACI Committee 230
Moderated by Charles E. Pierce, University of South Carolina; and Katie J. Bartojay, U.S. Bureau of Reclamation
This technical session will provide attendees with knowledge on new practices for soil cement applications and highlight the advantages of soil cement through case studies.

4:00 pm: Flood and Environmental Protection Using Soil Cement
Mark E. Krebs, PACE – Advanced Water Engineering

4:20 pm: New Guide on Full-Depth Reclamation with Cement
Wayne S. Adaska, Portland Cement Association

4:45 pm: Full Depth Reclamation (FDR) for Asphalt Streets and Parking Lots in California
Marco Estrada, Pavement Recycling Systems, Inc.

5:10 pm: Soil-Cement Design and Construction Protocols for Mixed-in-Place Highway Projects
Isaac Howard, Mississippi State University

5:35 pm: Case Studies in Stabilizing Highly Plastic Clay
Ben Reese, Raba Kistner

2 AIA/CES LU

PDH Codes: __________________ __________________ _________________

4:00 pm – 6:00 pm
Design and Modeling Considerations for Concrete Joints, Connections, and Systems, Part 2 of 2—D-Disneyland North A
Sponsored by Joint ACI-ASCE Committee 352
Moderated by Thomas Kang, Seoul National University
The session description for this session may be found in the Part 1 listing; refer to page 42.

4:00 pm: Analysis as a Tool to Describe Actual Behavior of Reinforced Concrete Structures
Luis E. Garcia, University of Los Andes

4:20 pm: Modeling of RC Beam-Column Joints for Simulating Disproportionate Collapse of Buildings
Sashi K. Kunnath, University of California, Davis; and Yihai Bao, National Institute of Standards and Technology

4:45 pm: Shear Strength of Interior Beam-Column Joints for Performance Based Design
Hong-Gun Park, Seoul National University; and Hyeon Jong Hwang, Hunan University

5:10 pm: Large-Scale Shake-Table Test on Ten-Story Reinforced Concrete Building
Hitoshi Shiohara, University of Tokyo

5:35 pm: Estimation of Drift in Flat-Plate Test Specimens with a Projection to the Earthquake Environment
Damon R. Fick, Montana State University; Mete A. Sozen, Purdue University; and Michael E. Kreger, University of Alabama

2 AIA/CES LU

PDH Codes: __________________ __________________ _________________

4:00 pm – 6:00 pm
Performance-Based Seismic Design of RC Buildings: State of the Practice, Part 2 of 3—D-Disneyland South A
Sponsored by ACI Committee 374
Moderated by Jeffrey J. Dragovich, Consulting Structural Engineer; and Mary Beth D. Hueste, Texas A&M University
The session description for this session may be found in the Part 1 listing; refer to page 42.

4:00 pm: Design and Modeling Issues Related to Diaphragms of Tall Buildings
Gian Carlo Piatos, University of California, Los Angeles; John W. Wallace, University of California, Los Angeles; and Kristijan Kolozvari, California State University, Fullerton

4:20 pm: Analysis and Design of Reinforced Cast-in-Place Concrete Diaphragms

4:45 pm: Study of Increase in Shear Demand in Buildings in Performance Based Design as Compared to Code Level Demands
Tom C. Xia, DCI Engineers

5:10 pm: Trends in Demands for Concrete Performance-Based Seismic Design Towers
Kevin Aswegan, Magnuson Klemencic Associates Inc.; and Ian S. McFarlane, Magnuson Klemencic Associates Inc.
Monday, October 16, 2017

5:35 pm: Assessment of a 12-Story Reinforced Concrete Special Moment Frame Building Using Performance-Based Seismic Design Standards and Guidelines: ASCE 41, TBI, and LATBSDC
Mustafa K Buniya, Oregon State University; Andre R. Barbosa, Oregon State University; and Siamak Sattar, National Institute of Standards Technology

PDH Codes: __________________ __________________ _________________

5:30 pm – 6:30 pm

Women in ACI Reception—D-Rose Court Garden

All registered convention attendees are invited to attend the Women in ACI Reception. This long-standing ACI tradition is a great opportunity to get to know other women in the concrete industry. In addition to networking, attendees of this reception will have the opportunity to participate in a silent auction. This auction will feature concrete artwork beautifully created by students. All are welcome at this reception! A cash bar and light hors d’oeuvres will be served. This reception will be held in D-Sleeping Beauty in inclement weather.

6:30 pm – 10:00 pm

6:30 pm: ACI 123 Concrete Research Poster Session—Outstanding Poster Award Announcement
Robert J. Thomas, Utah State University; and Jan Vosahlik, CTLGroup

6:35 pm: Introduction of Panelists and Forum Topic
Jacob Henschen, Valparaiso University

6:40 pm: A Skeptic’s Approach to Structural Health Monitoring
Michael C. Brown, WSP USA

6:55 pm: Application of SHM for the Assessment and Evaluation of Cracking Potential of Concrete Structures
Hani Nassif, Rutgers, the State University of New Jersey

7:10 pm: The Case for Structural Health Monitoring Data Normalization
Brock Hedegaard, University of Wisconsin

7:25 pm: In-Service Monitoring for Actionable Data
David Kosnik and Dennis McCann, CTLGroup

7:40 pm: Audience Questions and Panel Discussion
Jacob Henschen, Valparaiso University; Jan Vosahlik, CTLGroup; Michael C. Brown, WSP USA; Hani Nassif, Rutgers University; Brock Hedegaard, University of Wisconsin; David Kosnik/Dennis McCann, CTLGroup

6:30 pm: 123 Forum: Can Structural Health Monitoring Provide Actionable Information?—D-Disneyland North A

Sponsored by ACI Committee 123
Moderated by Jacob Henschen, Valparaiso University; and Jan Vosahlik, CTL Group

Structural health monitoring (SHM) is an exciting emerging technique that employs sensor networks in new and existing structures. While the extent of sensor deployment and the range of sensors varies greatly, the goal is for the sensors to provide information on structural damage or ongoing degradation. Often, SHM will use nondestructive testing (NDT) techniques, but these terms are not synonymous. The ongoing monitoring from SHM allows owners to make strategic decisions with regards to maintenance, repair, or retrofitting. While SHM appears to be a path to making our structures “smarter,” large sensor networks and active data collection can lead to an overwhelming amount of data that can be difficult to manage and interpret. If the data do not provide clear, actionable information, owners will not be able to fully utilize the benefits of SHM. This forum will provide basic information on SHM systems that have been deployed, how the data were managed, and the widespread viability of various approaches to SHM.

The forum will focus on the following themes:

• What is SHM? What are key applications and strategies that have been used? What damage or ongoing degradation is able to be characterized?
• How are raw data transformed into actionable information? What data management techniques are commonly employed? What are the key challenges in SHM?
• What are the future research needs or technologies that must be pursued to make SHM more commonplace?

A panel of experts will debate these questions, and more, to provide the audience information regarding the latest developments and implementations of SHM. The forum will start with short presentations by each panelist and be followed by an interactive discussion with the audience.

For detailed program information and program changes, download the Convention App.

✓ The Excellence in Concrete Construction Awards Gala—D-Disneyland Center

$85 U.S. per person
Doors open at 5:30 pm
Awards Dinner: 6:30 pm – 8:30 pm
Reception: 8:30 pm – 10:00 pm

The ACI Excellence in Concrete Construction Awards will honor some of the most creative projects the concrete world has to offer. Chapter- and International Partner-sponsored concrete projects of all types are eligible to receive an award. Entries will be juried by an independent panel of industry professionals uniquely qualified and representing diverse backgrounds, with technical expertise in all award categories. First- and second-place awards may be given in each category. An overall “Excellence” award will be revealed the evening of the gala. Following the Awards Dinner, celebrate the accomplishments of those recognized at the post-reception. A cash bar will be available.

PREREGISTRATION IS REQUIRED TO ATTEND. Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.
**Tuesday, October 17, 2017**

7:30 am – 4:00 pm

- **California Science Center Tour—D-Disneyland Main Lobby**
  
  $30 U.S. per person
  
  Departs at 7:30 am, returns to the hotel by 4:00 pm
  
  Join us for a day full of adventure for the entire family as we explore the California Science Center. We will start the day with the Endeavour Experience, getting up close and personal with the space shuttle and artifacts from it. You can then explore on your own! You can enjoy the Ecosystems, World of Life, Creative World, and Air and Space exhibits. Be sure to leave yourself time for a little shopping, too.
  
  **PREREGISTRATION IS REQUIRED TO ATTEND. Tickets are available for purchase at ACI Registration. Tours are nonrefundable. All tours depart from the Disneyland® Hotel main lobby.**

8:30 am – 9:30 am

**MINI SESSION: Flashing Window/Door Openings in ICF Walls, Use of Fiber Reinforcement in ICF Construction—D-North Hall J**

Sponsored by ACI Committee 560

Moderated by Robert Sculthorpe, Insulating Concrete Form Manufacturers' Association

Results of recent research, conducted in British Columbia, Canada, into the prevention of water and air leakage at window and door openings in ICF walls.

8:30 am: Flashing Window and Door Openings in ICF Walls

Douglas Bennion, Quad-Lock Building Systems Inc.

8:48 am: Use of Fiber Reinforcement in ICF Construction

Michael W. Cook, ICF Concrete Additives, LLC

1 AIA/CES LU

PDH Codes: __________________ __________________ _________________

8:30 am – 10:30 am

**Creep and Shrinkage of Concrete—Honoring Professor Adam Neville, Part 1 of 2—D-Disneyland South B**

Sponsored by ACI Committee 209

Moderated by Akthem A. Al-Manaseer, San Jose State University; and Hina Habib, San Jose State University

This session honoring Prof. Adam Neville presents a study to evaluate the influence of supplementary cementitious materials on creep behavior of self-consolidating concrete and presents an analysis of creep and shrinkage effects in continuous rigid frame of Sutong Bridge, China. It discusses the absorption and desorption properties of SAP and a new approach to optimize mixture proportions in internally cured concrete. It will also explain the challenges involved in modeling time-dependent deformations in concrete with comprehensive, physics-based rate-type models, and discuss the modeling of tertiary creep and time-dependent fracture behavior of concrete.

8:30 am: Isolation of the Shrinkage Curvature of Cracked RC Sections Using a Novel Experimental Approach

John Forth, University of Leeds

8:45 am: Effect of Concrete Creep and Shrinkage on the Design and Construction of Tall Buildings

Taehun Ha, Daewoo Engineering and Construction Company, Ltd.; and Sunghee Lee, Engineering and Construction Company, Ltd.

9:00 am: Early-Age Cracking in Concrete Structures: The Role of Shrinkage and Tensile Creep

Raymond Ian Gilbert, University of New South Wales

9:15 am: Sensitivity of Creep Code Models to Input Parameters

Akthem A. Al-Manaseer, San Jose State University; and Hina Habib, San Jose State University

9:30 am: Basic Compressive Creep Results on High-Performance Concrete (HPC)

Will Hansen, University of Michigan; and Bo Meng, University of Michigan

9:45 am: Impact of Concrete Composition on Basic Creep Explored Using Multiscale Modeling

Brock D. Hedegaard, University of Wisconsin–Madison; and Shuo Wang, Endesco, Inc.

10:00 am: Creep and Shrinkage Study of High-Strength Concrete Used in Long-Span Bridges

Chung C. Fu, University of Maryland; and Zhuanfeng Pan, Tongji University

2 AIA/CES LU

PDH Codes: __________________ __________________ _________________

8:30 am – 10:30 am

**Performance-Based Seismic Design of RC Buildings: State of the Practice, Part 3 of 3—D-Disneyland South A**

Sponsored by ACI Committee 374

Moderated by Jeffrey J. Dragovich, Consulting Structural Engineer; and John H. Tessem, DCI Engineers

The session description for this session may be found in the Part 1 listing; refer to page 42.

8:30 am: Guidelines for Performance-Based Seismic Design of Seismic Category I Concrete Structures in Nuclear Power Plants

John S. Ma, United States Nuclear Regulatory Commission

8:50 am: Recommendations for Modeling Nonlinear Response of Slender Reinforced Concrete Walls Using PERFORM-3D

Laura N. Lowes and Dawn E. Lehman, University of Washington; and Carson Baker, Coughlin Porter Lundeen

9:15 am: Reliability of Shear Design for Tall Reinforced Concrete Core Wall Buildings

Sunai Kim, Loyola Marymount University; and John W. Wallace, University of California, Los Angeles

9:40 am: Interaction of Sliding, Shear, and Flexure for Earthquake Design of Reinforced Concrete Shear Walls

Burkhart Trost, Institute of Civil Engineering, FHNW; Bozidar Stojadinovic, Institute of Structural Engineering, ETH Zurich; and Harald Schuler, Institute of Civil Engineering, FHNW
Tuesday, October 17, 2017

10:05 am: Seismic Performance of Full-Scale Reinforced Concrete Beam-Column Connections Extracted from Earthquake-Damaged Buildings in New Zealand
 Giulio Leon Flores, NuScale Power; Reza Farahani, HDR Inc.; Hussien Abdel-Baki, Shockey Precast; and Paul Rizzo, Rizzo Associates

8:30 am – 10:30 am

SoCal Modernism—Preserving Concrete Modernist Structures—D-Disneyland North A
Sponsored by ACI Committee 364

These presentations will highlight the modernist structures in Southern California as well as throughout the country, including the unique technical challenges associated with preservation, repair, and restoration of these structures. Attendees with an interest and expertise in historic structures will leave with a better understanding of the architectural and construction history of these structures, their inherent challenges, and an overview of successful repair approaches.

8:30 am: Challenges and Approaches to Preserving Historic-Mondernist Concrete
Susan Macdonald, Getty Conservation Institute

8:50 am: Why are Slab-on-Ground Joints So Troublesome?
Scott M. Tarr, North S.Tarr Concrete Consulting

8:30 am: Building the National Veterans Memorial & Museum (NVMM)
Michael J. Schneider, Baker Concrete Construction Inc.

8:50 am: Why are Slab-on-Ground Joints So Troublesome?
Scott M. Tarr, North S.Tarr Concrete Consulting

9:00 am: Freeze-Thaw and Salt Scaling Resistance of a Fly Ash Based Pervious Concrete
Pratanu Ghosh, California State University, Fullerton

9:10 am: The Un-Shored Composite Slab on Metal Deck: Part I—Construction and Behavior
Eldon G. Tipping, Structural Services Inc.; and Bryan M. Birdwell, Structural Services Inc.

9:30 am: Implementation of Best Practices to Improve Quality and Constructability of Hot Weather Concreting
Oscar R. Antommattei, Kiewit Engineering Company

10:10 am: Controlling Bridge Deck Cracking
David Darwin, University of Kansas

11:00 am – 1:00 pm

Cracking and Durability in Sustainable Concretes, Part 1 of 2—D-Disneyland South A
Sponsored by ACI Committees 130 and 224
Moderated by Ralf Leistikow, Wiss, Janney, Elstner, Associates, Inc.; and Kimberly Waggle Kramer, Kansas State University

The objective of the session(s) would be to review the use of innovative mixture designs incorporating sustainable admixtures and supplemental cementitious materials, and the effect these sustainable technologies have on the cracking performance and durability of these concretes. In particular, cracking behavior in sustainable concretes or practices for mitigation of cracking in sustainable concretes will be reviewed. This information will be shared based on completed research and case studies of sustainable concrete mixture designs.

11:00 am: Zeolite-Based New-Generation Concrete—Sustainable and Durable Solution for Nation’s Infrastructure
Pratapan Ghosh, California State University, Fullerton

11:20 am: Stress-Induced Cracking, Pore Connectivity, and Durability of Fiber-Reinforced Concrete
Meghdad Hoseini, WSP Canada Inc.; and Vivek Bindiganavile, WSP Canada, Inc.

11:45 am: Durability of Recycled Aggregate Concrete
Nariman J. Khalil, University of Balamand; and Georges Aouad, University of Balamand

12:10 pm: Freeze-Thaw and Salt Scaling Resistance of a Fly Ash Based Pervious Concrete
Gang Xu, Washington State University; and Xianming Shi, Washington State University

12:35 pm: Mitigating Cracking and Enhancing Durability by Nanofibers
Andrzej Cwirzen, Lulea University of Technology; and K. Habermannl-Cwirzen, Lulea University of Technology

PDH Codes: __________________ __________________ _________________
11:00 am – 1:00 pm

Creating Aesthetic Concrete in Southern California—D-Disneyland North A

Sponsored by ACI Committees 124 and 310
Moderated by Anne M. Werner, Southern Illinois University Edwardsville; and Larry Rowland, Lehigh White Cement Company

The purpose of this session is to inform ACI members and the concrete community of the aesthetic potential of concrete. This session will highlight the use of aesthetic concrete in iconic structures in Southern California and the creative possibilities that can be attained with this formable and moldable material. The demand for aesthetically pleasing building materials is increasing, and for some concrete has the reputation for being “heavy and gray.” This session will show that concrete can be shaped, colored, textured, and manipulated into just about anything the architect, designer, builder, or owner desires. It does not have to be heavy and gray, given today’s technology. Architects, designers, contractors, educators, engineers, government employees, material suppliers, and students will benefit from attending this session.

11:00 am: A Successful Decorative Concrete Project—Conception through Completion
Lance Boyer, Trademark Concrete Systems

11:17 am: What is Architectural Concrete in Southern California?
Bob J. Stephens, Morley Construction Company | Benchmark Contractors, Inc; and Mark F. Larsen, Morley Construction Company | Benchmark Contractors, Inc.

11:34 am: Overview of Five Innovative Projects in Southern California
John A. Aube, Lehigh White Cement Company

11:51 am: Concrete Conservation and Restoration of John Anson Ford Theatres, Los Angeles, CA

12:08 pm: White Ground Calcium Carbonate for a “Whiter” Concrete
Bobby Bergman, J.M. Huber Corporation

12:25 pm: Utilizing Spray Ultra-High-Performance Concrete to Push Barrier Panels into a New Dimension
Kelly Henry, LafargeHolcim; and Michael Ryan, LafargeHolcim

12:42 pm: The Art and Science of Matching (Historic) Concrete
Amy Lamb Woods, International Masonry Institute

PDH Codes: 2 AIA/CES LU

11:00 am – 1:00 pm

Creep and Shrinkage of Concrete—Honoring Professor Adam Neville, Part 2 of 2—D-Disneyland South B

Sponsored by ACI Committee 209
Moderated by Akthem A. Al-Manaseer, San Jose State University; and Hina Habib, San Jose State University

The session description for this session may be found in the Part 1 listing; refer to page 45.

11:00 am: Mixture Proportioning Concepts for Concrete Internally Cured with Super-Absorbent Polymers to Reduce Shrinkage
W. Jason Weiss, Oregon State University; and Prannoy Suraneni and Luca Montanari, Oregon State University

11:20 am: Shrinkage of Concrete Mixtures with Ceramic Waste Powder
Mahmoud M. Reda Taha, University of New Mexico; and Amr El-Dieb, Sama Aly, and Dinma Kanan, United Arab Emirates University

11:40 am: Influence of Supplementary Cementitious Materials on the Creep Behavior of Self-Consolidated Concrete
Hani H. Nassif, Rutgers, The State University of New Jersey; and Raymond Khoury, Shaw-Stone & Webster, Inc.

12:00 pm: Comparison of Drying Shrinkage of Portland Cement and Alternative Cementitious Materials
Amir Hajibabaee and Tyler Ley, Oklahoma State University

12:20 pm: Simulation of Coupled Creep, Drying, Shrinkage and Aging of Concrete: Model Complexity and Uniqueness of Parameter Identification
Gianluca Cusatis, Northwestern University; Mohammed Alnagger, Rensselaer Polytechnic Institute, and Roman Wendner, University of Natural Resources and Life Sciences

12:40 pm: Modeling Tertiary Creep of Concrete
Ioannis Boumakis, Christian Dopple Laboratory; Giovanni Di Luzio, Polytechnic University of Milan; and Wan-Wendner, Christian Doppler Laboratory

PDH Codes: 2 AIA/CES LU

11:00 am – 1:00 pm

Ward R. Malisch Concrete Construction Symposium, Part 2 of 4—D-Disneyland North Ballroom B

Sponsored by Construction Liaison Committee
Moderated by James N. Cornell, The Beck Group

The session description for this session may be found in the Part 1 listing; refer to page 46.

11:00 am: After Two Hundred Years of Estimating Evaporation, It Is Still a Mystery
Kenneth C. Hover, Cornell University

11:20 am: The Un-Shored Composite Slab on Metal Deck:
Tuesday, October 17, 2017

PDH Codes: __________________ __________________ _________________

11:40 am: How Will ACI 318-14, Chapter 26 Affect Construction
Terence C. Holland, Concrete Terry, LLC

12:00 pm: Constructability Challenges
Larry G. Karlson, PCL Constructors Inc.

12:20 pm: The Evolution of Below-Slab Vapor Retarder Location
Peter A. Craig, Concrete Constructive

12:40 pm: Should You Reject the Load of Concrete after 90 Minutes?
Colin L. Lobo, National Ready Mixed Concrete Association

11:30 am – 1:30 pm

✓ Contractors’ Day Lunch—D-Magic Kingdom Ballroom 1

$49 U.S. per person
Coordinated by Southern California Chapter – ACI
Speaker: Kent Estes, Walt Disney Imagineering

Topic: The Happiest Concrete on Earth

Join other ACI attendees and contractors for the Contractors’ Day Lunch. Featured speaker Kent Estes from Walt Disney Imagineering will give a presentation titled “The Happiest Concrete on Earth.” This presentation will highlight the ongoing expansion at the Disney theme parks, focusing on unique applications of concrete in new construction. Topics to be covered include challenges in design, engineering, and construction.

PREREGERISTRATION IS REQUIRED TO ATTEND. Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

1:00 pm – 3:00 pm

MINI SESSION: Smart Concrete Using Nanocomposites—P-Pacific Ballroom B
Sponsored by ACI Committees 241 and 548
Moderated by Mahmoud M. Reda Taha, University of New Mexico

The objective of this mini-session is to present recent research findings of a new class of smart concrete using nanocomposites. Dispersion of nanomaterials in a cement or polymer matrix enables changing the polymer and/or polymer-cement matrix, creating a new class of concrete with very attractive properties such as self-healing, self-sensing, improved strains at failure, superior ductility and improved bond as well as special hydrophobicity. The presentations will cover a wide range of concrete with nanocomposites and their use in new construction and repair applications.

1:00 pm: Self-Sensing Polymer Concrete for Bridge Deck Applications Using Carbon Nanotubes
Moneeb Genedy, Ala Douba, and Mahmoud Reda Taha

1:30 pm: Tailoring the Piezoresistive Strain Sensing and the Electrochemical Capacitance of CNT Reinforced Mortars
Maria S. Konsta-Gdoutos, Panagiotis Danoglidis, and S.P. Shah

2:00 pm: Smart Pultruded GFRP Reinforcement Incorporating Nanomaterials
Rahulreddy Chennareddy, Amr Riad, and Mahmoud Reda Taha

2:30 pm: The Design of Ultra-Durable Concrete with Polymethyl-Hydrogen Siloxane Hydrophobic Agents and Nanosilica
Konstantin Sobolev, Marina I. Kozhukhova, Scott W. Muzenski, and Ismael Flores-Vivian

1:30 pm – 2:30 pm

Sponsored by ACI Committee 213
Moderated by Jeffrey F. Speck, Trinity Lightweight

Lightweight aggregates and lightweight concrete are often overlooked when alternatives are being considered for increasing the service life of concrete structures. This mini-session offers two presentations that may surprise many in the concrete industry. The first presentation reports on research on the use of lightweight aggregates in mass concrete. The second presentation reports on a study of the transport properties of concrete with and without lightweight aggregates and the results of service life modeling based on those properties. There are multiple causes of early-age cracking in mass concrete, including the effects of differential temperatures from the interior to the surface. The first presentation looks at the effects of lightweight aggregates on those temperature gradients as well as at their effects on the properties governing the crack resistance of mass concrete. The second presentation reports on a study of the transport properties of concrete with and without lightweight aggregates. Transport properties of concrete have a substantial impact on the durability and service life of concrete structures. The beneficial effects of lightweight aggregates on transport properties and the increase in predicted service life as a result of modeling a hypothetical bridge in the Detroit area are presented.

1:30 pm: Effect of Lightweight Aggregate on the Cracking Tendency of Mass Concrete
Anton Karel Schindler, Auburn University

2:00 pm: Determination of Transport Properties of Lightweight Aggregate Concrete for Service Life Modeling
Neal S. Berke, Tourney Consulting Group, LLC

PDH Codes: __________________ __________________ _________________
Sessions & Events

For detailed program information and program changes, download the Convention App.
✓ = Separate fee required  ★ = Guest-only event
D = Disneyland® Hotel  P = Disney's Paradise Pier® Hotel

1:30 pm – 3:30 pm

Contractors' Day Session: Mega Projects—Challenging the Southern California Concrete Industry—D-Disneyland South B

Sponsored by Southern California Chapter – ACI
Moderated by Donald Kahn, Largo Concrete, Inc.

Presentation of recently constructed or under-construction “Mega Projects” in the southern California area including high-rise, stadium, and infrastructure projects. Discussion will include technical review of concrete mixes, evaluating demands for mass concrete, thermal control plans, design of mixtures for CIP/precast for the concrete structures, challenges related to materials properties to meet structural demands based on seismic requirements, MOE (modulus of elasticity), and ensuring the construction operations are efficient to meet the tight schedule and dollar requirements.

1:30 pm: Moderator Welcome and Introduction, Presentation #1
Donald Kahn, Largo Concrete, Inc.

1:35 pm: Los Angeles Mega Project—Circa
Bryan Peugh, Largo Concrete, Inc.

1:55 pm: Question and Answers
Bryan Peugh, Largo Concrete, Inc.

2:01 pm: Moderator Introduction, Presentation #2
Donald Kahn, Largo Concrete, Inc.

2:05 pm: Presentation #2: Question and Answers
Donald Kahn, Largo Concrete, Inc.

2:10 pm: Concrete Dreaming in the Golden State
Oscar R. Antommattie, Kiewit Engineering Group

2:50 pm: Question and Answers
Oscar R. Antommattie, Kiewit Engineering Group

2:55 pm: Moderator Introduction, Presentation #3
Donald Kahn, Largo Concrete, Inc.

3:00 pm: The Metropolis of Downtown LA
Todd Lamberty, Webcor Concrete; and Bill Bramschreiber, Charles Pankow Builders

3:20 pm: Question and Answers
Todd Lamberty, Webcor Concrete; and Bill Bramschreiber, Charles Pankow Builders

3:25 pm: Closing Remarks
Donald Kahn, Largo Concrete, Inc.

1:30 pm – 3:30 pm

Cracking and Durability in Sustainable Concretes, Part 2 of 2—D-Disneyland South A

Sponsored by ACI Committees 130 and 224
Moderated by Ralf Leistikow, Wiss, Janney, Elstner, Associates Inc.; and Kimberly Waggle Kramer, Kansas State University

The session description for this session may be found in the Part 1 listing; refer to page 46.

1:30 pm: Low-Cracking High-Performance Concrete (LC-HPC) Bridge Decks: Innovative Technologies for Crack Control
Rouzbeh Khajehdehi, University of Kansas; and David Darwin, Matthew O'Reilly, Muzai Feng, James Lafikes, and Eman Ibrahim, University of Kansas

1:50 pm: The Shrinkage and Cracking Potential of Alternative Cement Binders
M. Tyler Ley, Oklahoma State University; Lisa E. Burris, Ohio State University; Kimberly E. Kurtis and Prasanth Alpati, Georgia Institute of Technology; and Amir Hajbabaee, Oklahoma State University

2:15 pm: Influence of SO3 Amount in Binder Containing High Volume of Blast Furnace Slag on Shrinkage Crack Resistance of Concrete
Tsuji Daijiro, Takenaka Corporation; Masaro Kojima, Takenaka Corporation; and Noguchi Takanori, Tokyo University

2:40 pm: Shrinkage Cracking in Alkali-Activated Concrete Binder
Maryam Hojati, Pennsylvania State University; and Aleksandra Radlinska and Farshad Rajabipour, Pennsylvania State University

3:05 pm: Performance and Corrosion Resistance of Mortar Incorporated with Ago-Waste Based Green Admixture
Yu Jiang, Washington State University; and Xianming Shi and Zhengxian Yang, Washington State University

PDH Codes: __________________ __________________ _________________

2 AIA/CES LU

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**Tuesday, October 17, 2017**

**1:30 pm – 3:30 pm**

**Open Topic Session, Part 1 of 2—D-Disneyland North A**
Sponsored by ACI Committee 123
Moderated by Feraidon Ataie, California State University, Chico; and Giovanni Loreto, Kennesaw State University

The Open Topic Presentation is a forum for presenting recent technical information that could not be scheduled into other convention sessions.

1:30 pm: Using X-Ray Imaging to Investigate In-Situ Ion Transport in Alternative Cementitious Materials
Mehdi Khanzadeh Moradllo, Oklahoma State University; and Tyler Ley, Oklahoma State University

1:50 pm: Measuring Rheological Properties of Moderate and Low-Slump Concrete
Ahmad A. Ghadban, South Dakota State University; Mohammed T. Albahtiti, California State University, Chico; David A. Lange and Jeremy Koch, University of Illinois at Urbana-Champaign; and Kyle A. Riding, University of Florida

2:10 pm: Bond Performance of Eco-Friendly Self-Consolidating Concrete (Concrete with 70% Cement Replacement)
Hayder H. Alghazali, Missouri University of Science and Technology; and John J. Myers, Missouri University of Science and Technology

2:30 pm: Impact of Cement Type and Curing Temperature on Zinc Oxide Retarding Action
Feraidon Ataie, California State University, Chico

**Ward R. Malisch Concrete Construction Symposium, Part 3 of 4—D-Disneyland North B**
Sponsored by Construction Liaison Committee
Moderated by Scott M. Anderson, Keystone Structural Concrete, LLC

The session description for this session may be found in the Part 1 listing; refer to page 46.

1:30 pm: Large-Scale Testing of Cold Curing Water
Ronald L. Kozikowski, North S.Tarr Concrete Consulting

1:50 pm: The Un-Shored Composite Slab on Metal Deck: Part III—Strategies for Producing Level Deflected Slabs
Eldon G. Tipping, Structural Services Inc.; and Bryan M. Birdwell, Structural Services Inc.

2:10 pm: Achieving Performance-Based Concrete Challenges for Contractor, Producer and Owner
Kevin A. MacDonald, Beton Consulting Engineers LLC

2:30 pm: Concrete Specifications: The Good, The Bad, and The Ugly
Michelle L. Wilson, Portland Cement Association

2:50 pm: Self-Consolidating and Hydration Stabilizer Concrete Revolutionizes NYC with Modern Concrete Technology
William J. Lyons, The Euclid Chemical Company

3:10 pm: Leveraging 3-D Laser Scanning for Concrete Analysis
Philip G. Lozenzo, Rithm

**MINI SESSION: The Effects of SCMs on Chloride-Induced Corrosion Initiation—D-Monorail B-C**
Sponsored by ACI Committee 222
Moderated by David G. Tepke, SKA Consulting Engineers Inc.

With substantial use of supplementary cementitious materials (SCMs) in concrete, there is need to evaluate and understand their effect on chloride penetration and thresholds for corrosion initiation. Rate of penetration and critical chloride thresholds can significantly impact the service life of reinforced concrete structures. The purpose of this session is to inform the audience of recent research in these areas. This session will be useful for researchers, engineers, and consultants to understand the influence of SCMs on long-term penetration of chlorides in concrete, time-to-corrosion and chloride thresholds for corrosion initiation in concrete. Topics also include the influence of SCMs on corrosion rate and properties that influence corrosion propagation in concrete. Thermodynamic considerations associated with bound chlorides, free chlorides, pore solution chemistry, and admixed chloride limits are additional topics.

2:00 pm: Influence of Supplementary Cementing Materials on Chloride Penetration, Chloride Thresholds and Time-to-Corrosion
Andrew Fahim, University of New Brunswick; and Michael D. A. Thomas and Edward G. Moffatt, University of New Brunswick
Sessions & Events

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2:15 pm: Thermodynamic Perspective on the Role of SCMs on Admixed Chloride Limits  
O. Burkan Isgor, Oregon State University; and Vahid Jafari Azad, Oregon State University

2:30 pm: Determination of the Chloride Content Threshold to Initiate Steel Corrosion  
Eric Samson, SIMCO Technologies; Boyd A. Clark, CTLGroup; and Richard Cantin, SIMCO Technologies

2:45 pm: Corrosion Rate and Chloride Threshold for Bare and Epoxy-Coated Reinforcement in Concrete Containing SCMs  
Matthew O’Reilly, University of Kansas

Session Codes: __________________ __________________ _________________

2:30 pm – 6:10 pm

10th Anniversary Concrete Sustainability Forum—D-Magic Kingdom 4

Sponsored by ACI Committees 130, 201, 236, and 349  
Moderated by Koji Sakai, Japan Sustainability Institute; and Julie Buffenbarger, Consultant  
Topic: Concrete Sustainability: Where We Are Now and Where We Are Going?

ACI Concrete Sustainability Forum series originated as a workshop in St. Louis, MO, in 2008, when ACI Committee 130, Sustainability of Concrete, was formed. In the decade since, there has been significant advancement in technologies and systems on concrete sustainability. To celebrate the 10th ACI Concrete Sustainability Forum and to look to the future, the forum invites the president of ACI and fib. In addition, the chairmen of ACI Committee 130 Sustainability of Concrete, fib Commission 7 on Sustainability, and ISO/TC71/SC8 on environmental management for concrete and concrete structures will show the essence of their great outcomes for last one decade, by which the participants will be able to understand what’s going on in concrete sustainability. Furthermore, the latest “challenges” to technologies for concrete sustainability will be presented. Lastly, we will discuss our future towards next one decade. A variety of significant topics will give the participants a condensed time, which fit the 10th anniversary event.

2:30 pm: Introduction and Welcome  
Koji Sakai, Japan Sustainability Institute

2:35 pm: ACI President Perspectives  
Khaled Awad, Advanced Construction Technology Services

2:55 pm: fib President Perspectives  
Hugo Peiretti, FHECOR Ingenieros Consultores

3:15 pm: ACI 130, Sustainability of Concrete (Guidelines)  
Julie K. Buffenbarger, Consultant

3:30 pm: fib Commission 7 (Sustainability)  
Petr Hajek, Czech Technical University in Prague

4:45 pm: ISO/TC71/SC8, Environmental Standards for Concrete Sector  
Koji Sakai, Japan Sustainability Institute

5:00 pm: “Revolutionary” Systems for the Construction of Long-Life Infrastructures  
Akira Hosoda, Yokohama National University

5:15 pm: Does Fiber Reinforcement Enhance Concrete Sustainability?  
Nemkumar Banthi, University of British Columbia

5:30 pm: Global CO₂ Sink by Concrete Carbonation  
Fengming Xi, Chinese Academy of Sciences; and Steven J. Davis, Construction and Engineering Services

5:45 pm: Discussion—What Actions Should We Take in the Next Decade  
Koji Sakai, Japan Sustainability Institute; and Julie K. Buffenbarger, Consultant

6:05 pm: Closing Remarks  
Julie K. Buffenbarger, Consultant

Session Codes: __________________ __________________ _________________

4:00 pm – 6:00 pm

ACI/JCI Joint Seminar on Existing Structures, Part 1 of 4—D-Disneyland South A

Sponsored by ACI Committee 562 and Japanese Concrete Institute  
Moderated by Keith E. Kesner, CVM Engineers; and Yao Luan, Saitama University

The third ACI/JCI Joint Seminar presents a series of presentations that explore topics related to the challenges in the preservation of existing concrete bridges and building infrastructure. Some of the challenges of preservation of infrastructure include the development of maintenance strategies to address long-term durability concerns, examination of the response to unexpected loadings, and the development of standards for repair/retrofit of existing structures. The final session in the seminar will feature a panel discussion that will develop plans for future collaboration between ACI and JCI to develop strategies for infrastructure preservation. The first session includes a keynote presentation that explores the response of structures under the short-term loading that occurred during the 2011 Great Hanshin Earthquake and under long-term exposure. Development of strategies for the long-term preservation of concrete structures will be examined in all three papers in the session.

4:00 pm: Welcome and Opening Address from ACI President  
Khaled Awad, Advanced Construction Technology Services

4:10 pm: JCI Keynote Presentation—Research Interest in RC Structures – From Mechanical Behaviors to Durability  
Kyuichi Maruyama, Nagaoka University of Technology

4:55 pm: Discussion  
Yao Luan, Saitama University, Japan; and Keith E. Kesner, CVM Engineers

5:00 pm: Design and Maintenance of Transportation Structures to Optimize Service Life  
Michael C. Brown, WSP USA

Session Codes: __________________ __________________ _________________
Sessions & Events

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Tuesday, October 17, 2017

5:25 pm: Inspection and Evaluation of Mechanical Performance of Deteriorated Concrete Bridges
Hiroshi Mutsuyoshi, Saitama University

5:50 pm: Discussion
Yao Luan, Saitama University, Japan; and Keith E. Kesner, CVM Engineers

2 AIA/CES LU
PDH Codes: __________________ __________________ _________________

4:00 pm – 6:00 pm

Contractors’ Day Session: 3-D Scanning Technology, The Future is Now—D-Disneyland South B
Sponsored by Southern California Chapter – ACI
Moderated by Donald Kahn, Largo Concrete, Inc.

A presentation about the use of digital technology for concrete applications. Presentation will cover multiple uses of scanning in concrete construction and highlight the capabilities of the digital technology, equipment and programs including coordination with 3-D imaging, BIM and modeling, MEP coordination, documentation of existing conditions, record keeping and “as-built” verifications.

4:00 pm: Moderator Welcome and Introduction
Donald Kahn, Largo Concrete, Inc.

4:05 pm: 3-D Scanning Technology, The Future is Now
Loay Hanthel, Largo Concrete, Inc.

5:35 pm: Scanning Demonstration
Loay Hanthel, Largo Concrete, Inc.

5:50 pm: Session Question and Answer
Loay Hanthel, Largo Concrete, Inc.

6:00 pm: Session Conclusion
Donald Kahn, Largo Concrete, Inc.

2 AIA/CES LU
PDH Codes: __________________ __________________ _________________

4:00 pm – 6:00 pm

Open Topic Session, Part 2 of 2—D-Disneyland North B
Sponsored by ACI Committee 123
Moderated by Giovanni Loreto, Kennesaw State University

The session description for this session may be found in the Part 1 listing; refer to page 46.

4:00 pm: Why Are As-Built Measurements Important?
Bruce A. Suprenant, American Society of Concrete Contractors

4:20 pm: How the Inter-Relationship Between Concrete Properties and Construction Practices Impacts Surface Appearance
Joseph A. Daczko, BASF Corporation

4:40 pm: A Comparison of Floor Tolerance Measuring Approaches F-Numbers, 10-ft Straightedge, and Waviness Index
Richard E. Smith, Structural Services Inc.; and Eldon G. Tipping, Structural Services Inc.

5:00 pm: German and European Experiences with “Guides for Formed Concrete Surfaces,” Similar to ACI 347.3R-13
Rolf A. Spahr, MEVA Formwork Systems Inc.

5:20 pm: Concrete Surface Void Ratio: Perspective from the Testing Laboratory
Jacob L. Borgerson, Paradigm Consultants, Inc.; and Woodward L. Vogt, Paradigm Consultants Inc.

5:40 pm: Can Bugholes Be Evaluated Objectively on Off-the-Form Concrete Surfaces?
Ward R. Malisch, American Society of Concrete Contractors; and Heather J. Brown, Middle Tennessee State University

2 AIA/CES LU
PDH Codes: __________________ __________________ _________________
5:30 pm – 6:30 pm

**Faculty Network Reception—D-Sleeping Beauty**

Faculty members and students are invited to attend this informal reception for an opportunity to exchange ideas and network. Light hors d'oeuvres and a cash bar will be available.

6:30 pm – 8:30 pm

**Concrete Mixer—D-Magic Kingdom Lawn**

Join ACI attendees and guests for an evening of networking, entertainment, and great food during the Concrete Mixer. An assortment of food and beverages will be available. This reception will be held in D-Disneyland Center in inclement weather.

**Wednesday, October 18, 2017**

8:30 am – 10:30 am

**ACI/JCI Joint Seminar on Existing Structures, Part 2 of 4—D-Disneyland South A**

Sponsored by ACI Committee 562
Moderated by Tracy D. Marcotte, CVM Engineers; and Tomohiro Miki, Kobe University

The session description for this session may be found in the Part 1 listing; refer to page 51.

8:30 am: Estimating Reliability of Historic Punching Shear Models
Gaur Johnson, Moffatt and Nichol

8:55 am: Maintenance Management of RC Deck Slabs in Japan—An Overview of Government Funded Research Project, SIP (Strategic Innovation Project)
Tetsuya Ishida, University of Tokyo

9:20 am: Seismic Assessment and Retrofit of Substandard Bridge Columns
M. Saldí Salidí, University of Nevada, Reno

9:45 am: Several Topics on Strategy for Rehabilitation and Maintenance in Hanshin Expressway Road Network System
Akinori Sato, Hanshin Expressway

10:10 am: Discussion
Tomohiro Miki, Kobe University; and Tracy D. Marcotte, CVM Engineers

2 AIA/CES LU
PDH Codes: __________________ __________________ __________________

8:30 am – 10:30 am

**Evaluation of Concrete Bridge Behavior Through Load Testing—International Perspectives, Part 1 of 2—D-Disneyland North B**

Sponsored by ACI Committee 342
Moderated by Eva Lantsoght, Universidad San Francisco de Quito

This session will discuss diagnostic and proof load testing for evaluation of concrete bridges, both for new and existing structures through case studies around the world. For new or existing bridges, diagnostic load testing is often required to assess design or analysis assumptions, particularly for atypical bridges. Similarly, proof load testing is often needed to verify the capacity of deteriorating or older bridges with missing information. This session will provide a global perspective on strategies for assessing in-service performance, differences in loads, reserve capacities, structure age, and construction practices between regions. Bridge designers, owners, and researchers will benefit from the session by learning recent developments on international standards for load testing.

8:30 am: Diagnostic Load Testing to Understand Problems Related to High Skew in Prestressed Concrete Bridges
Mauricio Díaz Arancibia, University at Buffalo, The State University of New York; and Pinar Okunus, University at Buffalo, The State University of New York

9:00 am: Bridge Load Testing and Monitoring for Super-Heavy Permit Loads
Brett Commander, Bridge Diagnostics, Inc.; and Jesse Sipple, Bridge Diagnostics, Inc.

9:15 am: Highway Bridge Live Load Testing Practice in Turkey and Azerbaijan
Alp Caner, Middle East Technical University; and Ahmet Turer, Middle East Technical University

9:30 am: Assessment and Loading to Failure of Four Swedish RC Bridges
Niklas Bagge, WSP; Arto Puurula, Savonia University of Applied Sciences in Kuopio; Thomas Blanksvrd, SKANSKA; Anders Carolin, Trafikverket Lulea; and Jonny Nilimaa, Cristian Sabau, Gabriel Sas, Bjorn Taljsten, and Lennart Elfgren, University of Technology

9:45 am: Load Rating of Prestressed Concrete Adjacent Beam Bridges Without Plans in New Mexico
Carlos Aguilar, New Mexico State University; and David Jauregui, Craig M. Newton, and Brad Weldon, New Mexico State University

10:00 am: On the Way to the Development of Shear Stop Criterion with Acoustic Emission Measurement
Yuguang Yang, Delft University of Technology; Ane de Boer, Ministry of Infrastructure and the Environment, Netherlands; and Dick Hordijk, Delft University of Technology

2 AIA/CES LU
PDH Codes: __________________ __________________ __________________
Wednesday, October 18, 2017

8:30 am – 10:30 am

**Finite Element Modeling of Concrete Walls Subjected to Extreme Loads, Part 1 of 3—D-Disneyland North A**

Sponsored by ACI Committee 447
Moderated by Sri Sritharan, Iowa State University

The session will include presentations of modeling of concrete walls subjected to extreme loads such as those due to earthquake and blast. The session will be valuable to academic researchers, consulting engineers, and students interested in finite element analyses of concrete structures.

8:30 am: Detailed Nonlinear Modeling and Time-History Analysis of the Alto Rio Building, Chile
José I. Restrepo, University of California, San Diego; Jinping Ou, Harbin Institute of Technology; Joel P. Conte, University of California, San Diego; and Peizhou Zhang, Dalian University of Technology

8:46 am: 3-D Inelastic Finite Element Model of a RC Wall Building Damaged During 2010 Chile Earthquake
R. Jünemann, Pontifical Catholic University of Chile; and Matias Hube and Juan C De La. Llera, Pontifical Catholic University of Chile

9:02 am: Three-Dimensional Beam-Truss Model for Seismic Analysis of Reinforced Concrete Walls and Slabs: Modeling Approach and Validation, for Individual Reinforced Concrete Walls, Slabs, Coupled Walls, and Tall Core-Wall Buildings
Marios Panagioto, University of California, Berkeley; and Yuan Lu, University of California, Berkeley

9:18 am: Three-Dimensional Finite Element Analysis of Damage and Failure of RC Shear Walls under Cyclic Lateral Loading
Mohammadreza Moharrami, Virginia Polytechnic Institute and State University; and Ioannis Koutromanos, Virginia Polytechnic Institute and State University

9:34 am: Linking Millimeter Length-Scale Mechanisms to RC Infrastructure: Multiscale Finite Element Analysis of RC Shear Wall Building Exposed to Extreme Seismic
In Ho Cho, Iowa State University

9:50 am: Assessment of the Capabilities of the Nonlinear Beam Truss Model (NL_BTM) for Modeling of R/C Walls Subjected to Lateral Loading
Andrés Felipe Martínez, North University; and Gustavo Araújo and Carlos Arteta, North University

10:06 am: Towards Modeling of ASR-Affected Reinforced Concrete Shear Walls Subjected to Earthquake Loading
Anca C. Ferche, University of Toronto; and Frank J. Vecchio, University of Toronto

11:00 am – 1:00 pm

**ACI/JCI Joint Seminar on Existing Structures, Part 3 of 4—D-Disneyland South A**

Sponsored by ACI Committee 562
Moderated by Hitoshi Shiohara, University of Tokyo; and Dylan Freytag, Pivot Engineers

The session description for this session may be found in the Part 1 listing; refer to page 51.

11:00 am: LA City Seismic Retrofit Ordinance
Garrett R. Hagen, Degenkolb Engineers

Koichi Kusunoki, University of Texas at Austin

11:50 am: Development and Use of the ACI 562 Concrete Repair Code
Gene R. Stevens, JR Harris & Co Structural Engineers

12:15 pm: Challenges for Repair, Rehabilitation and Retrofitting of Concrete Structures over the Limit State due to Severe Deterioration
Takafumi Noguchi, University of Tokyo

12:40 pm: Discussion
Dylan Freytag, Pivot Engineers; and Hitoshi Shiohara, University of Tokyo

11:00 am – 1:00 pm

**Evaluation of Concrete Bridge Behavior Through Load Testing—International Perspectives, Part 2 of 2—D-Disneyland North B**

Sponsored by ACI Committee 342
Moderated by Pinar Okumus, University at Buffalo, The State University of New York; and Eva Lantsoght, Universidad San Francisco de Quito

The session description for this session may be found in the Part 1 listing; refer to page 53.

11:00 am: Assessment of Reinforced Concrete Slab Bridges through Proof Load Testing in the Netherlands
Eva Lantsoght, Universidad San Francisco de Quito and Delft University of Technology; Cor van der Veen, Delft University of Technology; Ane de Boer, Ministry of Infrastructure and the Environment, Netherlands; and Dick Hordijk, Delft University of Technology

11:15 am: Torsional Effects on Load Tests to Quantify Shear Distribution in Prestressed Concrete Girder Bridges
Ben Dymond, University of Minnesota Duluth; and Catherine E. French and Carol K. Shield, University of Minnesota, Twin Cities

11:30 am: Field Testing of a Three-Span Solid Concrete Slab Bridge from Service Load Conditions to Rupture
Bruno Massicotte, Ecole Polytechnique of Montreal; and Fabien Lagier, Ecole Polytechnique of Montreal
11:45 am: Execution of a Collaborative Live Load Test on Concrete Bridges in Complex Environments
Matthew Hebdon, Virginia Polytechnic Institute and State University; Devin K. Harris and Mohamad Alipour, University of Virginia; Carin Roberts-Wollmann and Ezra Bin Arif Edwin, Virginia Polytechnic Institute and State University; James Riley, McNary Bergeron & Associates; Abdullah Bagheri, University of Maryland; and Andrei Ramniceanu, Virginia Military Institute

12:00 pm: High Magnitude Loading of Concrete Bridges
Jacob W. Schmidt, Technical University of Denmark; Philip S. Halding, Technical University of Denmark; and Thomas W. Jensen and Svend Engelund, COWI A/S

12:15 pm: Diagnostic Test for Load Rating of a Prestressed SCC Bridge
Eli S. Hernandez, Missouri University of Science and Technology; and John J. Myers, Missouri University of Science and Technology

12:30 pm: The Use of Non-Contacting Interferometric Phase Radar for Bridge Load Testing
Larry D. Olson, Olson Engineering, Inc.

11:00 am – 1:00 pm

Finite Element Modeling of Concrete Walls Subjected to Extreme Loads, Part 2 of 3—D-Disneyland North A
Sponsored by ACI Committee 447
Moderated by Sri Sritharan, Iowa State University

The session description for this session may be found in the Part 1 listing; refer to page 54.

11:00 am: Numerical Prediction of the In-Plane Cyclic Behavior of Reinforced Concrete Shear Walls
Gloria Faraone, University of California, San Diego; and Tara C. Hutchinson, University of California, San Diego

11:16 am: Finite Element Modeling of Reinforced Concrete Walls under Uniaxial and Biaxial Loading
Kristijan Kolozvari, California State University, Fullerton; Ross Miller, California State University, Fullerton; and Kutay Orakcal, Bogazici University

Pablo Parra, Adolfo Ibáñez University; and Jack P. Moehle, University of California, Berkeley

11:48 am: Modeling of Out-of-Plane Deformation in Rectangular Walls under Concentric In-Plane Cyclic Loading
Rajesh P. Dhakal, University of Canterbury; and Stefano Papanin and Farhad Dashiti, University of Canterbury

12:04 pm: Fiber-Based Modeling for Instability of Boundary Elements in Ductile RC Structural Walls
Ana Gabriela Haro, North Carolina State University; Mervyn J. Kowalsky, North Carolina State University; and Yuk Hon Chai, University of California, Davis

12:20 pm: Numerical Simulation of Out-of-Plane Stability of Thin Reinforced Concrete Walls
Angelica Rosso, Swiss Federal Institute of Technology; and Lisandro A. Jiménez-Roa, João Pacheco De Almeida, and Katrin Beyer, Swiss Federal Institute of Technology

12:36 pm: Uncertainty in Prediction of Shear Wall Strength by Finite Element Analysis
Jan Červenka, Cervenka Consulting; and Vladimir Červenka, Cervenka Consulting and Lukáš Kadlec and Tereza Sajdlová, Czech Technical University in Prague

1:00 pm – 2:00 pm

ACI/JCI Joint Seminar on Existing Structures, Part 4 of 4—D-Disneyland South A
Sponsored by ACI Committee 562
Moderated by Tomoko Ishida, Obayashi Corporation; and Lawrence F. Kahn, Georgia Institute of Technology

The session description for this session may be found in the Part 1 listing; refer to page 51.

1:30 pm: ACI 318-14—Revision of a Classic
Randall W. Poston, Pivot Engineers

1:55 pm: Study and Challenges for Application to the Structural Member of the Post-Installed Adhesive Anchors in Japan
Hitoshi Hamasaki, Shibaura Institute of Technology; Tomoaki Akiyama, Shibaura Institute of Technology; and Hitoshi Shiohara, University of Tokyo

2:20 pm: Discussion
Tomoko Ishida, Obayashi Corporation; and Lawrence F. Kahn, Georgia Institute of Technology

2:30 pm: Panel Discussion: Future Collaboration between ACI and JCI for Preservation of Aging Infrastructure
Tomoko Ishida, Obayashi Corporation; and Lawrence F. Kahn, Georgia Institute of Technology

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Sessions & Events

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Next Page
Wednesday, October 18, 2017

1:30 pm – 3:30 pm

Finite Element Modeling of Concrete Walls Subjected to Extreme Loads, Part 3 of 3—D-Disneyland North A
Sponsored by ACI Committee 447
Moderated by Sri Sritharan, Iowa State University

The session description for this session may be found in the Part 1 listing; refer to page 54.

1:30 pm: Finite Element Analysis of Reinforced Concrete Wall Subjected to Blast Loading
Ganesh Thiagarajan, University of Missouri–Kansas City; and Akash Iwalekar, Akash Engineers Inc.

1:46 pm: Wind-borne Missile Impact of Reinforced Concrete Panels
Brian R. Terranova, University of Buffalo, The State University of New York; Leonard E. Schwer, Schwer Engineering and Consulting Services; and Andrew S. Whittaker, University of Buffalo, The State University of New York

2:02 pm: Simulating Post-Earthquake Fire Performance of RC Walls
Shuna Ni, Texas A&M University; and Anna C. Birely, Texas A&M University

2:18 pm: Axially Equilibrated Displacement-Based beam Element for Simulating the Cyclic Inelastic Behavior of RC Members
Danilo Tarquin, Swiss Federal Institute of Technology; and Joao Almeida, Katrin Beyer, Swiss Federal Institute of Technology

2:34 pm: Recommendations for and New Design Expressions from High-Resolution Finite Element Modeling of Flexural Walls
Laura N. Lowes, University of Washington; Dawn E. Lehman, University of Washington; Zachary Whitman, Coughlin Porter Lundeen; and Anahid Behrouzi, University of Illinois at Urbana-Champaign

2:50 pm: Selection Criteria for Finite Element Software for Simulation of Flexural RC Walls
Alex Shegay, University of Auckland; Christopher Motter, Washington State University; Kenneth J. Elwood and R.S. Henry, University of Auckland; and Dawn E. Lehman, Laura N. Lowes, and Kamal Ahmed, University of Washington

3:06 pm: Size Effect on Strength of Shear Walls Investigated by Experimentally Calibrated Micro-Plane Model M7
Mohammad Rasoolinejad, Northwestern University; and Gianluca Cusatis and Zdeněk P. Bažant, Northwestern University

1:30 pm – 3:30 pm

Load Testing of Existing Concrete Structures—D-Disneyland North B
Sponsored by ACI Committee 437
Moderated by Mohamed El-Batanouny, Wiss, Janney, Elstner Associates, Inc.; and Aaron Larosche, Pivot Engineers

The goal of the session will be to provide the audience with a summary of the state-of-the-art practices of load testing existing structures. Selected presentations will highlight interesting load testing case studies, review lessons learned during testing, and provide information to audience regarding best practices when load testing.

1:30 pm: Load Testing of a Parking Structure Due to Low Concrete Compressive Strengths

1:50 pm: Cyclic Load Testing for the Safety Assessment of Existing Reinforced Concrete Structures According to ACI 437: Recent Developments and Case Studies
Antonio Brancaccio, Experimentation S.r.l.; and Antonio Nanni, University of Miami

2:15 pm: Load Testing of Concrete Structures: An Engineer’s Perspective
Filippo Masetti, Simpson Gumpertz & Heger Inc.; and Nestore Galati, Structural Technologies

2:40 pm: Preventing Mistakes in Load Testing
Predrag L. Popovic, Wiss, Janney, Elstner Associates, Inc.

3:05 pm: Load Testing of Elevated Parking Structure Slabs
Ashok M. Kakade, Concrete Science Inc.

2 AIA/CES LU
PDH Codes: __________________ __________________ _________________

6:30 pm – 8:00 pm

President’s Reception—D-Magic Kingdom Lawn

ACI President Khaled Awad invites all convention attendees to the President’s Reception, where you’ll have the opportunity to network with committee Chairs, chapter Presidents, and international attendees. An assortment of food and beverages will be available. This reception will be held in D-Disneyland South A-B in inclement weather.

2 AIA/CES LU
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The Concrete Convention and Exposition

March 25-29, 2018
Grand America & Little America
Salt Lake City, UT

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