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## American Concrete Institute Board of Direction

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Florian G. Barth

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#### **Executive Vice President**

William R. Tolley

## **ACI President's Welcome**

ACI Members and Guests—Welcome to New Orleans and the ACI Fall 2009 Convention!

It is with great pleasure that I welcome you to New Orleans. As the ACI community gathers in New Orleans for the 2009 Fall convention, it is important that we commend the people of this extraordinary city for inviting us to the place they call home.



The Louisiana Chapter has been looking forward to hosting this convention since Hurricane Katrina cancelled their last scheduled convention in 2005. The chapter has devoted their time and effort to ensure you enjoy the 2009 Fall convention and the city of New Orleans. They have created a truly unique program which will give attendees the opportunity to experience the remarkable history and traditions of New Orleans. The Concrete Mixer on Tuesday night will give you a taste of the most famous tradition in New Orleans, Mardi Gras.

The ACI Fall 2009 convention has so much to offer. Whether you attend a committee meeting, technical and education session, or network with friends and concrete professionals, I hope all of you will gain valuable industry information and experience that will spice up your concrete career.

Lori and I are honored and thrilled to share this week with each one of you. We hope your convention experience is both productive and memorable, and you experience all that the great city of New Orleans has to offer. I would like to thank the Louisiana Chapter for their dedication to planning this convention, and thank you for your support and contributions to ACI.

Kind regards,

Florian G. Barth ACI President



OFFICE OF THE GOVERNOR

Dear Friends,

I would like to welcome you to New Orleans for the American Concrete Institute Fall 2009 Convention.

We are pleased to welcome professionals and other attendees to the Crescent City. Please take some time to truly explore some of the sites that make Louisiana one of the most unique places in the world. From the artisans and boutiques of the French Market and the French Quarter in New Orleans, to the historic homes along the Mississippi River, to our world-famous cuisine, Louisiana truly has something to offer everyone.

On behalf of the state of Louisiana, I wish you a productive and enjoyable stay.

Very truly yours,

Governor Bobby Jindal State of Louisiana

## CITY OF NEW ORLEANS

C. RAY NAGIN, MAYOR



On behalf of the City of New Orleans, I extend my sincerest welcome to the participants of the 2009 American Concrete Institute's Fall Convention. We are delighted that you have chosen our city as the site for this year's convention.

I applaud the dedication of the members of the concrete industry. As you gather to network and learn the latest in concrete technology, please know that the valuable work done by your industry is truly needed and appreciated, especially during this time of rebuilding in the City of New Orleans.

Drawing from French, Spanish and West African influences, our heritage thrives through endless varieties of architecture, music and food. Our authentic Creole and Cajun restaurants, jazz clubs, shady courtyards, clacking streetcars and horse-drawn carriages help make this city one of the top cultural destinations in the world. Please be sure to visit our world-renowned Audubon Zoo and the Aquarium of the Americas.

We appreciate your strong support of our city. The rebuilding effort won't happen overnight but with your support, we will bring back New Orleans better than ever. We hope that you enjoy your time here and keep your experiences with you when you return home. We know that, having welcomed you once to New Orleans, we will welcome you many times in the future.

Here's to a productive convention and a pleasant stay!

Sincerely,

C. Ray Nagin Mayor

## ACI Spring 2010 Convention

## Sheraton Chicago Chicago, Illinois March 21-25, 2010



Share ideas on standards, reports, and codes in the concrete industry. There are over 300 different committees in which you can participate.

**Network, Network, Network!** During the convention there will be plenty of opportunities to network with key players in the industry. Be sure to attend the Opening Session and Reception, the Student and Young Professional Networking Event, or the blues-themed Concrete Mixer! These events are great places to get to know other convention attendees, meet with colleagues, or catch up with friends for beverages and great conversation.

Attend sessions explaining the latest techniques and hottest topics. Some topics will include:

Concrete Durability Adhesive Anchors
Concrete Repair Quality Assurance
Corrosion Extreme Concrete

**See the sights of Chicago:** The ACI Illinois Chapter has arranged a variety of tours for attendees and guests to take advantage of throughout the convention. Here are just a few of the tours you can participate in:

Wonderful Town Tour Great Tastes Tour
Oak Park/River Forest Tour Immigrant to Elite Tour
Obama's Chicago Tour Chicago Architecture Tour

Don't miss out! Registration opens December 1, 2009! Watch your e-mail for details or visit www.aciconvention.org.





**ACS Manufacturing Corporation** 



Ash Grove Cement Company



Buzzi Unicem



**Cantera Concrete Company** 



Ashford Formula



Baker Concrete Construction, Inc.



The Chemical Company

BASF Admixtures, Inc.



**BCS** 





Boral Material Technologies, Inc.
Bray Structures



CECO



CHRYSO-ProMix Technologies



Commercial Contracting Corporation

Concrete
Engineering
Specialists

Concrete Engineering Specialists



Concrete Reinforcing Steel Institute



CTL Group



**Dayton Superior** 

## e.construct

e-construct



**EUCLID CHEMICAL** 

The Euclid Chemical Co.

Expanded Shale, Clay and Slate Institute



Expanded Shale, Clay & Slate Institute

FGC, Inc.



Fibercon International, Inc.

Francis Harvey & Sons



FUTURE TECH CONSULTANTS Construction Materials Engineering, Inspection & Testing Services

**Future Tech Consultants** 



W.R. Grace & Co.



Headwaters Resources, Inc.



Holcim (US) Inc.



**ICS** Penetron



**IDRA SA** 



Keystone Structural Concrete, Ltd.



Kleinfelder



Lafarge North America



Lehigh Portland Cement Co.



Lithko Contracting, Inc.



Meadow Burke



W. R. Meadows, Inc.



Metromont Corporation



Municipal Testing Lab



OMYA Canada, Inc.

Operating Engineers
Training Trust



Oztec



Portland Cement Association



PNA Construction Technologies, Inc.



Precast/Prestressed Concrete Institute



CONCRETE SYSTEMS

**Propex Concrete Systems** 



Ruentex Group



Scofield



Seretta Construction, Inc.



Sika Corp.



S. K. Ghosh Associates, Inc.



Spurlino Materials



Structural Group



Structural Services, Inc.



Triad Engineering, Inc.



Tru Wall Concrete, Inc.



Unibeton Ready Mix



Universal Concrete Products, Ltd., Co.





Wacker Neuson



**Webcor Concrete** 



Westroc, Inc.

## **Convention Sponsors**

The ACI Louisiana Chapter wishes to thank the following organizations for their donations to make the ACI Fall 2009 Convention a success.

#### MARDI GRAS

ACI Louisiana Chapter
ACI Louisiana Chapter Certification Committee
Baker Concrete Construction
BASF Construction Chemicals, LLC

#### **REX**

CAAL

The Euclid Chemical Co.

#### **BACCHUS**

ACI Pittsburgh Chapter Keystone Structural Concrete, Ltd.

#### **ZULU**

**ACI Alabama Chapter ACI Arizona Chapter ACI Carolina Chapter ACI Georgia Chapter** ACI Greater Michigan Chapter **ACI Illinois Chapter** ACI Intermountain Chapter **ACI Las Vegas Chapter ACI Missouri Chapter ACI New Jersey Chapter ACI New Mexico Chapter ACI Northeast Ohio Chapter ACI Northeast Texas Chapter** ACI Rocky Mountain Chapter ACI San Antonio Chapter ACI Southern California Chapter Aimee Pergalsky **ASCE Louisiana Section** ASCE SEI New Orleans Chapter **Boh Brothers Construction** Burk Kleinpeter, Inc. Carlo Ditta, Inc. **Grace Construction Products** Lamanna Engineering Consultants, LLC Linfield Hunter & Junius, Inc. Louisiana Testing & Inspection P.S.I., Inc. Vulcan Material Company

Waldemar S. Nelson & Co., Inc.

## **Convention Sponsors**

#### **ENDYMION**

ACI Arkansas Chapter
ACI British Columbia Chapter
ACI Florida Suncoast Chapter
ACI Greater Miami Valley Chapter
ACI Houston Texas Chapter
ACI Kansas Chapter
ACI Maryland Chapter
ACI Mid-South Chapter
ACI National Capital Chapter
ACI San Diego International
Chapter
ACI Western Michigan Chapter
ACI Western Michigan Chapter
AECOM
American Engineering Testing

Badeaux Engineers, Inc.

Beta Testing & Inspection
C.H. Fenstermaker & Associates
Cycle Construction Co., LLC
Design Engineering, Inc.
Eustis Engineering Services, Inc.
Five Star Products, Inc
Headwaters Resources
Kulkarni Consultants, APC
Lafarge North America
M.A. Cheek Engineering, LLC
Mix Manufacturing
Modjeski & Masters, Inc.
N-Y Associates, Inc.
Thigpen Construction Company

**ORPHEUS** 

Van City

ACI Ontario Chapter
Alpha Testing & Inspection, Inc.
All South Consulting Engineers
Bernie Gaton
Building Specialties Co. of Louisiana
Concrete Controls, Inc.
James Construction Group, LLC
Jeffery, Thomas, Avegno, Inc.
Morphy Makofsky, Inc.
Schrenk & Peterson Consulting Engineers, Inc.
Southern Earth Services
US Forensics
Zeller Design Group

#### **CENTURIANS**

Decorative Concrete Supply, Inc. Future Tech Corporation

Sponsors are listed as of 10/7/09.

# ACI Louisiana Chapter 2009 Board of Directors

#### **President**

James Kapesis, Louisiana Department of Transportation

#### **Vice President**

Jose Rodriguez, Burk-Kleinpeter

#### **Treasurer**

Timothy Hassenboehler, Louisiana Department of Transportation

#### Secretary

Paul Ordoyne, Beta Testing and Inspections

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Kenneth Meyn, Southern Earth Sciences Inc.
Brian Patin, Post-Tensioned Slabs Inc.
Robert Evans, LA Testing and Inspection Inc.
Mark Vince, Terrebonne Concrete LLC
Sadi Torres, Louisiana Department of Transportation

## **ACI New Orleans Chapter Convention Committee**

#### **Co-Chairs**

Bill Rushing, Waldemar S. Nelson and Company Inc. Mark Cheek, Beta Testing and Inspection

#### **Contractors' Day**

Darrell Elliot, Buzzi Unicem USA

#### **Exhibits**

James Kapesis, Louisiana Department of Transportation Greg Richards, P.S.I. Inc

#### **Fundraising**

Om Dixit, C.H. Fenstermaker & Associates

#### **Guest Program**

Suresh Shah, Burk-Kleinpeter Inc.

#### **Publicity**

Thomas Smith, Design Engineering Inc.

#### Secretary

Jose Rodriguez, Burk-Kleinpeter Inc.

#### **Social Events**

Anthony Lamanna, Lamanna Engineering Consultants, LLC Joel Dorsa, Waldemar S. Nelson and Company Inc.

#### **Student Program**

Norma Jean Mattei, University of New Orleans Bridget Kelly, Waldemar S. Nelson and Company Inc.

#### **Technical Session**

Subhash Kulkarni, Kulkarni Consultants, APC

#### Treasurer

Donald Meyn, Southern Earth Sciences Inc.

#### **ACI Registration**

#### ACADIA/BISSONET

ACI staff are eager to answer your convention questions at the ACI Registration Desk during the following hours:

 Saturday
 2:00 pm - 6:00 pm

 Sunday
 7:30 am - 5:00 pm

 Monday
 8:00 am - 5:00 pm

 Tuesday
 8:00 am - 5:00 pm

 Wednesday
 8:00 am - 12:00 pm

#### **Name Badges**

ACI uses color-coded name badges to identify attendees. Name badges are as follows:

Member: Blue
Attendee: Black
Fellow: Green
Honorary Member: Red
Staff: Orange
Guest: Tan

Student: Green Ribbon

#### Attention ACI Attendees!

First-time convention attendees have a "Convention #1" ribbon on their name badge. Please welcome them to the convention!

#### **Schedule Changes**

#### ACADIA/BISSONET

Cancellations, additions, and location changes to the convention schedule will be posted daily on a monitor inside the exhibit area.

#### **Emergencies**

In the event of an emergency, we kindly request that you do NOT dial 9-1-1. Please go to the nearest house phone to contact the hotel operator by dialing 'o' (zero).

#### **Beverage Breaks**

#### ACADIA/BISSONET

Beverages are available courtesy of ACI during the following hours.

Saturday Soda: 2:00 pm - 5:00 pm Sunday-Tuesday Coffee: 7:00 am - 10:00 am

Soda: 12:00 pm - 3:00 pm

Wednesday Coffee: 7:00 am - 10:00 am

#### **ACI Water Stations**

In an attempt to lessen the amount of bottled water thrown away during each convention, ACI has chosen not to provide bottled water to attendees. As a replacement, water stations will be placed throughout the hotel for you to enjoy.

#### **Alcohol Policy**

Non-alcoholic beer and soft drinks are available at all ACI-sponsored receptions. The legal drinking age in Louisiana is 21.

## ACI Book Drive Collection bin located in ACADIA/BISSONET Making Literacy More Concrete!

ACI will once again be conducting a book drive during the ACI Fall 2009 Convention, in an effort to promote literacy. Donated books will be given to the New Orleans branch of Communities in Schools, an organization that strives to champion the connection of needed community resources with schools to help young people successfully learn, stay in school, and prepare for life. All donated books will be given to local schools or directly to children as part of the Communities in Schools partnership with Reading is Fundamental's book ownership program. For more information on Communities in Schools New Orleans, please visit http://www.cisneworleans.org/.

ACI is asking that each attendee bring a new or gently used book to the convention for children in grades K-12. Book donations may be made in Acadia/Bissonet, during open exhibit hours. Help us reach our goal of 800 books!

#### **ACI Bookstore**

ACADIA/BISSONET

Visit the ACI Bookstore during the following hours:

 Saturday
 2:00 pm - 6:00 pm

 Sunday-Tuesday
 8:00 am - 5:00 pm

 Wednesday
 8:00 am - 12:00 pm

#### **Career Center**

ACADIA/BISSONET

Looking for a job or an employee? Visit the ACI Bookstore to view ACI's Online Career Center. This job search engine is specifically targeted to the concrete industry. Job seekers, you'll have an opportunity to post your resume and to view, apply for, and save available jobs. Employers, you'll have the opportunity to post job openings, post internships FREE of charge, and target the individuals you want to attract.

Membership Information ACI Bookstore— ACADIA/BISSONET To learn MORE about ACI membership benefits and how to become a member, visit the ACI Bookstore.

#### ACI/Elsevier E-Learning ACI Bookstore— ACADIA/BISSONET

ACI is expanding its reach to provide educational training via the Internet. This program is a partnership between ACI and Elsevier Inc., and covers topics from ACI certification training to courses covering design, construction, and repair of concrete. E-Learning courses are now available. Stop by the ACI Bookstore throughout the week to see a demonstration of this new program.

#### Cyber Café and Wireless Hot Spot ACADIA/BISSONET

Stay connected to home and work! Take advantage of the Cyber Café and FREE wireless hot spots available during the following hours:

 Saturday
 2:00 pm - 6:00 pm

 Sunday-Tuesday
 8:00 am - 5:00 pm

 Wednesday
 8:00 am - 2:00 pm

To access the wireless connection, look for ACI Cybercafe 1, ACI Cybercafe 2, ACI Cybercafe 3, or ACI Cybercafe 4 in your network connections.

#### **Session Handouts on Demand**

ACADIA/BISSONET

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. All presentations for which ACI has received permission will be posted to the ACI Web site following the convention.

**Local Information/ACI Louisiana Chapter** Outside ACADIA/BISSONET ACI Louisiana Chapter members will be happy to answer questions about the local area. Stop by their information desk during the following hours:

Saturday 2:00 am - 6:00 pm Sunday - Tuesday 8:00 am - 5:00 pm

#### Hotel Restaurants & Lounges Starbucks

LOBBY LEVEL

Open daily 6:30 am - 6:00 pm

For a quick and light breakfast, snack or lunch, stop by Starbucks to pick up coffee, pastries, yogurt, fruit and sandwiches.

5 Fifty 5 2ND FLOOR

Open daily 6:30 am – 11:00 am for breakfast,11:00 am – 2:00 pm for lunch, and 5:00 pm – 10:00 pm for dinner.

5 Fifty 5 features New Orleans cuisine with a fresh and creative spin. Enjoy fine wines and signature cocktails from the Big Easy while savoring the flavors of comfort food specialties like lobster macaroni and cheese and seafood gumbo.

#### 55 Fahrenheit

LOBBY LEVEL

Open daily 11:00 am - 11:00 pm

Enjoy a drink with friends at New Orleans' newest wine bar and lounge. 55 Fahrenheit features a wine list with over 200 wine selections, classic cocktails, and a unique atmosphere.

#### **Room Service**

Room service is available 24 hours a day.

#### **Restaurant Reservations**

LOBBY LEVEL

The concierge will be available to make restaurant reservations and recommendations every day from 6:30 am – 10:00 pm.

#### **Airport Transportation**

Airport Shuttle

Airport Shuttle New Orleans offers a scheduled transfer service 7 days a week beginning 3:00 am every 30 minutes until the last scheduled departure, to the New Orleans Airport for \$15 each way. Return transfer reservations must be made 24-hours prior to departure. To purchase your shuttle ticket in advance or to learn more about Airport Shuttle New Orleans, please visit www.airport-shuttleneworleans.com or call 504-522-3500. Please note that Airport Shuttle New Orleans does make additional stops at other hotels on the way to the New Orleans Airport, which could delay your anticipated departure time.

#### Taxis

Departing guests should speak with the hotel concierge to arrange for transportation back to the airport. The average cost of a taxi to the New Orleans Airport is approximately \$35 each way, depending on the number of passengers and time of day.

#### **Session Attendance Tracking Form**

The Session Attendance Tracking Form found following page 148 can be submitted to state boards that allow self-reporting of Continuing Education activities as evidence of participation. 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.

#### **Speaker Ready Room**

BONAPARTE

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

 Saturday
 3:00 pm - 7:00 pm

 Monday & Tuesday
 7:00 am - 7:00 pm

 Wednesday
 7:00 am - 3:00 pm

All speakers are requested to check in at the Speaker Ready Room one day prior to their session to ensure that:

- ACI has downloaded their presentation on the network in the session rooms
- Speakers' session handouts are downloaded onto the ACI Web site

#### **ACI Spring 2010 Convention**

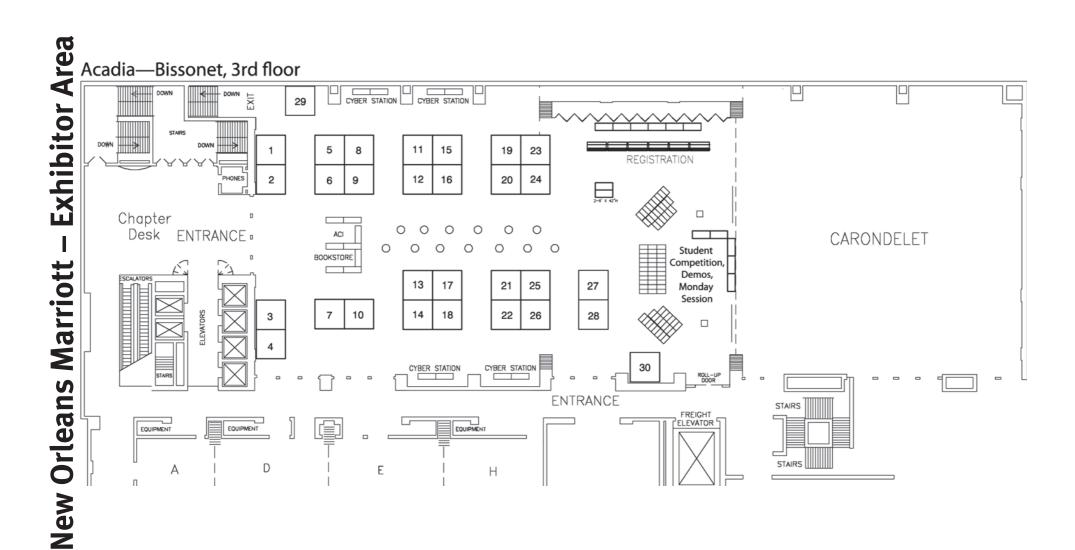
#### **OUTSIDE ACADIA/BISSONET**

The ACI Illinois Chapter will be available Saturday through Tuesday to answer your questions about Chicago and activities at the spring convention. Mark your calendars for March 21-25, 2010 at the Sheraton Chicago!



## Where's That Meeting Room?

Room Name	Location
ACADIA	3 <sup>rd</sup> Floor
AUDOBON	5 <sup>th</sup> Floor
BACCHUS	4 <sup>th</sup> Floor
BALCONY I	4 <sup>th</sup> Floor
BALCONY I	4 <sup>th</sup> Floor
BALCONY I	·
BALCONY K BALCONY L	4 <sup>th</sup> Floor
BALCONY M	4 <sup>th</sup> Floor
BALCONY M BALCONY N	4 <sup>th</sup> Floor
2,1200.1111	4 <sup>th</sup> Floor
BEAUREGARD	5 <sup>th</sup> Floor
BISSONET	3 <sup>rd</sup> Floor
BOARDROOM	Lobby Level
BONAPARTE	4 <sup>th</sup> Floor
CARONDELET	3 <sup>rd</sup> Floor
GALVEZ	5 <sup>th</sup> Floor
IBERVILLE	4 <sup>th</sup> Floor
JACKSON	5 <sup>th</sup> Floor
LAFAYETTE SUITE	41 <sup>st</sup> Floor
LA GALERIE 1	2 <sup>nd</sup> Floor
LA GALERIE 2	2 <sup>nd</sup> Floor
LA GALERIE 3	2 <sup>nd</sup> Floor
LA GALERIE 4	2 <sup>nd</sup> Floor
LA GALERIE 5	2 <sup>nd</sup> Floor
LA GALERIE 6	2 <sup>nd</sup> Floor
NAPOLEON SUITE	41st Floor
REGENT	4 <sup>th</sup> Floor
SALON A	3 <sup>rd</sup> Floor
SALON B	3 <sup>rd</sup> Floor
SALON C	3 <sup>rd</sup> Floor
SALON D	3 <sup>rd</sup> Floor
SALON E	3 <sup>rd</sup> Floor
SALON F	3 <sup>rd</sup> Floor
SALON G	3 <sup>rd</sup> Floor
SALON H	3 <sup>rd</sup> Floor
ST. CHARLES SUITE	41 <sup>st</sup> Floor
STUDIO 1	2 <sup>nd</sup> Floor
STUDIO 2	2 <sup>nd</sup> Floor
STUDIO 3	2 <sup>nd</sup> Floor
STUDIO 4	2 <sup>nd</sup> Floor
STUDIO 5	2 <sup>nd</sup> Floor
STUDIO 6	2 <sup>nd</sup> Floor
STUDIO 7	2 <sup>nd</sup> Floor
STUDIO 8	2 <sup>nd</sup> Floor
STUDIO 9	2 <sup>nd</sup> Floor
STUDIO 10	2 <sup>nd</sup> Floor



LA GALERIES

**4TH FLOOR** 

**MEETING ROOMS** 

2ND FLOOR

**STUDIO FLOOR PLAN** 

**New Orleans Marriott Floorplan** 

**BALCONIES** 

IBERVILLE SUITE

#### Exhibitor listing as of 10/8/09

#### **Exhibits**

#### ACADIA/BISSONET

The ACI Louisiana Chapter and the American Concrete Institute wish to thank all exhibitors for their participation and support of the ACI Fall 2009 Convention.

#### **Exhibit Hours**

Sunday 8:00 am - 5:00 pm Monday 8:00 am - 5:00 pm Tuesday 8:00 am - 5:00 pm

#### **BASF Construction Chemicals, LLC**

Booth #7

BASF's Construction Chemicals division is the worldwide supplier of chemical systems and formulations for the construction industry. The North American Construction Chemicals Division of BASF is comprised of four business lines that offer products and solutions primarily for commercial, residential, industrial, and infrastructure construction, improving durability, water resistance, energy efficiency, safety, and aesthetics. BASF's innovative products and solutions help make products better. Contact BASF Construction Chemicals at 800-628-9990 or visit www.masterbuilders.com.

#### Big River Industries, Inc.

Booth #14

Big River Industries, Inc. produces high quality expanded clay light-weight aggregates. These aggregates are used in a wide range of applications by customers throughout the South and Midwest. The company began in 1954 with the production of Gravelite, a rotary kiln expanded clay lightweight aggregate produced at the company's original location near Baton Rouge, Louisiana. Visit www.bigriverind.com for additional information.

#### **Burgess Pigment Company**

Booth #20

Burgess Pigment Company will be exhibiting OPTIPOZZ, a class N pozzolan, for high strength concrete applications, or to mitigate ASR, efflorescence, without the handling issues associated with other pozzolans. For additional information, go to www.burgesspigment.com

\*Enjoy a special presentation by Burgess Pigment representatives in the presentation area of the exhibit hall, on Tuesday, November 10, 2009 at 8:30 am. See page 32 for further details.

#### Exhibitor listing as of 10/8/09

#### **Con-Cure Corporation**

Booth #28

Con-Cure Corporation, COMMAND Center, and Green Power Technology have joined forces to provide the very best maturity solutions. Wireless or traditional, big jobs or small, cold weather or hot, we've got you covered. Take the concrete's temperature and know its strength! Stop by and see our best-in-class solutions for the concrete industry.

#### **Construction Materials Engineering Council, Inc.**

Booth #17

The Construction Materials Engineering Council, Inc. (CMEC), is a non-profit organization whose goal is to improve the quality of production, inspection, and testing of construction materials through its many Accreditation, Education, and Certification programs. CMEC inspects and accredits laboratories in the United States, Canada, Honduras, Puerto Rico, and Mexico, and distributes its educational materials worldwide.

#### **Danish Technological Institute**

Booth #22

The Danish Technological Institute is a self-owned and non-profit institution providing research and development as well as traditional consulting services to national and international clients. The exhibit focuses on our Concrete Centre's services related to self-consolidating concrete, e.g. measurement of flow properties with the 4C-Rheometer, mix design using 4C-Packing, etc. For additional information, go to www.dti.dk

#### Delta Core Development, LLC

Booth #27

Delta Core Development, LLC, is a leader in the construction, design, and supply of autoclaved aerated concrete (ACC) to the U.S. market-place. Founded in 2006, Delta Core Development (DCD) was set up to be a construction and supply entity promoting primarily AAC technology as the building material of choice. It is our firm belief at DCD, that AAC is the single finest building material in the world—bar none!

#### Electro Tech CP, LCC

Booth #4

Electro Tech CP is a unique organization that specializes in applying engineered solutions to corrosion problems. Electro Tech CP possesses skills and experience not only in diagnosing corrosion problems, but also in designing optimal countermeasures for corrosion control. For additional information, go to www.cpmonitoring.com.

#### Exhibitor listing as of 10/8/09

#### The Euclid Chemical Company

Booth #6

The Euclid Chemical Company, founded in 1910, is a worldwide supplier of quality products and services for the concrete and masonry industry. Euclid offers a full line of admixtures, and repair and maintenance products based on the latest technology. Euclid provides on-site service for guidance on proper product usage as well as complete specification assistance and laboratory support. To learn more about The Euclid Chemical Co., visit www.euclidchemical.com.

#### **FORTA Corporation**

Booth #16

Founded in 1978, FORTA is the oldest synthetic fiber reinforcement producer in the country. Celebrating 30 years, FORTA Corporation has grown to become a worldwide leader in synthetic fiber research and development. The most recent innovation is FORTA FERRO, a macro-synthetic fiber that allows for a higher replacement level of conventional steel reinforcement. For further information, go to www.fortacorp.com.

#### Germann Instruments, Inc.

Booth #'s 23&24

Germann Instruments is the leader in nondestructive testing (NDT) of concrete structures. Their cutting-edge innovative product line includes: advance NDT Equipment for concrete testing. For Structural Integrity—Impact-Echo, Mash, MIRA/Eyecon 3-D Shear Wave Systems. Durability—Service Life, Rheometer, PROOVEIt, Chloride & Profile. Freeze-thaw—EVA Analyzer & RapidAir. Fast-track construction—LOK-TEST, Coma-Meter. Corrosion survey—GalvaPulse, RapiCor. Repair quality—Bond-Test, CorroEye. Visit www.germann.org for additional information.

\*A special presentation will be made on Monday, November 9, 2009 at 1:30 pm in the presentation area of the exhibit hall.

#### **Grace Construction Products**

Booth #13

Headquartered in Cambridge, Massachusetts, Grace Construction Products is a worldwide leading manufacturer of concrete admixtures and fibers, liquid pigments for colored concrete, cement processing additives, concrete masonry products, air and vapor barriers, roofing underlayments, self-adhered window, door and deck flashings, structural waterproofing systems and fire protection products.

#### Exhibitor listing as of 10/8/09

#### **Headwaters Resources Inc.**

Booth #3

Headwaters Resources is America's largest manager and marketer of coal combustion products, including fly ash. Fly ash use improves concrete performance, making it stronger, more durable, and more resistant to chemical attack. Fly ash use also creates significant benefits for our environment by reducing landfill use and offsetting greenhouse gas emissions. Visit www.flyash.com for more information.

#### Kryton International Inc.

Booth #21

Kryton develops, manufactures and markets a wide range of products designed to waterproof, repair and protect concrete structures. Developed in Kryton's dedicated concrete research laboratory and tested in the field for over 35 years, the Krystol Concrete Waterproofing System is the world's leading integral crystalline waterproofing technology. To learn more about Kryton, visit www.kryton.com.

#### **Lafarge North America**

Booth #9

Lafarge North America is the largest diversified supplier of construction materials in the United States and Canada. The company's products, including cement and cement-related materials, ready-mixed concrete, and aggregates, are used for residential, commercial, institutional and public works construction. For more information, visit www.lafargenorthamerica.com.

#### Marshall Composite Systems, LLC

Booth #19

Marshall Composite Systems, LLC, is the exclusive manufacturer of C-BAR, a premier composite rebar, with more than 13 years of real-world performance. Marshall's pilot plant and world training center are located in Salem, OR. For additional information, visit www. marshallcomposite.com.

#### **North Carolina State University**

Booth #18

North Carolina State University provides graduate education in all areas of Civil Engineering at the masters and PhD levels including the option to pursue the Master of Civil Engineering degree (nonthesis) by distance education. Over 50 courses are offered online on a rotating basis. Visit www.ce.ncsu.edu for more information.

#### Exhibitor listing as of 10/8/09

#### **Northeast Solite Corporation**

Booth #26

Northeast Solite Corporation proudly celebrate 60 years of providing the highest quality, most innovative and ecologically sound construction products available today. Their two operating companies (Northeast Solite Corporation, 1961, and Kentucky Solite Corporation, 1972) are backed up by two coal reserve companies, several strategically located distribution plants, development properties, and land holding companies for future expansion. For more information, visit www. nesolite.com.

#### **Octaform Systems**

Booth #15

Octaform's finished stay in place concrete forming systems are designed and can be engineered for today's demanding applications, including infrastructure, repair & restoration, wastewater, aquaculture and agriculture tanks, commercial, industrial buildings and vehicle washes. Please visit www.octaform.com.

#### Proceq USA Inc.

Booth #25

Proceq USA Inc. offers a complete range of portable concrete testing instruments for nondestructive site investigations. Products include the Original SCHMIDT Concrete Test Hammer, Profometer 5+ Rebar Detection System as well as a host of other products for ultrasonic pulse velocity, corrosion analysis, resistivity, permeability, and pulloff/bond strength test applications. Visit www.proceq-usa.com for additional information.

#### QuakeWrap Inc.

Booth #10

QuakeWrap's award-winning technology provides solutions for repair and strengthening of structures using Fiber Reinforced Polymers (FRP) at a fraction of the time and cost of conventional methods. Within one integrated process, our highly-skilled engineers and construction crew create innovative solutions specifically tailored to clients. Applications include: beams, columns, walls, tanks, pipes, underwater piles, etc. Please visit www.quakewrap.com for more information.

#### Silica Fume Association

Booth #12

The Silica Fume Association provides high-performance concrete technology and practical know-how to the concrete construction industry. Visit the Silica Fume Association exhibit for the latest free HPC software tools, the Silica Fume Association Manual and Contractor videos, and the new Life 365 v2.0 Service-Life Model. Learn more about the Silica Fume Association by going to www.silicafume.org.

#### Exhibitor listing as of 10/8/09

#### Smart Bridge Tech Inc.

Booth #5

Smart Bridge Tech Inc. is one of the most innovative software companies, specializing in concrete and steel software applications. Our unique approach allows for learning and education of future engineering through detailed step by step analysis with reference to all applicable design specification requirements. For further information, go to www.smartbridgetech.com.

\*Enjoy a special presentation by Smart Bridge Tech representatives in the presentation area of the exhibit hall, on Monday, November 9, 2009 at 2:30 pm. See page 31 for further details.

Tekla Booth #11

Tekla structures is the most comprehensive, flexible 3D modeling and detailing tool available that makes project sales, bidding, and cost estimation easier than ever. Instead of trying to fit together individual pieces that may or may not match, all information including drawings and reports are coordinated in one digital location. This guarantees accurate detailing and more effortless change managements within the project. For additional information, go to www.tekla.com.

#### Twintec USA, Inc. Booth #8

Twintec USA is a concrete subcontractor that specializes in the design, supply and placement of 'jointless' steel fiber reinforced concrete floor slabs. Their unique system can be used for slabs on grade and freezer slabs on insulation, but also for structural applications such as piles supported by slabs and general raft foundations. For additional information, go to www.twintecusa.com.

#### **Vector Corrosion Technologies**

Booth #2

Vector Corrosion Technologies offers a portfolio of solutions for concrete corrosion repair and protection that includes electrochemical chloride extraction, cathodic protection, and an array of galvanic protection systems, including embedded galvanic anodes, galvanic jackets, and activated arc-spray zinc metalizing. Vector also provides evaluation, repair, and mitigation services for post-tension corrosion and temperature-resistant composite strengthening systems. Contact Vector at 813-830-7566 or visit www.vector-corrosion.com.

## **Special Events**

## Saturday, November 7, 2009

Concrete Sustainability Forum

SALON D

1:00 pm - 5:00 pm

Sponsored by ACI Committee ISO-TC71, ACI Committee 130, Sustainability, and the Board Advisory Committee on Sustainable Development

Session Co-Moderators: Koji Sakai

Professor

Kagawa University Takamatsu, Japan

Julie K. Buffenbarger

**Engineering & Architectural Specialist** 

Lafarge Medina, OH

Richard D. Stehly

Principal

American Engineering & Testing

Saint Paul, MN

In recent years, sustainability and green design/construction have received much deserved attention. Through its strategic plan, ACI announced its commitment to expand the understanding of sustainability among the membership, expand resources to support sustainability issues, and increase the content on sustainability in ACI documents and products. This workshop will provide you with additional knowledge and resources to identify opportunities in your ACI committee work, in your work with other organizations, and in your career to make necessary changes to design, construct, and specify buildings and infrastructure in more sustainable ways. Additionally, this workshop will assist the International Organization for Standardization (ISO) TC71/SC8 in gathering information for a new standard being developed on environmental management for concrete and concrete structures.

## Sunday, November 8, 2009

Convention #1 Breakfast 8:00 am – 9:00 am LA GALERIE 3

Sponsored by the ACI Convention Committee

Session Moderator: Kari L. Yuers

President & CEO

Kryton International Inc. Vancouver, BC, Canada

First-time convention attendees are invited to join Kari Yuers, Chair of the ACI Convention Committee, for a continental breakfast and a brief session to orient you to the week ahead. Attendees will have the opportunity to meet other convention attendees and learn about what an ACI Convention has to offer.

## Student Concrete Cube Competition 12:00 pm – 5:00 pm

ACADIA/BISSONET

Sponsored by the ACI Louisiana Chapter and ACI Committee E801, Student Activities

Session Moderator: Lawrence H. Taber

Structural Engineer Black & Veatch Kansas City, MO

Come watch the future of ACI compete against each other! The objective of the cube competition is to produce a concrete cube that achieves, as closely as possible, a target design strength and a target mass as specified in the rules. Don't miss this event! Stop by and cheer on your favorite team! We will also have presentations from the first- and second-place winners of the Student Concrete Projects Competition.



## Sunday, November 8, 2009

## Opening Session and Hardy Cross Lecture Series 5:15 pm – 6:30 pm

**CARONDELET** 

The ACI Fall 2009 Convention officially begins during the Opening Session and Hardy Cross Lecture Series. Featured speaker Shunsuke Otani, Professor Emeritus at the University of Tokyo, will discuss The Role of Analysis in Earthquake-Resistant Design: A Retrospective.



Engineering seismology was developed in the late nineteenth century, and modern seismographs were developed to record the trace of earthquake motion. With the knowledge on earthquake acceleration signals, equivalent static forces for earthquake inertia effects on buildings were introduced in building codes; first in Italy after the 1908 Messina Earthquake and then in Japan after the 1923 Kanto (Tokyo) Earthquake.

Classical Castigliano's theorems were used in structural analysis to determine stresses in a building. The slope deflection method was published by W.M. Wilson in 1918 to write a set of linear equations, and an iterative solution method of the linear equations, commonly known as "the moment distribution method" that was developed by Hardy Cross in 1930 for moment-resisting frames under vertical loads. These methods were not practical for routine earthquakeresistant design.

The development of earthquake-resistant design in the age of Hardy Cross will be reviewed in this lecture series.

Opening Reception 6:30 pm – 7:30 pm Sponsored by the ACI Louisiana Chapter

ACADIA/BISSONET

After the Opening Session, make your way to the exhibit hall and enjoy a beverage from a cash bar and light refreshments. What a great place to catch up with friends, network with concrete professionals, talk with exhibitors, and meet new convention attendees. This is definitely a networking opportunity you won't want to miss!

# Sunday, November 8, 2009

✓ Professor Thomas T.C. Hsu Honorary Dinner 7:30 pm – 9:30 pm \$80 U.S. per person LA GALERIE 2

Coordinated by ACI Committee 445, Shear and Torsion

Join other ACI attendees in celebrating Thomas Hsu's extraordinary achievements and life-long career in reinforced concrete. Over the past 20 years, Professor Thomas Hsu has been a pioneer in reinforced concrete under variable conditions. Creator of the Universal Element Tester, this machine is the only machine in the world able



to test reinforced concrete slabs under seismic conditions. Dr. Hsu has published comprehensively on micro-cracking, torsion, shear, and design of concrete structures under static, dynamic and earth-quake conditions. ACI and the American Society of Civil Engineers jointly honor Dr. Hsu's life-long contribution to the field of structural engineering by naming the ACI Symposium "Thomas T.C. Hsu Symposium on Shear and Torsion in Concrete Structures."

Symposium sessions will be held on Monday and Tuesday in Salon B. Refer to the session section for a listing of topics.

# Student and Young Professional Networking Event 55 FAHRENHEIT 9:00 pm – 10:30 pm

Sponsored by the ACI Collegiate Concrete Council and Advisory Committee for Young Members

The ACI Collegiate Concrete Council and ACI Advisory Committee for Young Professionals invite all convention attendees to the Student and Young Professional Networking Event. Meet fellow students and young professionals while networking with ACI members in a fun and casual environment. Attendees to the event will be entered into a drawing for door prizes. In addition, the bar will be open for attendees desiring to purchase beverages.

# Monday, November 9, 2009

✓ Student Lunch SALONS D&E 12:00 pm – 2:00 pm \$27 U.S. per person; FREE to students who preregistered

Sponsored by Baker Concrete Construction

Coordinated by the ACI Louisiana Chapter and ACI Committee E801, Student Activities



Speaker: Sid Jacobson

Director

Sid Jacobson & Associates

Metairie, LA

Topic: Navigating the Task-Relationship

Minefield: Long Term Success in the

World of Work

Join other ACI attendees and students for the announcement of the Student Competition results. Following lunch, featured speaker Sid Jacobson, Founder and Director of The South Central Institute of Neuro-Linguistic Programming, will give a presentation on Navigating the Task-Relationship Minefield: Long Term Success in the World of Work.

#### Germann Instruments Demo 1:30 pm

ACADIA/BISSONET

Germann Instruments will be presenting the MIRA Shear Wave 3-D Tomography system, the EYECON, s'MASH Impulse Response, DOCter Impact-Echo, and CAPO-TEST Pullout System for nondestructive investigation of concrete structures. For new construction, they will be showing the ICAR Rheometer, LOK-TEST, MERLIN Bulk Conductivity Meter, Air Void Analyzer (AVA), and the Proove-it Rapid Chloride Permeability System. Other test systems on display will be the Rapid Chloride Test (RCT), BOND-TEST, Galvapulse, and GWT (Germann Water Permeability).

Smart Bridge Tech Inc. Demo 2:30 pm

ACADIA/BISSONET

Designed by Dr. Mohsen Shahawy, P.E., Smart Bridge Suite is a new bridge engineering software, both unique and user friendly, allowing for complete analysis, design, and load rating of various concrete and steel bridges in minutes with full graphical output.

# Monday, November 9, 2009

#### Smart Bridge Tech Inc. Demo (cont.)

**ACADIA/BISSONET** 

Smart Bridge Suite provides a professional solution to bridge engineering and helps reduce workloads with cost-effective service. Comprehensive, powerful, and professional, the main features of Smart Bridge Suite are:

- Comprehensive library of concrete girders, vehicles, and materials
- Comprehensive bridge layout capabilities
- Comprehensive output reports
- Integrated design of entire bridge

- Built-in finite element analysis/modeling
- Automatic design
- Details of step-by-step analysis
- 3-D graphically visible design
- Super user-friendly interface and flexible customization

The presentation will introduce the key features, bridge design/ analysis, and bridge load rating capabilities of Smart Bridge Suite.

✓ Sunset on the River Jazz Dinner Cruise 7:00 pm − 10:00 pm \$69 U.S. per person **DEPART MAIN LOBBY** 

Prepare to take a journey back in time on the Mighty Mississippi aboard an authentic steamboat. Your personalized cruise will travel from the heart of the French Quarter through the second busiest port in the world. You will enjoy a dinner buffet of traditional New Orleans Creole cuisine and dance to the sounds of a lively Jazz band. Beverages are available for purchase at the cash bar.

Attendees are encouraged to wear comfortable walking shoes. The boat is four short blocks from the hotel. A map will be provided to attendees and there will be guides along the way to point you in the right direction.

# Tuesday, November 10, 2009

Burgess Pigment Company Demo 8:30 am ACADIA/BISSONET

Burgess Pigment Company will give an overview of classification, processing, and incorporation of OPTIPOZZ into the mix design. Benefits such as reduced permeability and efflorescence, increased strength and chemical resistance, and mitigation of ASR will discussed. Additionally, generaly and specific application areas will be presented.

# Tuesday, November 10, 2009

✓ Contractors' Day Lunch 12:00 pm – 2:00 pm \$40 U.S. per person SALON E

Hosted by the ACI Louisiana Chapter and Construction Liaison Committee



Speaker: Tim Ryan

Chancellor

The University of New Orleans New Orleans, Louisiana

Topic: Where Will the Next Contractors' Dollar

be Coming From?

Join other ACI attendees and contractors for the Contractors' Day Lunch. Featured speaker Tim Ryan, Chancellor at the University of New Orleans, will give a presentation on "Where Will the Next Contractors' Dollar be Coming From?"

Tim Ryan is considered an expert on the New Orleans economy, the Louisiana economy, managerial economics, economic development, the New Orleans and Louisiana tax structure, the hospitality and tourism industries, and the United States economy. Ryan was recently appointed Chancellor of the University of New Orleans, having served as Interim Executive Vice Chancellor since July 2003. Prior to this appointment Ryan was Dean of the College of Business Administration and the Hibernia Professor of Economics at the University of New Orleans.

### Concrete Mixer at Mardi Gras World

**DEPART MAIN LOBBY** 

7:00 pm - 10:00 pm

Sponsored by the ACI Louisiana Chapter

#### Schedule of Events

6:30 pm Buses start to load on Canal Street

6:45 pm First bus departs

7:00 - 10:00 pm Concrete Mixer at Mardi Gras World

8:00 pm Parade

10:00 pm Last bus to the Marriott

All ACI attendees MUST wear a name badge to board the bus and enter Mardi Gras World. Please use the drink tickets found in your registration packet, or cash to purchase beverages.

# Tuesday, November 10, 2009

Concrete Mixer at Mardi Gras World (cont.) DEPART MAIN LOBBY

Mardi Gras is a year-round celebration you will have a chance to enjoy. The official colors for Mardi Gras are purple, green, and gold, chosen in 1872 by the King of Carnival, Rex. He chose purple to represent justice, green for faith, and gold for power. Experience Mardi Gras with a re-creation of an actual Mardi Gras Parade complete with a marching band and mini floats, and New Orleans-style food and beverages. Look for the special ACI New Orleans collector cups at the bars.

Casual attire and comfortable shoes are suggested. Attendees are welcome to come dressed in costume. Cameras are highly recommended.

# Wednesday, November 11, 2009

✓International Lunch

12:00 pm - 2:00 pm

\$30 U.S. per person

Hosted by the International Committee

SALON E



Speaker: Khaled Awad

**Director of Property Development** 

Masdar Initiative Beirut, Lebanon

Topic: Building Green in the Desert

Join other attendees for the International Lunch. Enjoy a special presentation by featured speaker Khaled Awad, Director of Property Development for the Masdar Initiative, who will give a very special presentation on Building Green in the Desert. During this presentation, Awad will discuss how to move from the drawing board to reality in building a sustainable city. He will cover the design, goals, and key features of Masdar City, the world's first carbon-neutral city.

# Thursday, November 12, 2009

√ Troubleshooting Concrete Forming

LA GALERIE 6

and Shoring Seminar

7:30 am registration; coffee and pastries available

8:00 am - 5:00 pm

ACI Member Rate: \$457 U.S. Nonmember Rate: \$597 U.S. Full-Time Student: \$125 U.S.



Speakers: Kim D. Basham

Senior Structural Engineer KB Engineering LLC Cheyenne, WY



Larry Erps
Senior Project Manager
Ceco Concrete Construction
Tempe, AZ

Contractors and engineers will learn tips and traps associated with form construction stripping and reshoring, and work through calculations for a reshoring problem. Topics discussed include: forming systems, forming economics, loads and pressures, form removal and reshoring, tolerances and finishes, and formed surface defects.

### **Tours and Guest Events**

Tour tickets may be purchased until 24 hours prior to the event based on availability. All tours will depart from the main lobby.

#### **Sunday-Wednesday**

#### **Guest Hospitality**

ST. CHARLES SUITE

Open to individuals who registered for the guest program ONLY. Guest name badge required.

Continental Breakfast 7:00 am - 10:00 am Suite open 10:00 am - 4:00 pm

#### Sunday, November 8, 2009

**Guest Overview** 

ST. CHARLES SUITE

8:00 am - 9:00 am

Acquaint yourself with the week ahead! You'll also get a preview of the guest programs for the ACI Spring 2010 Convention in Chicago and the ACI Fall 2010 Convention in Pittsburgh.

✓ New Orleans Historic City Tour Depart: 9:30 am from main lobby

Return: 12:30 pm \$52 U.S. per person

You will explore the unique architecture, history, and folklore of the colorful city of New Orleans as you board a deluxe motor coach with an informative and entertaining tour guide. You will begin the tour in the heart of the city, the "Vieux Carré" (French Quarter). Next, you will proceed down fabulous Esplanade Avenue and pass its many historic mansions. Then, you will head north through the lovely Mid-City to the majestic City Park and Lake Ponchartrain. Your route back toward the river will follow historic St. Charles Avenue, the avenue of some of the city's grandest mansions. Please note that lunch is not included on this tour.

√ French Quarter Walking Tour Depart: 2:30 pm from main lobby

Return: 4:30 pm \$35 U.S. per person

Enjoy an informative and entertaining walking tour through the French Quarter of New Orleans. While strolling through the charming quarter, try to imagine the lonely expanse of land that greeted Jean-Baptiste nearly three centuries ago. Today, the Vieux Carré is home to fine restaurants, antiques, and attractions. You will witness the symmetry of design employed by French engineers and French and Spanish Colonial architecture.

### **Tours and Guest Events**

Tour tickets may be purchased until 24 hours prior to the event based on availability. All tours will depart from the main lobby.

### Monday, November 9, 2009

√Taste of New Orleans Cooking Class and Lunch with a Mini French Quarter Walking Tour Depart: 9:30 am from main lobby

Return: 1:00 pm \$58 U.S. per person

The popularity of Cajun and Creole cooking is sweeping the U.S.; and after this exciting class, you'll be able to join the culinary bandwagon! You'll laugh and learn while watching the preparation of some of the wonderful foods of Louisiana. A highly skilled and entertaining chef will share the secrets of preparing and seasoning flavorful local favorites such as chicken andouille gumbo, spicy jambalaya, delicious bread pudding, and pecan pralines. You will learn the secrets of New Orleans cooking and partake in generous portions during a tastetempting lunch following class. The cooking demonstration will be easy for you to duplicate at home with the complimentary recipes and cooking tips you'll receive at the end of the class.

#### **Guest Tea**

ST. CHARLES SUITE

3:30 pm – 5:00 pm

Please join Mrs. Lori Barth for afternoon tea. This is a wonderful opportunity to get to know other registered guests and enjoy a refreshing break! A guest name badge is required to attend this event.

✓ Sunset on the River Jazz Dinner Cruise Depart: 7:00 pm from main lobby

Return: 10:00 pm \$69 U.S. per person

Prepare to take a journey back in time on the Mighty Mississippi aboard an authentic steamboat. Your personalized cruise will travel from the heart of the French Quarter through the second-busiest port in the world. You will enjoy a buffet dinner of traditional New Orleans Creole cuisine and dance to the sounds of a lively Jazz band. Beverages are available for purchase at the cash bar.

### **Tours and Guest Events**

Tour tickets may be purchased until 24 hours prior to the event based on availability. All tours will depart from the main lobby.

### Tuesday, November 10, 2009

√ Mississippi River Plantation Tour Depart: 9:00 am from main lobby

Return: 2:00 pm \$92 U.S. per person

Come join a discovery tour of Louisiana's past, up scenic River Road. Prepare to enter the Oak Alley Plantation, the "Grande Dame of the Great River Road," where the quarter-mile canopy of giant live oak trees forms an unforgettable avenue leading to the Greek-revival style antebellum home. After a leisurely lunch of delicious traditional Cajun and Creole dishes, you will enjoy a guided tour of Oak Alley's two-story mansion and extensive grounds.

### Wednesday, November 11, 2009

✓ Louisiana Swamp Tour

Depart: 9:00 am from main lobby

Return: 1:00 pm \$69 U.S. per person

Take a journey into the swamplands of Louisiana. Picture the moss hanging on gnarled cypress trees as you travel into one of the wildest and most pristine river swamps in America. As your boat drifts through the waterways, you will learn about the Louisiana wetlands and the inhabitants of the swamp, particularly the life and habits of the American alligator. Please note that lunch will not be included on this tour.

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

7:00 am - 6:00 pm

8:00 am - 9:00 am

TG = Task Group

### Friday, November 6, 2009

6:30 pm	– 9:00 pm	
TAC	Technical Activities M1	SALON B

### Saturday, November 7, 2009

TAC	Technical Activities M2	BALCONY K
1:00 pm –		
562-D	Eval Repair & Rehab - Struct Repair Design	SALON B
1:00 pm –	5:00 pm	
	Concrete Sustainability Forum	SALON D
EAC	Educational Activities M1	SALON C
562-F	Eval, Repair & Rehab-General	BALCONY J
1:00 pm –	6:00 pm	
301	Specifications M1	SALON E
3:00 pm –	5:00 pm	
376	RLG Containment Structures - M1	SALON B
5:00 pm –	9:00 pm	
562-A	Eval, Repair & Rehab - Life Safety	SALON B
562-C	Eval, Repair & Rehab - Structural Analysis	SALON C
562-E	Eval, Repair & Rehab - Durability Qlty Assurance	BALCONY J
	Sunday, November 8, 2009	
7:00 am –	8:00 am	
TAC/SDC	TAC & Strategic Development Council	SALON E
301-SC	Spec-Steering Committee	STUDIO 10
7:00 am –	2:00 pm	
TAC	Technical Activities M <sub>3</sub>	SALON D

# Convention #1 Breakfast LA GALERIE 3 Guest Overview ST. CHARLES

562-B Eval, Repair & Rehab - Loads STUDIO 4

8:00 am - 9:30 am

341-D Perf Based Seismic Design LA GALERIE 6

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

TG = Task Group

### Sunday, November 8, 2009 (cont.)

Sullday, November 6, 2009 (cont.)			
8:00 am -	10:00 am		
E 706	Repair Application Procedures	STUDIO 3	
E 801	Student Activities	LA GALERIE 2	
8:00 am -	10:30 am		
CLC	Construction Liaison	LA GALERIE 1	
8:00 am -			
TAC-RG1	TAC Review Group 1	IBERVILLE	
TAC-RG2	TAC Review Group 2	BACCHUS	
TAC-RG3	TAC Review Group 3	REGENT	
445-B	Shear & Torsn-Seismic Shear	LAFAYETTE	
8:30 am -	9:30 am		
-	Repair-Underwater	BALCONY J	
8:30 am -			
342	Bridge Evaluation	STUDIO 6	
373	Prestressed/Tendons	BALCONY K	
8:30 am -	10:30 am		
549-A	Thin Reinforced-Premix GFRC	STUDIO 8	
8:30 am -	. 11•00 am		
	Tilt-Up	LA GALERIE 4	
551	IIII-Op	LA GALERIE 4	
8:30 am -	=		
MEMC	•	BALCONY I	
315-B	Detailing-Constructibility	JACKSON	
350-C	Env Str-Reinf & Devel	STUDIO 10	
408	Development and Splicing	STUDIO 9	
440-H	FRP-Reinforced-Concrete	STUDIO 2	
8:30 am -	· 12:00 pm		
301	Specifications M2	LA GALERIE 5	
9.22 am	40.00 pm		
8:30 am –	- ,	CTUDIO	
347	Formwork	STUDIO 7	
9:00 am –	5:00 pm		
	2100	CTUDIO	

STUDIO 4

RLG Containment Structures M2

376

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

11:00 am - 3:00 pm

301-H

TG = Task Group

### Sunday, November 8, 2009 (cont.)

9:30 am - 11:00 am  341-A Equake Res Brdgs-Columns LA GALERIE 6 506-A Shotcreting-Evaluation BALCONY M  9:30 am - 12:30 pm	9:30 am - 1	10:30 am	
341-A Equake Res Brdgs-Columns 506-A Shotcreting-Evaluation BALCONY M  9:30 am − 12:30 pm  ✓ New Orleans Historic City Tour DEPART MAIN LOBBY  10:00 am − 11:30 am  E 701 Materials for Concrete Construction BALCONY L IC-Part International Partnerships & Publications STUDIO 3  10:00 am − 1:00 pm 228 Nondestructive Testing STUDIO 6 421 Reinf Slabs LA GALERIE 2  10:00 am − 3:00 pm 301-F Spec-Precast Concrete Panels BALCONY N  10:30 am − 11:30 am 546-C Repair-Guide BALCONY J  10:30 am − 1:30 pm 445-A Shear & Torsn-Strut & Tie STUDIO 8  10:30 am − 2:00 pm 549 Thin Reinforced LA GALERIE 3  11:00 am − 12:30 pm 341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	546-B	Repair-Material Selection Guide	BALCONY J
9:30 am − 12:30 pm  New Orleans Historic City Tour DEPART MAIN LOBBY  10:00 am − 11:30 am  E 701 Materials for Concrete Construction BALCONY L IC-Part International Partnerships & Publications STUDIO 3  10:00 am − 1:00 pm  228 Nondestructive Testing STUDIO 6 421 Reinf Slabs LA GALERIE 2  10:00 am − 3:00 pm  301-F Spec-Precast Concrete Panels BALCONY N  10:30 am − 11:30 am  546-C Repair-Guide BALCONY J  10:30 am − 1:30 pm  445-A Shear & Torsn-Strut & Tie STUDIO 8  10:30 am − 2:00 pm  549 Thin Reinforced LA GALERIE 3  11:00 am − 12:30 pm  341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	9:30 am – 1	11:00 am	
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IC-Part International Partnerships & Publications STUDIO 3  10:00 am - 1:00 pm 228 Nondestructive Testing STUDIO 6 421 Reinf Slabs LA GALERIE 2  10:00 am - 3:00 pm 301-F Spec-Precast Concrete Panels BALCONY N  10:30 am - 11:30 am 546-C Repair-Guide BALCONY J  10:30 am - 1:30 pm 445-A Shear & Torsn-Strut & Tie STUDIO 8  10:30 am - 2:00 pm 549 Thin Reinforced LA GALERIE 3  11:00 am - 12:30 pm 341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	10:00 am -	11:30 am	
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301-F Spec-Precast Concrete Panels BALCONY N  10:30 am - 11:30 am 546-C Repair-Guide BALCONY J  10:30 am - 1:30 pm 445-A Shear & Torsn-Strut & Tie STUDIO 8  10:30 am - 2:00 pm 549 Thin Reinforced LA GALERIE 3  11:00 am - 12:30 pm 341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	421	Reinf Slabs	LA GALERIE 2
10:30 am - 11:30 am       BALCONY J         10:30 am - 1:30 pm       Shear & Torsn-Strut & Tie       STUDIO 8         10:30 am - 2:00 pm       LA GALERIE 3         11:00 am - 12:30 pm       LA GALERIE 6	10:00 am -	3:00 pm	
546-C Repair-Guide BALCONY J  10:30 am - 1:30 pm  445-A Shear & Torsn-Strut & Tie STUDIO 8  10:30 am - 2:00 pm  549 Thin Reinforced LA GALERIE 3  11:00 am - 12:30 pm  341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	301-F	Spec-Precast Concrete Panels	BALCONY N
10:30 am - 1:30 pm         445-A       Shear & Torsn-Strut & Tie       STUDIO 8         10:30 am - 2:00 pm       LA GALERIE 3         549       Thin Reinforced       LA GALERIE 3         11:00 am - 12:30 pm       LA GALERIE 6	10:30 am –	11:30 am	
445-A Shear & Torsn-Strut & Tie STUDIO 8  10:30 am - 2:00 pm 549 Thin Reinforced LA GALERIE 3  11:00 am - 12:30 pm 341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	546-C	Repair-Guide	BALCONY J
10:30 am - 2:00 pm 549 Thin Reinforced LA GALERIE 3  11:00 am - 12:30 pm 341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	10:30 am –	1:30 pm	
Thin Reinforced LA GALERIE 3  11:00 am – 12:30 pm  341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	445-A	Shear & Torsn-Strut & Tie	STUDIO 8
11:00 am – 12:30 pm 341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	10:30 am –	2:00 pm	
341-B Equake Res Brdgs-Pier Walls LA GALERIE 6	549	Thin Reinforced	LA GALERIE 3
	11:00 am -	12:30 pm	
506-G Qualifications for Projects BALCONY M	341-B	Equake Res Brdgs-Pier Walls	LA GALERIE 6
	506-G	Qualifications for Projects	BALCONY M

**LAFAYETTE** 

Spec-Tilt-Up Constr & Arch Conc

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

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### Sunday, November 8, 2009 (cont.)

	•	
11:30 am -	1:00 pm	
HTC	Hot Topic	STUDIO 5
221	Aggregates	BALCONY
335	Composite Hybrid	BALCONY I
350-SC	Env Str-Steering Comm	STUDIO 3
374-TG2	Protocol for Testing RC Structural Elements	_
548-C	Structural Polymer Design	BALCONY L
540 C	Structurat i otymer besign	BALCONTE
11:30 am -	3:30 pm	
301-D	Spec-Lightweight & Massive Concrete	LA GALERIE 4
11:30 am -		
562	Eval, Repair & Rehab	SALON E
40.00 000	T. 2.2 mm	
12:00 pm –		DIA/DICCONET
	Student Concrete Cube Competition ACAI	DIA/BISSUNET
12:30 pm -	2:00 pm	
130-F	Social Issues	STUDIO 7
439-A	Steel Reinf-Wire	BALCONY M
445-E	Shear & Torsn- SOA Torsion	REGENT
- 277		
1:00 pm –	2:30 pm	
ISO/TC 71	ISO/TC 71 Advisory Cmte	BALCONY I
1:00 pm –		
2.5	Bridge Construction	BALCONY J
445-C	Shear & Torsn-Punching Shear	STUDIO 3
4.00 pm	/.oo nm	
<b>1:00 pm –</b> BAC-SD		
BAC-SD	Board Advisory Committee	LACALEDICA
	on Sustainable Devlp	LA GALERIE 2
1:00 pm –	5:00 pm	
301-A	Spec-Gen Req Definitions & Tolerances	STUDIO 10
301-C	Spec-Placing Consolidating & Curing	BALCONY L
301-E	Spec-Prestressed Concrete	STUDIO 1
301-G	Spec-Shrink Comp Conc & Ind Floor Slabs	STUDIO 9
305	Hot Weather	LA GALERIE 5
336	Footings	STUDIO 2
355	Anchorage	SALON A
כככ	7.1101101030	JALON A

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### Sunday, November 8, 2009 (cont.)

Sunday, November 8, 2009 (cont.)		
<b>1:30 pm –</b> 341-C 440-D 506-B	<b>3:00 pm</b> Equake Res Brdgs-Retrofit FRP-Research Shotcreting-Fiber Reinforced	LA GALERIE 6 LA GALERIE 1 STUDIO 5
<b>1:30 pm –</b> 370	<b>4:30 pm</b> Dynamic & Vibratory Effects	STUDIO 8
<b>1:30 pm –</b> 350-E	<b>5:00 pm</b> Env Str-Precast/Prestressed	JACKSON
	<b>3:00 pm</b> TAC & International Concrete Repair Institution Polymers-TG	ute STUDIO 6 IBERVILLE
<b>2:00 pm –</b> 209-A 236-B	<b>3:30 pm</b> Statistics Procedures Material Science-Transport Mechanisms	BOARDROOM BACCHUS
<b>2:00 pm –</b> 215	<b>4:00 pm</b> Fatigue	LA GALERIE 3
2:00 pm –	<b>5:00 pm </b> <i>Sessions</i> Emerging Technologies in Civil Infrastructor Application	ure SALONS G&H
	Application of Fracture Mechanics to Conc Structures and Composites	rete SALON C
	How I Spiced Up My Concrete	SALON B
	Construction, Formwork, Scheduling, Tolerances, and Communication	SALON F

#### 2:00 pm - 5:00 pm

,	<b>9</b> 1	
C 650	Tilt-Up Constructor Cert	REGENT
RCC	Responsibility	BALCONY K
309	Consolidation	BALCONY M
315	Detailing	STUDIO 7
352	Joints	SALON D

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### Sunday, November 8, 2009 (cont.)

2:30	pm	_	4:30	pm
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✓ French Quarter Walking Tour DEPART MAIN LOBBY

2:30 pm - 5:00 pm

224 Cracking BALCONY I

3:00 pm - 4:30 pm

441-E Column Multi-Spiral Rein STUDIO 5

3:00 pm - 5:00 pm

Seminar Oversight Committee **LAFAYETTE** E 601 **Quality Assurance BALCONY N** 121 201-A Durability-Sulfate Attack BALCONY J **Earthquake-Resistant Bridges** LA GALERIE 6 341 Adhoc Grp on Shear in Prestress Conc STUDIO 3 423-445 FRP-Durability LA GALERIE 1 440-L

3:30 pm - 5:00 pm

Intl-Cert International-Certification BACCHUS

236-D Material Science - Nanotechnology of

Concrete M1 LA GALERIE 4
Guest Tea ST. CHARLES

4:00 pm - 5:00 pm

CLGE College Concrete Council LA GALERIE 3

123 Research LA GALERIE 2

5:15 pm - 6:30 pm

Opening Session CARONDELET

6:30 pm - 7:30 pm

Opening Reception ACADIA/BISSONET

7:30 pm - 9:30 pm

√Thomas T.C. Hsu Honorary Dinner LA GALERIE 2

9:00 pm - 10:30 pm

Student and Young Professional

Networking Event 55 FAHRENHEIT

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### Monday, November 9, 2009

Workshop for Technical Committee Chairs SALONS D&E

#### 7:00 am - 8:30 am

	Speaker Skills Training Breakfast	LA GALERIE 3
IC-Conf	International - Conferences	IBERVILLE

#### 8:15 am - 10:00 am

351-B	Grtng Fndns - Equip Machnry	BALCONY M
22T D	Gring rinding Equip Macining	DALCON I M

#### 8:30 am - 9:30 am

343-B	Bridge Deck Design	BACCHUS
747 D	Dridge Deck Design	DACCITOS

#### 8:30 am - 10:00 am

E 802	Teaching Methods and Educational Materials	STUDIO 4
118	Computers	IBERVILLE
130-A	Materials	STUDIO 7
439	Steel Reinforcement	NAPOLEON
440-G	FRP-Student	BALCONY K
524	Plastering	STUDIO 10
544-B	FRC-Education	STUDIO 9

#### 8:30 am - 10:30 am

	,	
PUBC	Publications	BALCONY N

#### 8:30 am - 11:00 am

506-C	Shotcreting-Guide	JACKSON
548-A	Polymer - Overlays	REGENT

#### 8:30 am - 11:30 am

C 610	Field Technician Cert	LA GALERIE 3
209	Creep & Shrinkage	STUDIO 5
311	Inspection	STUDIO 8
437	Strength Evaluation	STUDIO 2
543	Piles	BOARDROOM
546	Repair	LA GALERIE 6

#### 8:30 am - 12:00 pm

355-TG	Anchorage TG	BALCONY L
362-A	Parking Str-Standard	BALCONY I

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

TG = Task Group

STUDIO 1

### Monday, November 9, 2009 (cont.)

8:30 am - 12:30 pm

LA GALERIE 1 374 Seismic Design

8:30 am - 1:00 pm

Spec-Formwork & Reinforcement BALCONY I 301-B Floor Construction LA GALERIES 4&5 302 **LAFAYETTE** 

**Env Str-Durability** 350-B

8:30 am - 6:30 pm **Env Str-Structural** 

9:00 am - 11:00 am

350-D

365 Service Life STUDIO 6

9:00 am - 12:00 pm Sessions

Research in Progress SALON F

> Thomas T.C. Hsu Symposium, Part 1: Recent Advances in Seismic Shear of

Wall-Type Structures SALON B

Things You Need to Know About the

Workability of Concrete SALON C

Nanotechnology of Concrete: The Next Big

Thing is Small, Part 1 SALON A

The Leading Edge of Pervious Concrete,

Part 1 SALONS G&H

Simple Tools and Gadgets which Help

Solve Your Problems ACADIA/BISSONET

9:00 am - 1:00 pm

Prestressed LA GALERIE 2 423

9:30 am - 10:00 am

**BACCHUS** 343-A Design

9:30 am - 1:00 pm

√ Taste of New Orleans **DEPARTS MAIN LOBBY** 

All schedule and location changes will be posted daily in the Acadia/Bissonet.

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TG = Task Group

### Monday, November 9, 2009 (cont.)

<b>10:00 am –</b> E 804 440-l	<b>11:30 am</b> Educational Awards Nomination Committee FRP-Prestressed Concrete	IBERVILLE BALCONY M
10:00 am -	12:00 pm	
445-D	Shear & Torsn - Database	BACCHUS
10:00 am -	1:00 pm	
207	Mass Concrete	STUDIO 10
216	Fire Resistance	STUDIO 9
232-A	Fly Ash-Use of Nat Pozzolans	BALCONY K
343	Bridge Design	NAPOLEON
349-A&B	Nuclear Str-Design & Materials M1	STUDIO 4
10:30 am -	12:00 pm	
124	Aesthetics	BALCONY N
10:30 am –	6:30 pm	
301	Specifications M <sub>3</sub>	STUDIO 7
11:00 am -	12:30 pm	
506-E	Shotcreting-Specifications	JACKSON
11:00 am -	1:00 pm	
548-B	Adhesives in Concrete	STUDIO 6
11:00 am -	2:00 pm	
225	Hydraulic Cements	REGENT
11:30 am -	1:00 pm	
201-D	Durability-Oversight Committee	IBERVILLE
304	Measuring/Mix/Trans/Placing	STUDIO 8
346		BOARDROOM
544-A	•	LA GALERIE 3
11:30 am -	2:00 pm	
314	•	LA GALERIE 6
441	Columns	STUDIO 2
447	Finite Element Analysis	STUDIO 5

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### Monday, November 9, 2009 (cont.)

<b>11:30 am –</b> 376-TG	<b>5:00 pm</b> RLG Containment Structures TG M1	BALCONY M	
12:00 pm –	2:00 pm		
	✓Student Lunch	SALONS D&E	
351	Equip Foundations	BALCONY I	
4.00 pm	2.00 pm		
1:00 pm -	Structures in Service	BALCONY K	
130-C	Structures in Service	BALCONY K	
1:00 pm -	2:30 pm		
C 631	Conc Transportation Const Insp	NAPOLEON	
	Nondestructive Testing TG	BACCHUS	
	Env Str-Editorial	LAFAYETTE	
))	Env Str Editoriat	E/M/METTE	
1:00 pm -	3:00 pm		
-	Shotcrete Nozzleman Cert	BALCONY J	
	FRP-Repair of Masonry Str	STUDIO 8	
440 W	TRI Repuil of Musonity Sti	310010 0	
1:00 pm -	3:30 nm		
	Design for Wind Loads	BOARDROOM	
3/3	Design for wind Loads	BOARDROOM	
1:00 pm - /	4:00 pm		
237	Self-Consolidating Concrete	LA GALERIE 2	
,	<u> </u>		
1:00 pm -	-		
362	Parking Structures	STUDIO 6	
1:30 pm - :	-	A CADIA /DICCONET	
	Germann Instruments Demo	ACADIA/BISSONET	
2:00 pm –	3:00 pm		
	FRC-Mechanical Properties	LA GALERIE 6	
344 E	The Mechanical Toperaes	LA GALLINE O	
2:00 pm - 3:30 pm			
231		STUDIO 5	
	Spanish Translation	STUDIO 4	
-	ACI 318/ASCE7 Coordination	JACKSON	
J 1 1	. 5 -1 1	,	

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TG = Task Group

### Monday, November 9, 2009 (cont.)

2:00	pm –	5:00	pm	Sessions
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Nanotechnology of Concrete: The Next Big

Thing is Small, Part 2

SALON A

The Leading Edge of Pervious Concrete,

Part 2 SALONS G&H

"What's New" on Concrete Reinforcing

Detailing SALON F

**Quality Management Systems for Concrete** 

Construction SALON C

Thomas T.C. Hsu Symposium, Part 2: Recent Advances in Non-Linear Finite

Element Analysis of Concrete Structures SALON B

#### 2:00 pm - 5:00 pm

MKTC	Marketing	BALCONY N
232	Fly Ash & Natural Pozzolans	STUDIO 9
307	Chimneys	IBERVILLE
318-B	Reinforcement & Development M1	REGENT
349-C	Nuclear Str-Anchorage	STUDIO 2
364	Rehabilitation	LA GALERIE 1

#### 2:00 pm - 6:00 pm

p	0.00 p	
ITG-6	High-Strength Steel Reinforcement	BALCONY I
369	Seismic Rehab	BALCONY K
445	Shear & Torsion	BALCONY L

#### 2:00 pm - 6:30 pm

212	Chemical Admixtures	STUDIO 10
360	Slabs on Ground	LA GALERIES 4&5

#### 2:30 pm

Smart Bridge Tech Inc. Demo ACADIA/BISSONET

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### Monday, November 9, 2009 (cont.)

Monday, November 9, 2009 (cont.)			
<b>2:30 pm –</b> CAC	5:00 pm Chapter Activities	LAFAYETTE	
<b>3:00 pm –</b> 130 506-F	<b>5:00 pm</b> Sustainability Shotcreting-Underground	LA GALERIE 3 BACCHUS	
<b>3:00 pm –</b> 440-F	<b>6:00 pm</b> FRP-Repair Strengthening	LA GALERIE 6	
<b>3:30 pm –</b> 214 318-L	<b>5:00 pm</b> Strength Tests International Liaison	BALCONY J STUDIO 5	
<b>3:30 pm –</b> 544-D	<b>6:00 pm</b> FRC-Structural Uses	STUDIO 4	
<b>3:30 pm –</b> 350-J 435	<b>6:30 pm</b> Env Str-Education Deflection	BOARDROOM JACKSON	
<b>4:00 pm –</b> 201-E	-	NAPOLEON	
<b>4:30 pm –</b> 236	<b>5:30 pm</b> Material Science	LA GALERIE 2	
5:00 pm – 130-B 334	<b>6:00 pm</b> Women in ACI Reception Production/Transport/Construction Shells	ST. CHARLES SUITE STUDIO 6 STUDIO 5	
<b>5:00 pm –</b> E 702 318-TGF 555	Designing Concrete Structures	STUDIO 3 BACCHUS STUDIO 2	
<b>5:00 pm –</b> E 703	<b>7:00 pm</b> Concrete Construction Practices	IBERVILLE	

STUDIO 9

Fracture Mechanics

446

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### Monday, November 9, 2009 (cont.)

7:00 pm – 10:00 pm

✓ River Jazz Dinner Cruise

DEPART MAIN LOBBY

7:30 pm - 10:00 pm

123 Forum: Are Concrete Structures Better SALON C Suited for Hurricanes and Other Extreme Events?

#### Tuesday, November 10, 2009

7:00 am - 8:30 am

TTTC TAC Technology Transfer LA GALERIE 6

7:00 am - 9:00 am

238 Workability of Fresh Concrete BALCONY N

7:30 am - 9:00 am

130-G Education/Certification STUDIO 1

8:00 am - 10:00 am

211-CProportioning-No SlumpBOARDROOM230Soil CementBACCHUS444Experimental AnalysisNAPOLEON

8:00 am - 10:30 am

325-A Pavements-Design LA GALERIE 1

8:00 am - 11:00 am

332-B&C Residential Concrete Sub B&C STUDIO 2
332-D&E Residential Concrete Sub D&E STUDIO 7

8:00 am - 12:00 pm

EAC Educational Activities M2 JACKSON

8:30 am

Burgess Pigment Demo ACADIA/BISSONET

8:30 am - 10:00 am

C 620 Laboratory Tech Cert STUDIO 10 523-A Cellular-Autoclaved Aerated STUDIO 4

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STUDIO 1

### Tuesday, November 10, 2009 (cont.)

		•
8:30 am -	10:30 am	
IJBRC	International Joints and Bearings Resear	rch
	Council	STUDIO 6
318	Building Code M1	STUDIOS 8&9
548	Polymers	BALCONY K
8:30 am -	11:30 am	
201	Durability I	A GALERIES 4&5
306	Cold Weather	BALCONY I
348	Safety	STUDIO 5
350-G&K	Env Str-Tightness Testing/Haz Mat	IBERVILLE
357	Offshore & Marine	BALCONY M
440	Fiber Reinforced Polymer	SALON D
506	Shotcreting	LA GALERIE 2
522	Pervious Concrete	BALCONY L
8:30 am -	12:00 pm	
117	Tolerances	LA GALERIE 3
8:30 am -	12:30 pm	
349-A&B	Nuclear Structures-Design & Materials N	12 LA GALERIE 6
8:30 am -	3:30 pm	
350-F	Env Str-Seismic	STUDIO 3
9:00 am –	10:30 am	
122	Thermal Properties	LAFAYETTE
9:00 am –	11:30 am	

International Committee

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### Tuesday, November 10, 2009 (cont.)

9:00 am - 12:00	pm <i>Sessions</i>
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Construction Methods for Non-Traditional

ICF's SALONS G&H

Temperature Effect on Concrete Performance SALON C

Thomas T.C. Hsu Symposium, Part 3:

Five Decades of Progress in Shear and Torsion SALON B

Contractors' Day Session, Part 1 SALON F

Planning For Successful Concrete Projects SALON A

9:00 am - 12:00 pm

TRRC TAC Repair & Rehab BALCONY N
376-TG RLG Containment Structures TG M2 REGENT

9:00 am - 1:00 pm

ITG-8 Perform Criteria for Conc Matrls BALCONY I

9:00 am - 2:00 pm

✓ Mississippi River Tour DEPART MAIN LOBBY

10:00 am - 11:30 am

C 630 Construction Inspector Cert STUDIO 10

10:00 am - 12:00 pm

211-A Proportioning-Editorial BACCHUS
327 RCC Pavements NAPOLEON

10:00 am - 1:00 pm

371 Elevated Tanks with Concrete Pedestals BOARDROOM
 523 Cellular Concrete STUDIO 4

10:30 am - 12:00 pm

325-C Pavements-Prestressed and Precast LA GALERIE 1
544-F FRC-Durability STUDIOS 8&9

10:30 am - 1:00 pm

550 Precast Structures STUDIO 6

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### Tuesday, November 10, 2009 (cont.)

<b>11:00 am -</b> 332-F	STUDIO 7	
11:30 am - CRC 211-E 213-TG 223-D	1:00 pm Concrete Research Council Proportioning-Evaluation Lightweight-Editorial TG Shr Compensating-Non Reinforced Concretor Mortar	LA GALERIE 2 BALCONY I LAFAYETTE ete IBERVILLE
<b>11:30 am –</b> 515 552	2:00 pm Protective Systems Cementitious Grouting	BALCONY K BALCONY L
<b>11:30 am –</b> 350-A	3:30 pm Env Str-General & Concrete	STUDIO 10
12:00 pm –	2:00 pm  ✓ Contractors' Day Lunch	SALON E
<b>12:30 pm –</b> C 640	2:00 pm Craftsman Cert	LA GALERIE 6
1:00 pm - 223-C 325-D	2:00 pm Shr Compensating-Constr Proportioning for Pavements	STUDIO 1 LA GALERIE 1
1:00 pm - 201-C 211-L 236-D	3:00 pm  Durability-Condition Report  Assessing Aggregate Gradation  Material Science-Nanotechnology of  Concrete M2	BOARDROOM IBERVILLE NAPOLEON
1:00 pm - 318-A 318-C 318-H 318-R	<b>6:30 pm</b> General Concrete Constr Serviceability/Safety Seismic Provision Code Reorganization	STUDIO 5 BALCONY J LA GALERIE 2 LA GALERIE 4

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TG = Task Group

### Tuesday, November 10, 2009 (cont.)

1:30 pm - 120 213	<b>3:00 pm</b> History Lightweight	BALCONY M BALCONY N
<b>1:30 pm –</b> 130-E	<b>3:30 pm</b> Design/Specifications/Codes/Regulations	STUDIO 6
2:00 pm –	3:30 pm	
234	Silica Fume	STUDIO 2
325-E	Accelerated Paving	JACKSON
544-C	FRC-Testing	LA GALERIE 5
2:00 pm –	4:00 pm	
130-D	Rating Systems/Sustainabilty Tools	SALON D
211-F	Proportioning-Submittals	BACCHUS
2:00 pm –	5:00 pm Sessions Thomas T.C. Hsu Symposium, Part 4: Recent Advances in Shear of Concrete	
	Bridges	SALON B
	Can This Concrete Self-Consolidate?	SALONS G&H
	Open Paper Session	SALON A
	Contractors' Day Session, Part 2	SALON F
2:00 pm –	5:00 pm	
CPC	Certification Programs	STUDIO 1
222	Corrosion	LA GALERIE 3
223	Shrinkage Compensating	BALCONY K
229	Controlled Low Strength	STUDIO 4
235	Electronic Data Exchange	LAFAYETTE
310	Decorative Concrete	LA GALERIE 1
332	Residential Concrete	LA GALERIE 6
349		STUDIOS 8&9
563	Specs for Repair of Struct Conc in Buildings	BALCONY L

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

TG = Task Group

### Tuesday, November 10, 2009 (cont.)

2:00 pm - 6:00 pm

233 Slag Cement STUDIO 7

3:00 pm - 5:00 pm

CC Convention Committee M2 BALCONY I
211-M Proportioning-Aggregate-Packing IBERVILLE
372 Prestressed/Wire Wrapped BOARDROOM

3:00 pm - 6:00 pm

131 Building Information Modeling of Concrete BALCONY N

3:30 pm - 5:00 pm

363-A High-Strength Lightweight Concrete BALCONY M

3:30 pm - 5:30 pm

325 Pavements STUDIO 6

3:30 pm - 6:00 pm

544 Fiber Reinforced Concrete LA GALERIE 5

3:30 pm - 6:30 pm

350-L Env Str-Specification STUDIO 10

4:30 pm - 6:00 pm

308-213 Guide on Internal Curing STUDIO 2

5:00 pm - 6:00 pm

Faculty Network Reception NAPOLEON SUITE

7:00 pm – 10:00 pm

Concrete Mixer DEPART MAIN LOBBY

#### Wednesday, November 11, 2009

7:00 am - 8:30 am

ACI/ASCE ACI/ASCE Coordination STUDIO 7

SYPAC Student and Young Professional

Activities Committee STUDIO 9

7:00 am - 10:00 am

TSC TAC Specifications STUDIO 10

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

TG = Task Group

### Wednesday, November 11, 2009 (cont.)

308-B Curing-Specifications  8:00 am - 1:30 pm  318-B Reinforcement & Development M2 STUDIO 4 318-D Flexure & Axial Loads BALCONY L 318-E Shear & Torsion BALCONY M 318-G Prestressed Precast STUDIO 6  8:30 am - 11:30 am  211 Proportioning SALON D 303 Architectural CIP STUDIO 7 330-TG Parking Lots & Paving Sites TG BALCONY I 363 High-Strength STUDIO 9 560 Design & Constr ICFs STUDIO 8  8:30 am - 4:30 pm 359 Nuclear Reactors BALCONY J  8:30 am - 6:30 pm 350 Environmental Structures STUDIOS 1&2  9:00 am - 12:00 pm Sessions Fiber-Reinforced Self-Consolidating Concrete, Part 1 SALONS G&H  How Do You Spice Up a Concrete Bridge to be Earthquake Resistant? SALON A  Sulfate Influence Properties of Early Age Concrete SALON C  Materials Science Modeling as a Solution to Concrete Problems, Part 1 SALON F  Current Trends in Structural Health Monitoring Systems of Concrete Structure, Part 1 SALON B	8:00 am - 10:30 am						
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Concrete Problems, Part 1 SALON F  Current Trends in Structural Health Monitoring Systems of Concrete Structure, Part 1 SALON B  9:00 am - 12:00 pm		Concrete	SALON C				
Concrete Problems, Part 1 SALON F  Current Trends in Structural Health Monitoring Systems of Concrete Structure, Part 1 SALON B  9:00 am - 12:00 pm							
Current Trends in Structural Health Monitoring Systems of Concrete Structure, Part 1 SALON B  9:00 am – 12:00 pm							
Systems of Concrete Structure, Part 1 SALON B  9:00 am – 12:00 pm		Concrete Problems, Part 1	SALON F				
Systems of Concrete Structure, Part 1 SALON B  9:00 am – 12:00 pm		Current Trends in Structural Health Monitor	rinσ				
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ACIFdn ACI Foundation STUDIO 5	9:00 am -	12:00 pm					
	ACIFdn	ACI Foundation	STUDIO 5				

All schedule and location changes will be posted daily in the Acadia/Bissonet.

√ Separate fee required

TG = Task Group

### Wednesday, November 11, 2009 (cont.)

9:00 am - 1:00 pm

✓ Louisiana Swamp Tour

DEPART MAIN LOBBY

9:00 am - 5:00 pm

376-TG RLG Containment Structures TG M3

BALCONY K

10:00 am - 12:30 pm

C601-B Concrete Quality Technical Mgr

STUDIO 10

10:30 am - 1:00 pm

308-A Curing-Guide

STUDIO 3

12:00 pm - 2:00 pm

✓ International Lunch

SALON E

1:00 pm - 4:00 pm

330 Parking Lots & Site Paving

BALCONY I

2:00 pm - 5:00 pm *Sessions* 

Materials Science Modeling as a Solution to

Concrete Problems, Part 2

SALON F

Current Trends in Structural Health Monitoring

Systems of Concrete Structure, Part 2

SALON B

Fiber-Reinforced Self-Consolidating

Concrete, Part 2

SALONS G&H

**Corrosion of Post-Tensioned Systems** 

SALON A

2:00 pm - 5:00 pm

308 Curing

STUDIO 7

2:30 pm - 6:30 pm

318 Building Code M2

STUDIOS 8&9

### Thursday, November 12, 2009

8:00 am - 5:00 pm

√ Troubleshooting Concrete Forming and

Shoring Seminar LA GALERIE 6

10:00 am - 5:00 pm

BOD Board of Direction LA GALERIES 4&5

# Numerical Committee Meeting Listing

Code	Committee	Day	Time	Room Name
ACI 318/ ASCE7	ACI 318/ASCE 7 Coordination	Mon	2:00 pm-3:30 pm	JACKSON
ACI/ ASCE	ACI/ASCE Coordination	Wed	7:00 am-8:30 am	STUDIO 7
ACIFdn	ACI Foundation	Wed	9:00 am-12:00 pm	STUDIO 5
BAC-SD	Board Advisory Committee on Sustainable Devlp	Sun	1:00 pm-4:00 pm	LA GALERIE 2
BOD	Board of Direction	Thu	10:00 am-5:00 pm	LA GALERIES 4&5
C 601-B	Concrete Quality Technical Mgr	Wed	10:00 am-12:30 pm	STUDIO 10
C 610	Field Technician Cert	Mon	8:30 am-11:30 am	LA GALERIE 3
C 620	Laboratory Tech Cert	Tue	8:30 am-10:00 am	STUDIO 10
C 630	Construction Inspector Cert	Tue	10:00 am-11:30 am	STUDIO 10
C 631	Conc Transportation Const Insp	Mon	1:00 pm-2:30 pm	NAPOLEON
C 640	Craftsman Cert	Tue	12:30 pm-2:00 pm	LA GALERIE 6
C 650	Tilt-Up Constructor Cert	Sun	2:00 pm-5:00 pm	REGENT
C 660	Shotcrete Nozzleman Cert	Mon	1:00 pm-3:00 pm	BALCONY J
CAC	Chapter Activities	Mon	2:30 pm-5:00 pm	LAFAYETTE
CC	Convention Committee M2	Tue	3:00 pm-5:00 pm	BALCONY I
CLC	Construction Liaison	Sun	8:00 am-10:30 am	LA GALERIE 1
CLGE	Collegiate Concrete Council	Sun	4:00 pm-5:00 pm	LA GALERIE 3
CPC	Certification Programs	Tue	2:00 pm-5:00 pm	STUDIO 1
CRC	Concrete Research Council	Tue	11:30 am-1:00 pm	LA GALERIE 2
E 601	Seminar Oversight Committee	Sun	3:00 pm-5:00 pm	LAFAYETTE
E 701	Materials for Concrete Construction	Sun	10:00 am-11:30 am	BALCONY L
E 702	Designing Concrete Structures	Mon	5:00 pm-6:30 pm	STUDIO 3
E 703	Concrete Construction Practices	Mon	5:00 pm-7:00 pm	IBERVILLE

# Numerical Committee Meeting Listing

Room Name

C	ode Co	mmittee I	Day	Time	Room Name
	E 706	Repair Application Procedures	Sun	8:00 am-10:00 am	STUDIO 3
	E 801	Student Activities	Sun	8:00 am-10:00 am	LA GALERIE 2
	E 802	Teaching Methods and Educational Materials	Mor	n 8:30 am-10:00 am	STUDIO 4
	E 804	Educational Awards Nomination Committee	Mor 1	n 10:00 am-11:30 am	IBERVILLE
	EAC	Educational Activities M1	Sat	1:00 pm-5:00 pm	SALON C
	EAC	Educational Activities M2	Tue	8:00 am-12:00 pm	JACKSON
	HTC	Hot Topic	Sun	11:30 am-1:00 pm	STUDIO 5
	IC	International Committee	Tue	9:00 am-11:30 am	STUDIO 1
	IC-Conf	International Conferences	Mor	n 7:00 am-8:30 am	IBERVILLE
	IC-Part	International Partnerships & Publications	Sun	10:00 am-11:30 am	STUDIO 3
	IJBRC	Intl Joints & Bearings Research	Tue	8:30 am-10:30 am	STUDIO 6
	Intl-Cert	International- Certification	Sun	3:30 pm-5:00 pm	BACCHUS
	ISO/TC 71	ISO/TC 71 AdvisoryCmte	Sun	1:00 pm-2:30 pm	BALCONYI
	ITG-6	High-Strength Stee Reinforcement	el Mor	1 2:00 pm-6:00 pm	BALCONYI
	ITG-8	Perform Criteria fo Conc Matrls	r Tue	9:00 am-1:00 pm	BALCONYJ
	MEMC	Membership	Sun	8:30 am-11:30 am	BALCONYI
	MKTC	Marketing	Mor	1 2:00 pm-5:00 pm	BALCONY N
	PUBC	Publications	Mor	8:30 am-10:30 am	BALCONY N
	RCC	Responsibility	Sun	2:00 pm-5:00 pm	BALCONY K
	SYPAC	Student and Young Professional Activities	Wed	d 7:00 am-8:30 am	STUDIO 9
	TAC	Technical Activities M1	s Fri	6:30 pm-9:00 pm	SALON B
	TAC	Technical Activities M2	s Sat	7:00 am-6:00 pm	BALCONY K
	TAC	Technical Activities M3	s Sun	7:00 am-2:00 pm	SALON D
	TAC-RG1	TAC Review Group	ı Sun	8:00 am-11:00 am	IBERVILLE
	TAC- RG2	TAC Review Group	2 Sun	8:00 am-11:00 am	BACCHUS
	TAC- RG <sub>3</sub>	TAC Review Group	3 Sun	8:00 am-11:00 am	REGENT

# Numerical Committee Meeting Listing

C	ode	Committee	Day	Tim	e I	Room Name
	TAC/ ICRI	TAC & Internati Concrete Repai Institute		un 2	2:00 pm-3:00 pm	STUDIO 6
	TAC/ SDC	TAC & Strategion Development Council	Sı	ın <del>7</del>	7:00 am-8:00 am	SALON E
	TRRC	TAC Repair & Re	ehab Tu	ie ģ	9:00 am-12:00 pm	BALCONY N
	TSC	TAC Specificati	ons W	ed 7	7:00 am-10:00 am	STUDIO 10
	TTTC	TAC Technology Transfer	r Tu	ie 7	7:00 am-8:30 am	LA GALERIE 6
	117	Tolerances	Tu	ie 8	8:30 am- 12:00 pm	LA GALERIE 3
	118	Computers	M	on 8	8:30 am-10:00 am	IBERVILLE
	120	History	Tu	ie 1	1:30 pm- 3:00 pm	BALCONY M
	121	Quality Assura	nce Su	un g	3:00 pm-5:00 pm	BALCONY N
	122	Thermal Proper	ties Tu	ie g	9:00 am-10:30 am	LAFAYETTE
	123	Research	Sı	ın z	4:00 pm- 5:00 pm	LA GALERIE 2
	124	Aesthetics	M	on 1	10:30 am-12:00 pm	BALCONY N
	130	Sustainability	M	on 3	3:00 pm-5:00 pm	LA GALERIE 3
	130-A	Materials	M	on 8	8:30 am-10:00 am	STUDIO 7
	130-B	Production/ Transport/ Construction	M	on <u>s</u>	5:00 pm-6:00 pm	STUDIO 6
	130-C	Structures in Service	M	on 1	1:00 pm-2:00 pm	BALCONY K
	130-D	Rating Systems Sustainabilty T		ie 2	2:00 pm-4:00 pm	SALON D
	130-E	Design/ Specifications/ Codes/Regulat		ie 1	1:30 pm-3:30 pm	STUDIO 6
	130-F	Social Issues	Sı	un 1	12:30 pm-2:00 pm	STUDIO 7
	130-G	Education/ Certification	Tu	ie 7	7:30 am- 9:00 am	STUDIO 1
	131	BIM	Tu	ie <u>s</u>	3:00 pm-6:00 pm	BALCONY N
	201	Durability	Tu	ie 8	8:30 am-11:30 am	LA GALERIES 4&5
	201-A	Durability-Sulfa Attack	ate Su	un g	3:00 pm-5:00 pm	BALCONY J
	201-C	Durability- Condition Repo	Tu rt	ie 1	1:00 pm-3:00 pm	BOARDROOM
	201-D	Durability Oversight Committee	M	on 1	11:30 am-1:00 pm	IBERVILLE
	201-E	Salt Weathering Salt Attack	g/ M	on Z	4:00 pm-6:00 pm	NAPOLEON
	207	Mass Concrete	M	on 1	10:00 am-1:00 pm	STUDIO 10
	209	Creep & Shrink	age M	on 8	8:30 am-11:30 am	STUDIO 5
	209-A	Statistic Procedures	Sı	un 2	2:00 pm-3:30 pm	BOARDROOM

C	ode	Committee	Day	Time	Room Name
	211	Proportioning	Wed	d 8:30 am-11	1:30 am SALON D
	211-A	Proportioning- Editorial	Tue	10:00 am-1	2:00 pm BACCHUS
	211-C	Proportioning-No Slump	Tue	8:00 am-10	o:oo am BOARDROOM
	211-E	Proportioning- Evaluation	Tue	11:30 am-1	:00 pm BALCONY I
	211-F	Proportioning- Submittals	Tue	2:00 pm-4:	oo pm BACCHUS
	211-L	Assessing Aggregate Gradation	Tue	1:00 pm-3:	oo pm IBERVILLE
	211-M	Proportioning- Aggregate-Packir	Tue ng	3:00 pm-5:	oo pm IBERVILLE
	212	Chemical Admixtures	Mor	n 2:00 pm-6:	:30 pm STUDIO 10
	213	Lightweight	Tue	1:30 pm-3:	oo pm BALCONY N
	213-TG	Lightweight- Editorial TG	Tue	11:30 am-1	:00 pm LAFAYETTE
	214	Strength Tests	Mon	n 3:30 pm-5:	oo pm BALCONY J
	215	Fatigue	Sun	2:00 pm-4:	oo pm LA GALERIE 3
	216	Fire Resistance	Mon	10:00 am-1	:00 pm STUDIO 9
	221	Aggregates	Sun	11:30 am-1	:oo pm BALCONY J
	222	Corrosion	Tue	2:00 pm-5:	oo pm LA GALERIE 3
	223	Shrinkage Compensating	Tue	2:00 pm-5:	oo pm BALCONY K
	223-C	Shr Compensatin Constr	g- Tue	1:00 pm-2:	oo pm STUDIO 1
	223-D	Shr Compensatin Non-Reinforced Concrete or Morta		11:30 am-1	:00 pm IBERVILLE
	224	Cracking	Sun	2:30 pm-5:	oo pm BALCONY I
	225	Hydraulic Cement	s Mor	n 11:00 am-2	:00 pm REGENT
	228	Nondestructive Testing	Sun	10:00 am-1	:00 pm STUDIO 6
	228-TG	Nondestructive Testing TG	Mon	1:00 pm-2:	30 pm BACCHUS
	229	Controlled Low Strength	Tue	2:00 pm-5:	oo pm STUDIO 4
	230	Soil Cement	Tue	8:00 am-10	o:oo am BACCHUS
	231	Early Age	Mon	1 2:00 pm-3:	30 pm STUDIO 5
	232	Fly Ash & Natural Pozzolans	Mon	1 2:00 pm-5:	oo pm STUDIO 9
	232-A	Fly Ash-Use of Na Pozzolans	t Mor	10:00 am-1	:00 pm BALCONY K
	233	Slag Cement	Tue	2:00 pm-6:	:00 pm STUDIO 7
	234	Silica Fume	Tue	2:00 pm-3:	30 pm STUDIO 2

C	ode	Committee	Day	Time	F	Room Name
	235	Electronic Data Exchange	Tue	2:00 p	m-5:00 pm	LAFAYETTE
	236	Material Science	Мо	n 4:30 p	m-5:30 pm	LA GALERIE 2
	236-B	Material Science- Transport Mechanisms	Sur	1 2:00 p	m-3:30 pm	BACCHUS
	236-D	Material Science- Nanotechnology o Concrete M1	Sur of	1 3:30 p	m-5:00 pm	LA GALERIE 4
	236-D	Material Science- Nanotechnology o Concrete M2	Tue of	1:00 p	m-3:00 pm	NAPOLEON
	237	Self-Consolidatin Concrete	g Mo	n 1:00 p	m-4:00 pm	LA GALERIE 2
	238	Workability of Fresh Concrete	Tue	7:00 a	m-9:00 am	BALCONY N
	301	Specifications M1	Sat	1:00 p	m-6:00 pm	SALON E
	301	Specifications M2	Sur	1 8:30 a	m-12:00 pm	LA GALERIE 5
	301	Specifications M <sub>3</sub>	Мо	n 10:30	am-6:30 pm	STUDIO 7
	301-A	SpecGen Req, Definitions, & Tolerances	Sur	1:00 p	m-5:00 pm	STUDIO 10
	301-B	Spec-Formwork & Reinforcement	Mo	n 8:30 a	m-1:00 pm	BALCONY J
	301-C	Spec-Placing Consolidating & Curing	Sur	1:00 p	m-5:00 pm	BALCONY L
	301-D	Spec-Lightweight Massive Concrete		11:30 8	am-3:30 pm	LA GALERIE 4
	301-E	Spec-Prestressed Concrete	Sur	1:00 p	m-5:00 pm	STUDIO 1
	301-F	Spec-Precast Concrete Panels	Sur	10:00	am-3:00 pm	BALCONY N
	301-G	Spec-Shrink Comp Conc & Ind Floor Slabs	o Sur	1:00 p	m-5:00 pm	STUDIO 9
	301-H	Spec-Tilt-Up Cons & Arch Conc	tr Sur	11:00 8	am-3:00 pm	LAFAYETTE
	301-SC	Spec-Steering Committee	Sur	n 7:00 a	m-8:00 am	STUDIO 10
	302	Floor Construction	n Mo	n 8:30 a	m-1:00 pm	LA GALERIES 4&5
	303	Architectural CIP	We	d 8:30 a	m-11:30 am	STUDIO 7
	304	Measuring/Mix/ Trans/Placing	Mo	n 11:30 a	am-1:00 pm	STUDIO 8
	305	Hot Weather	Sur	1:00 p	m-5:00 pm	LA GALERIE 5
	306	Cold Weather	Tue	8:30 a	m-11:30 am	BALCONYI
	307	Chimneys	Мо	n 2:00 p	m-5:00 pm	IBERVILLE
	308	Curing	We	d 2:00 p	m-5:00 pm	STUDIO 7

C	ode Co	mmittee	Day	Time	Room Name
	308-213	Guide on Internal Curing	Tue	4:30 pm-6:00	pm STUDIO 2
	308-A	Curing-Guide	We	d 10:30 am-1:00	pm STUDIO 3
	308-B	Curing- Specifications	We	d 8:00 am-10:30	am STUDIO 3
	309	Consolidation	Sur	2:00 pm-5:00	om BALCONY M
	310	Decorative Concrete	Tue	2:00 pm-5:00	om LA GALERIE 1
	311	Inspection	Mo	n 8:30 am-11:30	am STUDIO 8
	314	Simplified Design Buildings	Mo	11:30 am-2:00	pm LA GALERIE 6
	315	Detailing	Sur	2:00 pm-5:00	om STUDIO 7
	315-B	Detailing Constructibility	Sur	8:30 am-11:30	am JACKSON
	318	Building Code M1	Tue	8:30 am-10:30	am STUDIOS 8&9
	318	Building Code M2	We	d 2:30 pm-6:30	pm STUDIOS 8&9
	318-A	General Concrete Constr	Tue	1:00 pm-6:30 រុ	om STUDIO 5
	318-B	Reinforcement & Development M1	Mo	1 2:00 pm-5:00	om REGENT
	318-B	Reinforcement & Development M2	We	d 8:00 am-1:30 p	om STUDIO 4
	318-C	Serviceability/ Safety	Tue	1:00 pm-6:30 p	om BALCONY J
	318-D	Flexure & Axial Loads	We	d 8:00 am-1:30 p	om BALCONY L
	318-E	Shear & Torsion	We	d 8:00 am-1:30 p	om BALCONY M
	318-G	Prestressed Precast	We	d 8:00 am-1:30 p	om STUDIO 6
	318-H	Seismic Provision	s Tue	1:00 pm-6:30 p	om LA GALERIE 2
	318-L	International Liaison	Mo	າ 3:30 pm-5:00 ເ	om STUDIO 5
	318-R	Code Reorganization	Tue	1:00 pm-6:30 រុ	om LA GALERIE 4
	318-S	Spanish Translation	Mo	1 2:00 pm-3:30 p	om STUDIO 4
	318-TGF	TGF-Foundation	Mo	ո 5:00 pm-6:30 լ	om BACCHUS
	325	Pavements	Tue	3:30 pm-5:30 p	om STUDIO 6
	325-A	Pavements-Desig	n Tue	8:00 am-10:30	am LA GALERIE 1
	325-C	Pavements- Prestressed and Precast	Tue	10:30 am-12:0	o pm LA GALERIE 1
	325-D	Proportioning for Pavements	Tue	1:00 pm-2:00 p	om LA GALERIE 1
	325-E	Accelerated Pavin	g Tue	2:00 pm-3:30 p	om JACKSON
	327	RCC Pavements	Tue	10:00 am-12:0	o pm NAPOLEON

C	ode C	ommittee I	Day	Time Roo	m Name
	330	Parking Lots & Site Paving	Wed	d 1:00 pm-4:00 pm E	BALCONY I
	330-TG	Parking Lots & Site Paving TG	We	d 8:30 am-11:30 am E	BALCONY I
	332	Residential Concrete	Tue	2:00 pm-5:00 pm l	A GALERIE 6
	332- B&C	Residential Concrete Sub B&C	Tue	8:00 am-11:00 am	STUDIO 2
	332- D&E	Residential Concrete Sub D&E	Tue	8:00 am-11:00 am	STUDIO 7
	332-F	Residential Concrete-Slabs	Tue	11:00 am-2:00 pm	STUDIO 7
	334	Shells	Moi	1 5:00 pm-6:00 pm	STUDIO 5
	335	Composite Hybrid	Sun	11:30 am-1:00 pm	BALCONY I
	336	Footings	Sun	1:00 pm-5:00 pm	STUDIO 2
	341	Earthquake- Resistant Bridges	Sun	3:00 pm-5:00 pm l	A GALERIE 6
	341-A	Equake Res Brdgs- Columns	Sun	9:30 am-11:00 am l	A GALERIE 6
	341-B	Equake Res Brdgs- Pier Walls	Sun	11:00 am-12:30 pm l	A GALERIE 6
	341-C	Equake Res Brdgs- Retrofit	Sun	1:30 pm-3:00 pm l	A GALERIE 6
	341-D	Perf Based Seismic Design	Sun	8:00 am-9:30 am l	A GALERIE 6
	342	Bridge Evaluation	Sun	8:30 am-10:00 am	STUDIO 6
	343	Bridge Design	Moi	10:00 am-1:00 pm	NAPOLEON
	343-A	Design	Moi	n 9:30 am-10:00 am E	BACCHUS
	343-B	Bridge Deck Design	n Moi	n 8:30 am-9:30 am E	BACCHUS
	345	Bridge Construction	Sun	1:00 pm-3:00 pm	BALCONY J
	346	CIP Pipe	Moi	n 11:30 am-1:00 pm E	BOARDROOM
	347	Formwork	Sun	8:30 am-12:30 pm	STUDIO 7
	348	Safety	Tue	8:30 am-11:30 am	STUDIO 5
	349	Nuclear Structures	Tue	2:00 pm-5:00 pm	STUDIOS 8&9
	349-C	Nuclear Str- Anchorage	Moi	n 2:00 pm-5:00 pm	STUDIO 2
	349- A&B	Nuclear Structures Design & Materials M1		n 10:00 am-1:00 pm S	STUDIO 4
	349- A&B	Nuclear Structures Design & Materials M2		8:30 am-12:30 pm l	LA GALERIE 6
	350	Environmental Structures	Wed	d 8:30 am-6:30 pm 9	STUDIOS 1&2
	350-A	Env Str-General & Concrete	Tue	11:30 am-3:30 pm	STUDIO 10

C	ode Co	mmittee	Day	Time	Room Name
	350-B	Env Str-Durability	Мо	n 8:30 am-1:00	o pm LAFAYETTE
	350-C	Env Str-Reinf & Devel	Sui	n 8:30 am-11:3	30 am STUDIO 10
	350-D	Env Str-Structural	Мо	n 8:30 am-6:30	o pm STUDIO 1
	350-E	Env Str-Precast/ Prestressed	Su	1:30 pm-5:00	o pm JACKSON
	350-F	Env Str-Seismic	Tue	8:30 am-3:30	o pm STUDIO 3
	350- G&K	Env Str-Tightness Testing/Haz Mat	Tue	8:30 am-11:3	30 am IBERVILLE
	350-H	Env Str-Editorial	Мо	n 1:00 pm-2:30	o pm LAFAYETTE
	350-J	Env Str-Education	Мо	n 3:30 pm-6:30	o pm BOARDROOM
	350-L	Env Str- Specification	Tue	3:30 pm-6:30	o pm STUDIO 10
	350-SC	Env Str-Steering Comm	Sui	11:30 am-1:0	oo pm STUDIO 3
	351	Equip Foundation	s Mo	n 12:00 pm-2:0	oo pm BALCONY I
	351-B	Grtng Fndns - Equip Machnry	Мо	n 8:15 am-10:0	oo am BALCONY M
	352	Joints	Su	1 2:00 pm-5:0	o pm SALON D
	355	Anchorage	Su	1:00 pm-5:00	o pm SALON A
	355-TG	Anchorage TG	Мо	n 8:30 am-12:0	oo pm BALCONY L
	357	Offshore & Marine	e Tue	8:30 am-11:3	30 am BALCONY M
	359	Nuclear Reactors	We	d 8:30 am-4:30	o pm BALCONY J
	360	Slabs on Ground	Мо	n 2:00 pm-6:3	o pm LA GALERIES 4&5
	362	Parking Structure	s Mo	n 1:00 pm-5:00	o pm STUDIO 6
	362-A	Parking Str- Standard	Мо	n 8:30 am-12:0	oo pm BALCONY I
	363	High-Strength	We	d 8:30 am-11:3	30 am STUDIO 9
	363-A	High-Strength - Lightweight Concrete	Tue	3:30 pm-5:00	o pm BALCONY M
	364	Rehabilitation	Мо	n 2:00 pm-5:0	o pm LA GALERIE 1
	365	Service Life	Мо	n 9:00 am-11:0	oo am STUDIO 6
	369	Seismic Rehab	Мо	n 2:00 pm-6:0	o pm BALCONY K
	370	Dynamic & Vibratory Effects	Su	1:30 pm-4:30	o pm STUDIO 8
	371	Elevated Tanks with Concrete Pedestals	Tue	10:00 am-1:0	po pm BOARDROOM
	372	Prestressed/Wire Wrapped	Tue	3:00 pm-5:00	o pm BOARDROOM
	373	Prestressed/ Tendons	Su	n 8:30 am-10:	oo am BALCONY K
	374	Seismic Design	Мо	n 8:30 am-12:3	30 pm LA GALERIE 1

C	ode Co	mmittee	Day	y T	ime	Room Name
	374-TG2	Protocol For Testir RC Structural Elements	ıg	Sun	11:30 am-1:00 pm	STUDIO 10
	375	Design for Wind Loads		Mon	1:00 pm-3:30 pm	BOARDROOM
	376	RLG Containment Structures M1		Sat	3:00 pm-5:00 pm	SALON B
	376	RLG Containment Structures M2		Sun	9:00 am-5:00 pm	STUDIO 4
	376-TG	RLG Containment Structures TG M1		Mon	11:30 am-5:00 pm	BALCONY M
	376-TG	RLG Containment Structures TG M2		Tue	9:00 am-12:00 pm	REGENT
	376-TG	RLG Containment Structures TG M <sub>3</sub>		Wed	9:00 am-5:00 pm	BALCONY K
	408	Development and Splicing		Sun	8:30 am-11:30 am	STUDIO 9
	421	Reinf Slabs		Sun	10:00 am-1:00 pm	LA GALERIE 2
	423	Prestressed		Mon	9:00 am-1:00 pm	LA GALERIE 2
	423-445	Adhoc Grp on Shear in Prestress Conc	i	Sun	3:00 pm-5:00 pm	STUDIO 3
	435	Deflection		Mon	3:30 pm-6:30 pm	JACKSON
	437	Strength Evaluation		Mon	8:30 am-11:30 am	STUDIO 2
	439	Steel Reinforcement		Mon	8:30 am-10:00 am	NAPOLEON
	439-A	Steel Reinf-Wire		Sun	12:30 pm-2:00 pm	BALCONY M
	440	Fiber Reinforced Polymer		Tue	8:30 am-11:30 am	SALON D
	440-D	FRP-Research		Sun	1:30 pm-3:00 pm	LA GALERIE 1
	440-F	FRP-Repair Strengthening		Mon	3:00 pm-6:00 pm	LA GALERIE 6
	440-G	FRP-Student		Mon	8:30 am-10:00 am	BALCONY K
	440-H	FRP-Reinforced- Concrete		Sun	8:30 am-11:30 am	STUDIO 2
	440-l	FRP-Prestressed Concrete		Mon	10:00 am-11:30 am	BALCONY M
	440-L	FRP-Durability		Sun	3:00 pm-5:00 pm	LA GALERIE 1
	440-M	FRP-Repair of Masonry Str		Mon	1:00 pm-3:00 pm	STUDIO 8
	441	Columns		Mon	11:30 am-2:00 pm	STUDIO 2
	441-E	Column Multi- Spiral Reinf		Sun	3:00 pm-4:30 pm	STUDIO 5
	444	Experimental Analysis		Tue	8:00 am-10:00 am	NAPOLEON
	445	Shear & Torsion		Mon	2:00 pm-6:00 pm	BALCONY L

Code	Committee	Day	Time	Room Name
445-A	Shear & Torsn-Strut & Tie	Sun	10:30 am-1:30 pm	STUDIO 8
445-B	Shear & Torsn- Seismic Shear	Sun	8:00 am-11:00 am	LAFAYETTE
445-C	Shear & Torsn- Punching Shear	Sun	1:00 pm-3:00 pm	STUDIO 3
445-D	Shear & Torsn- Database	Mon	10:00 am-12:00 pm	BACCHUS
445-E	Shear & Torsn-SOA Torsion	Sun	12:30 pm-2:00 pm	REGENT
446	Fracture Mechanics	Mon	5:00 pm-7:00 pm	STUDIO 9
447	Finite Element Analysis	Mon	11:30 am-2:00 pm	STUDIO 5
506	Shotcreting	Tue	8:30 am-11:30 am	LA GALERIE 2
506-A	Shotcreting- Evaluation	Sun	9:30 am-11:00 am	BALCONY M
506-B	Shotcreting-Fiber Reinforced	Sun	1:30 pm-3:00 pm	STUDIO 5
506-C	Shotcreting-Guide	Mon	8:30 am-11:00 am	JACKSON
506-E	Shotcreting- Specifications	Mon	11:00 am-12:30 pm	JACKSON
506-F	Shotcreting- Underground	Mon	3:00 pm-5:00 pm	BACCHUS
506-G	Qualifications for Projects	Sun	11:00 am-12:30 pm	BALCONY M
515	Protective Systems	Tue	11:30 am-2:00 pm	BALCONY K
522	Pervious Concrete	Tue	8:30 am-11:30 am	BALCONY L
523	Cellular Concrete	Tue	10:00 am-1:00 pm	STUDIO 4
523-A	Cellular-Autoclaved Aerated	Tue	8:30 am-10:00 am	STUDIO 4
524	Plastering	Mon	8:30 am-10:00 am	STUDIO 10
543	Piles	Mon	8:30 am-11:30 am	BOARDROOM
544	Fiber Reinforced Concrete	Tue	3:30 pm-6:00 pm	LA GALERIE 5
544-A	FRC-Production & Applications	Mon	11:30 am-1:00 pm	LA GALERIE 3
544-B	FRC-Education	Mon	8:30 am-10:00 am	STUDIO 9
544-C	FRC-Testing	Tue	2:00 pm-3:30 pm	LA GALERIE 5
544-D	FRC-Structural Uses	Mon	3:30 pm-6:00 pm	STUDIO 4
544-E	FRC-Mechanical Properties	Mon	2:00 pm-3:00 pm	LA GALERIE 6
544-F	FRC-Durability	Tue	10:30 am-12:00 pm	STUDIOS 8&9
546	Repair	Mon	8:30 am-11:30 am	LA GALERIE 6
546-A	Repair-Underwater	Sun	8:30 am-9:30 am	BALCONY J

C	ode Co	mmittee	Day	Time	Room Name
	546-B	Repair-Material Selection Guide	Sun	9:30 am-10:30 am	BALCONYJ
	546-C	Repair-Guide	Sun	10:30 am-11:30 am	n BALCONY J
	548	Polymers	Tue	8:30 am-10:30 am	BALCONY K
	548-A	Polymers-Overlay	s Mor	8:30 am-11:00 am	REGENT
	548-B	Adhesives in Concrete	Mor	11:00 am-1:00 pm	STUDIO 6
	548-C	Structural Polyme Design	r Sun	11:30 am-1:00 pm	BALCONY L
	548-TG	Polymers-TG	Sun	2:00 pm-3:00 pm	IBERVILLE
	549	Thin Reinforced	Sun	10:30 am-2:00 pm	LA GALERIE 3
	549-A	Thin Reinforced- Premix GFRC	Sun	8:30 am-10:30 am	STUDIO 8
	550	Precast Structure	s Tue	10:30 am-1:00 pm	STUDIO 6
	551	Tilt-up	Sun	8:30 am-11:00 am	LA GALERIE 4
	552	Cementitious Grouting	Tue	11:30 am-2:00 pm	BALCONY L
	555	Recycled	Mor	5:00 pm-6:30 pm	STUDIO 2
	560	Design & Constr ICFs	Wed	8:30 am-11:30 am	STUDIO 8
	562	Eval, Repair & Rehab	Sun	11:30 am-5:00 pm	SALON E
	562-A	Eval, Repair & Rehab-Life Safety	Sat	5:00 pm-9:00 pm	SALON B
	562-B	Eval, Repair & Rehab-Loads	Sun	8:00 am-9:00 am	STUDIO 4
	562-C	Eval, Repair & Rehab-Structural Analysis	Sat	5:00 pm-9:00 pm	SALON C
	562-D	Eval, Repair & Rehab-Structural Repair Design	Sat	1:00 pm-3:00 pm	SALON B
	562-E	Eval, Repair & Rehab-Durability Quality Assurance	Sat	5:00 pm-9:00 pm	BALCONYJ
	562-F	Eval, Repair & Rehab-General	Sat	1:00 pm-5:00 pm	BALCONYJ
	563	Specs for Repair of Struct Conc in Bldgs	Tue	2:00 pm-5:00 pm	BALCONY L

# CONCYCLE in New Orleans and Vicinity

Committee I24, Aesthetics, has developed a compendium of notable concrete projects in New Orleans and the surrounding area. Sites include several churches, Harrah's Hotel, the Inner Harbor Navigation Canal, the St. Bernard Parish Cultural Arts & Community Center, Southern Yacht Club, and more. For a complete listing and map, visit www.aciconvention.org.



#### **Concrete Sustainability Forum**

**SALON D** 

Sponsored by ACI Committees ISO-TC71, ACI Committee 130, Sustainability, and the Board Advisory Committee on Sustainable Development

Session Co-Moderators: Koji Sakai

Professor

Kagawa University Takamatsu, Japan

Julie K. Buffenbarger

Engineering & Architectural Specialist

Lafarge Medina, OH

Richard D. Stehly

Principal

American Engineering & Testing

Saint Paul, MN

In recent years, sustainability and green design/construction have received much deserved attention. Through its strategic plan, ACI announced its commitment to expand the understanding of sustainability among the membership, expand resources to support sustainability issues, and increase the content on sustainability in ACI documents and products. This workshop will provide you with additional knowledge and resources to identify opportunities in your ACI committee work, in your work with other organizations, and in your career to make necessary changes to design, construct, and specify buildings and infrastructure in more sustainable ways. Additionally, this workshop will assist the International Organization for Standardization (ISO) TC71/SC8 in gathering information for a new standard being developed on environmental management for concrete and concrete structures.

Forum Kickoff
Social Values of Concrete Structures
1:10 pm
Aris Papadopoulos, CEO & President, Titan America, Norfolk, VA

# Saturday, November 7, 2009 1:00 pm – 5:00 pm

Concrete Sustainability Forum (cont.)

**SALON D** 

Sustainability Activities in Concrete-Related Organizations

The Precast/Prestressed Concrete Initiative of Sustainable Design

1:25 pm

**Emily B. Lorenz,** Director of Sustainability, Precast/Prestressed Concrete Institute, Chicago, IL

**New Green Pavement Rating Systems** 

1:40 pm

Peter C. Taylor, Engineer, CPTech National Center, Ames, IA

**PCA High-Performance Building Code** 

1:55 pm

Julie Buffenbarger, Engineering and Architectural Specialist, Lafarge, Medina, OH

NRMCA Footprint Reduction Strategy

2:10 pm

**Lionel A. Lemay,** Senior Director of Applied Engineering, National Ready Mixed Concrete Association, Libertyville, IL

**Environmental Design and Applications of Concrete Structures; from JSCE and fib Activities** 

2:25 pm

**Kenji Kawai,** Associate Professor, Hiroshima University, Hiroshima, Japan

Cement Sustainability Initiative: Recycling and More 2:40 pm Harve Stoeck, Vice President of Environment and Public Affairs, Lafarge, Geneva, Switzerland

Sustainability and the Built Environment—A Closer Look 2:55 pm from the European Perspective

**Peter Richner,** Head of the Department of Civil and Environmental Engineering, Empa—Material Science and Technology, Dübendorf, Switzerland

Break 3:10 pm

Advanced Sustainability Technologies

Environmental Advantage and Applications of Applying
Ultra High-Strength Fiber-Reinforced Concrete in Japan

3:20 pm

**Hiroyuki Musha**, Manager of Civil Engineering Technology Development Department, Taisei Corporation, Yokohama, Japan

Concrete Sustainability Forum (cont.)

**SALON D** 

An Advanced Concrete Recycling Plant, Completely 3:35 pm
Recyclable Concrete Products, and the Progress of Recycling
Concrete in Japan
Fuminari Tomosawa Professor, Nihon University, Tokyo, Japan

Fuminori Tomosawa, Professor, Nihon University, Tokyo, Japan

Sustainability ISO Standardization for the Concrete Sector
International Standard for Environmentally 3:50 pm
Conscious Specification of Concrete Materials, Production, and Structures

**Takafumi Noguchi,** Associate Professor, the University of Tokyo, Tokyo, Japan

**Standardization for Sustainability in ISO/TC71/SC8 4:05 pm Koji Sakai,** Professor, Kagawa University, Takamatsu, Japan

Forum Discussion 4:20 pm

Convention #1 Breakfast

LA GALERIE 3

Sponsored by the ACI Convention Committee

Session Moderator: Kari L. Yuers

President & CEO

Kryton International Inc. Vancouver, BC, Canada

First-time convention attendees are invited to join Kari Yuers, Chair of the ACI Convention Committee, for a continental breakfast and a brief session to orient you to the week ahead. Attendees will have the opportunity to meet other convention attendees and learn about what an ACI Convention has to offer.

Student Concrete Cube Competition

**ACADIA/BISSONET** 

Sponsored by the ACI Louisiana Chapter and ACI Committee E801, Student Activities

Session Moderator: Lawrence H. Taber

Structural Engineer Black & Veatch Kansas City, MO

Come watch the future of ACI compete against each other! The objective of the cube competition is to produce a concrete cube that achieves, as closely as possible, a target design strength and a target mass as specified in the rules. Don't miss this event! Stop by and cheer on your favorite team! We will also have presentations from the first- and second-place winners of the Student Concrete Projects Competition.

#### **Second Place**

Marine Biofouling and Its implications on the
Durability of Concrete Sea Defences
Peter Hughes, University of Central Lancashire, Preston,
Lancashire, UK

#### First Place

Experiment Work and an Analytical Investigation on
Shear Strength of High-Performance Concrete Beams
with Web Reinforcement

Jignesh I. Patel, Nirma University, Ahmedabad, Gujarat, India





#### Application of Fracture Mechanics to Concrete Structures and Composites

**SALON C** 

Sponsored by ACI Committee 446, Fracture Mechanics

Session Co-Moderators: Kolluru V. Subramaniam

**Associate Professor** 

City College - City University of New York

New York, NY

Woody Ju Professor

University of California at Los Angeles

Los Angeles, CA

In recent years, substantial progress has been made towards developing applications of fracture mechanics for predicting performance and failure in concrete structures and composites. A technical session and a special publication are planned on this topic to highlight some of the significant advancements.

### A Fracture Based Method to Determine the Flexural Capacity of Concrete Slabs

2:00 pm

**Cristian Gaedicke**, Assistant Professor, Texas State University, San Marcos, TX; and **Jeffery Roesler**, University of Illinois at Urbana Champaign

Applications of Moment Curvature Analysis and 2:25 pm
Fracture Mechanics to Flexural Steel Fiber Reinforced Concrete Sections
Fariborz M. Tehrani, Lecturer, University of California at Los Angeles,
Los Angeles, CA; and Woody Ju, University of California at Los Angeles

Fiber Pullout Modeling and Fracture Toughness of Steel 2:50 pm Fiber Reinforced Cementitious Composites

**Woody Ju**, Professor, University of California at Los Angeles, Los Angeles, CA; and **P. Suwatnodom**, University of California at Los Angeles

Size-Effect Methods for the Identification of Cohesive 3: Crack Model Parameters

3:15 pm

**Gianluca Cusatis**, Assistant Professor, Rensselaer Polytechnic Institute, Troy, NY; and **Edward Schauffert**, Rensselaer Polytechnic Institute

Application of Fracture Mechanics to Concrete Structures and Composites (cont.)

SALON C

Application of Fracture Mechanics to Debonding of FRP from Concrete Beams

3:40 pm

**Christian Carloni**, Professor, University of Hartford, Hartford, CT; and **Kolluru V. Subramaniam**, City College-City University of New York

Size Effect in Shear Failure of Beams 4:05 pm
G. Appa Rao, Associate Professor, Indian Institute of Technology,
Madras, Chennai, India

Construction, Formwork, Scheduling, Tolerances and Communication

SALON F

Sponsored by ACI Committee 347, Formwork

Session Moderator: Pericles C. Stivaros

Principal

Feld, Kaminetzky and Cohen

Jericho, NY

This session will be of interest to contractors, formwork engineers, formwork manufacturers and others interested in concrete construction practices. Attendees will find out about new, innovative forming systems, successful and not so successful, design and construction operations, and safe and less expensive construction practices.

Case Studies: Effects of High Construction Loads on Concrete Slab Deflections Need for Design and

2:00 pm

**Construction Coordination** 

Pericles C. Stivaros, Principal, Feld, Kaminetzky and Cohen, Jericho, NY

Advances in the Use of Column Hung Shoring Systems 2:25 pm John A. Brain, Eastern District Director of Engineering, Harsco Infrastructure, Paramus, NJ

Insulated Forms; Why and Why Now?

Pierre-Claude Aitcin. Professor. University of S

2:50 pm

**Pierre-Claude Aitcin**, Professor, University of Sherbrooke, Sherbrooke, QC, Canada

**Fabric Formed Concrete** 

3:15 pm

**Robert Schmitz**, Principal, RP Schmitz Consulting Engineers, Brookfield, WI

Intelligent Formwork System (Reshore Free, Bi-Directional, 3:40 pm Self Leveling Slab Form Systems)

**George Charitou,** Chief Engineer, EllisDon Construction, Mississauga, ON, Canada; and **Lloyd J. Keller,** EllisDon Construction

**Overhang Forming Design Calculations** 

4:05 pm

J. Leroy Caldwell, Senior Engineer, CMC Construction Services, Dallas, TX

Technical Committees Interface with Specification 4:30 pm Committee 301: Case Study to Define 'Smooth-Form and Rough-Form Finish'

James N. Cornell II, Senior Project Manager, The Beck Group, Dallas, TX

**Emerging Technologies in Civil Infrastructure Application SALONS G&H** Sponsored by ACI Committee TTTC, TAC Technology Transfer

Session Co-Moderators: Joseph Sanders

Vice President

Charles Pankow Builders Ltd

Pasadena, CA

Claude Bédard Vice President

Euclid Admixtures Canada St. Hubert, QC, Canada

Collaborating to solve the concrete industry's technology problems and advancing the adoption of industry critical technologies is the joint goal of the Strategic Development Council and the Technology Transfer Committee. This session highlights a variety of current emerging industry technologies.

Multi-Spiral Shear Reinforcement for Rectangular Members 2:00 pm
Tony C. Liu, Senior Research Fellow, National Taiwan University,
Taipei, Taiwan; and Samuel Yin and Raymond Wang, Ruentex
Engineering and Construction Co., Ltd.

#### **Precast Segmental Duct Couplers**

2:30 pm

**Larry B. Krauser,** Vice President of Business Development, General Technologies, Inc., Stafford, TX

Advances in Monitoring and Estimating Form Pressure of SCC 3:00 pm Kamal H. Khayat, Professor, University of Sherbrooke, Sherbrooke, QC, Canada

**Building Information Modeling for Concrete**3:30 pm **Peter Carrato**, Principal Civil Engineer and Fellow, Bechtel Corporation,

Frederick, MD

Performance Criteria for Concrete Materials: Update on ITG-8 4:00 pm Kenneth B. Rear, Vice President of Research & Support, KBR Resources Inc., Holmes Beach, FL

**Testing Protocol for Repair System Evaluation 4:30 pm Peter H. Emmons,** President, Structural Group Inc., Hanover, MD

#### **How I Spiced Up My Concrete**

SALON B

Sponsored by the ACI Louisiana Chapter

Session Co-Moderators: Subhash Kulkarni

President

Kulkarni Consultants

Metairie, LA

Om P. Dixit

**Engineering Director** 

C.H. Fenstermaker and Associates

New Orleans, LA

Any design of a concrete mix for the modern specifications for concrete on projects is very similar to cooking a gourmet meal with spices. To satisfy the taste of every patron requires a unique blend of various spices. Similarly, in order to meet the specifications of HPC (High Performance Concrete) a unique blend of admixtures and other ingredients are required. This session will address some of these issues and the solutions used on various local and other projects.

#### **How Do You Cook Up HPC?**

2:00 pm

Darrell F. Elliot, Technical Service Manager, Buzzi Unicem USA, Laplace, LA

#### **Prescription for Spicy HPC in Louisiana Projects**

2:30 pm Paul B. Fossier, Assistant State Bridge Design Engineer, Louisiana Department of Transportation and Development, Baton Rouge, LA

#### Research for Spicy HPC in Louisiana

3:00 pm

John J. Roller, Principal Structural Engineer, CTL Group, Skokie, IL

#### Variety of Spices for Concrete

3:30 pm

Charles K. Nmai, Chief Engineer, BASF Construction Chemicals, Twinsburg, OH

#### **Towards Spicy Concrete**

4:00 pm

Kevin MacDonald, Vice President of Engineering Services, Cemstone Products Company, Mendota Heights, MN

#### Spicing up Concrete for Extreme Requirements

4:30 pm

James Warner, Consulting Engineer, James Warner Consulting Engineers, Mariposa, CA

# **Sunday, November 8, 2009 5:15 pm – 6:30 pm**

#### **Opening Session and Hardy Cross Lecture Series**

**CARONDELET** 

The ACI Fall 2009 Convention officially begins during the Opening Session and Hardy Cross Lecture Series. Featured speaker Shunsuke Otani, Professor Emeritus at the University of Tokyo, will discuss The Role of Analysis in Earthquake-Resistant Design: A Retrospective.



Engineering seismology was developed in the late nineteenth century, and modern seismographs were developed to record the trace of earthquake motion. With the knowledge on earthquake acceleration signals, equivalent static forces for earthquake inertia effects on buildings were introduced in building codes; first in Italy after the 1908 Messina Earthquake and then in Japan after the 1923 Kanto (Tokyo) Earthquake.

Classical Castigliano's theorems were used in structural analysis to determine stresses in a building. The slope deflection method was published by W.M. Wilson in 1918 to write a set of linear equations, and an iterative solution method of the linear equations, commonly known as "the moment distribution method" that was developed by Hardy Cross in 1930 for moment-resisting frames under vertical loads. These methods were not practical for routine earthquake-resistant design.

The development of earthquake-resistant design in the age of Hardy Cross will be reviewed in this lecture series.

#### **Opening Reception**

ACADIA/BISSONET

Sponsored by the ACI Louisiana Chapter

After the Opening Session, make your way to the exhibit hall and enjoy a beverage from a cash bar and light refreshments. What a great place to catch up with friends, network with concrete professionals, talk with exhibitors, and meet new convention attendees. This is definitely a networking opportunity you won't want to miss!





# Sunday, November 8, 2009 7:30 pm – 9:30 pm

✓ Professor Thomas T.C. Hsu Honorary Dinner \$80 U.S. per person LA GALERIE 2

Coordinated by ACI Committee 445, Shear and Torsion

Join other ACI attendees in celebrating Thomas Hsu's extraordinary achievements and life-long career in reinforced concrete. Over the past 20 years, Professor Thomas Hsu has been a pioneer in reinforced concrete under variable conditions. Creator of the Universal Element Tester, this machine is the only machine in the world able to



test reinforced concrete slabs under seismic conditions. Dr. Hsu has published comprehensively on micro-cracking, torsion, shear, and design of concrete structures under static, dynamic and earthquake conditions. ACI and the American Society of Civil Engineers jointly honor Dr. Hsu's life-long contribution to the field of structural engineering by naming the ACI Symposium "Thomas T.C. Hsu Symposium on Shear and Torsion in Concrete Structures." Symposium sessions will be held on Monday and Tuesday in Salon B. Refer to the session section for a listing of topics.

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.

**Student and Young Professional Networking Event 55 FAHRENHEIT** Sponsored by the ACI Collegiate Concrete Council and Advisory Committee for Young Members

The ACI Collegiate Concrete Council and ACI Advisory Committee for Young Professionals invite all convention attendees to the Student and Young Professional Networking Event. Meet fellow students and young professionals while networking with ACI members in a fun and casual environment. Attendees to the event will be entered into a drawing for door prizes. In addition, the bar will be open for attendees desiring to purchase beverages.



# Monday, November 9, 2009 6:30 am - 8:15 am

#### Workshop for Technical Committee Chairs

**SALONS D&E** 

Sponsored by the ACI Technical Activities Committee

Session Moderator: Chiara F. Ferraris

Physicist

National Institute of Standards

and Technology Gaithersburg, MD

ACI Technical Committee Chairs are expected to attend this breakfast workshop to meet with fellow chairs, TAC members, and ACI staff, and to hear updates on important recent developments of interest to ACI Technical Committee Chairs. There will be table discussions and short presentations. If you are unable to attend, please ask the secretary or another committee member to represent you in your absence.

# Monday, November 9, 2009 7:00 am - 8:30 am

Speaker Skills Training Breakfast: Spicing Up Your Presentation LA GALERIE 3

Sponsored by ACI Committee E802, Teaching Methods and Educational Materials

Session Moderator: James H. Hanson

**Associate Professor** 

Rose-Hulman Institute of Technology

Terre Haute, IN

Speaker: Zachary C. Grasley

Assistant Professor Texas A&M University College Station, TX

Topic: Spicing Up Your Presentation

Looking to spice up your presentation? Some common pitfalls of PowerPoint presentations will be discussed, as well as tips on how to avoid them. New technologies available for "spicing up" presentations for ACI sessions or for other audiences will be demonstrated and their application described. In particular, a few new technologies that improve audience attention and participation will be discussed. A light continental breakfast will be served.

Nanotechnology of Concrete: The Next Big Thing is Small, SALON A Part 1

Sponsored by ACI Committee 236, Material Science

Session Co-Moderators: Konstantin Sobolev

**Associate Professor** 

University of Wisconsin-Milwaukee

Milwaukee, WI

Mahmoud M. Reda Taha Associate Professor University of New Mexico

Albuquerque, NM

Nanotechnology has changed our vision, expectations and abilities to control the material world. These developments will have a great impact on the field of construction materials. Portland cement, one of the largest commodities consumed by mankind, is obviously the product with great, but at the same time, not completely explored potential. Better understanding and precise engineering of an extremely complex structure of cement-based materials at the nano-level will apparently result in a new generation of concrete, stronger and more durable, with desired stress strain behavior and possibly possessing the range of newly introduced smart properties. Information presented in this session will benefit all convention attendees, especially contractors, engineers, manufacturers and suppliers of construction materials

Nano to Microlevel Modeling of Cement-Based Materials 9:00 am Eddy Koenders, Associate Professor, Delft University of Technology, The Netherlands; Jorge Sanchez Dolado and Antonio Porro, Labein Nanotechnology Institute; and Klaas Van Breugel, Delft University of Technology

Nanoscale Characterization of Concrete 9:20 am Surendra P. Shah, Professor, Northwestern University, Evanston, IL; Paramita Mondal, University of Illinois; and Jae Hong Kim, Northwestern University

Nanotechnology of Concrete: The Next Big Thing is Small, SALON A Part 1 (cont.)

Design of Nano-SiO<sub>2</sub> to Improve the Performance of 9:40 am Cement and Concrete

Ismael Flores, PhD Candidate, Universidad Autónoma de Nuevo León, Nuevo León, Mexico; Konstantin Sobolev, University of Wisconsin-Milwaukee; and Leticia Torres Martinez, Pedro Valdez Tamez, Elvira Zarazua Morin, and Enrique Lopez Cuellar, Universidad Autónoma de Nuevo León

Influence of TiO<sub>2</sub> Nanoparticles on Early C<sub>3</sub>S Hydration 10:00 am Bo Yeon Lee, PhD Candidate, Georgia Institute of Technology, Atlanta, GA; Jeffrey J. Thomas, Northwestern University; and Matthew Treager and Kimberly E. Kurtis, Georgia Institute of Technology

Carbon Nanotubes Reinforced Concrete 10:20 am
Zoi Metaxa, PhD Candidate, Northwestern University, Evanston, IL;
Maria Konsta-Gdoutos, Democritus University of Thrace; and
Surendra P. Shah, Northwestern University

Carbon Nanofibers and Nanotubes in Cementitious 10:40 am Materials: Some Issues on Dispersion and Interfacial Bond Ardavan Yazdanbakhs, PhD Candidate, Texas A&M University, College Station, TX; and Zachary Grasley, Bryan Tyson, and Rashid K. Abu Al-Rub, Texas A&M University

Effect of Nanosized Silica on Mechanical Properties in 11:00 am High-Performance Concrete Mixes

Joan Bowser, Professor, University of New Mexico, Albuquerque, NM; and Arup Maji, University of New Mexico

Concrete—The Original Nano-Material 11:20 am Marion R. Hansen, Professor, South Dakota School of Mines and Technology, Rapid City, SD

Simple Tools and Gadgets which Help Solve Your Problems ACADIA/BISSONET

Sponsored by ACI Committee E702, Designing Concrete Structures

Session Co-Moderators: Lawrence H. Taber

Structural Engineer Black & Veatch Kansas City, MO

Luke M. Snell Eminent Scholar

Del E. Web School of Construction

Arizona State University

Tempe, AZ

This session will cover inexpensive tools, gadgets and techniques that make inspections and construction activities easier and can help you solve your concrete problems. A brief overview of these topics will be followed by live demonstrations. Engineers, contractors, or anyone who wants a better bang for their buck when trying to solve a problem, perform an inspection, or complete construction projects should attend this session.

Playing Inspector Gadget is Beneficial! (Session Overview) 9:00 am Lawrence H. Taber, Structural Engineer, Black & Veatch, Kansas City, MO

**Banging Around with Chains and Hammers** 9:05 am **Philip P. Schlossnagle,** Project Engineer, Ardaman & Associates Inc., Tampa, FL

**Don't Cut the Rebar! Using a Reinforcement Locator** 9:15 am **Lawrence H. Taber,** Structural Engineer, Black & Veatch, Kansas City, MO

Where's the Soft Spot? Using a Rebound Hammer 9:25 am Jarkko T. Simonen, Associate, Wiss Janney and Elstner Associates Inc., Austin, TX

Checking Conditions with a Weather Station and 9:35 am Infrared Thermometer

**Luke M. Snell,** Eminent Scholar, Del E. Web School of Construction, Tempe, AZ

Simple Tools and Gadgets which Help Solve Your Problems (cont.)

ACADIA/BISSONET

Focusing on the Details with a Handheld Microscope 9:45 am

Derek X. Cong, Associate Principal, Wiss Janney and Elstner

Associates Inc., Austin, TX

**Taking a Peek with a Borescope**9:55 am **Bill Bloemendal,** Principal Engineer, American Engineering Testing,
Saint Paul, MN

**Using a Chace Air Indicator and Weighing Cylinders 10:05 am Bryan R. Castles,** Senior Materials Engineer, Western Technologies
Inc., Phoenix, AZ

**Live Demonstrations** 

10:15 am

The Leading Edge of Pervious Concrete, Part 1

**SALONS G&H** 

Sponsored by ACI Committee 522, Pervious Concrete

Session Co-Moderators: Charles A. Weiss, Jr.

Research Geologist

U.S. Army Engineer Research &

**Development Center** 

Vicksburg, MS

Matthew A. Offenberg Southeast U.S. Technical Services Manager

W.R. Grace Canton, GA

Pervious concrete is an innovative building material with many environmental, economic, and structural advantages. With increasing use of the material more research into new applications and a better understanding of the properties of pervious concrete is needed. This session will highlight the advances that are being made in the use, specification, and performance of pervious concrete.

Chemical Admixture System for Pervious Concrete 9:00 am Matthew A. Offenberg, Southeast U.S. Technical Services Manager, W.R. Grace, Canton, GA; and Eric Koehler and Ara Jeknavorian, Grace Construction Products

#### **Pervious Concrete Specification Progress**

9:30 am

Charles A. Weiss, Jr., Research Geologist, U.S. Army Engineer Research & Development Center, Vicksburg, MS; Toy S. Poole, U.S. Army Engineer Research & Development Center; and Matthew A. Offenberg, W. R. Grace

Field Performance Evaluation of Pervious Concrete
Pavements in Freeze-Thaw Environments

**Norbert J. Delatte,** Professor, Cleveland State University, Broadview Heights, OH

#### Pervious Concrete and pH

10:30 am

**Liv Haselbach,** Associate Professor, Washington State University, Pullman, WA

The Leading Edge of Pervious Concrete, Part 1 (cont.) SALONS G&H

Sedimentation of Pervious Concrete Pavement Systems 11:00 am Luis A. Mata, Assistant Professor, Lawrence Technological University, Southfield, MI; and Michael L. Leming, North Carolina State University

Development of ASTM Test Methods for Pervious Concrete 11:30 am Karthik H. Obla, Vice President of Research & Materials Engineering, National Ready Mixed Concrete Association, Silver Spring, MD

Things You Need to Know About Workability of Concrete SALON C Sponsored by ACI Committees 238, Workability of Fresh Concrete, and E802, Teaching Methods and Educational Materials

Session Moderator: Kejin Wang

Associate Professor lowa State University

Ames, IA

Design of a concrete mixture with desirable workability is essential in every step of a concrete project, from the manufacturing process, construction operation, and quality control to the long-term performance of hardened concrete. In recent years, concrete technology has advanced dramatically due to the uses of numerous supplementary cementitious materials, additives, and chemical admixtures as well as the development of various new types of concretes (such as self-consolidating concrete, engineered cementitious concrete, and pervious concrete). The demands for rapid construction, high performance, and excellent durability of concrete have also been increasing. As a result, an urgent need has emerged for workability measurement and acceptance of various concretes. In response to such an urgent need, ACI Committee 238 recently published a state-of-the-art report on Measurements of Workability and Rheology of Fresh Concrete (ACI 238.1R-08). This report provides a comprehensive view of workability and rheology of fresh concrete and a critical review of existing test methods. It discusses the factors affecting fresh concrete performance and provides a better understanding of the important issues related to the design of workable concrete, from no flow (zero slumps) to high flow. All presentations of this session will be developed based on the ACI 238 report. In addition, a special presentation will be delivered on how to teach concrete workability in the classroom to bridge material science and industry needs. All PowerPoint files of the presentations will be compiled into CDs, and the CDs will be distributed to the audiences. It is expected that the audience would carry forward the information received to classrooms, research laboratories, and/or field projects.

Introduction 9:00 am Kejin Wang, Associate Professor, Iowa State University, Ames, IA

Overview of ACI 238.1 R-08 Report on 9:05 am
Measurements of Workability and Rheology of Fresh Concrete
Chiara F. Ferraris, Physicist, National Institute of Standards and
Technology, Gaithersburg, MD

Things You Need to Know About Workability of Concrete (cont.)

SALON C

**Test Methods for Workability and Rheology of Fresh Concrete 9:30 am Eric P. Koehler**, Research Engineer, W.R. Grace, Cambridge, MA

**Factors Affecting Workability of Concrete 10:00 am Peter H. Billberg**, Postdoctoral Researcher, Swedish Cement and
Concrete Research Institute, Stockholm, Sweden

**Examples of Using Workability Test Methods 10:30 am Joseph A. Daczko**, Product Manager, BASF Construction Chemicals, Mantua, OH

Relationship Between Rheology and Workability
of Cement-Based Materials
Kamal H. Khayat, Professor, University of Sherbrooke, Sherbrooke,
QC, Canada

Thomas T.C. Hsu Symposium, Part 1: Recent Advances in Seismic Shear of Wall-Type Structures

**SALON B** 

Sponsored by ACI Committee 445, Shear and Torsion

Session Organizer: Abdeldjelil Belarbi

Distinguished Professor Missouri University of Science

and Technology

Rolla, MO

Session Co-Moderators: David Darwin

Distinguished Professor The University of Kansas

Lawrence, KS

Yi-Lung Mo Professor

**University of Houston** 

Houston, TX

This symposium will honor Professor Thomas T.C. Hsu for his life-long contribution to the field of structural engineering, particularly in the area of shear and torsion. The Special Publication (SP) of the Symposium contains 29 papers and 32 presentations that represent the state-of-theart advances in new knowledge on shear and torsion. The Symposium consists of four sessions with 32 presenters from different corners of the globe. The Symposium and the SP volume are organized to allow Tom's many friends, students, and colleagues to honor him for his fundamental contribution to the knowledge of shear and torsion and for his half a century contribution to ACI technical discussions and reports. The SP covers a wide spectrum of knowledge including: (1) Recent Advances in Seismic Shear of Wall-Type Structures, (2) Recent Advances in Non-Linear Finite Element Analysis of Concrete Structures, (3) Five Decades of Progress in Shear and Torsion, and (4) Recent Advances in Shear of Concrete Bridges.

Introduction 9:00 am

David Darwin, Distinguished Professor, University of Kansas,

Lawrence, KS

Test of a Coupled Wall with High-Performance 9:04 am
Fiber-Reinforced Concrete Coupling Beams
James K. Wight, Professor, University of Michigan, Ann Arbor, MI;
and Gustavo J. Parra-Montesinos and Remy D. Lequesne, University

Thomas T.C. Hsu Symposium, Part 1: Recent Advances SALON B in Seismic Shear of Wall-Type Structures (cont.)

The Impact of Shear on Shear Wall Systems 9:26 am John W. Wallace, Professor, University of California, Los Angeles, CA; Kutay Orakcal, Bogazici University; and Leonardo M. Massone, University of Chile

Shear Strength Prediction of Eccentric Beam-Column Joints 9:48 am Shyh-Jiann Hwang, Professor, National Taiwan University, Taipei, Taiwan; Erwin Lim, National Taiwan University; and Hung-Jen Lee, National Yunlin University of Science & Technology

Reversed Cyclic Behavior of Reinforced Concrete Shear 10:10 am Walls with Diagonal Steel Grids

**Jian-Xia Zhong,** Engineer, MMI Engineering, Inc., Houston, TX; **Yi-Lung Mo**, University of Houston; and **Wen-I. Liao,** National Taipei University of Technology

Evaluation of Behavior of Reinforced Concrete Shear 10:32 am Walls through Finite Element Analysis

Ravi T. Mullapudi, PhD Candidate, University of Houston, Houston, TX; and Ashraf S. Ayoub and Parnak Charkhchi, University of Houston

Constitutive Relations of Cracked Reinforced 10:54 am Concrete with Steel Fibers

**Mohamad Y. Mansour,** Senior Engineer, Bennett and Associates LLC, Houston, TX; and **Thomas T.C. Hsu** and **Yi-Lung Mo,** University of Houston

Simulation of Prestressed Concrete Girders Failed by Shear 11:16 am Yi-Lung Mo, Professor, University of Houston, Houston, TX; and Rachel N. Howser, Thomas T.C. Hsu, and Arghadeep Laskar, University of Houston

Refinements to Compression Field Theory, with Application to Wall-Type Structures

Enrique Hernandez-Montes, Professor, University of Granada, Spain; Mark A. Aschheim, Santa Clara University; Luisa Maria Gil-Martin, University of Granada; and Stavroula Pantazopoulou, Demokritus University of Thrace

#### **Research in Progress**

SALON F

Sponsored by ACI Committee 123, Research and Current Developments

Session Co-Moderators: Matthew D'Ambrosia

Project Manager CTL Group Skokie, IL

Aleksandra Radlinska Assistant Professor Villanova University Villanova, PA

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

Behavior of Ultra-High-Strength Steel Reinforced 9:00 am
Concrete Members Subjected to Large Deflection Reversals
Hooman Tavallali, PhD Candidate, Pennsylvania State University,
University Park, PA; Andres Lepage, Pennsylvania State University;
and Jeffrey Rautenberg and Santiago Pujol, Purdue University

#### Lightweight Concrete Beams with Steel Fiber Shear Reinforcement

9:15 am

**Thomas Kang,** Assistant Professor, University of Oklahoma, Norman, OK; and **Woosuk Kim,** University of Oklahoma

Performance Assessment of an Existing Reinforced 9:30 am Concrete Storage Silo with the Absence of Out-of-Plane Shear Reinforcements

**Trevor D. Hrynyk,** PhD Candidate, University of Toronto, Toronto, ON, Canada; and **Frank J. Vecchio,** University of Toronto

Thermo-Mechanical Response of Concrete Exposed to Fire 9:45 am Elin Jensen, Associate Professor, Lawrence Technological University, Southfield, MI; and Jacob Van Horn, Lawrence Technological University

#### Failure of a Deck Closure Pour on I-81

10:00 am

**Richard E. Weyers,** Professor, Virginia Polytechnic Institute, Blacksburg, VA; Michael Sprinkel, Virginia Department of Transportation; and **Sean A. Weyers** and **Andrei Ramniceanu,** Virginia Polytechnic Institute

Research in Progress (cont.)

**SALON F** 

**Permeability of Fiber Reinforced Mortar under Stress 10:15 am Meghdad Hoseini,** Graduate Research Assistant, University of Alberta, Edmonton, AB, Canada; and **Vivek Bindiganavile,** University of Alberta

Critical Chloride Threshold of Prestressing Steel and
Service Life of Prestressed Concrete Structures

**Radhakrishna G. Pillai,** Post Doctoral Research Associate, Texas A&M University, College Station, TX; and **David Trejo,** Oregon State University

Effect of Sample Conditioning on the Water Absorption 10:45 am of Concrete

Javier Castro, PhD Student, Purdue University, West Lafayette, IN; and Jason Weiss, Purdue University

SEM Examination of the Alkali-Silica Reactivity of 11:00 am Recycled Glass Sand in ASTM C1260 Mortars

Farshad Rajabipour, Assistant Professor, Pennsylvania State University, State College, PA; Hamed Maraghechi, University of Hawaii; and Gregor Fischer, Technical University of Denmark

Alkali Contribution from Fly Ash and Impact on Alkali-Silica Reactivity

11:15 am

Kelsea Schwing, Graduate Student, Oregon State University, Corvallis, OR; and Jason H. Ideker, Oregon State University

Field Studies of Mitigation Strategies for Alkali-Silica 11:30 am Reaction in Hardened Concrete

**Eric R. Giannini,** Graduate Research Assistant, University of Texas at Austin, Austin, TX; and **Kevin J. Folliard** and **Anthony F. Bentivegna,** University of Texas at Austin

Chracterization of Cement Kiln Dust Activated Fly Ash and Slag as Alternative Binding Materials for Sustainable Concrete Sulapha Peethamparan, Assistant Professor, Clarkson University, Potsdam, NY; and Piyush Chaunsali, Clarkson University

✓ Student Lunch SALONS D&E

\$27 U.S. per person; FREE to students who preregister

Sponsored by Baker Concrete Construction



Coordinated by the ACI Louisiana Chapter and ACI Committee E801, Student Activities



Speaker: Sid Jacobson

Director

Sid Jacobson & Associates

Metairie, LA

Topic: Navigating the Task-Relationship

Minefield: Long Term Success in the

World of Work

Join other ACI attendees and students for the announcement of the Student Competition results. Following lunch, featured speaker Sid Jacobson, Founder and Director of The South Central Institute of Neuro-Linguistic Programming, will give a presentation on Navigating the Task-Relationship Minefield: Long Term Success in the World of Work.

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.

"What's New" on Concrete Reinforcing Detailing SALON F
Sponsored by Committee E702, Designing Concrete Structures

Session Co-Moderators: Richard Birley

President

Condor Rebar Consultants Inc.

Vancouver, BC, Canada

Roy H. Reiterman Consultant

Wire Reinforcement Institute

2:00 pm

Troy, MI

The reinforced concrete detailing committee, 315-B reports on the most recent forums created and published.

The Structural Engineer's Responsibility for the Constructability of Concrete Structures

**Robert M. Darvas**, Principal Engineer, University of Michigan, Ann Arbor, MI

The Contractors View: Case Studies on Constructibility 2:25 pm Mario Garza, Preconstruction Manager, Barton-Malow Company, Oak Park, MI

Clarity of Design Intent - How to Avoid Misinterpretation 2:50 pm of Structural Drawings

**Javed B. Malik,** Structural Group Member, Jacobs Carter Burgess, Houston, TX

3-D Modeling of Reinforced Concrete for Nuclear Projects 3:15 pm Gregory P. Birley, Vice President of Technical Development, Condor Rebar Consultants Inc., Vancouver, BC, Canada

Discussion on Revising/Updating ACI/CRSI's Detailing 3:40 pm Concrete Reinforcing Publications

Dennis L. Hunter, Engineering Manager, Gerdau Ameristeel, Tampa, FL

"Updating Wire & WWR Details" Synopsis - SOG, Single 4:05 pm Story and Multi-Story Buildings

**Todd Hawkinson,** Technical Consultant, Wire Reinforcement Institute, Ballwin, MO; and **Theodore A. Mize,** Ivy Steel & Wire

Nanotechnology of Concrete: The Next Big Thing is Small. Part 2

**SALON A** 

Sponsored by ACI Committee 236, Material Science

Session Co-Moderators: Konstantin Sobolev

Associate Professor

University of Wisconsin-Milwaukee

Milwaukee, WI

Mahmoud M. Reda Taha Associate Professor University of New Mexico

Albuquerque, NM

Nanotechnology has changed our vision, expectations and abilities to control the material world. These developments will have a great impact on the field of construction materials. Portland cement, one of the largest commodities consumed by mankind, is obviously the product with great, but at the same time, not completely explored potential. Better understanding and precise engineering of an extremely complex structure of cement based materials at the nano-level will apparently result in a new generation of concrete, stronger and more durable, with desired stress strain behavior and possibly possessing the range of newly introduced smart properties. Information presented in this session will benefit all convention attendees, especially contractors, engineers, manufacturers and suppliers of construction materials.

#### Comparative Creep Compliance of Two Concretes 2:00 pm Using Nanoidentation

Aaron K. Reinhardt, Research Assistant, University of New Mexico, Albuquerque, NM; and Andrew P. Garner, Mehran Tehrani, Marwan Al-Haik, and Mahmoud M. Reda Taha, University of New Mexico

Multi-Scale Performance and Durability of Nano2:25 pm
Modified Cementitious Composites
Florence Sanchez, Professor, Vanderbilt University, Nashville, TN;
Catherine Gay, Vanderbilt University

Nanotechnology of Concrete: The Next Big Thing is Small, Part 2 (cont.)

SALON A

Porosity and Permeability of Cementitious Materials, 2:50 pm Incorporating Very Low Concentrations of Poly(ethylene oxide)black-Polystyre

**Dessi Koleva,** Researcher, Delft University of Technology, Delft, The Netherlands; and **Klaas Van Breugel, Guang Ye, Jian Zhou, Chamululu Godfrey,** and **Eduard Koenders,** Delft University of Technology

Beneficial Effects of Small Amounts of Nanosilica on 3:15 pm the Mechanical Stability of Cement

Paste Exposed to Natural pH Environments

Jintendra Jain, Post Doctoral Research Associate, Purdue University,

West Lafayette, IN; and Narayanan Neithalath, Clarkson University

Enhancing the Reactivity of Normal and High-Volume 3:40 pm Fly Ash Concrete Using Colloidal Nano-Silica

**Aly Said,** Assistant Professor, University of Nevada Las Vegas, Las Vegas, NV; and **Mohamed Zeidan,** University of Nevada Las Vegas

The Investigation of Nano-Silica in the Cement 4:05 pm Hydration Process

**Jon Belkowitz,** Supervisor, Lafarge, Western United States BU Laboratory, Denver, CO; and **Daniel L. Armentrout,** University of Denver

How can Multiscale Modeling Provide Useful Information 4:30 pm for Structural Assessment and Life Cycle Management?

Yann Le-Pape, Senior Researcher, EDF R&D Materials and Mechanics, Moret-Sur-Loing, France; and Charles Toulemonde and Julien Sanahuja, Electricité de France

**Quality Management Systems for Concrete Construction SALON C** Sponsored by ACI Committee 121, Quality Assurance Systems for Concrete

Session Co-Moderators: Stephen Marchese

President

**Future Tech Consultants** 

Mineola, NY

Ryan Riehle President

**Buildways Corporation** 

Pittsburgh, PA

Committee 121's technical session will provide guidance, examples, and experiences demonstrating implementation of quality management tools and systems for concrete construction. This session will be useful to owners, contractors, architects, engineers, and consultants.

The Successful Implementation of an ACI 121 Quality 2:00 pm
Management System at Ready Mixed Concrete Company
Godwin Q. Amekuedi, Director of Corporate Quality Assurance and
Technology, Ready Mixed Concrete Company, Raleigh, NC

Quality Assurance for a Material Testing Lab 2:30 pm
Eugene Takhtovich, Materials Testing Lab Director, HAKS Engineering,
Long Island City, NY; and Paul Hedli, Hatch Mott MacDonald

QA and QC - A Three Year Old's Perspective 3:00 pm Woodward L. Vogt, President, Paradigm Consultants, Inc., Houston, TX

Putting It all Together - The ISO Standard and the 3:30 pm Concrete Industry

Raymond Hayes, Independent Consultant, Raymond Hayes,
Birmingham, AL

ICRETE Optimization and QA Systems 4:00 pm John Holley, Manufacturer's Representative, ICRETE, Orlando, FL

Building Information Modeling (BIM) and Quality Assurance 4:30 pm Cory L. Dippold, Associate, Hatch Mott MacDonald, Millburn, NJ

The Leading Edge of Pervious Concrete, Part 2

**SALONS G&H** 

Sponsored by ACI Committee 522, Pervious Concrete

Session Co-Moderators: Heather J. Brown

**Associate Professor** 

Middle Tennessee State University

Murfreesboro, TN

Charles A. Weiss Research Geologist

U.S. Army Engineer Research &

**Development Center** 

Vicksburg, MS

Pervious concrete is an innovative building material with many environmental, economic, and structural advantages. With increasing use of the material more research into new applications and a better understanding of the properties of pervious concrete is needed. This session will highlight the advances that are being made in the use, specification, and performance of pervious concrete.

Models for Performance Prediction of Pervious Concrete 2:00 pm Narayanan Neithalath, Professor, Clarkson University, Potsdam, NY

Measurement of TSS and Other Pollutant Removal by
Pervious Concrete and Incorporation of Results into a
Site Development Tool

**Heather J. Brown,** Associate Professor, Middle Tennessee State University, Murfreesboro, TN

Architectural Pervious Concrete 3:00 pm Scott Erickson, President, Evolution Paving Resources, Salem, OR

What's New in Pervious Concrete 3:30 pm
Bruce A. Glaspey, Southeast Division Manager, Magruder Construction,

**Bruce A. Glaspey,** Southeast Division Manager, Magruder Construction, Sanford, FL

Internal Curing of Pervious Concrete 4:00 pm

Dale Fisher, Executive Director, PCI Systems LLC, Woodstock, GA

Durability and Performance of the Pervious Concrete 4:30 pm
Overlay at MnRoad

**John T. Kevern,** Assistant Professor, University of Missouri in Kansas City, Prairie Village, KS; and **Kejin Wang** and **Vernon Schaefer,** Iowa State University

Thomas T.C. Hsu Symposium, Part 2: Recent Advances SALON B in Non-Linear Finite Element Analysis of Concrete Structures

Sponsored by ACI Committee 447, Finite Element Analysis of Reinforced Concrete Structures

Session Organizer: Abdeldjelil Belarbi

Distinguished Professor Missouri University of Science

and Technology

Rolla, MO

Session Co-Moderators: Laura N. Lowes

Associate Professor University of Washington

Seattle, WA

Ashraf S. Ayoub Associate Professor University of Houston

Houston, TX

This Symposium will honor Professor Thomas T.C. Hsu for his life-long contribution to the field of structural engineering, particularly in the area of shear and torsion. The Special Publication (SP) of the Symposium contains 29 papers and 32 presentations that represent the state-of-the-art advances in new knowledge on shear and torsion. The Symposium consists of four sessions with 32 presenters from different corners of the globe. The Symposium and the SP volume are organized to allow Tom's many friends, students, and colleagues to honor him for his fundamental contribution to the knowledge of shear and torsion and for his half a century contribution to ACI technical discussions and reports. The SP covers a wide spectrum of knowledge including: (1) Recent Advances in Seismic Shear of Wall-Type Structures, (2) Recent Advances in Non-Linear Finite Element Analysis of Concrete Structures, (3) Five Decades of Progress in Shear and Torsion, and (4) Recent Advances in Shear of Concrete Bridges.

Introduction 2:00 pm

**Laura N. Lowes,** Associate Professor, University of Washington, Seattle, WA

Thomas T.C. Hsu Symposium, Part 2: Recent Advances SALON B in Non-Linear Finite Element Analysis of Concrete Structures (cont.)

Damage Tools to Model Severe Loading Effects on Reinforced Concrete Structures 2:04 pm

Jacky Mazars, Professor, Polytechnic Institute Grenoble, France; Alain Rouquand and Christophe Pontiroli, Studies Center of Gramat; Philippe Berthet-Rambaud, MND Engineering; and Yann Malecot, University Joseph Fourier Grenoble

Evaluation and Calibration of Load-Deformation Models 2:26 pm for Concrete Walls

Laura N. Lowes, Associate Professor, University of Washington, Seattle WA; Paul Oyen, Simpson Gumpertz and Heger, Inc.; and Dawn E. Lehman, University of Washington

Finite Element Analysis of Concrete Structures— 2:48 pm A Historical Overview

**Christian Meyer,** Professor of Civil Engineering, Columbia University, New York, NY

Experimental Observations of Masonry Infilled Reinforced 3:10 pm Concrete Frames with Openings

**Kaspar Willam,** Professor, University of Colorado at Boulder, Boulder, CO; and **Ben Blackard** and **Siva Mettupalayam,** University of Colorado at Boulder

Finite Element Analysis of Reinforced Concrete Joints 3:32 pm Subjected to Multi-Axial Loading

**Hiroshi Noguchi,** Professor and Dean of the Graduate School of Engineering, Chiba University, Chiba City, Japan; and **Kohta Miura,** Saitama Prefectural Government

On Peridynamic Computational Simulation of 3:54 pm Concrete Structures

**Walter H. Gerstle,** Professor, University of New Mexico, Albuquerque, NM; **Nicolas Sau,** University of Sonora; and **Navid Sakhavand,** University of New Mexico

Thomas T.C. Hsu Symposium, Part 2: Recent Advances SALON B in Non-Linear Finite Element Analysis of Concrete Structures (cont.)

Evaluation of Sequentially Linear Finite Element Analysis 4:16 pm to Simulate Nonlinear Response of Cement-Based Composites

Sarah L. Billington, Associate Professor, Stanford University,

Stanford, CA

Fiber Beam Element Formulation Using the Softened 4:38 pm
Membrane Model
Ashraf S. Avoub. Associate Professor, University of Houston

**Ashraf S. Ayoub,** Associate Professor, University of Houston, Houston, TX; and **Ravi T. Mullapudi,** University of Houston

#### Women in ACI Reception

ST. CHARLES SUITE

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 through networking and socializing. A cash bar and light hors d'oeuvres will be served.





✓ Sunset on the River Jazz Dinner Cruise \$69 U.S. per person

DEPART MAIN LOBBY

Prepare to take a journey back in time on the Mighty Mississippi aboard an authentic steamboat. Your personalized cruise will travel from the heart of the French Quarter through the second-busiest port in the world. You will enjoy a dinner buffet of traditional New Orleans Creole cuisine and dance to the sounds of a lively jazz band. Beverages are available for purchase at the cash bar.

Attendees are encouraged to wear comfortable walking shoes. The boat is four short blocks from the hotel. A map will be provided to attendees and there will be guides along the way to point you in the right direction.

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.

123 Forum: Are Concrete Structures Better Suited for Hurricanes and Other Extreme Events?

**SALON C** 

Sponsored by ACI Committee 123, Research and Current Development

Session Moderator: Mohammad S. Khan

Senior Vice President

Professional Service Industries Inc (PSI)

Herndon, VA

Introduction

7:30 am

**Mohammad S. Khan,** Senior Vice President, Professional Service Industries, Inc., Herndon, VA

#### **Panelist Presentation**

7:35 am

Following its long tradition, ACI Committee 123 brings industry experts again in New Orleans to debate on another subject and to share their views with ACI patrons. The debate this time is whether concrete structures are better suited for hurricane and other extreme events. The past decade has witnessed a number of major and minor hurricane and other extreme events both within the U.S. and overseas, which have cost thousands of lives and inflicted severe economic losses. Hurricane Katarina and its devastating effects are still fresh in our memories. Hurricanes and other extreme events, which are the act of Mother Nature, are unpredictable and inevitable. Now the question is whether concrete structures are resilient enough for these acts of Mother Nature. Do we precisely know which zones are prone to hurricane and other extreme events? Do we design our structures according to the anticipated severity level of hurricanes and other extreme events? Are our designs and safety factors based upon an adequate risk versus cost analysis? Do we pay particular attention to the foundation design of our structures? Do we have effective technologies to assess damage induced by hurricane and other extreme events? Do we have materials and construction technologies to effectively and economically retrofit structures damaged by hurricanes and other extreme events and make them serviceable in a timely manner? Our panelists in New Orleans will address these and many other questions, and after discussing the subject with them you should be able to make an assessment whether concrete structures are better suited for hurricane and other extreme events.

Questions, Answers, and Discussion

8:25 am

Construction Methods for Non-Traditional ICF's SALONS G&H
Sponsored by ACI Committee 560, Design and Construction

Sponsored by ACI Committee 560, Design and Construction with ICF's

Session Moderator: Carla V. Yland

President

Yland Research & Consulting LLC

Irvine, CA

Insulating Concrete Form (ICF) systems offer advantages in terms of speed of construction and energy savings. This session presents analytical and empirical methods of design based upon full-scale testing of structural grid reinforced concrete ICF walls. Concepts of equivalent solid wall thickness and equivalent seismic behavior are also included.

ICF's and Sustainability

9:00 am

Martha G. VanGeem, Principal Engineer, CTL Group, Skokie, IL

Non-Traditional Concrete in ICF's

9:30 am

**Kevin A. MacDonald,** Vice President of Engineering Services, Cemstone Concrete Products, Mendota Heights, MN

ICF's & NAHB Green Building Standard

10:00 am

**Michael H. Weber,** Chief Operating Officer, Building Works Inc., Lewisburg, PA

**ICF Construction - An Overview** 

10:30 am

**Donn C. Thompson,** Manager Residential Technology, Portland Cement Association, Skokie, IL

 ${\bf ICF\ Construction\ From\ an\ Owner\ Builder/Designer}$ 

11:00 am

Point of View

David H. DeValve, Engineer, Oklahoma Steel and Wire, Madill, OK

**Open Forum Discussion** 

11:30 am

Carla V. Yland, President, Yland Research & Consulting LLC, Irvine, CA

#### Contractors' Day Session, Part 1

**SALON F** 

Sponsored by the ACI Louisiana Chapter

Session Moderator: Darrell F. Elliot

Technical Service Manager

Buzzi Unicem USA

Laplace, LA

Contractors will learn what to look for in specifications—the common problems and how to work through them. We will explore the latest admixture technologies, including self-consolidating concrete (SCC). Contractors will learn what products and systems are available, and how these may be used to the contractor's benefit. Will all these materials work together? We will delve into possible issues when combining multiple cementitious materials with various chemical admixtures. There will be a discussion of mass concrete, as more and more projects entail large placements requiring thermal considerations.

#### Concrete Specifications - Common Problems and Recommended Solutions

9:00 am

10:30 am

**John F. Duntemann**, Senior Consultant, Wiss, Janney, Elstner Associates, Northbrook, IL

Admixtures - What's Out There? Where Are They Used? 9:30 am Thomas M. Greene, Technical Services Manager, W.R. Grace, Houston, TX

Self Consolidation Concrete - Where Do I Find The Value? 10:00 am Joseph A. Daczko, Product Line Manager, BASF Admixtures Inc., Mantua, OH

#### Compatibility Issues with Concrete Materials— Causes & Remedies

**Tim Cost,** Senior Technical Service Engineer, Holcim (US) Inc., Canton, MS

#### Mass Concrete & Thermal Control Considerations for 11:00 am Large Pours

**Barry D. Fehl,** Senior Engineer, URS Corporation, Saint Louis, MO **John Gajda,** Senior Engineer, CTL Group, Skokie, IL

#### **Planning for Successful Concrete Projects**

SALON A

Sponsored by ACI Committee E703, Concrete Construction Practices

Session Moderator: Michael G. Hernandez

**Project Executive** 

**Baker Concrete Construction** 

Miramar, FL

If a few skilled individuals can preplan a project effectively, the whole project team will benefit. This session will feature presentations from experienced professionals covering all phases of construction.

**Prebid Planning** 

9:00 am

**Harry P. Moats,** President and Chief Operating Officer, L.M. Scofield, Douglasville, GA

**Post-Bid Planning** 

10:00 am

**David MacNeel,** Operations Manager, Baker Concrete Construction, Monroe, OH

Job Site Planning

11:00 am

**Michael V. Pedraza,** Engineering Manager, National Reinforcing Systems PT, Inc., Raleigh, NC

#### **Temperature Effect on Concrete Performance**

**SALON C** 

Sponsored by ACI Committee 236, Material Science

Session Co-Moderators: Jan Olek

Professor

Purdue University West Lafayette, IN

Joseph J. Biernacki

Professor

Tennessee Technological University

Cookeville, TN

What effect does temperature have on curing and subsequent properties and performance of concrete? How can temperature be controlled and even optimized to produce the best possible outcomes in terms of short-term property development and long-term durability and life-cycle performance. Both contractors and researchers will benefit from this session which will focus on both the material science aspects of temperature effects as well as look at case studies where temperature histories and performance outcomes are known.

The Effect of Temperature on Early-Age Behavior of Concrete 9:00 am Anton K. Schindler, Associate Professor, Auburn University, Auburn, AL

The Role of Early-Age Temperature Change in Residual 9:20 am Stress Development Internally Cured Concrete

John L. Schlitter, Graduate Student, Purdue University, Lafayette, IN; Dale P. Bentz, National Institute of Standards and Technology; and Jason Weiss, Purdue University

Bridge Deck and Pavement Placement Timing to 9:40 am Reduce Cracking: Use the Diurnal Temperature Variation to your Advantage

**Kyle A. Riding,** Assistant Professor, Kansas State University, Manhattan, KS

Influence of Thermal Curing Regimes on Short and
Long-Term Behavior of Ultra-High Performance Concrete
Victor Y. Garas, PhD Candidate, Georgia Institute of Technology,
Atlanta, GA; and Lawrence F. Kahn and Kimberly Kurtis, Georgia
Institute of Technology

Temperature Effect on Concrete Performance (cont.)

**SALON C** 

Performance of Blended Cement in Hot and Cold Weather 10:20 am Alex J. Hammond, Graduate Student, University of Utah, Salt Lake City, UT; and Paul Tikalsky, University of Utah

Controlling In-Situ Concrete Temperatures NYC World 10:40 am Trade Center Reconstruction

Casimir S. Bognacki, Chief of Materials, the Port Authority of New York & New Jersey, Jersey City, NJ

Early Age Temperature Changes Cracking in HP Concrete 11:00 am Bridge Decks

**Kolluru V. Subramaniam,** Associate Professor, University of New York, New York, NY

Temperature Dependence of Conversion Reactions 11:20 am and Subsequent Volume Change in Calcium Aluminate Cement Systems

**Jason H. Ideker,** Assistant Professor, Oregon State University, Corvallis, OR

Thomas T.C. Hsu Symposium, Part 3: Five Decades of Progress in Shear and Torsion

**SALON B** 

Sponsored by ACI Committee 445, Shear & Torsion

Session Organizer: Abdeldjelil Belarbi

Distinguished Professor Missouri University S&T

Rolla, MO

Session Co-Moderators: Paul Zia

Distinguished Professor Emeritus North Carolina State University

Raleigh, NC

Abdeldjelil Belarbi Distinguished Professor Missouri University S&T

Rolla, MO

This Symposium will honor Professor Thomas T.C. Hsu for his life-long contribution to the field of structural engineering, particularly in the area of shear and torsion. The Special Publication (SP) of the Symposium contains 29 papers and 32 presentations that represent the state-of-the-art advances in new knowledge on shear and torsion. The Symposium consists of four sessions with 32 presenters from different corners of the globe. The Symposium and the SP volume are organized to allow Tom's many friends, students, and colleagues to honor him for his fundamental contribution to the knowledge of shear and torsion and for his half a century contribution to ACI technical discussions and reports. The SP covers a wide spectrum of knowledge including: (1) Recent Advances in Seismic Shear of Wall-Type Structures, (2) Recent Advances in Non-Linear Finite Element Analysis of Concrete Structures, (3) Five Decades of Progress in Shear and Torsion, and (4) Recent Advances in Shear of Concrete Bridges.

Introduction 9:00 am

**Paul Zia,** Distinguished Professor Emeritus, North Carolina State University, Raleigh, NC

Development of Models for Torsion of Concrete Structures 9:04 am in Northern Europe

Lennart Elfgren, Professor, Luleå University of Technology, Luleå, Sweden

Thomas T.C. Hsu Symposium, Part 3: Five Decades of Progress in Shear and Torsion (cont.)

SALON B

Structural Concrete Beam Shear - Still a Riddle? 9:26 am Mikael W. Braestrup, Senior Engineer, Ramboll, Copenhagen, Denmark

Punching Shear in Fire-Damaged Reinforced Concrete Slabs 9:48 am
Pietro G. Gambarova, Professor, Milan University of Technology,
Milan, Italy; and Patrick Bamonte and Roberto Felicetti, Milan
University of Technology

Review of Basic Assumptions for the Shear Design
Karl-Heinz Reineck, Professor, University of Stuttgart,
Leonberg, Germany

Investigation of Strut Strength Using a Deep-Beam Database 10:32 am David H. Sanders, Professor, University of Nevada, Reno, NV; and Neil Bahen, KPFF Consulting Engineers

Evaluation of Minimum Shear Reinforcement Requirements 10:54 am in Non-Prestressed Beams without Distributed Horizontal Reinforcement

**Lesley H. Sneed,** Assistant Professor, Missouri University of Science and Technology, Rolla, MO; and **Julio A. Ramirez,** Purdue University

Shear-Flexure-Torsion Interaction Features of
Reinforced Concrete Bridge Columns—An Experimental Study
Abdeldjelil Belarbi, Distinguished Professor, Missouri University of
Science and Technology, Rolla, MO; and Suriya S. Prakash, Missouri
University of Science and Technology

Behavior of Reinforced Concrete Elements Subjected 11:38 am to Tri-directional Shear Using a State-of-the-Art Panel Tester
Ashraf S. Ayoub, Associate Professor, University of Houston, Houston, TX; and Moheb Labib and Yashar Moslehy, University of Houston

✓ Contractors' Day Lunch \$40 U.S. per person **SALON E** 

 $\label{thm:construction} \mbox{Hosted by the ACI Louisiana Chapter and Construction Liaison Committee}$ 



Speaker: Tim Ryan

Chancellor

The University of New Orleans New Orleans, Louisiana

Topic: Where Will the Next Contractors'

Dollar be Coming From?

Join other ACI attendees and contractors for the Contractors' Day Lunch. Featured speaker Tim Ryan, Chancellor at the University of New Orleans, will give a presentation on "Where Will the Next Contractors' Dollar be Coming From?"

Tim Ryan is considered an expert on the New Orleans economy, the Louisiana economy, managerial economics, economic development, the New Orleans and Louisiana tax structure, the hospitality and tourism industries, and the United States economy. Ryan was recently appointed Chancellor of the University of New Orleans, having served as Interim Executive Vice Chancellor since July 2003. Prior to this appointment Ryan was Dean of the College of Business Administration and the Hibernia Professor of Economics at the University of New Orleans.

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.

#### Can This Concrete Self-Consolidate?

**SALONS G&H** 

Sponsored by ACI Committee 237, Self-Consolidating Concrete

Session Co-Moderators: Anton K. Schindler

Gottlieb Associate Professor

**Auburn University** 

Auburn, AL

Kamal H. Khayat

Professor

University of Sherbrooke Sherbrooke, QC, Canada

In the U.S. the slump flow test is typically used to assess the filling ability of self-consolidating concrete (SCC). SCC is often required to have a target slump flow that ranges from 22 to 28 inches. However, SCC with a target slump flow lower that 22 inches has successfully been used. Presentations in this session will focus on the proportioning, properties, and application of SCC with a lower than usual slump flow.

**Use of Low Slump Flow Self-Consolidating Concrete** 2:00 pm **Joseph A. Daczko,** Product Manager, BASF Admixtures Inc., Mantua, OH; and **Emmanuel K. Attiogbe,** BASF Admixtures Inc.

#### Use of Self-Consolidating Concrete in Drilled Shafts Applications

2:35 pm

**Anton K. Schindler,** Associate Professor, Gottlieb Associate Professor, Auburn, AL

Use of Self-Consolidating Concrete on the I-35W Bridge 3:10 pm in Minneapolis

**Kevin A. MacDonald,** Vice President of Engineering Services, Cemstone Products Company, Mendota Heights, MN

Performance of Steel-Reinforced Semi-Flowable Self-Consolidating Concrete 3:45 pm

**Kamal H. Khayat,** Professor, University of Sherbrooke, Sherbrooke, QC, Canada; and **Fodil Kassimi,** University of Sherbrooke

Successful Use of Self-Consolidating Concrete in Denmark 4:20 pm Lars Nyholm Thrane, Consultant and Civil Engineer, Danish Technological Institute, Taastrup, Denmark; and Claus Pade, Danish Technological Institute

Contractors' Day Session, Part 2

SALON F

Sponsored by the ACI Louisiana Chapter

Session Moderator: Darrell F. Elliot

**Technical Service Manager** 

Buzzi Unicem USA

Laplace, LA

This session will begin with a discussion of jointing practices. This topic will help contractors avoid cracking problems, arguably the most common customer complaint. Next we will explore the proper practices for stripping forms. Now, things don't always go right in concrete construction. We will show proper repair procedures, including structural repairs. Did you know that you can get a degree in Concrete Construction? There will be a presentation on such programs, where you can send candidates to be educated or find graduates to hire. Finally, there will be a panel discussion with all speakers returning to answer questions.

Jointing - Details and Practices 2:00 pm Robert B. Anderson, President and Chief Engineer, Anderson Engineers, New Orleans, LA

Stripping Forms - When? Why? Importance? 2:30 pm
Consequences of Early Removal
Jim N. Cornell II, Senior Project Manager, The Beck Group, Dallas,TX

Concrete Repair - Repair of Construction Deficiencies 3:00 pm
Peter H. Emmons, President, Structural Group Inc., Hanover, MD

Construction - You Can Get a Degree in That? 3:30 pm
Luke M. Snell, Eminent Scholar, Del E. Web School of Construction,
Arizona State University, Tempe, AZ

Panel Discussion with All Speakers

4:00 pm

#### **Notes**

#### **Open Paper Session**

SALON A

Sponsored by ACI Committee 123, Research and Current Development

Session Co-Moderators: Narayanan Neithalath

> Assistant Professor Clarkson University

Potsdam, NY

Zachary Grasley Assistant Professor Texas A&M University College Station, TX

This Open Paper Session is a forum for presenting recent technical information that could not be scheduled into other convention sessions.

Introduction

2:00 pm

Narayanan Neithalath, Assistant Professor, Clarkson University, Potsdam, NY

Comprehensive Phase Characterization of Class F Fly Ash 2:01 pm Ryan T. Chancey, Senior Associate, Nelson Architectural Engineers, Plano, TX: Paul Stutzman, National Institute for Standards and Technology; and Maria C.G. Juenger and David W. Fowler, the University of Texas at Austin

Blending Different Fineness Cements to Engineer the 2:20 pm **Properties of Cement Based Materials** 

Dale P. Bentz, Chemical Engineer, National Institute of Standards and Technology, Gaithersburg, MD

Long Term Monitoring and Evaluation of Concrete 2:40 pm Samples Placed in Outdoor Sulphate Exposure Site Thanos Drimalas, Research Associate, University of Texas at Austin, Austin, TX

Time-Variant Structural Reliability of Post-Tensioned, 3:00 pm Segmental Concrete Bridges Exposed to Corrosive Environments Radhakrishna Pillai, Post-Doctoral Research Associate, Texas A&M University; David Trejo, Oregon State University; and Paolo Gardoni, Kenneth Reinschmidt, and Mary Beth D. Hueste, Texas A&M University

Open Paper Session (cont.)

**SALON A** 

FRP Super Laminates Offer Solutions to Unsolved Problems 3:20 pm

**Mo R. Ehsani**, President, QuakeWrap, Inc., and Professor, University of Arizona, Tucson, AZ

Skin Reinforcement in Large Beams and Slabs the Importance of Bar Size 3:40 pm

the importance of Bar Size

**Edward Sherwood,** Assistant Professor, Carleton University, Ottawa, Ontario, Canada; and **Evan C. Bentz** and **Michael P. Collins,** University of Toronto

Control of Bridge Deck Cracking

4:00 pm

**Sergio Gutierrez,** Graduate Research Assistant, Purdue University, West Lafayette, IN; and **Robert J. Frosch,** Purdue University

Nanoindentation of Cement Paste and Modeling
Using Microstructural Homogenization

4:20 pm

**Tai Fan,** Graduate Student, University of New Mexico, Albuquerque, NM; and **Mahmoud Reda Taha,** University of New Mexico

Experimental Assessment of the Effectiveness 4:40 pm of Commercially Available Prestressed Strand Debonding Products Matthew Pavelchak, Graduate Research Assistant, Purdue University, West Lafayette, IN; and Robert J. Frosch and Michael E. Kreger, Purdue University

Thomas T.C. Hsu Symposium, Part 4: Recent Advances in Shear of Concrete Bridges

**SALON B** 

Sponsored by ACI Committee 343, Concrete Bridge Design

Session Organizer: Abdeldjelil Belarbi

Distinguished Professor Missouri University Science

and Technology

Rolla, MO

Session Co-Moderators: W. Gene Corley

Senior Vice President

CTL Group Skokie, IL

Danielle Kleinhans

Senior Engineer & Group Manager

CTL Group Skokie, IL

This Symposium will honor Professor Thomas T.C. Hsu for his lifelong contribution to the field of structural engineering, particularly in the area of shear and torsion. The Special Publication (SP) of the Symposium contains 29 papers and 32 presentations that represent the state-of-the-art advances in new knowledge on shear and torsion. The Symposium consists of four sessions with 32 presenters from different corners of the globe. The Symposium and the SP volume are organized to allow Tom's many friends, students, and colleagues to honor him for his fundamental contribution to the knowledge of shear and torsion and for his half a century contribution to ACI technical discussions and reports. The SP covers a wide spectrum of knowledge including: (1) Recent Advances in Seismic Shear of Wall-Type Structures, (2) Recent Advances in Non-Linear Finite Element Analysis of Concrete Structures, (3) Five Decades of Progress in Shear and Torsion, and (4) Recent Advances in Shear of Concrete Bridges.

Introduction 2:00 pm

W. Gene Corley, Senior Vice President, CTL Group, Skokie, IL

Shear Design Considerations for Deep Concrete Bridge Girders 2:04 pm Neil M. Hawkins, Professor Emeritus, University of Illinois at Urbana Champaign, Urbana, IL; and Daniel A. Kuchma, University of Illinois at Urbana Champaign

Thomas T.C. Hsu Symposium, Part 4: Recent Advances SALON B in Shear of Concrete Bridges (cont.)

Shear Strength of Slabs with Double-Headed Shear Studs 2:26 pm in Radial and Orthogonal Layouts

**Walter H. Dilger,** Professor Emeritus, University of Calgary, Calgary, AB, Canada; and **Gerd Birkle**, Stantec Consulting

Shear Capacity of Ultra-High-Performance Concrete 2:48 pm
I-Girders with Orthogonal Welded Wire Reinforcement
Maher K. Tadros, Professor, University of Nebraska-Lincoln, NE; and
George Morcous and Marc Maguire, University of Nebraska-Lincoln

Effect of Strand Debonding on Prestressed Concrete 3:10 pm Girder Shear Performance

**Mohsen Shahawy,** President and CEO, SDR Engineering Consultants, Inc., Tallahassee, FL; and **Tarek Hassan,** Ain Shams University

Concrete - The Sustainable 21st Century Greening 3:32 pm Infrastructure Material

**Edward G. Nawy,** Distinguished Professor Emeritus, Rutgers University, Piscataway, NJ

A New Design Method for Shear in Prestressed 3:54 pm Concrete Girders

**Arghadeep Laskar,** Engineer, Worley Parsons, Houston, TX; and **Thomas T.C. Hsu** and **Yi-Lung Mo,** University of Houston

FRP Shear Transfer Mechanism for Precast, 4:16 pm
Prestressed Concrete Sandwich Load-Bearing Panels
Sami H. Rizkalla, Distinguished Professor, North Carolina State
University, Raleigh, NC; Tarek Hassan, Ain Shams University; and
Gregory Lucier, North Carolina State University

Reliability Models for Shear in Reinforced Concrete Beams 4:38 am Andrzej S. Nowak, Professor, University of Nebraska-Lincoln, NE; and Piotr Paczkowski, University of Nebraska-Lincoln

#### **Faculty Network Reception**

NAPOLEON SUITE

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



Concrete Mixer at Mardi Gras World

**DEPART MAIN LOBBY** 

Sponsored by the ACI Louisiana Chapter

#### Schedule of Events

6:30 pm Buses start to load on Canal Street

6:45 pm First bus departs

7:00 – 10:00 pm Concrete Mixer Mardi Gras Style

8:00 pm Parade

10:00 pm Last bus to the Marriott

All ACI attendees MUST wear a name badge to board the bus and enter Mardi Gras World. Please use the drink tickets found in your registration packet, or cash to purchase beverages.

Mardi Gras is a year-round celebration you will have a chance to enjoy. The official colors for Mardi Gras are purple, green, and gold, chosen in 1872 by the King of Carnival, Rex. He chose purple to represent justice, green for faith, and gold for power. Experience Mardi Gras with a re-creation of an actual Mardi Gras Parade complete with a marching band and mini floats, and New Orleans-style food and beverages. Look for the special ACI New Orleans collector cups at the bars.

Casual attire and comfortable shoes are suggested.

Attendees are welcome to come dressed in costume.

Cameras are highly recommended.



Current Trends in Structural Health Monitoring Systems SALON B of Concrete Structures, Part 1

Sponsored by ACI Committee 444, Experimental Analysis

Session Co-Moderators: Nakin Suksawang

Assistant Professor

Florida International University

Miami, FL

Faris Malhas Professor and Chair University of Dayton

Dayton, OH

Structural health monitoring (SHM) provides significant advantages in developing a comprehensive and realistic approach for the qualitative assessment and evaluation of concrete structures. SHM also provides the owners with early warning that can prevent devastating failures. This session is planned to discuss: (1) current SHM systems and innovations for the assessment and evaluation of concrete structures; and (2) the need for improved techniques for health monitoring of reinforced concrete structures. Innovative and effective SHM techniques about the response of concrete structures during and following extreme events and other related damage assessment of deteriorated concrete structures will be presented.

Introduction 9:00 am Nakin Suksawang, Assistant Professor, Florida International University, Miami. FL

Assessment of Concrete Structures Through Structural 9:05 am Health Monitoring

**Nakin Suksawang,** Assistant Professor, Florida International University, Miami, FL; and **Hani H. Nassif**, Rutgers University

Place Load Test of Truck Dock Maneuvering Area Waffle Slab 9:30 am K. Nam Shiu, Vice President, Walker Restoration Consultants, Chicago, IL; Kurt Salm, Walker Restoration Consultants; and Malcolm Lim and Peter Foster, Universal Construction Testing, Ltd.

**Health Monitoring of the I-35W St. Anthony Falls Bridge** 9:55 am **Eric Johnson,** Senior Bridge Engineer, FIGG Bridges, Tallahassee, FL

Current Trends in Structural Health Monitoring Systems SALON B of Concrete Structures, Part 1 (cont.)

Distributed Coaxial Cable Sensors for Check Detection: 10:20 am Size and Location

**Genda Chen,** Professor of Civil Engineering, Missouri University of Science and Technology, Rolla, MO; and **Iana Muchaidze, Joe Bishop,** and **David Pommerenke,** Missouri University of Science and Technology

Fiber-Optic Method for Long-Term Structural Health
Monitoring of Concrete High-Rise Buildings
Branko Glisic, Assistant Professor, Princeton University, Princeton,
NJ; Daniele Inaudi, Roctest Canada and SMARTEC; and Joo Ming Lau,
Housing and Development Board

Nondestructive Evaluation and Acoustic Emission

Monitoring of RC Slab Bridge Exposed to Marine Environment
Fabio Matta, Research Assistant Professor, University of Miami,
Coral Gables, FL; Paul Ziehl, University of South Carolina; and
Antonio Nanni, Rossella Ferraro, Alexander Suma, and
Brian Metrovich, University of Miami

**Fiber-Reinforced Self-Consolidating Concrete, Part 1 SALONS G&H** Sponsored by ACI Committees 237, Self Consolidating Concrete, and 544, Fiber Reinforced Concrete

Session Co-Moderators: Corina-Maria Aldea

Senior Materials Engineer AMEC Earth and Environmental

Hamilton, ON, Canada

Liberato Ferarra Assistant Professor

Milan University of Technology

Milan, Italy

The objective of this session is to bring together experts from around the world who are active in ACI and RILEM committees related to fiber reinforced self-consolidating concrete (FRSCC) to discuss the state of the art research and practical applications of FRSCC.

Precast Elements Made with Steel Fiber Reinforced SCC 9:00 am Surendra P. Shah, Professor, Northwestern University, Evanston, IL

#### Laboratory Investigation of Fiber Reinforced 9:30 am Self-Consolidating Concrete

Michael C. Brown, Research Scientist, Virginia Transportation Research Council, Charlottesville, VA; and H. Celik Ozyildirim and William L. Duke, Virginia Transportation Research Council

The Effect of Macro-Synthetic Fiber Reinforcement on the 10:00 am Flow Characteristics of Self Consolidating Concrete

**Dean Forgeron,** Assistant Professor, Dalhousie University, Halifax, NS, Canada

Self Consolidating High Performance FRC: Examples 10:30 am of Structural Applications in Italy

**Liberato Ferarra,** Assistant Professor, Milan University of Technology, Milan, Italy; **Marco Di Prisco,** Milan University of Technology; and **Nilufer Ozyurt,** Bogazici University

Rheology of Fiber-Reinforced Cementitious Materials: 11:00 am Classification and Prediction

**Nicolas Roussel,** Researcher, Laboratoire Central des Ponts et Chaussées, Paris, France

Fiber-Reinforced Self-Consolidating Concrete, Part 1 (cont.)

**SALONS G&H** 

Flexural Toughness of SCC Reinforced with

Macro-Synthetic Fibers

Emmanuel K. Attiogbe, Manager of Technical Services, BASF
Construction Chemicals, Cleveland, OH; and Van Bui, BASF
Construction Chemicals

How Do You Spice Up a Concrete Bridge to Be Earthquake Resistant?

**SALON A** 

Sponsored by ACI Committee 341, Earthquake Resistant Bridges

Session Co-Moderators: Mervyn Kowalsky

**Associate Professor** 

North Carolina State University

Raleigh, NC

JoAnn P. Browning Associate Professor The University of Kansas

Lawrence, KAS

This session will feature innovative techniques to improve earthquake resistance of concrete bridges. It will focus primarily on high-performance concrete, fiber-reinforced concrete, or other advanced materials with application to seismic design of concrete bridges.

Response of Fiber-Reinforced Concrete Bridge 9:00 am Column Specimens Under Biaxial Cyclic Loading

**Ady Aviram,** Graduate Research Assistant, University of California Berkeley, Berkeley, CA; and **Gustavo Parra-Montesinos,** University of Michigan

Damage-Free RC Bridges under Seismic Loads 9:25 am
Mehdi Saiidi, Professor, University of Nevada–Reno, Reno, NV; and
Carlos Cruz, University ofNevada–Reno

Performance Evaluation of Seismic Rehabilitation of 9:50 am Bridge Piers with CRFP Composites

Chris Pantelides, Professor, University of Utah, Salt Lake City, UT

Seismic Behavior of New Generation RC Bridge Column Joints 10:15 am M. Shahria Alam, Assistant Professor, University of British Columbia, Kelowna, BC, Canada

Benefits & Limitations of Using High-Strength Concrete 10:40 am in the Seismic Performance and Design of Hollow Rectangular Bridge Piers

**Rigoberto Burgueno,** Associate Professor, Michigan State University, East Lansing, MI

How Do You Spice Up a Concrete Bridge to Be Earthquake Resistant? (cont.)

SALON A

Seismic Performance of FRP-Encased Engineering
Cementitious Composites for Bridge Substructures
Pedram Zohrevand, Professor, Florida International University,
Miami, FL; and Amir Mirmiran, Florida International University

Seismic Performance of Precast Post-Tensioned Concrete 11:30 am Filled FRP Tubes

**Mohamed ElGawady,** Assistant Professor, Washington State University, Pullman, WA

#### Materials Science Modeling as a Solution to Concrete Problems, Part 1

SALON F

Sponsored by ACI Committees 118, Computers, and 236, Material Science

Session Co-Moderators: Jussara Tanesi

Project Manager Global/FHWA Vienna, VA

Konstantin Sobolev Associate Professor

University of Wisconsin - Milwaukee

Milwaukee, WI

This session will aim to demystify modeling, showing that the practitioner can benefit from it. Presentations will be given related to material science modeling and how it can help on solving or preventing problems in the field.

#### **Virtual Testing of Concrete Transport**

9:00 am

**Dale P. Bentz,** Chemical Engineer, National Institute of Standards and Technology, Gaithersburg, MD; **Edward Garboczi, Nicos Martys,** and **Kenneth Snyder,** National Institute of Standards and Technology; **W. Spencer Guthrie,** Brigham Young University; **Konstantinos Kyritsis,** University of Edinburgh; and **Narayanan Neithalath,** Clarkson University

# Early-Age Cracking: A Case Study in How Materials 9:30 am Modeling Can Improve Concrete Quality

**Kyle A. Riding,** Assistant Professor, Kansas State University, Manhattan, KS; and **Jonathan Poole**, Wiss, Janney, Elstner Associates, Inc.

#### Numerical Analysis of Saw-Cutting: The Influence 10:00 am of Environmental Conditions

**Kambiz Raoufi,** PhD Student, Purdue University, West Lafayette, IN; and **Tommy Nantung** and **Jason Weiss**, Purdue University

Numerical and Experimental Assessment of Unsaturated 10:30 am Fluid Transport in Saw-Cut (Notched) Concrete Elements

Mohammad Pour-Ghaz, Graduate Research Assistant, Purdue University, West Lafayette, IN; Farshad Rajabipour, University of Hawaii; and Jonathan Couch and Jason Weiss, Purdue University

Materials Science Modeling as a Solution to Concrete Problems, Part 1 (cont.)

SALON F

HIPERPAV III—An Enhanced FHWA Software for
Simulating Early-Age Concrete Pavement Behaviors
J. Mauricio Ruiz, Project Manager, The Transtec Group Inc., Austin,
TX; and Sabrina Garber, Qinwu Xu, Jason Dick, George Chang, and
Robert Rasmussen, The Transtec Group Inc.

**Sulfate Influence Properties of Early Age Concrete**SALON C
Sponsored by ACI Committee 231, Properties of Concrete at Early Ages

Session Co-Moderators: Wayne M. Wilson

Senior Technical Service Engineer

Holcim (US) Inc Suwanee, GA

Jan Olek Professor

Purdue University West Lafayette, IN

This session will help educate and inform contractors, engineers, and suppliers on the common variability in sulfate form and solubility and their influence on early age concrete performance.

A Historical Review of Lerch's Paper: "The Influence of 9:00 am Gypsum on Hydration and Properties of Portland Cement Pastes" Anton K. Schindler, Associate Professor, Auburn University, Auburn, AL

Methods Used for Sulfate Form Determination 9:30 a
Alan Gee, Vice President of Research and Support, Heidelberg
Technology Center, Doraville, GA; and Gary S. Knight, Heidelberg
Technology Center

**Effects of pH on Calcium Sulfate Solubility 10:00 am Charles E. Buchanan Jr.,** President, ROAN Industries Inc.,
Bakersville, NC

Effects of Class C Fly Ash and Lignosulfonated 10:30 am Admixtures on Hydration
Andy Naranjo, Transportation Engineer, Texas Department of Transportation, Austin, TX

Experiences in Solving Cement/Sulfate Issues in the Field 11:00 am William I. Brooks, Regional Technical Services Manager, W.R. Grace, Canton, GA; and Matthew A. Offenberg, W.R. Grace

Cement Sulfate Content Optimized for Concrete Performance 11:30 am Tim Cost, Senior Technical Service Engineer, Holcim (US) Inc., Canton, MS; and Alf Gardiner, Holcim (US) Inc.

✓ International Lunch
\$30 U.S. per person
Hosted by the International Committee

**SALON E** 



Speaker: Khaled Awad

**Director of Property Development** 

Masdar Initiative Beirut, Lebanon

Topic: Building Green in the Desert

Join other attendees for the International Lunch. Enjoy a special presentation by featured speaker Khaled Awad, Director of Property Development for the Masdar Initiative, who will give a very special presentation on Building Green in the Desert. During this presentation, Awad will discuss how to move from the drawing board to reality in building a sustainable city and will cover the design, goals, and key features of Masdar City, the world's first carbon-neutral city.

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.

#### **Corrosion of Post-Tensioned Systems**

**SALON A** 

Sponsored by ACI Committee 222, Corrosion on Metals in Concrete

Session Co-Moderators: Carolyn M. Hansson

Professor

University of Waterloo Waterloo, ON, Canada

Rubén Salas President

Gestión y Consultoría Integrada GCI

San José, Costa Rica

Corrosion of in-service post-tensioned structures, such as parking garages, office buildings, and condominiums can be costly to repair and potentially unsafe. This session will address corrosion prevention, condition analysis, remediation and certification issues for post-tensioned systems.

#### Bonded Post-Tensioned Concrete Corrosion: Myths, Misconceptions, and Truths

2:00 pm

Randall W. Poston, Principal, WDP and Associates, Austin, TX; and Keith Kesner, WDP and Associates

#### Corrosion of Bonded Strand in Post-Tensioned Concrete 2:30 pm Under Fatigue Loading

**Andrea J. Schokker,** Professor and Head of Civil Engineering, University of Minnesota, Duluth, MN; and **Jeffery S. Volz,** Missouri University of Science and Technology

#### The Influence of Grouting Conditions on Chloride-Induced 3:00 pm Corrosion of Post-Tensioned Concrete Systems

**Hiroshi Mutsuyoshi,** Professor, Saitama University, Saitama, Japan; and **Ha Minh,** Saitama University

#### European Technical Approval: State of the Art Certification 3:30 pm of Post-Tensioning Systems

**Marcel Poser,** Chief Executive Officer, BBR VT International, Schwerzenbach, Zürich, Switzerland

Corrosion of Post-Tensioned Systems (cont.)

**SALON A** 

Evaluation of Potential Techniques for Detection of 4:00 pm
Corrosion in Bonded Post-Tensioned Structures
Shahzma Jaffer, Post-Doctoral Fellow, University of Waterloo,
Waterloo, ON, Canada; and Carolyn M. Hansson, University
of Waterloo

Assessment and Mitigation of Corrosion in 4:30 pm
Post-Tensioned Systems
Garth J. Fallis, Vice President Construction Technologies, Vector
Corrosion Technologies, Winnipeg, MB, Canada; and David W.
Whitmore, Vector Corrosion Technologies

Current Trends in Structural Health Monitoring Systems SALON B of Concrete Structure, Part 2

Sponsored by ACI Committee 444, Experimental Analysis for Concrete Structures

Session Co-Moderators: Faris Malhas

Professor and Chair University of Dayton

Dayton, OH

Nakin Suksawang Assistant Professor

Florida International University

Miami, FL

Structural health monitoring (SHM) provides significant advantages in developing a comprehensive and realistic approach for the qualitative assessment and evaluation of concrete structures. SHM also provides the owners with early warning that can prevent devastating failures. This session is planned to discuss: (1) current SHM systems and innovations for the assessment and evaluation of concrete structures; and (2) the need for improved techniques for health monitoring of reinforced concrete structures. Innovative and effective SHM techniques about the response of concrete structures during and following extreme events and other related damage assessment of deteriorated concrete structures will be presented.

Introduction 2:00 pm Faris Malhas, Professor and Chair, University of Dayton, Dayton, OH

**Health Monitoring of Solid Slabs Repair Systems** 2:10 pm **Faris Malhas,** Professor and Chair, University of Dayton, Dayton, OH; and **Sameer Affouni,** Ministry of Public Works

Monitoring the Performance of Early-Age Bridge Deck Cracking 2:45 pm Hani H. Nassif, Associate Professor, Rutgers University, Piscataway, NJ; and Nakin Suksawang, Florida International University

Term Monitoring of Continuity in a Skewed Prestressed 3:10 pm Concrete Girder Bridge

**Ayman Okeil,** Assistant Professor, Louisiana State University, Baton Rouge, LA; and **Tanvir Hossain** and **Steve Cai**, Louisiana State University

Current Trends in Structural Health Monitoring Systems SALON B of Concrete Structure, Part 2 (cont.)

Monitoring Performance of Cathodically Protected 3:35 pm FRP Repaired Piles
Rajan Sen, Professor, University of South Florida, Tampa, FL; and Julio Aguilar, Danny Winters, Gray Mullins, and Michael Stokes, University of South Florida

Structural Health Monitoring of Damaged Prestressed 4:00 pm Concrete Girder Bridge Retrofitted with CFRP Composites Mohsen Issa, Professor, University of Illinois at Chicago, Chicago, IL

**Fiber-Reinforced Self-Consolidating Concrete, Part 2 SALONS G&H** Sponsored by ACI Committees 237, Self-Consolidating Concrete, and 544, Fiber Reinforced Concrete

Session Co-Moderators: Corina-Maria Aldea

Senior Materials Engineer AMEC Earth & Environmental Hamilton, ON, Canada

Liberato Ferarra Assistant Professor

Milan University of Technology

Milan, Italy

The objective of this session is to bring together experts from around the world who are active in ACI and TILEM committees related to fiber reinforced self-consolidating concrete (FRSCC) to discuss the state of the art research and practical applications of FRSCC.

Experience With Self-Consolidating High Performance 2:00 pm Fiber Reinforced Mortar and Concrete

Antoine E. Naaman, Professor Emeritus, University of Michigan, Ann Arbor, MI; Wen-Cheng Liao, University of Michigan; and Shih-ho Chao, University of Texas

Performance of FR-SCC for Repair of Concrete Infrastructure 2:25 pm Kamal H. Khayat, Professor, University of Sherbrooke, Sherbrooke, QC, Canada; and Fodil Kassimi, University of Sherbrooke

Maximum Fiber Content and Passing Ability of 2:50 pm
Self-Compacting Fiber-Reinforced Concrete
Steffen Grünewald, Assistant Professor, Delft University of Technology,
Delft, Netherlands; and Joost Walraven, Delft University of Technology

Tensile Behavior of Steel Fiber Reinforced 3:15 pm Self-Compacting Concrete

Joaquim A. O. Barros, Associate Professor, University of Minho, Guimarães, Portugal; and Vítor M. C. F. Cunha and José M. Sena-Cruz, University of Minho

Fiber-Reinforced Self-Consolidating Concrete, SALONS G&H
Part 2 (cont.)

Prediction of Stress Development and Cracking in 3:40 pm Steel Fiber Reinforced Self Compacting Concrete Overlays Due to Restrained Shrinkage

Jonas Carlswärd, Engineer, Betongindustri AB, Kallered, Sweden; and Mats Emborg, Betongindustri AB/Luleå Technical University

Steel Fiber Reinforced Self Compacting Concrete Case Studies 4:05 pm Jeffrey L. Novak, Technical Manager, Bekaert Corporation, Marietta, GA

Design, Analysis, and Implementation of Steel Fiber 4:30 pm Reinforced Concrete Elevated Slabs Barzin Mobasher, Professor, Arizona State University, Tempe, AZ;

Xavier Destrée, Xavier Destrée Ltd.; and Chote Soranakom, IMMS Co.

Materials Science Modeling as a Solution to Concrete Problems, Part 2

**SALON F** 

Sponsored by ACI Committees 118, Use of Computers, and 236, Material Science of Concrete

Session Co-Moderators: Jussara Tanesi

Project Manager Global/FHWA Vienna, VA

Ryan Riehle

President and Chief Executive Officer

**Buildways Corporation** 

Pittsburgh, PA

This session will aim to demystify modeling, showing that the practitioner can benefit from it. Presentations will be given related to material science modeling and how it can help on solving or preventing problems in the field.

Virtual Cement and Concrete Testing Laboratory for 2:00 pm
Quality Testing and Sustainability of Concrete

Jeffrey Bullard, Materials Research Engineer, National Institute of
Standards and Technology, Gaithersburg, MD; Luis Miguel Ordonez
Belloc, AIDICO; and Paul Stutzman, Edward Garboczi, and Dale P.

Bentz, National Institute of Standards and Technology

Finite Element Analysis of Structures Affected by ASR 2:30 pm
Alain Sellier, Professor, Université de Toulouse, Toulouse, Hte
Garonne, France; Eric Bourdarot and Etienne Grimal, Electricité de
France; and Stephane Multon and Martin Cyr, Université de Toulouse

Modeling of Structures Affected by Alkali Aggregate Reaction 3:00 pm
Etienne Grimal, Engineer, Electricité de France, Cedex, France; Alain
Sellier and Stephane Multon, Université de Toulouse; and Eric
Bourdarot, Electricité de France

A Concept for the Development of Mathematical and

4:00 pm

Mechanical Models for the Deformations of Composites

Under Uniaxial Load

Sandor Popovics, Research Professor, Drexel University, Lansdowne, PA

Materials Science Modeling as a Solution to Concrete Problems, Part 2 (cont.)

SALON F

Development of a Computer Simulation Model for 4:30 pm
Optimal Packing of Concrete Aggregates
Konstantin Sobolev, Associate Professor, University of Wisconsin—Milwaukee, Milwaukee, WI; and Adil Amirjanov, Near East University

# Thursday, November 12, 2009 8:00 am - 5:00 pm

✓ Troubleshooting Concrete Forming and

**LA GALERIE 6** 

**Shoring Seminar** 

7:30 am registration; coffee and pastries available

ACI Member Rate: \$457 U.S. Nonmember Rate: \$597 U.S. Full-Time Student: \$125 U.S.



Speakers: Kim D. Basham

Senior Structural Engineer KB Engineering LLC Cheyenne, WY



Larry Erps Senior Project Manager Ceco Concrete Construction Tempe, AZ

Contractors and engineers will learn tips and traps associated with form construction stripping and reshoring, and work through calculations for a reshoring problem. Topics discussed include: forming systems, forming economics, loads and pressures, form removal and reshoring, tolerances and finishes, and formed surface defects.

#### **Notes**

#### ACI Board Committees and Chairs

Certification Programs
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Construction Liaison
Convention
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G. Terry Harris
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Michael J. Schneider
Kari L. Yuers
Cecil L. Jones
William E. Rushing, Jr.
James R. Cagley
Luke M. Snell
Beverly A. Garnant
Tarek S. Khan
John S. Popovics
Jeffrey W. Coleman
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# **Session Attendance Tracking Form for the ACI Fall 2009 Convention**

#### New Orleans, LA • November 8-12, 2009

Use this form to track your attendance at ACI sessions. This form can be submitted to state boards that allow self-reporting of Continuing Education activities as evidence of participation. In most cases, 1 contact hour is equal to 1 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.			
Instructions: Check off each session you attended and write in the number of PDH creerned for each day.	edits you		
Remember that 1 PDH is equal to a contact hour (nominal) of instruction or presentation down to the nearest half-hour.	on, rounded		
SATURDAY, NOVEMBER 7, 2009 1:00 PM-5:00 PM  Forum on Sustainability (130/ISO-TC71/BAC-SD)	4 PDH		
SUNDAY, NOVEMBER 8, 2009 2:00 PM-5:00 PM  Emerging Technologies in Civil Infrastructure Application (TTTC) Construction, Formwork, Scheduling, Tolerances, and Communication (Application of Fracture Mechanics to Concrete Structures and Composition How I Spiced Up My Concrete (New Orleans Chapter Convention Comm	tes (446)		
MONDAY, NOVEMBER 9, 2009 9:00 AM-12:00 PM  ☐ Research in Progress (123) ☐ Nanotechnology of Concrete: The Next Big Thing is Small, Part 1 (236) ☐ The Leading Edge of Pervious Concrete, Part 1 (522) ☐ Simple Tools and Gadgets Which Help Solve your Problems (E702) ☐ Symposium Honoring Thomas T. C. Hsu, Part 1: Recent Advances in Seis Wall-Type Structures (445) ☐ Things You Need to Know About Workability of Concrete (238/E802)	<b>3 PDH</b> smic Shear of		
2:00 PM-5:00 PM  □ Nanotechnology of Concrete: The Next Big Thing is Small, Part 2 (236)  □ The Leading Edge of Pervious Concrete, Part 2 (522)  □ "What's New" on Concrete Reinforcing Detailing (E702)  □ Quality Management Systems for Concrete Construction (121)  □ Symposium Honoring Thomas T. C. Hsu, Part 2: Recent Advances in Nor Finite Element Analysis of Concrete Structures (447)	<b>3 PDH</b> n-Linear		
<b>7:30 PM-10:00 PM</b> 123 Forum (123)	2.5 PDH		

TUESDAY, NOVEMBER 10, 2009 9:00 AM-12:00 PM □ Contractors' Day Session, Part 1 (ACI Louisiana Chapter) □ Planning for Successful Concrete Projects (E703) □ Design Methods for Non-Traditional ICF's (560) □ Temperature Effect on Concrete Performance (236) □ Symposium Honoring Thomas T. C. Hsu, Part 3: Five Decades of Progres and Torsion (445)	<b>3 PDH</b> as in Shear
2:00 PM-5:00 PM	3 PDH
<ul> <li>Open Paper Session (123)</li> <li>Contractors' Day Session, Part 2 (ACI Louisiana Chapter)</li> <li>Symposium Honoring Thomas T. C. Hsu, Part 4: Recent Advances in She Torsion of Concrete Bridges (343)</li> <li>Can this Concrete Self-Consolidate? (237)</li> </ul>	ear and
WEDNESDAY, NOVEMBER 11, 2009	
9:00 AM-12:00 PM ☐ Sulfate Influence on Properties of Early Age Concrete (231)	3 PDH
<ul> <li>Materials Science Modeling as a Solution to Concrete Problems, Part 1</li> <li>Current Trends in Structural Health Monitoring Systems of Concrete Structure</li> <li>Fiber-Reinforced Self-Consolidating Concrete, Part 1 (544 &amp; 237)</li> <li>How do you Spice up a Concrete Bridge to be Earthquake Resistant? (34</li> </ul>	es, Part 1 (444)
2:00 PM-5:00 PM  ☐ Materials Science Modeling as a Solution to Concrete Problems, Part 2  ☐ Current Trends in Structural Health Monitoring Systems of Concrete Structure  ☐ Fiber Reinforced Self-Consolidating Concrete, Part 2 (544 & 237)  ☐ Corrosion of Post-Tensioned Systems (222)	
Enter your name and address here	
DAILY PDH TOTALS AVAILABLE  Total Completed on Sunday, 11/8/09  Total Completed on Monday, 11/9/09  Total Completed on Tuesday, 11/10/09  Total Completed on Wednesday, 11/11/09  Total Number of PDHs Completed	



# Thank you for attending the ACI Fall 2009 Convention. See you in Chicago!

#### Future ACI Conventions



#### Spring 2010 Xtreme Concrete

March 21-25, 2010 Sheraton Chicago, IL



#### Fall 2010 Green Concrete in the Steel City

October 24-28, 2010 Westin & David L. Lawrence Convention Center Pittsburgh, PA



American Concrete Institute P.O. Box 9094 Farmington Hills, MI 48333-9094 Phone: 248-848-3700 Fax: 248-848-3701 www.concrete.org