



INTERNATIONAL SOCIETY FOR CONCRETE PAVEMENTS

ISCP e-NEWSLETTER
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- ORGANIZATIONAL MEMBERS & MAJOR EVENT SPONSORS:
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 - Cement Association of Canada / Association Canadienne du Ciment
 - CEMEX
 - CIMA
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INDUSTRY NEWS & RESOURCES

ISCP Directors Hold Mid-Year Meeting, Host Tech Transfer Event with Belgian Visitors

The ISCP Board of Directors held its annual mid-year meeting on July 8 and 9, 2013 at the American Concrete Pavement Association (ACPA) conference facilities near Chicago, Illinois, USA. In addition to regular business meeting details, the Board:

- Considered four (4) honorary member nominations and expects to elect at least one (1) new honorary member for induction at the January membership meeting in Washington, D.C., USA
- Held extensive discussions concerning revisions to ISCP's mission and vision statements to better complement and align ISCP activities with those of EUPAVE, ASCP and other international concrete pavement organizations
- Discussed the initiation of a student scholarship or award program
- Investigated various strategies for providing members with improved on-line access to concrete materials and pavement-related resources.

Following the meeting, the Board participated in a 1/2-day technology sharing event with members of a Belgian delegation who were visiting the U.S. as part of a scan on international concrete pavement design and construction practices - particularly related to continuously reinforced concrete pavements (CRCP). Other invited participants and presenters included Steve Gillen, *Illinois Tollway*; Nigel Parkes, *PNA Construction Technologies*; and Robert Rodden, *ACPA*. The Belgian delegation was led by Anne Beeldens, *Belgian Road Research Centre*. She provided a detailed presentation on their observations and findings to date, along with a summary of current Belgian research and practices concerning CRCP.



Board members Dan Zollinger, Juan Pablo Covarrubias V and Jeff Roesler also made presentations on new research and technologies for moisture measurement and curing, optimized pavement design, and uses of recycled materials in concrete pavement construction, respectively.

ISCP Accepting Officer Nominations for Fall 2013 Elections

Elections for ISCP President, Vice-President and Secretary-Treasurer will be held in October/November of 2013 and the Nominating Committee Chair is accepting nominations for these positions through September 30, 2013.

The criteria for acceptable Officer Nominees are:

- Three (3) years (minimum) of continued membership in ISCP.
- Nominee is able to converse and otherwise communicate reasonably well in English.
- Nominee has served at least one term on the Board of Directors
- Nominee is "sponsored" or supported by at least two ISCP members in good standing.

Nomination forms may be downloaded at the main ISCP webpage:
<http://www.concretepavements.org>
 or directly at:
http://www.concretepavements.org/2013_Officer_Nomination_Form.doc.

Completed nomination forms should be submitted electronically to:
 Dan Zollinger | E-mail: past-president@concretepavements.org



Second ASCP Conference Brought Industry Together Memorial Tribute Given to ISCP Honorary Member



The second *Australian Society for Concrete Pavements (ASCP)* was held in Sydney, Australia on August 12, 2013. This event, organized by the ASCP, was held at the Australian Maritime Museum, in Darling Harbor. As with the first event in 2011, this major biennial, full-day technical event brought new and detailed concrete pavement-related information to the Australian concrete paving industry and its practitioners. The 2013 event was well-attended by 100 pavement professionals, contractors and material suppliers, and was a unique opportunity for Australian and U.S. professionals to exchange best practices information about concrete road pavements. The event also provided our industry with current and detailed information about concrete pavement design, construction, materials and equipment from Australia and overseas.

Professor Frank McCullough considered "guru of continuously reinforced concrete pavements (CRCP)" ...

Conference presentations addressed issues of pavement materials, rapid repair strategies, sustainability and performance. Technical presentations were made by *ISCP* affiliates Dan Zollinger, *Past President*; Neeraj Buch, *Secretary/Treasurer*; and *Directors* Anna-Carin Brink and George Vorobieff.

The key note address titled "*Conference Overture (in key of C-Concrete)*", was delivered by John Hodgkinson, *Honorary Member of ISCP*. Mr. Hodgkinson also presented a memorial tribute to Frank McCullough, *ISCP Honorary Member*. He referred to Professor McCullough as the "guru of continuously reinforced concrete pavements (CRCP)" and noted the impact Professor McCullough had on the Australian practice of CRCP design. He followed with an overview of the practices which have developed in Australia over several decades - particularly for Australia's current Portland Cement Concrete Pavement (PCCP).

For more information, please visit the ASCP website at: www.concretepavements.com.au.



TRB's SHRP 2 Tuesdays Webinar: "Modular Pavement Technology (R05)"



As part of the SHRP2 Tuesdays Webinar Series, TRB will conduct a webinar that will explore the project Modular Pavement Technology, which produced the report *Precast Concrete Pavement Technology*, as well as model specifications for precast concrete pavement.

DATE: September 24, 2013
TIME: 2:00 p.m. - 3:30 p.m. ET

The first 60 minutes are for presentations and the final 30 minutes are for audience questions. There is NO FEE to attend this webinar or other webinars in the SHRP 2 Series, however, participants must register in advance.

The Webinar will be beneficial to pavement and materials engineers from state and federal transportation agencies; concrete pavement industry and professional organizations; and consulting organizations with a strong business investment in the selection, design, and construction of concrete pavements.

Rapid construction techniques can significantly minimize the impact on the driving public, as lane closures and traffic congestion are kept to a minimum. By reducing road users' and workers' exposure to construction traffic, safety is also improved. This webinar will include information about the findings from this SHRP 2 project, including:

- A review of available precast concrete pavement systems
- A summary of applications
- Guidelines for design, fabrication, installation, and selection of systems
- Tools for cost/benefit assessment

Webinar Presenters: Shiraz Tayabji, *Applied Research Associates, Inc. (ARA)*
Tinu Mishra, *California Department of Transportation (CADOT)*
Samuel S. Tyson, *Federal Highway Administration (FHWA)*

Webinar Moderator: Jerry DiMaggio, *Transportation Research Board (TRB)*

Webinar Outline: Part 1: Overview of SHRP 2 mission, objectives of the Renewal focus area, and SHRP 2 research program
Part 2: Technical presentation focused on research outcomes and modular pavement technology products; brief state of the practice regarding the use of modular pavements; and research products, conclusions and outcomes
Part 3: User experience from a state department of transportation
Part 4: Related FHWA research and planned implementation activities
Part 5: Question and Answer session

To register, to view the **Webinar Learning Objectives**, and for more information, please go to: <http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Blurbs/169376.aspx>. After registering, you will receive a confirmation email containing information about joining the webinar. Should the "REGISTER NOW" button not work properly, please go to the following website: <http://www.trb.org/Calendar/Blurbs/169376.aspx>.

Individuals who are registered as a Florida P.E. are required to send an email, with their license number to: Reggie Gillum | E-mail: RGillum@nas.edu | and, for questions, please e-mail Reggie Gillum.

For notices about upcoming webinars, please subscribe to the TRB Transportation Research E-Newsletter at: <http://www.trb.org/Publications/PubsTRBENewsletter.aspx>. To read the TRB publication titled *Precast Concrete Pavement Technology*, please go to: <http://www.trb.org/main/blurbs/167788.aspx>.



Professional Development Hour information (PDH):

A certificate for 1.5 PDH will be provided to Professional Engineers (PEs) who register and attend the webinar as an individual. For groups, only the person that registers and attends the session will receive a PDH certificate.



INDUSTRY PUBLICATIONS

Supplementary Cementing Materials Make a Significant Difference in Concrete

A new book was recently released, written by Michael Thomas, titled "Supplementary Cementing Materials in Concrete", published in 2013 by CRC Press. Supplementary cementing materials (SCMs), such as fly ash, slag, silica fume, and natural pozzolans, make a significant difference to the properties of concrete but are rarely understood in any detail. This 210-page publication links the properties of the material at the microstructural level with its behavior in laboratory tests, and in turn, to the performance of the material in concrete structures under field exposure. Thomas explains how SCMs influence the mechanical properties of concrete and improve its durability and how various SCMs influence hydration reactions and the evolution of the pore structure and pore-solution composition.

SCMs can influence the mechanical properties of concrete and improve its durability in aggressive environments. They influence the chemical, physical and mineralogical properties of concrete through their chemical reactions, resulting in changes in the microstructure of concrete. Achieving the maximum benefit from SCMs requires an understanding of the materials and how they impact concrete properties under various conditions. Drawing on Thomas's 30 years of experience, this book helps engineers and practitioners to optimize the use of supplementary cementing materials to improve concrete performance.

- Covers a range of topics from understanding the fundamental science behind using SCMs to practical examples of their use in real situations
- Presents detailed information on the use of supplementary cementing materials in concrete including the source of these materials and their chemical, physical and mineralogical properties
- Includes a wide range of studies that demonstrate the impact of SCMs on the temperature rise in concrete, the development of strength, and volume stability
- Draws on the author's expertise as one of the leading researchers in this field, but also his first-hand practical experience
- Discusses the growing demand for concrete with increased level of SCMs to reduce the carbon footprint associated with portland cement

To purchase the hard copy of "Supplementary Cementing Materials in Concrete" by Michael Thomas, please go to: http://www.concrete.org/bookstorenet/ProductDetail.aspx?ItemID=SCMC&utm_medium=email&utm_source=image&utm_content=scmc&utm_campaign=eblast%2Daug62013

For additional information, contact ACI:

Online Bookstore: www.concrete.org | E-mail: bkstore@concrete.org | T: 248-848-3800

CONFERENCE NEWS

Pavement Rehabilitation Showcase to be Held September 26th in Winder, Georgia, USA

The *SR 11/Broad Street Pavement Rehabilitation Showcase* will be held September 26, 2013 in Winder, Georgia. The theme of the Showcase is "Utilizing Precast Concrete Pavement Systems (PCPS) in Historic Downtown Winder". The Showcase will be held at the Cultural Arts Center at 105 East Athens Street in Downtown Windsor, and will include:

- Technical Workshop
- Site Visit to View the Construction
- Lunch
- Dinner

Innovative precast concrete pavement panels have been successfully used to rehabilitate roadways by Departments of Transportation (DOTs) across the United States and have proven to be quality, durable and long-term performance products. Georgia DOT will use this innovation to rehabilitate State Route 11 in Downtown Winder – an historic community in Northeast Georgia. The technology allows GDOT to accelerate construction time, reduce the exposure to both workers and the traveling public, and decrease congestion delays caused by excessive construction work zone time frames.

For more information, please go to: <http://www.t2events.ce.ufl.edu/ga>.



Supplementary
Cementing Materials
in Concrete



Michael Thomas



Professional Development Hour Information (PDH):

PDHs will be available for this Showcase and will be issued by the University of Florida.

NOTE: Please provide your P.E. License No. at registration to receive credit and a Certificate of Attendance stating the number of hours earned. These hours are not reported to any Professional Board (unless you are in the State of Florida).

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U.S. Department of Transportation
Federal Highway Administration

HIGHWAYS
FOR LIFE

Accelerating Innovation for the
American Driving Experience.

Georgia Department of Transportation



Call for Abstracts for the International Concrete Sustainability Conference, Latin America to be Held February 6-7, 2014

The National Ready Mixed Concrete Association (NRMCA) and Iberoamerican Federation of Ready Mixed Concrete (FIHP), along with others, are sponsoring *The International Concrete Sustainability Conference, Latin America 2014* to be held February 6-7, 2014 in Medellín, Colombia, South America. The event will be held at the Intercontinental Hotel of Medellín. It is the first time this event will be held in Latin America, a growing region for concrete construction with a lot of interest in sustainable development. The conference will provide learning and networking opportunities on the latest advances, technical knowledge, continuing research and solutions for sustainable concrete manufacturing, design and construction.



Abstracts are due September 23, 2013. To submit an abstract and for questions, please send an e-mail to: Manuel Lascarro, *FIHP* | E-mail: mlascarro@asocreto.org.co

Researchers, academics, students, engineers, architects, contractors, concrete producers, public works officials, material suppliers and concrete industry professionals are invited to attend, submit papers and give presentations. Experts will present on the latest developments related to design, specifying, manufacturing, testing, construction, maintenance and research of concrete as it relates to sustainable development:

- LIFE CYCLE ASSESSMENT - Assessing carbon footprint, embodied energy and other environmental impacts for buildings, infrastructure, and cement and concrete production.
- LOW IMPACT DEVELOPMENT - Pervious pavements and erosion control structures. Urban heat island reduction, light colored pavements, green roofs and cool communities.
- GREEN CONCRETE - Recycled and alternative materials including aggregates, water, cementitious materials, and fuels. Beneficial use of byproducts for cement and concrete production.
- NEW CONCRETE TECHNOLOGY - Durability, extended service life models and validation, performance based specifications to foster sustainability. Innovative concrete production methods.
- SUSTAINABILITY INITIATIVES - Green building codes and standards adopted by building owners, designers, contractors and product manufacturers. Economic incentives and legislation.
- FUNCTIONAL RESILIENCE - High performance concrete applications in buildings and infrastructure, fortified building codes, and community initiatives focusing on disaster resistance and adaptive reuse.

For the program, hotel, speakers, sponsors and other information, please go to the conference website: <http://www.sustainabilityconf.org>.



IMPORTANT DATES:
Abstracts Due: **September 23, 2013**
Notification of Abstract Acceptance: **October 18, 2013**
Draft Paper Presentation Due: **November 15, 2013**
Presentations Due: **November 15, 2013**
Final Papers Due: **January 17, 2014**
Early Registration Deadline: **December 20, 2013**
Hotel Cutoff: **January 20, 2014**
Conference: **February 6-7, 2014**

Professional Development Hour Information (PDH):
Attendees are eligible to receive up to 12 PDHs.

Illinois Tollway Open House Spotlights Innovation, Sustainability



More than 125 transportation officials, engineers, and industry representatives participated in the *Illinois Tollway's Open House* on August 20-21, 2013. Sponsored by the U.S. National Concrete Pavement Technology Center (CP Tech Center), the 1½-day event included a full day of presentations that focused on sustainable and innovative construction materials and practices, along with a second ½-day of visits to various construction sites. The project being showcased was a portion of Interstate 90 (I-90) located west of the Elgin Toll Plaza, just west of Chicago.

Presentations provided essential details concerning the current Illinois Tollway capital improvement program, which is a 15-year, \$12 billion effort that is aimed at improving traveler mobility, relieving congestion and reducing pollution. Key presentations focused on the use of recycled aggregate (both concrete and asphalt pavement-derived "black rock"), the design and construction of two-lift concrete pavements, the use of pervious paving materials on ramps and pavement shoulders, plans for the use of performance-based construction specifications, and a contractor panel discussion of the challenges presented by projects of this type. Participants also heard presentations about the measurement of sustainability through the U.S. FHWA's Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) and other Life-Cycle Assessment tools.

DOT officials were treated to a midnight excursion to see the use of two different types of precast concrete panels being used for rapid overnight pavement repairs. On the second day, attendees visited several field sites including: an observation of the batch plant that is processing the "black rock" and producing both concrete mixtures for the two-lift paving; field demonstrations of the MIT-SCAN dowel alignment measurement device and procedures for measuring the flow of water through pervious surface layers; construction of a long-life concrete bridge deck using stainless steel reinforcing; and the mainline paving operation, which consisted of two concrete placers and a single paver.

National Concrete Pavement Technology Center



For additional information concerning the Open House, please go to the U.S. CP Tech Center website: <http://www.cptechcenter.org/>.

Information Source: *ACPA On-The-Grade* | August 28, 2013

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Call for Papers & Abstracts Digest



September 23, 2013 Due date for abstracts for the *2014 International Concrete Sustainability Conference, Latin America* to be held February 6 and 7, 2014 in Medellin, Colombia, South America. To submit an abstract by September 23, 2013, please contact: Manuel Lascarro, *FIHP*: mlascarro@asocreto.org.co.



November 30, 2013 Due date for abstracts for the *2014 International Concrete Sustainability Conference, Boston Massachusetts* to be held May 12-15, 2014, at the Hyatt Regency in Cambridge, Massachusetts. To submit an abstract by November 30, 2013, please go to: www.concretesustainabilityconference.org.

January, 2014 Due date for final papers for *12th International International Symposium on Concrete Roads* to be held September 23-26, 2014 in Prague, Czech Republic. To submit final approved papers, please e-mail: info@eupave.eu. For the website, please go to: <http://www.concreteroads2014.org>.



February 1, 2014 Due date for abstracts for the *8th International DUT-Workshop on Research and Innovations for Design of Sustainable and Durable Concrete Pavements* to be held September 20-21, 2014 in Prague, Czech Republic. To submit an abstract by February 1, 2014, please contact: Lambert Houben, *Chairman, Delf University of Technology (The Netherlands)*, E-mail: l.j.m.houben@tudelft.nl.



UPCOMING EVENTS

SEPTEMBER
2013

35th Summer Winter Integrated Field Technologies (SWIFT) Conference (CAPTG)
September 9-12, 2013 in Ottawa, Ontario, Canada
<http://www.swiftconference.org/Benefits.html>.

"Betonstraßentagung 2013": Concrete Pavement Conference 2013
September 19-20, 2013 in Karlsruhe, Germany
www.fgsv.de and English version of the Conference website (through Google Translate):
<http://translate.google.com/translate?hl=&sl=auto&tl=en&u=http%3A%2F%2Fwww.fgsv.de%2F>.

7th International Conference on Concrete under Severe Conditions Environment and Loading (CONSEC'13)
September 23-25, 2013 in Nanjing, China
<http://www.consec13.com>.

Innovative World of Concrete ICI-IWC 2013 and World of Concrete India 2013
October 23-26, 2013 in Hyderabad, Andhra Pradesh, India
<http://www.ici-iwc2013.com/>.

ACPA's 50th Annual Meeting
December 2-6, 2013 in Rio Grande, Puerto Rico
For additional information, call 847.966.2272.

International Journal of Pavements Conference
December 9-10, 2013 in São Paulo, Brazil
<http://www.ijpavement.com/>.

93rd Annual Meeting of Transportation Research Board (TRB)
January 12-16, 2014 in Washington, D.C., USA
<http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>

14th International Winter Road Congress
February 4-7, 2014 in Andorra
<http://www.aipcrandorra2014.org/?lang=en>

International Concrete Sustainability Conference, Latin America 2014
February 6-7, 2014 in Medellin, Colombia
<http://www.sustainabilityconf.org/>.

For events taking place in 2014 and beyond, please go to:
<http://www.concretepavements.org/calendar.htm>.

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LinkedIn®

<http://www.linkedin.com/home>

Questions? Please contact moderator Jeff Roesler: jroesler@illinois.edu



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for contributions to this newsletter.

ISCP invites ISCP members and friends to submit articles and calendar items to the Editor-in-Chief for future issues.

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Secretary/Treasurer: **Neeraj Buch, Ph.D.** secretary-treasurer@concretepavements.org

Please visit the **ISCP Website** at www.concretepavements.org for more information about ISCP.

Gavel illustration, page 1: www.ncsl.org | Maps, globes: commons.wikimedia.org
National Geographic Family Reference Atlas of the World ©2002 National Geographic Society, Washington, D.C.
All additional sources noted on perspective pages.

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