ISCP NEWS

April 30th is THE DEADLINE for 11th ICCP Abstracts & Letters of Intent

April 30, 2015 is the deadline for abstracts and letters of intent for the 11th International Conference on Concrete Pavements (11th CCP) to be held August 28-31, 2016 in San Antonio, Texas, USA. Please submit the abstract to:

E-mail: papers@concretepavements.org
Online form: Tom Burnham
1400 Gervais Avenue
Maplewood, MN 55109, USA

For the online “Call for Papers” form and brochure, please go to: http://concretepavements.org/2015/03/05/first-call-for-papers-iscps-11th-iccp-2016/

Exhibitors, please complete a Call for Papers response form indicating interest in receiving an exhibition registration package. For questions and more information, please contact:

Leif Wathne, 11th ICCP Conference Chair:
E-mail: lwathne@acpa.org | Phone: 202.638.2272

New: ISCP Job Board

ISCP presents the new Job Board! The focus of the job board is for any concrete pavement jobs—including those in design, construction, inspection, testing, academia, promotion, or any other aspect of the concrete pavement industry. ISCP welcomes all members’ job posts and comments! The Job Board link allows members to:

- View pages of job listing
- Post a job
- View listing options
- View member discounts
- Search jobs, companies and positions
- Apply for positions
- Sign up for job alerts

To access the Job Board, please go to: http://iscp.jobboard.io

INDUSTRY NEWS, PUBLICATIONS & RESOURCES

ISCP Member, First Person Outside USA to Serve as ACPA Chapter/State Chairman, Shares His Goals

ISCP Member, Rico Fung, P.E., Director, Markets & Technical Affairs Cement Association of Canada-Toronto (CAC) (ISCP Organizational Member), has a clear path mapped out for the ACPA-affiliated Chapter/States during his tenure as the 2015 Chairman of the ACPA National Chapter/State Committee. Fung has already charted a course that is unique for two reasons: He is the first person outside the United States and the first person working for a national organization—CAC, to serve as ACPA Chapter/State Chairman. The latter is the result of a unique affiliation agreement that affords the CAC the full access, rights and privileges of the ACPA-affiliated Chapter/State organization. “I’m honored to be the Chair, and very enthusiastic,” Fung said, adding, that he sees one of his roles as “looking out for the interest of all the Chapter/States. This is their committee, and I am here to serve them.”

He outlined a full slate of top priority short-term major initiatives and issues:

1.) As Chapter/State Committee Chair, his “foremost goal is to grow the market, to move the needle in the marketplace”.
2.) Passage of a well-funded, multi-year Federal-aid highway bill. He would like the Chapter/States to have the resources necessary to raise awareness with elected officials about “how important this bill is to the highway infrastructure, the economy, and the survival of the industry”.
3.) Reinforce technical leadership—both at the national and local levels. Fung said, “Without ACPA National’s technical support, we will not be able to do that. The goal is to leverage national expertise and resources to assist local technical experts in their service to contractors and other members, as well as with state and local agency/owners.”
4.) Foster closer working relationships with the National Ready Mixed Concrete Association and Portland Cement Association, while also “involving the MIT Sustainability Hub to leverage the knowledge they have developed to help us move the needle in the marketplace.”
The objective of this study is to further develop an innovative performance-based mixture proportioning method by analyzing the relationships between the selected mix characteristics and their corresponding effects on tested properties. The proposed method will provide step-by-step instructions to guide the selection of required aggregate and paste systems based on the performance requirements. Although the majority typically used for pavement preservation or minor rehabilitation purposes. Although State highway agencies recognize that most of these treatments generally improve pavement friction, they are not typically installed explicitly for safety improvement—with one exception being high-friction surfacing, which is typically applied as a spot safety treatment.

The proposed method should be user friendly, easy to apply in practice, and flexible in terms of allowing a wide range of material selection.

To read the entire article on Rico Fung’s goals and visions, please go to: http://www.acpa.org/chapterchair0315/.

His goal is building consensus—stating that one of the best ways to bridge differences is to reach out to people to understand their concerns and get their input. Fung desires to increase participation through conference calls and face-to-face meetings, and getting people to engage. “There are four things I try to keep in mind in professional life,” he said. “The list includes being credible; being knowledgeable; being persistent and never giving up; and being a good listener. I don’t always practice it, but I try to be a good listener, and I’m still working on this one,” he said with a laugh.

To read the entire article on Rico Fung’s goals and visions, please go to: http://www.acpa.org/chapterchair0315/.

Evaluation of Pavement Safety Performance

The U.S. Federal Highway Administration has released a report that isolates the effects of various low-cost pavement treatments on roadway safety through analysis of both flexible and rigid pavement treatments. The intent of this study was to isolate the effects of various low-cost pavement treatments on roadway safety. This was a retrospective study of pavement safety performance—looking back at crash data before and after treatments were installed. Both flexible and rigid pavement treatments were analyzed, with the majority typically used for pavement preservation or minor rehabilitation purposes. Although State highway agencies recognize that most of these treatments generally improve pavement friction, they are not typically installed explicitly for safety improvement—with one exception being high-friction surfacing, which is typically applied as a spot safety treatment.

The research was conducted as part of Phase VI of the Federal Highway Administration Evaluation of Low-Cost Safety Improvements Pooled Fund Study (ELCSI-PFS). This PFS was established to conduct research on the effectiveness of the safety improvements identified by the National Cooperative Highway Research Program Report 500 guides as part of implementation of the American Association of State Highway and Transportation Officials (AASHTO) Strategic Highway Safety Plan. The intent of the work, conducted under the various phases of the ELCSI-PFS, is to provide a crash modification factor (CMF) and benefit-cost (BC) economic analysis for each of the targeted safety strategies identified as priorities by the PFS States. Under the effort described herein, CMFs and BC ratios were developed for various low-cost pavement treatments. To read this report in PDF form, please go to: http://www.fhwa.dot.gov/publications/research/safety/14065/14065.pdf.

Long-Term Pavement Performance Automated Faulting Measurement

The U.S. Federal Highway Administration (US-FHWA) has released a report that focuses on identifying transverse joint locations on jointed plain concrete pavements using an automated joint detection algorithm and computing faulting. At these locations, the Long-Term Pavement Performance (LTTP) Program profile data was collected by the program’s high-speed inertial profilers (HSIP). This study evaluated two existing measurement (AFM) models: ProVAL (Method-A) and Florida Department of Transportation (FDOT) PaveSuite (Method-B). A new LTTP AFM was developed using LTTP profile data. The LTTP AFM is an automated algorithm to identify joint locations where faulting is also computed for each joint identified to replicate the manually collected faulting data using the Georgia Faultmeter (GFM), which has been used on LTTP test sections since the program’s inception.

The study compared the LTTP manual faulting measurements collected using the GFM with the ProVAL AFM and the LTTP AFM using LTTP profile data. Similarly, the FDOT GFM measurements were compared with the FDOT PaveSuite AFM and the LTTP AFM using the same FDOT profile data. The initial results for six LTTP test sections show that the LTTP AFM can identify joint locations with a joint detection rate (JDR) ranging from 95 to 100 percent. ProVAL’s JDR range is from 58 to 99 percent for the same six LTTP test sections. Similarly, for the one FDOT test section available, the LTTP AFM’s and FDOT PaveSuite’s JDRs are approximately 96 percent. This study outlines the LTTP AFM algorithm, discusses the comparison of the three AFM results, and recommends future research needs in this area.


Concrete Pavement Mixture Design and Analysis (MDA):
An Innovative Approach To Proportioning Concrete Mixtures

CPTECH Center published a document that Mixture proportioning is routinely a matter of using a recipe based on a previously produced concrete, rather than adjusting the proportions based on the needs of the mixture and the locally available materials. As budgets grow tighter and increasing attention is being paid to sustainability metrics, greater attention is beginning to be focused on making mixtures that are more efficient in their usage of materials, yet do not compromise engineering performance. Therefore, a performance-based mixture proportioning method is needed to provide the desired concrete properties for a given project specification. The proposed method should be user friendly, easy to apply in practice, and flexible in terms of allowing a wide range of material selection.

The objective of this study is to further develop an innovative performance-based mixture proportioning method by analyzing the relationships between the selected mix characteristics and their corresponding effects on tested properties. The proposed method will provide step-by-step instructions to guide the selection of required aggregates and paste systems based on the performance requirements. Although the provided guidance in this report is primarily for concrete pavements, the same approach can be applied to other concrete applications as well. To read this publication in PDF form, please go to: http://www.intrans.iastate.edu/research/documents/research-reports/MDA_proportioning_mixtures_w_cvr.pdf.
**ACI: 327R-14 Guide to Roller-Compacted Concrete Pavements**

The American Concrete Institute (ACI) has produced a guide to provide owner-agencies, contractors, materials suppliers, and others with a thorough introduction to roller-compact concrete (RCC) and its many paving applications. RCC pavements are strong, dense and durable. These characteristics, combined with construction speed and economy, make RCC pavements an excellent alternative for parking and storage areas including port, intermodal, and military facilities; as well as highway shoulders, streets, and highways. RCC can also be used in composite systems as base material. The use of RCC pavement has increased steadily in recent years.

This guide describes RCC and how it works as a paving material, how it compares to concrete pavement, its common uses and benefits, and potential limitations compared to other paving materials. Troubleshooting guidelines are provided, as well as detailed overviews of RCC properties and materials, mixture proportioning, structural design issues, production and construction considerations, and quality control.


---

**ACPA - Southeast Chapter Unveils New Website**

The American Concrete Pavement Association - Southeast Chapter (ACPA-SE) has launched a new website, which boasts dynamic features, high-quality graphics, and rich content. The site enables visitors to view information about various concrete solutions and resources offered by ACPA National, the Chapter, and other industry partners. This digital resource also includes information about awards programs and recent recipients; upcoming events (including registration links); membership; public advocacy; and more. The Southeast Chapter includes and offers convenient access to leadership, members, and the staff of:

- Carolinas Concrete Pavement Association
- Tennessee Concrete Paving Association
- Georgia Concrete Paving Association

ACPA-SE is one of twenty-four ACPA Chapter/State Associations in the United States affiliated with the national ACPA. Its main focus is to promote the benefits of concrete pavements for interstate highways, state and county highways, municipal streets, local roads, military facilities, and airports.

To visit and bookmark the ACPA-SE site, please go to: [http://acpa-se.org/](http://acpa-se.org/).

---

**CONFERENCES & WORKSHOPS**

**Design Workshop to be Held in Chile: OptiPave 2: Fundamentals & Use of Software … Short Concrete Pavement Slabs Using the Tool OptiPave™**

The Institute of Cement and Concrete Chile (ICH) and TCPavements Company have collaborated and will hold a workshop, in 5 cities in Chile, that will allow the attendees to develop practical different case studies using the OptiPave software. The goal of this workshop: Attendees will acquire the necessary tools and calculations for concrete pavement structures with alternate uses of short concrete pavement slabs.

The Workshop will be offered in 5 cities throughout Chile, from April 15 to July 2, 2015.

The time: 9:00 am to 1:00 pm (4 hours)

The dates:

1. **Santiago** Wednesday April 15
2. **Temuco** Tuesday April 28
3. **Iquique** Thursday May 7
4. **Concepción** Tuesday June 23
5. **Antofagasta** Thursday July 2

OptiPave™ is a Mechanistic-based software specifically developed to design concrete pavements with slabs with optimized geometry, for any set of climate, traffic (as Load Spectra), subgrade/subbase layers and material inputs.

The first version was launched in 2009, which was a mechanistic-empirical design program that included distress models that allows to design projects with the most diverse characteristics. It was created in Chile and calibrated with the results of a study conducted in the University of Illinois, USA.

To register and for the Workshop website, please go to: [http://pavimentando.cl/?p=2519](http://pavimentando.cl/?p=2519).

2015 is focused on the rapidly advancing state-of-the-art and state-of-the-practice of pavements as well as the unique and creative ways to design and detail concrete pavements used in highways, streets and parking areas—considering the traffic loads, soil conditions, and resulting pavement stresses. In addition to designing conventional concrete pavements, this seminar will provide introductions to innovative products such as pervious concrete, concrete overlays, and roller compacted concrete (RCC). Topics discussed will include:

- Assessing the air void system of fresh concrete using a Super Air Meter (SAM)
- Warping and curling—impacts on ride quality:
  - Internal curing
  - Hot and cold weather concreting
- High performance concrete—how to mitigate shrinkage
- Results of internally cured paving pilot in Kansas
- Update on testing the performance of open-graded aggregates
- Types of cement (including types of rapid set patching materials)
- Brief performance updates on rapid setting patching materials at Caltrans—Illinois and Texas
- CP Tech Center Business meeting
- CP Tech Center updates
- Brief performance updates on internally cured bridge decks in Indiana, Illinois and Utah
- FHWA updates
- Cement Task Force:
  - Update on CRC pavements
  - SCMs, Fly Ash Supply and Quality, and Presentation on Natural Pozzolans
- MIT concrete science durability program
- State reports on curing
- Environment life cycle assessment (LCA) of concrete pavements
- Typical construction techniques for conventional concrete pavements and overlay
- The unique techniques used for pervious and roller compacted concrete
- Development and application of materials and construction specifications
- The related quality control and acceptance tests—highlighted in terms of meeting the design objectives

There will be a technical tour (with boxed lunches) to Nevada Cement Company Plant (produces 1N Cement) and a local paving project: Southbound I-580 Reconstruction.

**ISCP Members and Board Members**

attending and presenting:

Mark Snyder, Peter Taylor, Dan Zollinger and Tom VanDam

For the CPTech Center NCC 2015 TTCC agenda and more information, please to to: [http://www.cptechcenter.org/ncc/Spring%202015%20NC2%20Agenda.pdf](http://www.cptechcenter.org/ncc/Spring%202015%20NC2%20Agenda.pdf).

**5th Symposium on Nanotechnology in Construction (NICOM5)**

The Fifth International Symposium on Nanotechnology in Construction (NICOM5) will be held May 24-26, 2015 in Chicago, Illinois, USA. This symposium is held every three years and has been a focal point for the presentation of the latest research in nanotechnology for construction materials. All previous NICOM symposia were held in Europe, and the European Union (EU) has supported extensive research in nanotechnology for concrete and other construction materials. The goal of hosting NICOM Symposium in Chicago is to help bridge Europe and the Americas—to establish long-term collaborations among scientists and practitioners around the world.

The world's leading researchers, engineers and scientists in the field of nanotechnology in construction will offer a special opportunity for participants to gain exposure to many of the top investigators in the field, and to cutting-edge research conducted in Europe, USA, and other countries—globally connecting and leading to new ideas, active collaborations, and greater interactions.

For more information, please visit the conference website: [http://www.nicom5.org](http://www.nicom5.org).

**ASCE – Design of Concrete Pavements, USA**

The American Society of Civil Engineers will hold a two-day seminar June 25-26, 2015 at the Sheraton Brookhollow Houston in Houston, Texas, that will provide instruction on how to design and detail concrete pavements used in highways, streets and parking lots—considering the traffic loads, soil conditions, and resulting pavement stresses. In addition to designing conventional concrete pavements, this seminar will provide introductions to innovative products such as pervious concrete, concrete overlays, and roller compacted concrete (RCC). Topics discussed will include:

- Concrete thickness design from multiple design methodologies—empirical and mechanistic-empirical
- Discussions of subgrade characterization and improvement
- Pavement jointing
- Concrete materials
- Discussions of strength, workability and durability
- Economic life cycle cost analysis (LCCA)
- Environmental life cycle assessment (LCA) of concrete pavements
- Typical construction techniques for conventional concrete pavements and overlay
- The unique techniques used for pervious and roller compacted concrete
- Development and application of materials and construction specifications
- The related quality control and acceptance tests—highlighted in terms of meeting the design objectives

This course is intended for civil engineers, geotechnical engineers, and public works officials involved in the design and layout of concrete highways, streets and parking areas. Participants will leave the course with a better understanding of the analytical process used to achieve an optimized concrete pavement cross section that will perform as intended over the design life.

For seminar benefits, learning outcomes, assessments, agenda, registration, and more information, please go to: [http://mylearning.asce.org/diweb/catalog/item/id/333177/q/c=798&g=concrete&st=2116](http://mylearning.asce.org/diweb/catalog/item/id/333177/q/c=798&g=concrete&st=2116).

**International Airfield & Highway Pavements Conference with Workshops & Technical Tours**

The Transportation and Development Institute (T&DI) will hold the International Airfield and Highway Pavements Conference June 7-10, 2015 at the Hilton Miami Downtown in Miami, Florida, USA. The theme of the Conference is "Innovative and Cost-Effective Pavements for a sustainable Future". The Conference 2015 is focused on the rapidly advancing state-of-the-art and state-of-the-practice of pavements as well as other construction materials. The goal of hosting NICOM Symposium in Chicago is to help bridge Europe and the Americas—to establish long-term collaborations among scientists and practitioners around the world.

The world's leading researchers, engineers and scientists in the field of nanotechnology in construction will offer a special opportunity for participants to gain exposure to many of the top investigators in the field, and to cutting-edge research conducted in Europe, USA, and other countries—globally connecting and leading to new ideas, active collaborations, and greater interactions.

For more information, please visit the conference website: [http://www.nicom5.org](http://www.nicom5.org).

**5th Symposium on Nanotechnology in Construction (NICOM5)**

The Fifth International Symposium on Nanotechnology in Construction (NICOM5) will be held May 24-26, 2015 in Chicago, Illinois, USA. This symposium is held every three years and has been a focal point for the presentation of the latest research in nanotechnology for construction materials. All previous NICOM symposia were held in Europe, and the European Union (EU) has supported extensive research in nanotechnology for concrete and other construction materials. The goal of hosting NICOM Symposium in Chicago is to help bridge Europe and the Americas—to establish long-term collaborations among scientists and practitioners around the world.

The world's leading researchers, engineers and scientists in the field of nanotechnology in construction will offer a special opportunity for participants to gain exposure to many of the top investigators in the field, and to cutting-edge research conducted in Europe, USA, and other countries—globally connecting and leading to new ideas, active collaborations, and greater interactions.

For more information, please visit the conference website: [http://www.nicom5.org](http://www.nicom5.org).

**ASCE – Design of Concrete Pavements, USA**

The American Society of Civil Engineers will hold a two-day seminar June 25-26, 2015 at the Sheraton Brookhollow Houston in Houston, Texas, that will provide instruction on how to design and detail concrete pavements used in highways, streets and parking lots—considering the traffic loads, soil conditions, and resulting pavement stresses. In addition to designing conventional concrete pavements, this seminar will provide introductions to innovative products such as pervious concrete, concrete overlays, and roller compacted concrete (RCC). Topics discussed will include:

- Concrete thickness design from multiple design methodologies—empirical and mechanistic-empirical
- Discussions of subgrade characterization and improvement
- Pavement jointing
- Concrete materials
- Discussions of strength, workability and durability
- Economic life cycle cost analysis (LCCA)
- Environmental life cycle assessment (LCA) of concrete pavements
- Typical construction techniques for conventional concrete pavements and overlay
- The unique techniques used for pervious and roller compacted concrete
- Development and application of materials and construction specifications
- The related quality control and acceptance tests—highlighted in terms of meeting the design objectives

This course is intended for civil engineers, geotechnical engineers, and public works officials involved in the design and layout of concrete highways, streets and parking areas. Participants will leave the course with a better understanding of the analytical process used to achieve an optimized concrete pavement cross section that will perform as intended over the design life.

For seminar benefits, learning outcomes, assessments, agenda, registration, and more information, please go to: [http://mylearning.asce.org/diweb/catalog/item/id/333177/q/c=798&g=concrete&st=2116](http://mylearning.asce.org/diweb/catalog/item/id/333177/q/c=798&g=concrete&st=2116).
Debate Held: Concrete Solutions to Upgrade European Roads

On March 25 2015, The European Concrete Paving Association (EUPAVE) organized a successful debate on upgrading Europe’s road network. The event took place at The European Cement Association (CEMBUREAU) in Brussels, Belgium and hosted about 35 stakeholders interested in road transport. The event highlighted the importance of road infrastructure for the internal market and mobility and cohesion. There were also discussions on how to address challenges such as traffic congestion, road safety, and greenhouse gas emissions. Stéphane Nicoud, EUPAVE President, welcomed the participants and highlighted that concrete pavements can help tackle serious transport problems.

Wim Kramer, Cement&BetonCentrum, presented two solutions for upgrading roads: concrete inlays and road widening. He explained that these two technologies benefit from the advantage of concrete pavements in terms of durability under heavy traffic. Forecasts say that road traffic volumes will increase, but given public budget limitations and the current high congestion levels, Mr. Kramer emphasized that these two solutions offer a real sustainable solution by extending the service life of the road network in line with European targets for transport. To read the entire EUPAVE article, please go to: http://www.eupave.eu/documents/news-items/20152503-euevent.xml?lang=en.
of rigid pavements from the Long Term Pavement Performance SPS-2 study.

Webinar Moderator: Steve Varnedoe, Agile Assets, Inc.
Webinar Presenters: Larry Scofield, International Grinding and Grooving Association
Susan Tighe, University of Waterloo
Dominique Pittinger, University of Oklahoma

Webinar Outline:
PART 1: SPS2 Preservation Pooled Fund Study update
PART 2: Demonstrating the savings from concrete preservation
PART 3: Permeable concrete maintenance issues
PART 4: Shotblasting, concrete densification, grinding, and grooving in Oklahoma
PART 5: Question and answer session

Participants must register in advance of the webinar, and there is a fee for non-TRB Sponsor or non-TRB Sustaining Affiliate employees. The first 60 minutes of the webinar will be for presentations and the final 30 minutes will be reserved for audience questions. To register, for learning objectives and other information, please go to: http://www.trb.org/main/blurbs/172072.aspx.

CALL FOR ABSTRACTS/PAPERS DIGEST

April 30, 2015 Due date for abstracts and letters of intent for the 11th International Conference on Concrete Pavements (11th ICCP) to be held in San Antonio, Texas, USA, August 28-31, 2016. For the First Call for Papers brochure, please contact Leif Wathne, 11th ICCP Conference Chair: E-mail: lwathne@acpa.org. For the online version of the brochure, please go to: http://www.concretepavements.org/11thicc/11THICCPBrochure.pdf.

April 30, 2015 Due date for abstracts for the 3rd International Conference on Best Practices for Concrete Pavement to be held October 26-30, 2015 at the University of Sao Paulo in Bonito, Brazil. Please see the article on page 1 of the February 2015 ISCP Newsletter. Please submit abstracts and papers via e-mail to: concpavbonito2015@gmail.com.

May 8, 2015 Due date for abstracts and resumés for the 10th Uruguayan Road Congress, to be held October 14-16, 2015 in the Conference Room of the Technological Laboratory of Uruguay in Montevideo, Uruguay (Av Italia 6201). For more information, please contact: Uruguayan Association of Roads: Phone: 598.2401.9459 | Fax: 598.2402.3007 | E-mail: secretaria@auc.com.uy

NCC – Spring 2015 Meeting, USA

Totally Concrete Expo-South Africa

9th International Conference on Managing Pavement Assets (ICMPA9)

5th International Symposium on Nanotechnology in Construction (NICOMS)

ASCE & T&D

James Lai Symposium on Pavement Mechanics and Materials
2015 ASCE Engineering Mechanics Institute Conference (MS 61)

ASCE-Engineering Mechanics Institute (EMI) Conference

ASCE 2015 Conference, Australia

Concrete 2015

11th International Symposium on Brite Matrix Composites – BMC-11

10th Brazilian Concrete Conference, Brazil
October 14-16, 2015, at the Technological Laboratory of Uruguay (LATU), in Montevideo, Uruguay http://ibracon.org.br/eventos/57/cbc/mics/default.asp

3rd International Conference on Best Practices for Concrete Pavements

57th Brazilian Concrete Congress Conference
October 27-30, 2015 at the Centro de Convenções de Bonito, in the state of Mato Grosso Do Sul in Bonito, Brazil http://ibracon.org.br/eventos/57/cbc/mics/

PIARC XXVth World Road Congress
November 2-6, 2015 in Seoul, South Korea, http://piarcseoul2015.org/