



# International Society for Concrete Pavements

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## CORPORATE MEMBERS



## What's New at ISCP

### President's Message



Winter has come to an end (at least in Texas), the flowers are blooming, and so is the planning for the San Francisco conference. Several activities are underway and we appreciate the support and interest from members volunteering to help.

I predicted in my last message that 2007 will present unique opportunities for participation and professional development in ISCP, and events thus far seem to be proving this prediction. An important event related to this is the ISCP mid-year board meeting/strategic planning retreat and International Conference being held in South Africa seminar during the 3rd week of August. This is not only a key event promoting the presence of the Society internationally, but the discussion planned for this gathering will lay important groundwork relative to the future direction of the Society. The organization is coming up on a 10 year anniversary and, as we look back at how it started and where it has come since its inception, a strategic discussion as to the future of the Society at this stage is certainly well-timed. Key issues, such as the current level of dues, the level of service to be provided by the Society, the promotion of international branches or regional conferences, among other basic issues, require attention. Recently, interest has been growing in China to gain Society sponsorship for conferences and seminars there on concrete pavement technology. There is a need to establish direction and consensus for the Society on how we should proceed in these discussions; perhaps the ISCP-co-sponsored workshop (with IBRACON) in Recife, Brazil is a good example for us.

Whether or not you responded to the earlier membership survey or are planning to attend the South African workshop, we welcome your further input on these issues. Stay tuned, more will certainly follow.

### ISCP Strategic Planning Meeting and Conference in South Africa

Development of a strategic plan for ISCP will be the major agenda item at a meeting of the Board in Johannesburg, South Africa, in August 2007. The strategic plan will be a "living document" that the Board will review and update every few years to ensure that the activities of ISCP are consistent with the mission and goals of the society. A detailed list of discussion items for the strategic planning meeting will be developed and distributed by email to Board members in July. Suggestions for strategic planning discussion items are welcome from all ISCP members, and may be sent to Kathleen Hall at [kthall64@comcast.net](mailto:kthall64@comcast.net).

### Call for Nominations of Honorary Members

The Society is seeking nominations for Honorary Membership for consideration by the Board of Directors at the upcoming mid-year meeting in South Africa. Honorary members are individuals that have provided exemplary service to the International Society for Concrete Pavements and/or to the improvement of concrete pavement technology over his/her career. ISCP has honored 14 individuals with honorary member status since 2001.

Nominations for honorary membership may be submitted to the ISCP Secretary using the standard nomination form at any time by any ISCP member in good standing. On July 1 of each year, the ISCP secretary prepares copies of all active nominations and distributes them to the

ISCP Board of Directors for consideration at their mid-year meeting. Honorary members will be inducted at the next annual membership meeting of the ISCP. For more details on the Honorary Member procedures and details, please go to:

<http://www.concretepavements.org/Membership/honorary.htm> and

[http://www.concretepavements.org/honorary\\_members.htm](http://www.concretepavements.org/honorary_members.htm)

## Pre-9<sup>th</sup> International Conference Workshop Planned

An ISCP-sponsored workshop on fundamental research in concrete pavements (curling, fracture mechanics, etc.) is currently being planned for August 7-8, 2008 by workshop organizers Jeff Roesler and Lev Khazanovich. This workshop will precede the 9th International Conference on Concrete Pavements. The workshop location will be in the San Francisco Bay area at a separate location from the San Francisco Marriott Hotel. The format for this workshop will include several keynote speakers and short presentations by workshop participants followed by roundtable discussions.

A similar workshop focusing on cracking and fracture mechanics in concrete pavements was held at the Copper Mountain Resort in Colorado preceding the 8th International Conference on Concrete Pavements in 2005. This workshop was attended by 34 international participants and featured two invited keynote presentations summarizing the state-of-the art in concrete fracture mechanics modeling, testing, and relevant applications presented by Dr. Surendra Shah (Northwestern University, Evanston, Illinois, USA) and Dr. Tom Scarpas (Delft University of Technology, The Netherlands).



The final proceedings (4.24 MB, pdf format) of this 2005 workshop can be downloaded from the ISCP website at:

[http://www.concretepavements.org/8th\\_Int\\_conf/final%20workshop%20proceedings.pdf](http://www.concretepavements.org/8th_Int_conf/final%20workshop%20proceedings.pdf)

More information regarding location, format, and registration for this workshop will be available in the months to come.

## Honorary Member Profile: Ernest Barenberg



Ernest Barenberg was born in Rawlins County, Kansas in 1929. After studying civil engineering at Kansas State University, he worked briefly in the aviation industry before serving a two-year tour in the U.S. Army Corps of Engineers. After his discharge from the army, he obtained his Masters Degree in structural engineering at the University of Kansas, and taught structural engineering design in steel and concrete there for five years. He went from the University of Kansas to the University of Illinois at Urbana-Champaign Illinois (UIUC) where he obtained his PhD Degree. He stayed on at UIUC, teaching and conducting researching for nearly 40 years. Dr. Barenberg has held various staff positions and appointments at UIUC including a 4-year term as the Associate Head of Civil Engineering, and serving as an associate director for the Federal Aviation Administration Center of Excellence for airport pavements for over 8 years.

Dr. Barenberg's primary fields of interest are concrete pavements, paving materials and railroad track systems. He has made many contributions to these fields through his research and consulting activities. For example, he was instrumental in developing design standards for pavements at Chicago's O'Hare Airport and for London's Heathrow and Gatwick Airports, and developed the background and framework for the mechanistic-based design procedures for concrete pavements currently used by the Illinois Department of Transportation. He has been a part of the design team for several post-tensioned concrete pavements, including those currently in service (including O'Hare Airport and Rockford Airport). Recently he has been working with a manufacturer in the development of precast pavements for rapid repair of concrete pavement.

He was responsible for the development of the theoretical model for the analysis of concrete pavements (ILLISLAB) and a comprehensive model for predicting the buckling of rails. He was particularly active in the early development of theoretical/empirical design procedures for concrete pavements, and the development of premier pavements for long life and low maintenance.

Dr. Barenberg has been active in several professional societies including the Transportation Research Board, ASTM, ASCE, and ACI. He is the author or co-author of over 150 technical papers and or technical reports dealing with paving materials and the design and performance of transportation facilities. He has been named as an emeritus member for Transportation Research Board Committees dealing with rigid pavement design and with rail-track structure design. He was also a founding member and the first president of the International Society for Concrete Pavements.

Dr. Barenberg has received numerous major awards over his illustrious career, including:

- 1998 - ASCE Air Transportation Division Robert Horonjeff Award for "outstanding contributions to airport paving engineering".
- 2002 – Named "Educator of the Year" by the American Concrete Pavement Association for his "more than 45 years of teaching and innovative research in concrete pavements".
- 2004 - Designated a lifetime National Associate of the National Academies in "recognition of extraordinary service to the National Academies in its role as advisor to the Nation in matters of science, engineering, and health".

In recognition of his accomplishments and contributions to the concrete paving profession, Dr. Barenberg was inducted into the ranks of ISCP Honorary Membership on September 9, 2001. ISCP is proud to have Dr. Barenberg as an Honorary Member!

## Research News

### International Conference on Concrete Roads 2007 (ICCR 2007) - South Africa



The Cement and Concrete Institute (C&CI), in collaboration with the International Society for Concrete Pavements (ISCP), will bring 13 of the world's top concrete roads specialists to South Africa to join local experts for the International Conference on Concrete Roads 2007 (ICCR 2007) on August 16-17, 2007.

The main objective of the International Conference on Concrete Roads (ICCR) is to showcase the latest international trends in concrete road design, construction, rehabilitation and current research and to update delegates on the latest local developments with Ultrathin Continuously Reinforced Concrete Pavements (UTCRC) and launch the latest version of cncPave. The conference will provide an ideal opportunity to network with overseas specialists and local leaders in the concrete roads sector. CPD points will be available to delegates attending the conference.

Additional information and a registration form for this conference can be found at:

<http://www.concretepavements.org/ICCRRegistrationform.pdf>

This event has been endorsed by the South African National Roads Agency Limited.

## Update on IBRACON Workshop on Best Practices

Start making your travel plans now. Approximately 30 papers will be presented in October in Recife, Brazil at the International Workshop on Best Practices for Concrete Pavements, co-sponsored by the Brazilian Concrete Institute (IBRACON) and ISCP. The papers include contributions from Argentina, USA, Belgium, South Africa, Sweden, Iran, Taiwan, Sri-Lanka, the Netherlands and Brazil.

The workshop will be an excellent opportunity for professional exchange of ideas at a great location. Also known as the "Brazilian Venice" due to its many rivers and canals, Recife is famous for its sunny beaches and very hospitable population.

Workshop registration will open next month. Please visit the event website (listed below) for more details, including hotel and tourism information. Authors of papers will be contacted by the editorial committee by the end of April. The workshop coincides with the construction of federal highway BR-101 linking Recife to Natal, 500 km, all in concrete pavements.

<http://ibracon1.locaweb.com.br/eventos/pavement.workshop/informacoes.asp>

## International Conference on Concrete Paving Mixes, Construction and Rehab - Atlanta 2007

Learn how to construct today's improved and accelerated concrete pavements at the upcoming International Conference on Optimizing Paving Concrete Mixtures and Accelerated Concrete Pavement Construction and Rehabilitation. Scheduled for November 7–9, 2007, in Atlanta, Georgia, the conference is being organized by FHWA's Concrete Pavement Technology Program (CPTP) and co-sponsored by TRB.

The preliminary technical program is given below:

Tuesday, Nov. 6	Wednesday, Nov. 7	Thursday, Nov. 8	Friday, Nov. 9
	Group Breakfast	Group Breakfast	Group Breakfast
	Plenary	Accelerated Construction/Rehab. 2	Forum 2*
	Concrete Mixture Optimization 1	Concrete Mixture Optimization 3	Forum 3*
Registration Starts	Group Lunch	Group Lunch	End of Conference
	Accelerated Construction/Rehab. 1	Accelerated Construction/Rehab. 3	
	Concrete Mixture Optimization 2	Forum 1*	
Reception	Group Dinner		

- Forum 1: Concrete Mixture Optimization
- Forum 2: Accelerated Construction/Rehab. – Weekend and Nighttime Closures
- Forum 3: Accelerated Construction/Rehab. – Full Closures

The conference will address various aspects of U.S. and international experiences with concrete mixture optimization, including best practices, mitigation of materials-related distress, economic factors, and use of locally available material resources.

The conference will also address how today's concrete pavements are constructed to maintain an accelerated schedule for roadway projects and lessen the impact of construction on motorists, community residents, and local businesses. Accelerated construction minimizes the hazards of working within high-volume traffic areas, improving safety and productivity. Participants will discuss best construction practices for accelerated construction and rehabilitation, including concrete requirements, production rates, and testing needs; congestion mitigation strategies; contractor and equipment issues; and the use of short-term versus long-term closures.

Additional information on the conference and online registration are available at

[www.fhwa.dot.gov/pavement/concrete/2007CPTPconf.cfm](http://www.fhwa.dot.gov/pavement/concrete/2007CPTPconf.cfm)

The conference registration site is:

[http://registeruo.niu.edu/iebms/coe/coe\\_p2\\_details.aspx?eventid=8374&cc=COE&oc=40](http://registeruo.niu.edu/iebms/coe/coe_p2_details.aspx?eventid=8374&cc=COE&oc=40)

## East Asian Conferences

The *First International Symposium on Transportation and Development Innovative Best Practices* (TDIBP) will be held in Beijing, China on April 24-26, 2008. The symposium will showcase innovative best practices in comprehensive and integrated transportation and development from around the world. Abstracts for TDIBP are due on April 30th, 2007. More symposium information can be found at:

<http://jtzx.net.cn/tdibp/>

The *Sixth International Conference on Road and Airfield Pavement Technology* (ICPT) will be held in Sapporo, Japan on July 20-23, 2008. The objective of ICPT is to promote pavement technological advancement worldwide, with special emphasis on pavement technological development in developing countries. This is to be accomplished by encouraging the exchange and transfer of pavement technology among professionals and researchers of different countries and regions, and through organizing technology transfer activities such as international conferences. Abstracts for ICPT are due on July 20th, 2007. Information about the ICPT conference can be found at:

<http://www.jsce.or.jp/committee/pavement/icpt2008.html>.

# Industry Notes

## Guide to Concrete Overlays Available

The National Concrete Pavement Technology Center at Iowa State University has created a *Guide to Concrete Overlays Solutions* to help the concrete pavement industry to understand concrete overlays and develop confidence in the application of concrete overlays. This document has now been released and is available for download at:

[http://www.cptechcenter.org/publications/guide\\_concrete\\_overlays.pdf](http://www.cptechcenter.org/publications/guide_concrete_overlays.pdf)

## FHWA to Sponsor Two-Lift Concrete Paving Field Tests



FHWA will underwrite field demonstrations of two-lift concrete paving technology in a number of states across the country — so indicated an announcement during a panel on the findings of an International Technology Scanning Tour on Long Life Concrete Pavements. “FHWA has a program to demonstrate two-lift concrete paving technology,” notes Suneel Vanikar, P.E., panel moderator and Concrete Group Leader, Office of Pavement Technology, FHWA. “We are looking for six to eight projects in various parts of the country, with a maximum funding of about \$1 million for each demo, plus additional money for workshops and showcasing.”

Two-lift construction involves the placement of two wet-on-wet layers, or bonding wet to dry layers of concrete, instead of the homogenous single layer commonly placed in concrete paving,” reports the National Concrete Pavement Technology Center (NCPTC) at Iowa State University. With two-lift paving, a thicker bottom layer typically contains lesser quality, lower durability or strength, locally available aggregate, or recycled aggregate comprising asphalt, concrete rubble, or local aggregate. A thinner top layer consists of high-quality aggregate designed to provide superior resistance to freeze-thaw damage as well as noise reduction and/or improved traction. Technology now exists for simultaneous two-lift paving operations as both [GOMACO](#) and [Wirtgen](#) have commercially available pavers capable of such construction.

While two-lift paving is not new to the United States, today's emphasis is unprecedented. Between 1950 and

1970, two-lift paving was implemented extensively in many states, including Iowa, Wisconsin, Michigan, Pennsylvania, and Minnesota, to facilitate placement of mesh in Interstate highway construction. Between 1970 and 2000, the U.S. concrete paving industry moved away from mesh-reinforced pavement designs and significantly shortened the length of pavement panels, effectively eliminating the need for two-lift paving.

Source: Concrete Products Magazine [http://concreteproducts.com/mag/concrete\\_fhwa\\_throws\\_weight/](http://concreteproducts.com/mag/concrete_fhwa_throws_weight/)

## Upcoming Events

### **National Conference on Pavement Management**

May 6-9, 2007, Norfolk, Virginia, USA

<http://www.fhwa.dot.gov/pavement/management/2007pmconf.cfm>

### **18th ASCE Engineering Mechanics Division Conference: Symposium of Pavement Mechanics and Materials**

June 3-6, 2007 in Blacksburg, Virginia, USA

<http://www.cpe.vt.edu/emd2007/index.html>

<http://www.cee.mtu.edu/~zyou/EM2007-Pavement.pdf>

### **Fifth International Conference on Concrete under Severe Conditions: Environment and Loading**

June 4-6, 2007 in Tours, France

<http://www.consec07.fr/>

### **Concrete & Aggregates Association of Louisiana Convention**

June 10-13, 2007 in San Destin, Florida

<http://www.caal.org/frame.php>



### **Advanced Characterization of Pavement and Soil Engineering Materials**

June 20-22, 2007 in Athens, Greece

<http://www.3dfem.org>

### **Fifth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control**

August 8-10, 2007 in Park City, Utah, USA

<http://www.mairepav5.org>



### **International Conference on Concrete Roads (ICCR 2007)**

August 16-17, 2007 in Midrand, South Africa

<http://www.concretepavements.org/ICCRRegistrationform.pdf>

### **XXII Ird World Road Congress**

September 17-21, 2007 in Paris, France

<http://www.paris2007-route.fr/index.php?lang=en>

### **First International Conference on Recent Advances in Concrete Technology**

September 19-21, 2007 in Washington, D.C., USA

<http://www.cipremier.com>



### **International Workshop on Best Practices for Concrete Pavements**

October 21-23, 2007 in Recife, Pernambuco, Brazil

<http://www.ibracon.org.br/pavement.workshop>



### **International Conference on Optimizing Paving Concrete Mixtures and Accelerated Concrete Pavement Construction and Rehabilitation**

November 7-9, 2007 in Atlanta, Georgia, USA

<http://www.fhwa.dot.gov/pavement/concrete/2007cptpconf.cfm>

**87th Annual Meeting of the Transportation Research Board**

January 13-17, 2008 in Washington, D.C., USA

<http://trb.org/meeting/>

**First International Symposium on Transportation and Development Innovative Practices**

April 24-26, 2008 in Beijing, China

<http://www.jtzx.net.cn/tdibp>

**10th International on Application of Advanced Technologies in Transportation - AATT 2008**

May 27-31, 2008 in Athens, Greece

<http://www.civil.ntua.gr/aatt>

**6th RILEM International Conference on Pavement Cracking**

June 9-11, 2008 in Chicago, Illinois, USA

<http://www.ict.uiuc.edu/RILEM>

**6th International Conference on Road and Airfield Pavement Technology**

July 20-23, 2008 in Sapporo, Japan

<http://www.jsce.or.jp/committee/pavement/icpt2008.html>



**Workshop on Fundamental Research in Concrete Pavements**

August 7-8, 2008 in San Francisco Bay Area, California, USA

<http://www.concretepavements.org/9thiccp/>



**9th International Conference on Concrete Pavements**

Organized by ISCP

August 9-14, 2008 in San Francisco, California, USA

<http://www.concretepavements.org/9thiccp/>

**3rd International Conference on Accelerated Pavement Testing**

October 1-3, 2008 in Madrid, Spain

<http://www.cedex.es/apt2008/>



**10th International Conference on Concrete Pavements**

Organized by ISCP

Tentatively scheduled for August 2012 in Montreal, Quebec, Canada

<http://www.concretepavements.org/>

If you wish to submit an upcoming conference, meeting, or call for papers for the next ISCP e-newsletter, please contact us at [newsletter@concretepavements.org](mailto:newsletter@concretepavements.org).

The ISCP Newsletter is maintained by Editor-in-Chief, Dr. Erwin Kohler, Associate Editor, Jake Hiller, and Assistant Editor, Amanda Bordelon. Suggestions for future e-newsletters are welcomed at [newsletter@concretepavements.org](mailto:newsletter@concretepavements.org).

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