



International Society for Concrete Pavements

ISCP e-Newsletter

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What's New at ISCP?

President's Message



I would like to first of all wish that each of you will have a happy and prosperous new year. With the recently held elections of new Society officers, my tenure as the current ISCP President is quickly coming to an end. Looking back, it seems the time over the past 4 years has gone very quickly. I have immensely enjoyed my service and my plans are to stay involved and support ISCP activities for years to come.

I would also like to take this opportunity to thank the outgoing board members for the services they have rendered over the past 4 years; we greatly appreciated their much needed contributions and look forward to their continued participation in the future. I particularly want to thank Dr. Mark Snyder for all his work as the ISCP secretary and wish him well as our new president.

Recently, the Society has made important strides in advancing ISCP as a key technical arm of the paving community. Some of the most important goals, in my opinion, have been the organization of critical committees to improve the membership and the efficiency of the Society to address the transfer of technology and information. To this end, I can't express the rewards I have had and the comradery I have felt working with many of you – some of the most respected professionals in the pavement community - as we have worked together over the past 10+ years to make ISCP a world-wide recognized and sought-after technical asset.

We have worked to build the reputation of the Society to where it is today and I would like to be the first to congratulate the new slate of elected officers and to wish them the very best in the coming year. The Society will be in good hands and I am excited about the future of ISCP with what it holds in store for all those committed to active membership.

In our last board meeting, we recognized and discussed the need to expand the level of participation of the Society members in the operational business of the board. I encourage all to respond to such requests and to support the new executive committee's efforts to lead the Society in the New Year.

Dan Zollinger
Outgoing ISCP President

New ISCP Board and Officers Elected!

ISCP has concluded its officer and board elections. A total of 91 ballots were returned for these elections. The results of the election follow, with an asterisk next to the names of members who will begin 4-year terms as Officers or on the Board of Directors, effective February 1, 2010:

President

- *Mark Snyder, USA – 64 votes
- Jamshid Armaghani, USA – 23 votes

Vice-President

- *Jose Balbo, BRAZIL – 82 votes
- Five write-in candidates – 1 vote each



Secretary-Treasurer

- *Neeraj Buch, USA – 84 votes
- Three write-in candidates with a total of 5 votes

Board of Directors

- *Anna-Carin Brink, SOUTH AFRICA – 66 votes
- *Juan Pablo Covarrubias, CHILE – 59 votes
- *Erwin Kohler, CHILE – 61 votes
- *Jim Grove, USA – 57 votes
- *Jeff Roesler, USA – 62 votes
- *Luc Rens, BELGIUM – 66 votes
- *Bo Tian, CHINA – 63 votes
- Leif Wathne, USA – 46 votes
- Lev Khazanovich, USA – 44 votes
- Peter Taylor, USA – 39 votes
- Three write-in candidates with a total of 4 votes

In accordance with the By-Laws, the Board of Directors will appoint an ISCP member to complete Neeraj Buch's remaining two-year term on the Board at a future meeting.

The Society expresses deep appreciation to outgoing Officers and Board members Shiraz Tayabji (USA), Katie Hall (USA), Jean-Pierre Christory (FRANCE), Michael I. Darter (USA), and André Jasienski (BELGIUM) and looks forward to their continued participation in Society activities.

ISCP would like to thank its members for participating in this election and for continued support of its mission to further engineering and technical education, scientific investigation, and research in all areas related to the analysis, design, construction, materials, maintenance, rehabilitation and management of concrete pavements.

Annual Membership and Board Meeting Details Confirmed

ISCP's annual membership business meeting will be held on Saturday, January 9, 2010 at 17h45 Eastern Standard Time in the Executive Room of the Omni Shoreham Hotel in Washington, D.C. Highlighted agenda items include:

- presentation and discussion of the 2010 budget (approved at the Nov 16 Board meeting),
- update on plans for the 10th International Conference on Concrete Pavements,
- induction of honorary members,
- introduction of new officers and directors
- solicitation of members for various standing committees, and
- an update on progress towards the ISCP online technology transfer center.

The meeting will be followed by an informal social dinner at the Lebanese Taverna Restaurant (2641 Connecticut Avenue NW) at 20h15. Cost of the dinner, dessert and soft drinks/water will be \$39 per person (including all taxes and service charges). ISCP will partially sponsor the cost of the meal for current student members of ISCP at a rate of \$10 per person (not to include the cost of any alcoholic drinks).

All members (regular and students) who plan to attend are asked to RSVP to secretariat@concretepavements.org to guarantee a place at the dinner table!

ISCP Board Meeting Highlights

The ISCP Board of Directors met in Santiago, Chile on November 16, 2009 (in conjunction with the 2nd International Concrete Pavement Symposium held November 17-19). Board Meeting highlights include:

- Deferral of a planned increase in regular membership dues rates, holding them at \$75/year (dues for employees of organizational members were increased from \$30 to \$40 annually to correct an oversight when regular dues were increased for 2009).

- Approval to hire an administrative assistant to handle membership maintenance and basic accounting activities, as well as to facilitate Society communications and correspondence.
- Presentation and approval of the Society 2010 budget.
- Review of the Nominating Committee's slate of candidates and discussion of ISCP processes for officer nominations and elections.
- Selection of preferred venue and dates for 10th International Conference on Concrete Pavements.
- Discussion of protocol for handling requests to co-host/sponsoring future conferences, seminars and workshops, as well as criteria for deciding to co-host these events.
- Discussion of strategies for Society growth, including ways to add value to ISCP membership.
- Presentation of a template for the planned ISCP technology transfer database.

Complete details of the meeting can be found in the meeting minutes, which are posted on the ISCP website at www.concretepavements.org.

Membership Renewals Due by January 31, 2010

Membership renewal notices have been sent to all current individual and organizational members of ISCP who haven't previously paid their membership dues for 2010. Membership renewals are due and payable by January 31, 2010.

Renewals can be accomplished online through the membership renewal link on the ISCP website or by mailing a cheque or money order to the Secretary-Treasurer's office.

Membership dues for 2010 are as follows:

- Regular Individual Members: \$75/year
- Employees of Organizational Members: \$40/year
- Full-Time Student Members: Dues Waived (certification of student status required)
- Organizational Members: \$1000/year

As always, membership dues can be prepaid for up to 3 years in advance (i.e., through 2011, 2012 or 2013) at the current rates to protect against possible future increases in dues.

Venue and Dates Announced for ISCP 10th International Conference

ISCP is pleased to announce that the 10th International Conference on Concrete Pavements will be held at the Fairmont Château Frontenac in Québec Canada on July 8 to 12, 2012. ISCP Conference Committee Chair Tim Smith has worked hard with local organizers (Guy Trembley and Denis Thébeau of the Ministry of Transportation – Quebec [MTQ]) to negotiate terrific arrangements at one of the most photographed and historic hotels in the world.

You won't want to miss this event, which mark the first time that the Conference is held outside of the U.S.! *Mark your calendar now and watch this newsletter and the ISCP website for more details as they become available.*



Honorary Member Profiles

Forster and Marais Elected as Honorary Members

Dr. Stephen Forster (USA) and Mr. Louis Marais (South Africa) were recently elected as Honorary Members of ISCP and will be formally inducted into honorary membership at the January 9, 2010 Annual Membership and Board Meeting. They join an elite group in attaining the Society's highest recognition, which is bestowed upon selected individuals that have provided exemplary service to the Society and/or to the improvement of concrete pavement technology.



Dr. Forster served as the U.S. Federal Highway Administration's (FHWA) Team Leader for Concrete Pavement Research and Development and Technical Director for Pavements Research and Development before retiring to consultant work in 2004. His primary research interests have included the performance and evaluation of PCC pavements and materials under traffic and environmental conditions and he served as FHWA's resident expert on the performance, distress and durability of concrete materials and concrete pavements. His contributions to the profession include the development of an image analysis system for quantifying aggregate and pavement surface texture, leadership in the development of a standard test method for measuring PCC thermal coefficient of expansion, and development (in cooperation with industry and other researchers) of the HIPERPAV computer program, which continues to evolve and be utilized for pavement construction to determine timing of joint sawing and prevention of uncontrolled slab cracking. He has spent his career working to streamline concrete pavement construction processes and to increase pavement life through the use of better materials and construction techniques.

Mr. Louis Marais is considered the father of modern concrete paving in South Africa. Louis joined the Portland Cement Institute (the forerunner of the Cement and Concrete Institute) in 1965 as a Roads Engineer and was responsible for introducing modern concrete pavements into South Africa. He purchased a small side-form paver, which was used to construct a number of demonstration projects to showcase modern technology to local engineers and contractors. His first success was the construction of 26 km of modern concrete freeway outside Cape Town in 1968. He worked tirelessly with engineers from the Department of Transport to develop design methods and specifications for concrete pavements and was responsible for the fact that a large number of freeway projects were constructed in concrete in the 1970s, 1980s and 1990s. Louis was also involved in the development of design guides for the use of cement treatment of soils and was actively involved with early ground-breaking research into the development of concrete block paving using an early version of the South African heavy vehicle simulator. Mr. Marais was also responsible for promoting excellence in concrete industrial floor design and construction and was co-author of a book entitled Concrete Industrial Floors on the Ground, which has become the essential guide on the topic in South Africa.



ISCP is extremely pleased and honored to welcome these two gentlemen as Honorary Members!

More complete biographies and photos of Dr. Forster and Mr. Marais will be added to the ISCP website after their induction. A complete list of ISCP Honorary Members is available at

http://www.concretepavements.org/honorary_members.htm

Conference News

Registration Open for the International Conference on Pavement Preservation

The First International Conference on Pavement Preservation (ICPP) will be held from April 13 to 15, 2010 in Newport Beach, California, USA. The conference aims to bring together researchers and experts to exchange ideas, best practice methods and critical concerns of pavement preservation theory and practice. Over 40 peer-reviewed papers will be presented by international experts. In addition, an exhibition hall will be open during the conference.

Register by January 1, 2010 for an early-bird rate. Optional spouse/guest programs and ticketed post-conference excursions to local pavement preservation projects or Disneyland are available. For more information on the 1st ICCP, go online at

www.pavementpreservation.org/icpp

Register for Conference on Nanotechnology

The 1st International Conference in North America on Nanotechnology in Cement and Concrete will take place from May 5 to 7, 2010 at the Beckman Center in Irvine, California, USA. The Transportation Research Board Committees Task Force on Nanotechnology-Based Concrete Materials (AFN15T), Basic Research and Emerging Technologies Related to Concrete (AFN10), and Properties of Concrete (AFN20) are hosting this conference for scientists, engineers and practitioners to set the future direction of the use of nanotechnology in cement and concrete.

The conference objective is to advance science and engineering of nanotechnology in modifying and monitoring the behavior and performance of cement and concrete at the nanoscale.

To view the program and registration information, please visit the conference website at

<http://www.TRB.org/Conferences/2010/Nanotech>

ISCP-sponsored Conference in Chile was Big Hit

The 2nd International Seminar on Pavement Engineering was held from November 17 to 19, 2009 in Santiago, Chile. This was an ISCP co-sponsored event with a focus on "Design and Construction Technology for Concrete Pavements". The host and co-sponsor was the Center for Road Research and Engineering (CIIV) located at the Pontificia Universidad Católica de Chile. Ten of the 14 speakers were ISCP board members. There were 100 attendees from 9 different countries and 8 exhibitors and sponsors from Latin America.



What Did You Miss at the ACPA Annual Meeting?

The 46th Annual Meeting of the American Concrete Pavement Association (ACPA), titled "Creating Success Together", was held from November 30 through December 4, 2009 in Orlando, Florida, USA. Over 325 individuals from the concrete paving industry attended the event. Some of the highlights of the meeting are listed below.

- Meetings of the ACPA-affiliated Chapter/State paving associations, as well as the International Grooving & Grinding Association were held on November 30.

- Task force meetings met on the following topics: alternate design/alternate bidding, pavement jointing, and ACPA's legislative issues.
- The Concrete Pavement University (formerly called Tech Day) provided an expanded two-day presentation forum for technical information about concrete pavement design, construction, and rehabilitation.
- Victor Mendez, the Administrator of the US Federal Highway Administration (FHWA), made a presentation on job creation, reauthorization of the federal-aid highway program, and safety issues.
- Participants also had the opportunity to visit the FHWA's Mobile Laboratory, and to see product and technology demonstrations between technical sessions.
- Tom Van Dam, Ph.D., P.E., Applied Pavement Technology, Inc., made a presentation on "Life – Cycle Assessment for Sustainability of Concrete Pavements – The Future." The presentation provided stark reminders of the importance in sustainable construction practices.

All of the technical presentations from the Concrete Pavement University forum held during the ACPA's 46th Annual Meeting are available for free downloading online at

http://www.pavement.com/Events_and_Programs/Events/46thannualmtg/a7s983n8/CPU_PT.html

Thesis Abstract

EFFECTS OF THE BUILT-IN CONSTRUCTION GRADIENT AND ENVIRONMENTAL CONDITIONS ON JOINTED PLAIN CONCRETE PAVEMENTS

Rania Elias Asbahan, Ph.D.

Advisor: Julie Vandenbossche, Ph.D., Assistant Professor
University of Pittsburgh, 2009

Slab curvature, which represents the response of concrete pavement to environmental loads, influences the location and magnitude of critical slab stresses and affects long-term pavement performance. The purpose of this study was to measure the changes in temperature and moisture profiles in a newly constructed concrete pavement, to determine the deformed shape of the slabs and the resulting stress and identify the relative contributions of built-in and transient environmental effects over time. To do this, an instrumented jointed plain concrete pavement (JPCP) was monitored over a two-year period.

The built-in construction gradient is a major factor contributing to slab curvature and stress. Therefore, first, static strain and pressure gage data used to establish the built-in gradient and zero stress temperature.

Slab curvature was predicted using measurements of temperature and moisture conditions in the slab and computed using static strain and pavement surface profile measurements. It was found that the additional restraint provided by the dowel and tie bars does not appear to significantly reduce slab curvature resulting from daily temperature fluctuations or from reversible drying shrinkage. It does have a substantial effect on reducing slab curvature due to long-term drying shrinkage. It was also found that the slab curvature is predominantly curled upward (99 percent of the time), resulting in top-down fatigue cracking, while it is traditionally assumed that fatigue cracking in concrete pavements initiates at the bottom.

Finite element models were developed to study the effect of various environmental conditions and slab restraints on the development of stress in the slabs. The models were validated based on measured strain data. It was found that the effect of moisture has the most significant effect on stress in the slabs. The measured curvature in the restrained slab (tie and dowel bars) is over 50 percent lower when compared to the unrestrained (no

tie or dowel bars) slab. This reduction in deformation resulted in a critical stress that was 20 to 22 percent larger for the restrained slab compared to the unrestrained slab.

Upcoming Events



ISCP Annual Membership Meeting

January 9, 2010 in Washington, D.C., USA

<http://www.concretepavements.org>

89th Transportation Research Board Annual Meeting

January 10-14, 2010 in Washington, D.C., USA

<http://www.trb.org>

13th International Winter Road Congress

February 8-11, 2010 in Quebec City, Canada

<http://www.aipcrquebec2010.org>

9th Annual International Conference Addressing: Sustainable Construction Materials and Technology in Asphalt, Pavement Engineering and Highways Maintenance

February 17-18, 2010 in Liverpool, UK

<http://www.ljmu.ac.uk/BLT/100174.htm>

11th Heavy Vehicle Transport Technology Symposia (HVTT11)

March 15-17, 2010 in Melbourne, Australia

<http://www.hvttconference.com/>

Thirty-Second International Conference on Cement Microscopy

March 28 – April 1, 2010 in New Orleans, Louisiana, USA

<http://www.cemmicro.org/icma/conference.html>

1st International Conference on Pavement Preservation

April 12-16, 2010 in Newport Beach, California, USA

<http://www.pavementpreservation.org/icpp/>

2010 FAA Worldwide Airport Technology Transfer Conference

April 20-22, 2010, in Atlantic City, New Jersey, USA

<http://www.airtech.tc.faa.gov/att2010/>



First International Conference on Nanotechnology in Cement and Concrete

May 5-7, 2010, in Irvine, California, USA

<http://www.trb.org/Conferences/2010/Nanotech>

7th International Symposium on Cement & Concrete

May 9-12, 2010 in Jinan, China

<http://www.iscc2010.org/>

7th International Conference on Fracture Mechanics of Concrete and Concrete Structures

May 23-28, 2010 on Jeju Island, South Korea

<http://www.framcos7.org/>

GeoShanghai 2010

June 3-5, 2010 in Shanghai, China

<http://www.geoshanghai2010.org/index.asp>

Sustainable Construction Materials & Technologies

June 28-30, 2010 in Ancona, Italy

<http://www.uwm.edu/Dept/CBU//ancona.html>



International Conference on Sustainable Concrete Pavements: Practices, Challenges, and Directions

September 15–17, 2010 in Sacramento, California, USA

<http://www.fhwa.dot.gov/pavement/concrete/2010acptpconf.cfm>

Maintenance Superintendants Associations (MSA) Conference 2010

October 3-9, 2010 in Temecula, California, USA

<http://www.gomsa.net/>

8th Malaysian Road Conference

October 10-13, 2010 in Kuala Lumpur, Malaysia

<http://www.mrc.org.my/>



7th International DUT Workshop on the Design and Performance of Sustainable and Durable Concrete Pavements

October 10-11, 2010 near Seville, Spain
<http://www.citg.tudelft.nl/live/pagina.jsp?id=46c8bc2d-df2b-44c7-8cda-fc456c6c9648&lang=en>



11th International Symposium on Concrete Roads

Organized by EUPAVE
October 13-15, 2010 in Seville, Spain
<http://www.2010concreteroads.org/>



International Conference on Concrete Pavement Design, Construction, and Rehabilitation

April 18-20, 2011
Chang'an University, Xi'an, Shaanxi Province, P.R. China
<http://www.concretepavements.org/>

10th International Conference on Low-Volume Roads

July 24-27, 2011 in Lake Buena Vista, Florida, USA
<http://www.trb.org/conferences/2011/10LVR>

24th World Road Congress

September 25-30, 2011 in Mexico City, Mexico
<http://www.piarc.org/en/congresses-seminars/road-congresses.htm>

8th International Conference on Managing Pavement Assets

November 15-19, 2011 in Santiago, Chile
<http://www.icmpa2011.cl/>



10th International Conference on Concrete Pavements

Organized by ISCP
July 8 – 12, 2012 in Quebec City, Canada
<http://www.concretepavements.org/>

If you wish to submit an announcement and/or link for an upcoming conference, meeting, or call for papers for the next ISCP e-newsletter, please contact us at newsletter@concretepavements.org.

The ISCP E-Newsletter is produced by Editor-in-Chief, Amanda Bordelon, Associate Editor, Dr. Jake Hiller, and Assistant Editors: Dr. Cristian Gaedicke, Nancy Whiting, Robbert Rodden, and Corey Zollinger. Suggestions for future newsletters are welcomed at newsletter@concretepavements.org.

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