



## FALL 2009

### NEWS

#### **8<sup>th</sup> International Conference on the Bearing Capacity of Roads, Railways and Airfields**

The BCR2A 2009 Conference provided an important opportunity to share experiences and innovative ideas from all over the world concerning the many issues pertaining to the bearing capacity of highway and airfield pavements and railroad structures. The conference was held at the University of Illinois at Urbana-Champaign on June 29 – July 3, 2009. [Click here to read more details...](#)

#### **CEAT 2009 Internship Program**

The Center sponsored six students for the CEAT Summer Internship Program working on research projects with CEAT Graduate Students and Faculty. The CEAT Internship Program is sponsored by the FAA Minority Outreach Project. [Click here to read more details...](#)

#### **GAMES Camp Workshop with CEAT**

Girls Adventures in Mathematics, Engineering and Sciences (GAMES) at the University of Illinois brings middle school age girls together for a week to learn about concepts in engineering through workshops and activities hosted by the various research centers and departments within the UIUC College of Engineering. The camp took place from August 3-7, 2009 and gives the girls a chance to really think about studies and careers in these areas. [Click here to read more details...](#)

#### **CEAT Graduate Students Win 2<sup>nd</sup> Place in FAA Design Competition**

The FAA Offices of Safety Services and Airport Safety and Standards, in partnership with AAAE, ACC, ACI-NA, and NASAO, sponsored a Design Competition for Universities. Graduate Students Jonguen Baek and Zhen Leng won 2nd place in the area of *Airport Operation and Maintenance* on their research entitled, "In-place Hot Mix Asphalt Density Estimation Using Ground Penetrating Radar for Airport Pavement Quality." The selection was made by a panel of FAA, industry and academic experts. [Click here to read more...](#)

### RESEARCH BRIEFS

#### **Tech Note 39 – The Use of Crushed Portland Cement Concrete as an Aggregate in Hot Mix Asphalt**

This technical note is authored by CEAT Professor Emeritus Marshall Thompson.

#### **Tech Note 40 – Pavement Sensor Data on South Airfield at ORD**

This technical note is authored by CEE Professor David Lange, Professor John Popovics, and Graduate Student Yi-Shi Liu.

#### **Tech Note 41 – HWD Testing Results for Runway 9L-27R at ORD**

This technical note is authored by CEAT Professor Jeff Roesler and Graduate Student J. Kern.

#### **Tech Note 42 – O'Hare Modernization Program (Completion Phase) Earthwork Management Plan**

This technical note is authored by CEAT Professor Emeritus Marshall Thompson and Professor James Long.

CEAT Tech Notes can be found on the web site (<http://ceat.illinois.edu>) under the [Publications section](#), click on Technical Notes, password-ceat.

### OUTREACH AND TECHNOLOGY TRANSFER

#### **Urbana Middle School Math Camp visits CEAT**

**June 25, 2009**

The Urbana Middle School brought 30 students from the school's summer "Math Achievement Academy" for a two hour activity at CEAT. The intent of the summer academy is to focus on minority students who are performing strongly in math to help them jump into higher-level courses. CEAT Director David Lange and Graduate Students led an activity with the students discussing terms and concepts in civil engineering and a session on "Water as a Construction Material".

## **CEAT hosts Chicago City Students**

**June 17, 2009**

High School students from Chicago's inter-city schools toured the University of Illinois' Engineering campus. The purpose of the visit was to expose the 33 students to the study of engineering in college and for the students to learn about jobs available to engineers after graduation. CEAT Director David Lange and Graduate Students led a discussion with the students on Civil Engineering careers, undergraduate course work, and research assistant opportunities. [Click here to read more details...](#)

## **Brown Bag Lunch Seminar featuring Professor James Long**

**May 2009**

CEAT Professor James Long presented, "Tieback Supported Excavations and Deep Foundations" on May 21, 2009 at the OMP. [Click here to view more...](#)

## **Brown Bag Lunch Seminar featuring Director and Professor David Lange**

**July 2009**

CEAT Director and Professor David Lange presented "*Environmentally-friendly Recycled Aggregate Concrete for the O'Hare International Airport*" on July 7, 2009. [Click here to read more details...](#)

## **Brown Bag Lunch Seminar featuring Professor Bruce Branham**

**October 2009**

CEAT Professor Bruce Branham presented "*Grass at Airports – Not Just Any Old Species Will Do*" on October 5, 2009. [Click here to view the Power Point presentation...](#)

## **CONFERENCES AND EVENTS**

### **58<sup>th</sup> Annual Illinois Traffic Engineering & Safety Conference**

**October 22-23, 2009**

Champaign, IL – University of Illinois at Urbana-Champaign  
[www.conferences.uiuc.edu/traffic](http://www.conferences.uiuc.edu/traffic)

### **Eighth International Conference on the Bearing Capacity of Roads, Railways, and Airfields**

**June 29 – July 3, 2009**

Champaign, IL – University of Illinois at Urbana-Champaign  
[www.BCR2A.org](http://www.BCR2A.org)

## **AWARDS AND HONORS**

### **David A. Lange – ACI Board of Directors**

**September 2009**

Professor David A. Lange, CEAT Director, was appointed to the ACI Board of Directors for a 3-year term commencing at the conclusion of the ACI Spring 2010 Convention.

### **Barry Dempsey – ASCE Horonjeff Award**

**July 2009**

Professor Emeritus Barry J. Dempsey received the Horonjeff Award on behalf of the Board of Governors of the Transportation and Development Institute (T&DI) of the American Society of Civil Engineers (ASCE). He is recognized for his career-long outstanding contributions and achievements in air transportation engineering, teaching, research and public service.

### **Jeff Roesler – Fulbright Scholar for Chile, South America**

**February 2008**

Professor Jeff Roesler has been named a Fulbright Scholar for Chile, South America. He will spend the 2009-2010 academic year in Santiago, Chile at the Pontificia Universidad Catolica de Chile which is one of the top universities in South America. He is working with faculty in the Civil Engineering Department on material characterization and fracture of concrete slabs.

### **Amana Bordelon – ACI BASF Construction Chemicals Student Fellowship Award**

**March 2009**

Graduate Student, Amanda Bordelon, has been selected to receive the ACI BASF Construction Chemicals Student Fellowship Award for the 2009-2010 academic year.

### **Jonguen Baek and Zhen Leng – FAA Design Competition for Universities**

**June 2009**

Graduate Students, Jonguen Baek and Zhen Leng, won second prize in the FAA Design Competition for Universities in the Airport Operation and Maintenance Design Challenge for 2009. The selection was made by a panel of FAA, industry, and academic experts. Their submission was entitled, "In-place Hot Mix Asphalt Density Estimation Using Ground Penetrating Radar for Airport Pavement Quality Control and Assurance Activities."

## CONTACT INFO

Thanks for reading our e-newsletter. For more information about the Center of Excellence for Airport Technology at the University of Illinois, visit <http://ceat.uiuc.edu/>. The Director of CEAT is Prof David Lange: [dlange@illinois.edu](mailto:dlange@illinois.edu). For questions or comments, send email to Vicki Dixon: [vdixon@illinois.edu](mailto:vdixon@illinois.edu).