

University of Illinois Urbana-Champaign (UIUC)

Urbana, Illinois, USA

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Illinois Center for Transportation (ICT) Center of Excellence for Airport Technology (CEAT)



Program description

The Department of Civil and Environmental Engineering at UIUC is located in the Newmark Civil Engineering Laboratory (NCEL) and is consistently ranked as one of our nation's best in civil engineering undergraduate and graduate programs. Illinois Center for Transportation (ICT) provides a unified framework for the transportation research program at the University of Illinois and the Illinois Department of Transportation (IDOT) through the use of an integrated organizational structure, coordinated programs, unique facilities, and common outreach activities. The majority of the transportation research projects are conducted at the Advanced Transportation Research and Engineering Laboratory (ATREL). The Center of Excellence for Airport Technology (CEAT) was founded in 1995 as a Federal Aviation Administration (FAA) Center of Excellence focused on airport pavement issues, and has since broadened to include wildlife issues, anti-icing, lighting, and the ongoing O'Hare Modernization Program.

Faculty and selected projects

Dr. Jeffery Roesler (jroesler@uiuc.edu) (ISCP member)

- Design and Concrete Material Requirements for Ultra-Thin Whitetopping
- Evaluation and Implementation of Improved CRCP And JPCP Design
- Alternative Fatigue Cracking Modes On Airfield Rigid Pavements

Dr. Leslie Struble (lstruble@uiuc.edu)

- Concrete Distress Identification
- Potassium Acetate and ASR

Dr. John Popovics (johnpop@uiuc.edu)

- Non-FWD Non-Destructive Testing and Evaluation Technologies for Airport Pavement Maintenance
- Non-Destructive Evaluation and Preparation for Field Validation of Constructed Pavement Layers

Dr. David Lange (dlange@uiuc.edu)

- Performance and Acceptance of Self-Consolidating Concrete
- Environmental Condition Effects on Rigid Pavement Performance



Facilities

NCEL contains several testing laboratories for materials and structures including a three-story open crane bay that can be used to carry out a wide range of tests of building materials, components, structural assemblies, and models. The ATREL facility includes 50,000 sq. ft. of building space and 56 acres of property found in Rantoul, IL. The main facility houses offices, a library, classrooms, three research laboratories, and a high bay area for large scale testing. In the surrounding acreage, full-scale pavement sections are constructed and tested using the accelerated transportation loading assembly (ATLAS).

Links

Illinois Center for Transportation: <http://www.ict.uiuc.edu/>

Center of Excellence for Airport Technology: <http://www.ceat.uiuc.edu/>

The Department of Civil and Environmental Engineering at UIUC: <http://cee.uiuc.edu/>