

## **CE 890 Graduate Seminar**

**SPEAKER:** Jose Villarreal, M.S. Student

**TOPIC:** “Assessment of pavement conditions and development of a MicroPAVER-based database for general aviation airports in Kansas”

**DATE:** March 25, 2009

**TIME:** 4:00 p.m. (refreshments at 3:45 p.m.)

### **ABSTRACT**

The Comprehensive Transportation Plan authorized by the Kansas Legislature allocated \$30 million towards general aviation (GA) airport improvement. However, a study is needed to quantify the present “condition” and predict future needs of GA airports in Kansas. Information on various pavement distresses, together with recommended corrective actions are necessary to assist KDOT’s Department of Aviation in developing a strategy for preventive and remedial maintenance.

The objective of this research project was to assess the condition of general aviation airports in Kansas. The study was also intended to form the basis for a pavement management system (PMS). A total of 137 runways from 107 airports across the state were surveyed. MicroPAVER, a PMS system developed by the U.S. Army Corps of Engineers, was selected as the platform for the PMS.

An inventory database was developed for all runways in the network. Information about construction and maintenance history was entered into the MicroPAVER database. On-site surveys were conducted between the months of May and July of 2008 to assess pavement conditions in terms of the Pavement Condition Index (PCI), following the methodology outlined by ASTM D 5340-04 and adopted by the FAA. Also, results were used to develop pavement deterioration models and estimate future needs.