The University of Kansas
Department of Civil, Environmental and Architectural Engineering
presents the
Professional Development Series
Spring 2015

The KU Department of Civil, Environmental and Architectural Engineering will offer 12 two-hour presentations on topics of interest to practicing engineers. This series will be presented on Mondays, 4-6 p.m., February 2 through April 27, at Burns & McDonnell World Headquarters, 9300 Ward Parkway in Kansas City. Participants will earn 2.0 hours of PDH credit for each session attended.

February 2   Herb Tuttle  Project Team Performance: Managing Communication
The goal of this course is to provide information to educate and assist project leaders, managers and team members in the development and facilitation of technical project teams to simultaneously achieve the triple constraints of project success and the long lasting benefits of team success.

February 9   Jie Han  Geosynthetics for Accelerated Construction
Geosynthetics are increasingly used to accelerate construction of bridge abutments, embankments, roads and airports. Following an introduction to geosynthetics, this presentation will focus on geosynthetic applications for accelerated construction. These applications will include geosynthetic-reinforced embankments with prefabricated vertical drains, geosynthetic-reinforced column-supported embankments, and geosynthetic-reinforced soil-integrated bridge systems.

February 16  Charles Keller  Effective Leadership and Effective Management
The session will address issues such as: How does leadership differ from management? What are the attributes of great leaders? Great managers? What do leaders do? How do leaders motivate others? How is effective leadership measured? How important is ethical behavior? What is the single biggest mistake new leaders make?

February 23  Brian Lines  How Owners Think: Increase Your Hit Rate & Reduce Your Risk
Oftentimes, the greatest risk to engineering and construction professionals is the project owner. With a better understanding of how owners seek to minimize their risks and costs, professionals can increase their competitiveness and work more efficiently with their clients once they’ve won the contract. This session will examine trends in project delivery and provide examples of how to think about project risks – and solutions – to better protect your profits.

March 2      John Conard  The Unknown Unknowns: Risk Management for the Engineer
Risk management is an important topic that can be applied to every project and essentially every business, non-profit and government endeavor. This presentation will cover the essentials of risk management planning, monitoring and response.

March 9      Brian Rock  Introduction to Fire Protection
This session presents many fundamental principles and practices of fire protection engineering (FPE). Many fire safety lessons have been learned through tragic fire events in the U.S. and worldwide, and engineers are developing and applying techniques to predict and reduce risks to occupants and property. This seminar will provide an introduction to introduce FPE concepts of fire, human behavior, sprinklers, and smoke management.
March 23 Belinda Sturm Wastewater Solutions: Treatment of Wet-Weather Flows
The treatment capacity of wastewater treatment plants is often limited by the settling properties (clarifier operation) of the sludge rather than the conversion/removal capacity, especially during wet weather conditions. Design options for wet weather treatment will be presented within the context of biological treatment requirements. The recent regulatory framework for non-biological treatment units will also be presented.

March 30 Hugo Sheward Building Information Management (BIM) for Engineers
This presentation will explain the importance of BIM technologies for the engineering field and how BIM impacts the building design and construction business model. We will examine how BIM is used to develop and support highly integrated design processes.

April 6 Tom Mulinazzi Do’s and Don’ts of an Expert Witness
Serving as an expert witness is a challenging experience. Being deposed and testifying in court can be frustrating and stressful. This session will provide some helpful hints on how to interact with lawyers and answer questions, both in a deposition and in trial.

Stormwater treatment and management strategies are adapting to address changing regulations and increased emphasis on water quality. This talk will address when water quality improvement is required and examine approaches to improving stormwater quality. In particular, it will address the options for reducing runoff nutrient loadings.

April 20 David Parr Bridge Scour Analysis
Bridge scour analysis using both one-dimensional (HEC-RAS) and two-dimensional hydraulic models will be presented. The 2012 FHWA Publication *Hydraulic Design of Safe Bridges* states “As the use of two-dimensional models becomes more commonplace, they will, inevitably, be used for all but the most straightforward bridge hydraulic conditions.” The laboratory scour models for the Amelia Earhart Memorial Bridge in Atchison KS will also be presented.

April 27 Mario Medina Energy-Efficient Buildings
The U.S. building sector accounts for approximately 40% of the primary energy used in the country. With an expected growth of over 1 million buildings per year, it is projected that by 2035 there will be over 100 million active buildings. This seminar will present priority measures and emerging technologies to make building more energy-efficient and thus reduce energy consumption in this sector.

Tickets
Tickets are $50 per session. To order tickets, contact Susan Scott at sbscott@ku.edu or 785-864-3826. Tickets will be stamped at the event to confirm attendance and verify the 2.0 PDH credit. Tickets are transferrable among participants and sessions; please inform Susan Scott of changes prior to the session.

Location
Classes will meet in the Burns & McDonnell Auditorium. Please park in the visitors’ lot at 9300 or 9400 Ward Parkway Visitor’s Lot (see map below). There are doors to the Burns & McDonnell Auditorium at the top of the U-shaped drive. Enter through these doors.