WORKSHOP II: JOINT AMERICAN-EUROPEAN WORKSHOP ON ENGINEERING APPLICATIONS OF VISUALIZATION

Wednesday, June 2nd

The workshop will focus on the application of Visualization methodology as an integral part of the geometric design process for engineering analysis, optimization, and quality assurance of highway geometric design. Attendees will learn about the engineering principles and purposes of design visualization, the capabilities, and limitations; and will be provided with a toolbox of world-class techniques and examples. The workshop will include technical presentations of best practices in America and Europe by topic experts. Interaction with the attendees will be elicited throughout the workshop sessions.

Mark Taylor and Wolfgang Kühn, Coordinators

9:00 am **Workshop Introduction and Overview**
Mark Taylor, *Federal Highway Administration, USA*

9:10 am **Fundamentals of geometric design visualization and simulation**
Wolfgang Kühn*, West Saxon University of Applied Sciences of Zwickau, Germany*

9:30 am **New methodologies for analysis of alignment**
Ingolf Leithoff*, Research Centre of Mobility and Traffic of the University of Leipzig, Germany*

9:50 am **Visualization techniques for the 3D alignment design process**
Mark Ritzmann, *Faculty of Computer Science at the Applied University of Schmalkalden, Germany*

10:10 am **Application of optimization in the geometric design process**
Manoj Jha, *Morgan State University, USA*

10:30 am **The new design work-place for the geometric design engineer**
Wolfgang Kühn, *Germany*

10:50 am **Coffee Break**

11:10 am **Safety analysis and traffic simulation tools and applications**
Mark Taylor, *USA*

11:30 am **Visualization techniques for the roadway geometric design**
Paul Brown, *Parsons Brinckerhoff, United Kingdom*

11:50 am **Virtual design and construction tools for roadway geometric design**
Gerald Sudimick, *Post Buckley Shuh & Jernigan (PBS&J), USA*

12:10 pm **Examples and case studies I**
Wolfgang Kühn, *Germany*

12:30 pm **Examples and case studies II**
Régis Glaude*, TOOL S.A., Spain*
Miguel Vallés Ruiz*, TOOL S.A., Spain*

12:50 pm **Panel Perspectives, and Discussion**

1:30 pm **Adjourn**