

2010/2011 Seminar Series

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The FIVIS Bicycle Simulator **By: David Scherfgen** **&** **A Low-cost Optical Motion** **Tracking System** **By: Timur Saitov**

David Scherfgen is a research associate at the Bonn-Rhein-Sieg University of Applied Sciences and the lead developer of the FIVIS project, which aims at creating an immersive bicycle riding simulator. To achieve this, a real bicycle has been equipped with sensors and a computer-controlled motor brake. An immersive 180° real-time 3D visualization is presented to the rider using back projection. The FIVIS bicycle simulator has already been successfully used for road safety training of children and serves as a platform for perception research experiments. In his talk, David Scherfgen will report about the FIVIS simulator and its development as well as discuss open issues and future work.

Timur Saitov has a Master's degree in Autonomous Systems and is a research associate at the Bonn-Rhein-Sieg University of Applied Sciences. This talk is about the design concepts and realization of an affordable multi-camera optical motion capturing system supporting real-time detection and tracking of multiple objects' 6DoF positions. Two sequential development projects will be presented:

- stereo system prototype with special calibration target device and evaluation results.
- development of multi-camera system, current state and future work.

Wednesday, July 28th @ 2:30pm
Information Technology Centre C-317