



## ASABE CHICAGO SECTION January 31, 2007 MEETING

### Displacement Control for Fluid Power Systems / CNH Virtual Reality Center Demonstration

**WHAT:** Displacement control - the solution for fluid power for the next generation of heavy duty machines. *Presentation by Dr. Monika Ivantysynovav School of Mechanical Engineering & Department of Agricultural and Biological Engineering, Purdue University.*

**WHEN:** Wednesday, January 31, 2007

**WHERE:** CNH - Burr Ridge Operations  
6900 Veterans Blvd.  
Burr Ridge, IL 60527

**TO REGISTER:** Contact Dan Karlak (630) 887-3083  
[dan.karlak@cnh.com](mailto:dan.karlak@cnh.com)

Please Register by January 29<sup>th</sup> for the Meeting and Your Virtual Reality Room Demonstration Time Selection.

#### SCHEDULE:

**4:00 / 4:30 / 5:00** Virtual Reality Center - *Demonstration of VRC capabilities which provides full- scale stereo visualization of CAD models and gives Engineers a chance to evaluate form, fit and function before any physical prototypes are built. Since seating is limited to 22 people per demonstration, please sign up for one of (3) 25 minutes sessions at 4:00, 4:30, or 5:00 p.m. when you register.*

**4:00 - 5:30** CNH Heritage Display – *View historical equipment from International Harvester, Case, and Case IH. The larger collection will be viewable for the first time at an ASABE meeting.*

*CNH Company Store – Store will be open to purchase CNH, Case IH, and New Holland merchandise including hats, clothing, model tractors, pens, etc. Checks Preferred. Cash only in exact amount. No Credit Cards.*

*Note: Arrive early to maximize viewing time of the equipment display and shopping in the store, as it will take a few minutes to check in with security.*

**5:30** Presentation by Monika Ivantysynovav

**6:30** Dinner

**7:00** ASABE Chicago Section Meeting

**MENU:** Chicken, Italian beef sandwiches, mostaccioli, garden salad, and soda & bottled water. Meal catered by *The Patio*

**COST:** \$19 Members & \$10 Students

**Dr. Monika Ivantysynova is a leading researcher of displacement control in fluid power systems.**

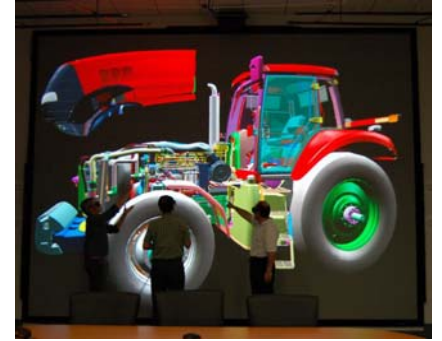


She will talk about the impact of displacement control of fluid power systems on performance, fuel consumption, emissions, and machine design. Dr. Monika Ivantysynova was born in Polenz, Germany. After completing her PhD. at the Slovak Technical University of Bratislava, she worked in the fluid power industry for seven years. She gained considerable experience in hydraulic systems and component design, modeling and system simulation, especially in the development of hydraulic pumps and motors.

In 1991 she returned to university arena, where she was involved in research projects in fundamentals of hydraulic actuation systems and control for aircraft applications at the Technical University of Hamburg-Harburg. She received a Professorship in fluid power & control at the University of Duisburg in 1996, and in 1999 Dr. Ivantysynova became a Professor of Mechatronic Systems at the Technical University of Hamburg-Harburg, where she established a comprehensive fluid power research laboratory. Since August 2004 she is a MAHA named Professor of Fluid Power Systems at Purdue University. Her research centers on the optimization of hydraulic component design, advanced system solutions, motion control with electro-hydraulic actuation and the development of design algorithms. The current research efforts also include the development of new energy saving hydraulic actuators for heavy duty manipulators and robots as well as new actuator solutions and controls for aircraft system applications. Dr. Ivantysynova is editor-in-chief of the International Journal of Fluid Power published by TuTech and Fluid Power Net International.

**Attention Professional Engineers:** This meeting will count for 2.0 PDH (Professional Development Hours.) A signed receipt from ASABE will be available when you pay your admission.

**The Virtual Reality Center (VRC)** has been in operation since May 23<sup>rd</sup> 2006 and is one of the top Virtual Reality Centers in the U.S. The VRC has added another dimension to the Digital Prototyping capabilities of CNH. VRC provides full-scale stereo visualization of CAD models and facilitates interaction similar to physical prototype, but free of any physical constraints. VRC gives Engineers a chance to evaluate form, fit and function before any physical prototypes are built. This is achieved by complex interaction between hardware, software and a series of sensors on the body.



**Directions and Map -** The January meeting will be hosted at CNH Burr Ridge Operations, located 2 blocks west of County Line Road just north of I-55. County Line Rd. is the first I-55 exit west of the intersections of I-55 and I-294. Exit County Line Rd. North. Turn left at the first stop light on to Veterans Blvd. Turn left at the second stop sign (in front of the CNH Main Entrance) and go around to the south side of the building. Entry will be at the South Entrance / Security Office.

