

Center for Virtual Proving Ground Simulation (CVPGS)

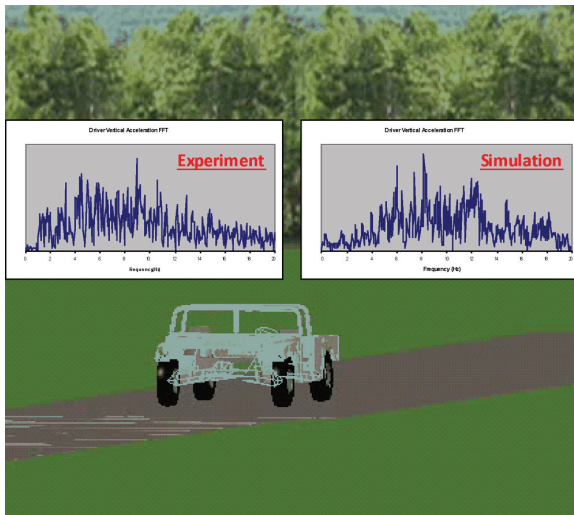
University of Iowa, L.D. Chen, Director, 319.335.5674, ldchen@engineering.uiowa.edu

University of Texas–Austin, Raul Longoria, 512.471.0530, r.longoria@mail.utexas.edu

National Advanced Driver Simulation Facility

Researchers at the Center for Virtual Proving Ground Simulation (CVPGS) at the University of Iowa and the University of Texas at Austin have developed enabling technologies that use the world-class facility, National Advanced Driving Simulator (NADS), for operator/driver-in-the loop simulation for vehicle designs and for driving safety research. The NADS facility, completed in 2002, has been used by Deere & Co., Caterpillar Inc., Continental-Teves, Bosch, etc. for “virtual proving” experiments, and by the National Highway Traffic Safety Administration for highway safety studies.

Economic Impact: The National Advanced Driving Simulator is the only driving simulator in the world in which such activities can be carried out in a full 360° immersive virtual environment with high fidelity motion cues in all six degree-of-freedom of vehicle motion. A new approach is adopted that uses a commercially available multi-body dynamics code for real-time simulation. At this time is not possible to offer a statement on the economic impact of this work.



Comparison of PSD results with experimental data of a 68-body multibody dynamics simulation.

For more information, contact L. D. Chen, 319.335.5674, ldchen@engineering.uiowa.edu.

