

SAE 2009 Heavy Truck Handling, Dynamics & Control Symposium

May 5-7, 2009
Clemson ICAR
Greenville, South Carolina, USA

Tuesday, May 5, 2009

- 7:00 a.m. Registration
- 8:00 a.m. Opening Remarks
John Miller, SAE International
- 8:30 a.m. Keynote Address - TBD
- 9:15 a.m. **ESC**
09HTS-0002 Development of Nash Optimal Strategy for Tractor-Trailer Stability Control System
Saied Taheri PhD
Virginia Polytechnic
- 10:00 a.m. Networking Break
- 10:30 a.m. 09HTS-0019 Tractor and ESC Co-Simulation and Investigation of Adaptive Stability Control Approaches
John Limroth
CU-ICAR Clemson University International Center for AU
- 11:15 a.m. 09HTS-0014 High Speed Electronic Stability Control System Demonstration on a Urban Autonomous Ground Vehicle
Bapiraju Surampudi PhD
Southwest Research Institute
- 12:00 p.m. Networking Lunch
- 1:30 p.m. **Components**
09HTS-0016 Articulated Dump Truck Independent Suspension
Mark Doody
Timoney Research Ltd.
- 2:15 p.m. 09HTS-0003 Artificial Steering Feel on Commercial Vehicle
Daniel Williams
TRW Commercial Steer
- 3:00 p.m. Networking Break

- 3:30 p.m. **Safety/Testing**
09HTS-0020 Steering Wheel Haptic Feedback System for Indication and Rollover Avoidance in a Heavy Commercial Vehicle
Peter Tkacik
University of North Carolina Charlotte
- 4:15 p.m. 09HTS-0004 Presentation of the Results from and Extended Pilot Study of an Integrated Vehicle-Based Safety System for Heavy Trucks
Scott E. Bogard
University of Michigan
- 5:00 p.m. Networking Reception

Wednesday, May 6, 2009

- 7:00 a.m. Registration
- 8:00 a.m. Opening Remarks
John Miller, SAE International
- Safety/Testing – continue**
- 8:30 a.m. 09HTS-0021 Real-Time Heavy Truck Rollover Warning System
Peter Tkacik
University of North Carolina Charlotte
- 9:15 a.m. 09HTS-0010 Objective Handling Evaluation of Heavy Trucks by means of Model based parameter Identification
Dr. Klaus Prenninger
Magna Powertrain
- 10:00 a.m. Networking Break
- 10:30 a.m. 09HTS-0012 Heavy Truck Measurement, Modeling and Evaluation
Michael Arant
Michelin
- 11:15 a.m. 09HTS-0015 Verification of Heavy Truck Chassis Control Embedded Software
Jacobus Zwaanenburg
ETAS
- 12:00 p.m. Networking Lunch
- Simulation/Modeling**
- 1:30 p.m. 09HTS-0011 Development and Validation of a Hardware in the Loop Simulation for Studying Heavy Truck Stability Control Effectiveness
Alrik L. Svenson
National Highway Traffic

- 2:15 p.m. 09HTS-0013 Robust Vehicle Dynamics Simulation using Neural Network Response Surface Generation
Peter D. Schmitt, Frederic Jacquelin and David Martin
Ricardo, Inc.
- 3:00 p.m. Networking Break
- 3:30 p.m. 09HTS-0018 Simulation Applications in the Development and Testing of Heavy Vehicles
Dr. Thomas D. Gillespie
Mechanical Simulations Corporation
- 4:15 p.m. 09HTS-0005 Tire Model Investigation in Longitudinal Direction using the Magic Formula
Dr-Ing Sameh Maher Metwalley
Helwan University
- 5:00 p.m. Networking Reception