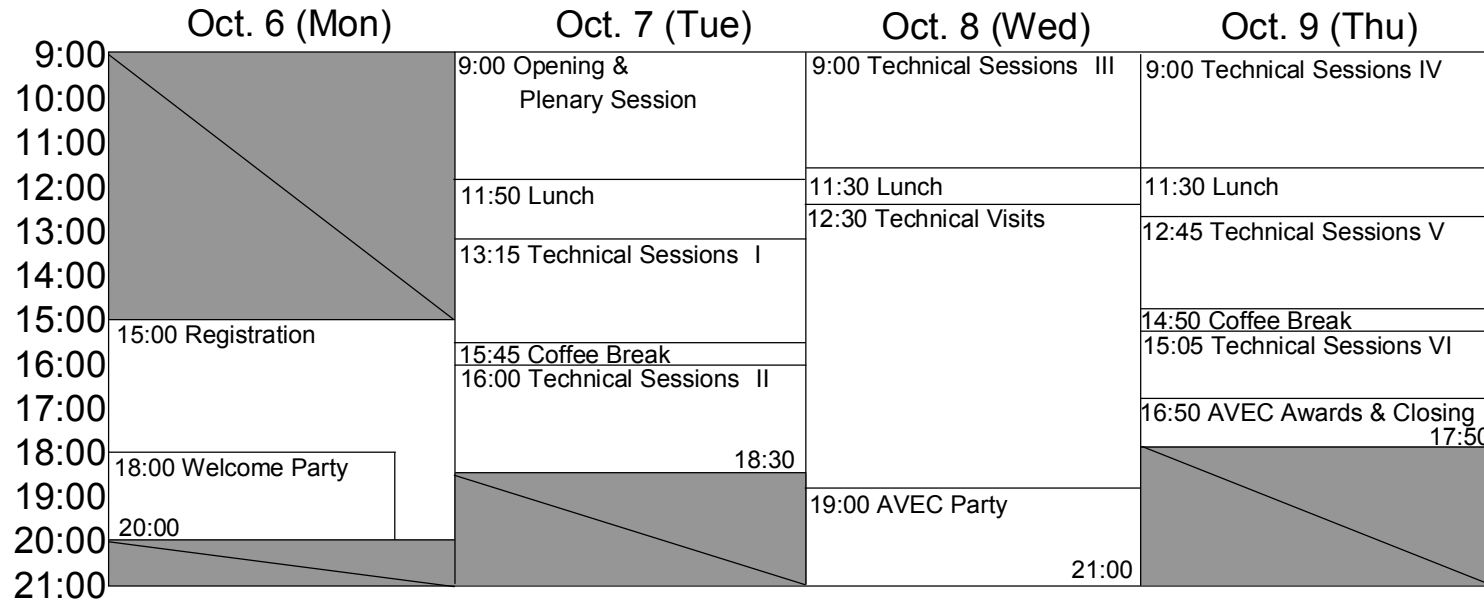


# AVEC '08 Program Overview

October 6th (Mon.)- 9th (Thu.), 2008



## AVEC '08 Technical Session Overview

Technical Seesions	Date	Room A	Room B	Room C	Room D	Room E
I	7th (Tue.) PM	Steering Assist	Tire Property	Vehicle Dynamics and Control I	Powertrain and Drivetrain Control I	Intelligent Vehicle I
II	7th (Tue.) PM	Vehicle Dynamics Analysis	Simulation and Testing	Vehicle Dynamics and Control II	Engine Control	Intelligent Vehicle II
III	8th (Wed.) AM	Suspension Control I	Integrated Control I	Brake Control	Driver Behavior	Intelligent Transport Systems
IV	9th (Thu.) AM	Estimation	Vehicle Dynamics and Control III	Collision Avoidance	Driver Model	Electric/Hybrid Vehicle I
V	9th (Thu.) PM	Suspension Control II	Rollover Prevention	Steer-by-Wire	Motorcycle	Electric/Hybrid Vehicle II
VI	9th (Thu.) PM	Simulation Technology	Heavy-Duty Vehicle	Integrated Control II	Powertrain and Drivetrain Control II	Electric/Hybrid Vehicle III

AVEC '08 Program  
October 7th (Tue.), 2008  
Plenary Session

**Main Room** (9:10-11:50)

**Keynote Speech I**  
**Lanekeeping at the Handling Limits**

Rami Y. Hindiyeh, Kirstin L. R. Talvala, J. Christian Gerdes (Stanford Univ.)

Presented by J. Christian Gerdes (Stanford Univ.)

**Keynote Speech II**  
**Multiple Views on Driver Assistance Systems**

Joerg Breuer, Jochen Feese (Daimler AG)

Presented by Jochen Feese (Daimler AG)

**Keynote Speech III**  
**Integrated System Engineering for Sustainable Mobility**

Hideo Inoue (Toyota Motor)

Presented by Hideo Inoue (Toyota Motor)

# October 7th (Tue.), 2008 Technical Sessions I

Room A (13:15 – 15:45) Steering Assist	Room B (13:15 – 15:45) Tire Property	Room C (13:15 – 15:45) Vehicle Dynamics and Control I	Room D (13:15 – 15:20) Powertrain and Drivetrain Control I	Room E (13:15 – 15:20) Intelligent Vehicle I
<p><b>Driver Steering Assistance: Lane Departure Prevention for Curvy Roads using Feedforward Correction and BMI Optimization</b> N. M. Enache (LCPC/INRETS-LIVIC), S. Mammari (IBISC/CNRS-FRE), B. Lusetti (LCPC/INRETS-LIVIC), M. Netto (019)</p>	<p><b>Characterization Procedures of Sensors for Tire Slip Angle Measurement</b> C. Lamy (Université de Haute, Renault s.a.s), M. Basset (Université de Haute), P. Romieu (Renault s.a.s) (031)</p>	<p><b>Comparison of Two Methods for the Estimation of the Maximum Coefficient of Friction in a Cornering Maneuver of a Passenger Vehicle</b> L. Haffner (Vienna Univ. of Tech.), M. Kozek, Jingxin Shi (TTTech Germany) (012)</p>	<p><b>Crank Angle Synchronous Modelling and Real-Time Simulation of Diesel Engines for ECU Function Development and Testing</b> S. Zahn (Technische Universität Darmstadt), R. Isermann (020)</p>	<p><b>A Multisensor Multiobject Tracking System for an Autonomous Vehicle Driving in an Urban Environment</b> M. Darms (Continental, Chassis &amp; Safety Division), P. E. Rybski (Carnegie Mellon Univ.), C. Urmson (109)</p>
<p><b>Study on the Theory and Characteristics of Differential Drive Torque Assisted Steering for 4-wheel Motored EV</b> J. Wang (Jilin Univ.), Q. Wang, L. Jin (124)</p>	<p><b>Alterable Fuzzy Computing for Monitoring Tire Parameters</b> V. Ivanov (Technical Univ. of Ilmenau), K. Augsburg, B. Shyrokau (National Academy of Sciences of Belarus) (016)</p>	<p><b>Dynamic Handling of an Extremely Fast Bus: Criteria and Control</b> J. Pauwelussen (HAN Univ.) (038)</p>	<p><b>Cylinder-pressure-based Closed-Loop-Control of the (partial-) Homogeneous Diesel Combustion for Passenger Cars using Data-based Nonlinear Models</b> M. Kohlhasse (Technische Universität Darmstadt), K. von Pfeil, R. Zimmerschied, R. Isermann (011)</p>	<p><b>Robust Lane-markings Tracking Algorithm Based on Boundary Detection and Kalman Filter</b> T. Y. Sun (National Dong Hwa Univ.), W. C. Huang, S. J. Tsai (148)</p>
<p><b>Multimodal Interface for Active Four-wheel Steering Vehicle</b> T. Hiraoka (Kyoto Univ.), H. Kumamoto (127)</p>	<p><b>Vehicle Tyre and Handling Model Identification using an Extended Kalman Filter</b> M. C Best (Loughborough Univ.), A. P Newton (128)</p>	<p><b>Vehicle Lateral Dynamic Stability by Limited-Active Nonlinear Suspension Control</b> M. Valášek (Czech Technical Univ. in Prague), V. Drobný (TÜV SÜD UVMV), O. Vaculín (157)</p>	<p><b>Robust Control to Suppress Clutch Judder</b> G. Naus (Eindhoven Univ. of Tech.), M. Beenackers, R. Huisman (DAF Trucks), R. van de Molengraft (Eindhoven Univ. of Tech.), M. Steinbuch (072)</p>	<p><b>Improvement of Adaptive Cruise Control Performance</b> S. Miyata (Kinki Univ.) T. Nakagami (Mazda Motor), S. Kobayashi, T. Izumi, H. Naito, A. Yanou (Kinki Univ.), H. Nakamura, S. Takehara (177)</p>
<p><b>Steering Torque Design of Attitude Control Assistance System for Lane-Keeping Situation</b> H. Yoshida (National Defense Academy of Japan), S. Takamura (Tokyo Univ. of Agri. and Tech.), M. Nagai (141)</p>	<p><b>Research on Tire Snap Start Behavior by using Flexible Tire Model</b> F. Chengjian (Tsinghua Univ.), G. Dihua (119)</p>	<p><b>Assessment of Chassis Control Systems Using Constrained Bifurcation and Continuation Method</b> K. Okada (Honda R&amp;D), S. Nohtomi, S. Horiuchi (Nihon Univ.) (107)</p>	<p><b>Control-Oriented Modeling of Homogeneous Charge Compression Ignition Incorporating Cylinder Wall Temperature Dynamics</b> A. Widd (Lund Univ.), P. Tunestål, C. Wilhelmsson, R. Johansson (021)</p>	<p><b>Development of a Semiautonomous Parking System for the Japanese Market</b> J. Kaller (Bosch), C. Danz, H. Chiba (028)</p>
<p><b>A Driver Obstacle Avoidance Assistance Control Algorithm</b> Y. T. Lin (Metal Industries R&amp;D Centre), S. T. Huang, H. H. Tsai (National Pingtung Univ. of Sci. and Tech.), C. F. Lin (176)</p>	<p><b>The Predictive Nature of Pneumatic Trail: Tire Slip Angle and Peak Force Estimation using Steering Torque</b> Y. H. J. Hsu (Stanford Univ.), J. C. Gerdes (125)</p>	<p><b>Improvement of Vehicle Agility and Stability by G-Vectoring Control</b> M. Yamakado (Hitachi), M. Abe (Kanagawa Inst. of Tech.) (063)</p>	<p><b>The Importance of the Cross-Over Point and Introduction of the Direction Sensitive Locking Differential (DSL)</b> M. Lidberg (Chalmers Univ. of Tech.), J. Alfredson (Autometall AB) (173)</p>	<p><b>Applications of On-line Driver Modeling to Lane Departure Warning System</b> L. k. Chen (National Taiwan Univ. of Sci. and Tech.), Y. j. Lian (053)</p>
<p><b>Linear Stability and Performance Analysis of Shared Lane Keeping between Driver and Assistance System</b> T. Brandt (Univ. of Duisburg-Essen), G. Hiesgen, B. Hesse, D. Schramm, M. Bröcker (TRW Automotive), H. D. Heitzer (155)</p>	<p><b>The Human Touch in Tyre Handling Performance Assessment, a Model Based Approach</b> S. Monsma (HAN Univ.), L. Buning, J. Pauwelussen, P. Bremmer (Vredestein Banden B.V.) (118)</p>	<p><b>Estimation of Road Friction Coefficient Based on Brush Model for Optimization of Tire Force Distribution in Independent Steering Vehicle</b> O. Nishihara (Kyoto Univ.), M. Kurishige (Mitsubishi Electric), Y. Sakatani (Toyota Motor) (035)</p>		

## October 7th (Tue.), 2008 Technical Sessions II

Room A (16:00 – 18:30) Vehicle Dynamics Analysis	Room B (16:00 – 18:30) Simulation and Testing	Room C (16:00 – 18:30) Vehicle Dynamics and Control II	Room D (16:00 – 17:40) Engine Control	Room E (16:00 – 18:05) Intelligent Vehicle II
<p><b>A New Approach in the Study On-Center Handling</b> I. Kushiuro (Toyota Motor), S. Koumura, H. Kawai (022)</p>	<p><b>Testing of Vehicle Dynamics Controllers in Hardware-in-the-Loop Systems</b> M. Aberger (dSPACE Japan), H. Schuette (dSPACE), P. Waeltermann (043)</p>	<p><b>A Study of Dynamics Performance Improvement by Rear Right and Left Independent Drive System</b> T. Sugano (Mazda Motor), H. Fukuba, T. Suetomi (045)</p>	<p><b>Holistic Inspection of Hybrid Drivetrains and Chassis Control Systems in a Continuous MIL/SIL/HIL Process</b> B. Schick (IPG Automotive), V. Leonhard, B. K. Ridder (088)</p>	<p><b>Organization and Control of Autonomous Railway Convoys</b> C. Henke (Univ. of Paderborn), M. Tichy, T. Schneider, J. Böcker, W. Schäfer (123)</p>
<p><b>Ride Comfort Evaluation through Analysis of Roll and Lateral Vehicle Behaviors Due to Road Input</b> S. Koumura (Toyota Motor), T. Ohkita (055)</p>	<p><b>Embedded Laboratory for Vehicle Dynamic Measurements</b> D. Lechner (INRETS) (100)</p>	<p><b>Observer Based Robust Fuzzy Control for Vehicle Stability</b> A. Rabhi (Univ. of Picardie Jules Verne), M. Chadli, A. E. Hajjaji, J. Bosche (095)</p>	<p><b>Infrastructure Based Fuel Consumption Optimization of a Vehicle</b> L. Nouveliere (CNRS - FRE 3190), L. Menhour (INRETS/LCPC), M. Braci, H. T. Luu, S. Mammam (CNRS - FRE 3190) (070)</p>	<p><b>Automatic Vehicle Guidance – Does the Vehicle Need a Driver?</b> A. Zlocki (RWTH Aachen Univ.), J. Chen, A. Benmimoun (071)</p>
<p><b>Impact of Lateral Wind on Vehicle Dynamics, Definition of a Safe Speed Profile</b> S. Glaser (LCPC – LIVIC), J. Dakhlallah, S. Mammam (IBISC-CNRS-FRE) (067)</p>	<p><b>Vehicle Performance Evaluation before Vehicle Prototype</b> M. Takamatsu (Nissan Motor), F. Kanno, S. Isa, Y. Sakai, J. Garcia (MTS Systems), T. Stachel (142)</p>	<p><b>Robust Vehicle Steering Control Based on a Sliding Mode Observer</b> J. Im (Kumamoto Univ.), F. Ozaki (OMRON), N. Matsunaga (Kumamoto Univ.), S. Kawaji (046)</p>	<p><b>Closed Loop Control of a Partially Premixed Combustion Engine using Model Predictive Control Strategies</b> M. Lewander (Lund Univ.), B. Johansson, P. Tunestål, N. Keeler (Delphi Diesel Systems), N. Milovanovic, P. Bergstrand (Volvo Powertrain) (006)</p>	<p><b>Adaptive Lane Keeping Control for Combination Vehicles without Measurement of Lateral Velocity</b> Q. Wang (Kyushu Inst. of Tech.), M. Oya, T. Kobayashi (027)</p>
<p><b>Modelling and Parameterisation of a Vehicle for Validity under Limit Handling</b> M. Jonasson (Volvo Car, KTH), J. Andreasson (Modelon), B. Jacobson (Volvo Car), A. S. Trigell (KTH) (079)</p>	<p><b>A Distributed Simulation System Based on Reflective Memory Network.</b> D. K. Yoo (Royal Melbourne Inst. of Tech.) (003)</p>	<p><b>Robustness of the Model-based Integrated Chassis Control in Vehicle Stability Control Systems</b> S. Chang (Hyundai-Kia Motors), T. J. Gordon (The Univ. of Michigan) (131)</p>	<p><b>An Optimal Controller Formulation via Convex Relaxation for Automotive Coldstart Hydrocarbon Reduction</b> P. R. Sanketi (U.C. Berkeley), N. Lashgarian, C. Zavala, J. K. Hedrick (122)</p>	<p><b>Analysis of the Dynamic Adjustment for an Advanced Motorcycle Headlight System</b> Y. Shiao (National Taipei Univ. of Tech.), W. C. Cheng (086)</p>
<p><b>Influence of Drive Force Distribution on the Lateral Grip and Understeer</b> M. Klomp (GM/Saab Automobile), R. Thomson (Chalmers Univ. of Tech.) (106)</p>	<p><b>Washout Algorithm of Driving Simulators Based on Motion Splitting</b> P. Beneš (Czech Technical Univ. in Prague), Z. Šika, M. Valášek (158)</p>	<p><b>Improving Driver-Car Performance through Advanced Reference Value Computation for Vehicle Dynamic Control Systems</b> W. Rosinger (Graz Univ. of Tech.), W. Hirschberg, S. Eitzinger (MAGNA STEYR Fahrzeugtechnik), D. L. Soos (167)</p>	<p><b>Real-Time Simulation of Complex Vehicle Models</b> A. Eichberger (INTEC) (121)</p>	<p><b>Control of Platooning and Changing Formation of Platoon for Electric Light Vehicles</b> M. Omae (Keio Univ.), T. Ogitsu, H. Shimizu (120)</p>
<p><b>Three Degree of Freedom Vehicle Model, Which Takes Account of the Effect of Body Roll</b> M. Minakawa (Keio Univ.) (161)</p>	<p><b>Simulation Methods to Evaluate and Verify Functions, Quality and Safety of Advanced Driver Assistance Systems</b> B. Schick (IPG Automotive), B. K. Ridder, J. Henning (089)</p>			

# October 8th (Wed.), 2008

## Technical Sessions III

Room A (9:00 – 11:30) Suspension Control I	Room B (9:00 – 11:05) Integrated Control I	Room C (9:00 – 11:05) Brake Control	Room D (9:00 – 11:30) Driver Behavior	Room E (9:00 – 10:40) Intelligent Transport Systems
<p><b>Analysis of a Variable Geometry Active Suspension</b> W. J. Evers (Eindhoven Univ. of Tech.), A. van der Knaap (TNO Automotive), I. Besselink (Eindhoven Univ. of Tech.), H. Nijmeijer (073)</p> <p><b>TRW Active Dynamic Control – Meeting the Challenges for the Active Suspension Control</b> K. Kashi (TRW Automotive), C. Otto, D. Nissing, A. Seewald (166)</p> <p><b>Active Suspension Control of a Passenger Car with an Integrated Damper</b> Y. H. Wang (National Cheng-Kung Univ.), M. C. Shih (013)</p> <p><b>Mechatronic Design and Implementation of an Active Suspension for an All-Terrain Tracked Vehicle</b> I. Illg (Univ. of Paderborn.), M. Tewes, K. P. Jäker, A. Trächtler (058)</p> <p><b>Design and Control of a Linear Electromagnetic Actuation System for Active Vehicle Suspensions</b> S. Tuplin (Loughborough Univ.), M. C Best, J. Wang (Sheffield Univ.) (169)</p> <p><b>Ride Comfort Enhancement Using Active Stabilizer System</b> Y. Mizuta (Toyota Motor), M. Suzumura, S. Matsumoto (050)</p>	<p><b>Integrated Control of Lateral Force and Yaw Moment to Improve Handling Safety of Car-Caravan Combination</b> O. Mokhiamar (Beirut Arab Univ.) (047)</p> <p><b>Utilizing Optimal Tire Forces Considering Saturation Limits for Vehicle Yaw Stability Enhancement</b> J. Ahmadi (Amirkabir Univ. of Tech.), M. Kabganian, A. K. Sedigh (Toosi Univ. of Tech.), R. Hasanzadeh (004)</p> <p><b>Analysis and Coordination of Multiple Active Systems for Vehicle Dynamics Controls</b> M. Schiebahn (Cologne Univ. of Applied Sci.), P. W. A. Zegelaar (Ford Research &amp; Advanced Engineering), M. L. Ayat, O. Hofmann (168)</p> <p><b>Investigations on the Powerslide of Automobiles</b> J. Edelmann (Vienna Univ. of Tech.), M. Plöchl, P. Lugner, W. Mack, A. Falkner (MAGNA STEYR) (099)</p> <p><b>Unified Vehicle Dynamic Control System of ESP and AFS Based on Characteristic Locus Method</b> K. Park (Kookmin Univ.), S. J. Heo, T. Hwang (138)</p>	<p><b>Adaptive Slip Control using a Brake Torque Sensor</b> T. Ishige (Nissan Motor), H. Furusho, Y. Aoki, K. Kawagoe (034)</p> <p><b>Hardware-in-the-Loop Experiments of Vehicle Stability Control for a Brake-by-Wire System</b> C. K. Chen (Dayeh Univ.), T. K. Dao, S. H. Hsieh (037)</p> <p><b>Jumps and Synchronization in Anti-lock Brake Algorithms</b> I. A. Hammouda (CNRS - UMR 8506), W. P. L'epine (084)</p> <p><b>Wheel Slip Based Control of Rear Axle Regeneration for Hybrid Electric Vehicles</b> S. Solyom (Volvo Car), B. Eriksson (115)</p> <p><b>The Design and Evaluation of an Alternative Heavy Vehicle Braking System</b> J. I. Miller (Cambridge Univ.), F. Kienhofer (Univ. of the Witwatersrand), D. Cebon (Cambridge Univ.) (094)</p>	<p><b>Analysis of Driving Performance with Reaching Task</b> T. Asao (Kansai Univ.), T. Wada (Kagawa Univ.), S. Doi (134)</p> <p><b>Vehicle Transient Response Based on Human Sensitivity</b> M. Ooki (Toyota Motor), H. Sakai, Y. Muragishi (Toyota Central R&amp;D Labs.), K. Fukui, E. Ono (029)</p> <p><b>Behavior of Driver on Visual Warning on Car Driving</b> F. Ono (Yokohama National Univ.), R. Okada (Denso), H. Takada (Yokohama National Univ.), Y. Matsuura (023)</p> <p><b>Classification of Driver Steering Intention at the Vehicle Running Using Electroencephalogram</b> T. Ikenishi (Tokyo Univ. of Agri. and Tech.), Y. Machida, T. Kamada, M. Nagai (156)</p> <p><b>Individual Adaptation of Driver Assistance System Based on Real-World Naturalistic Driving Database Part 1: Conceptual Framework and Driver-Vehicle-Environment Modeling</b> P. Raksincharoensak (Tokyo Univ. of Agri. and Tech.), W. Khaisongkram, Y. Michitsuji, K. Maeda, M. Nagai, M. Shimosaka (Univ. of Tokyo), T. Mori, T. Sato (110)</p> <p><b>Individual Adaptation of Driver Assistance System Based on Real-World Naturalistic Driving Database Part 2 : Algorithm for Detecting Unusual Driving Behavior Based on Driving Database</b> P. Raksincharoensak (Tokyo Univ. of Agri. and Tech.), T. Iijima, K. Maeda, M. Nagai (111)</p>	<p><b>An Enhanced GPS-Based Vehicle Positioning System through Sensor Fusion of Digital Map Data</b> K. Li (U. C. Berkeley), H. S. Tan, J. K. Hedrick (080)</p> <p><b>Precise Ego-Localization by Integration of GPS and Sensor-based Odometry</b> Y. Kojima (Toyota Central R&amp;D Labs., Inc.), K. Kidono, A. Takahashi, Y. Ninomiya (076)</p> <p><b>Improvement of Maneuverability of Remote-Controlled Vehicle by Predicted Trajectory Indicating System</b> M. Harada (National Defense Academy of Japan), K. Yoshimoto (Saitama Inst. of Tech.) (075)</p> <p><b>Upgrading the Capability of a Vision-based Vehicle Lane-Departure and Forward-Collision Warning System</b> C. C. Lin (Industrial Tech. and Research Inst.), Y. H. Chen (Asia Univ.), C. W. Lin (Industrial Tech. and Research Inst.), D. C. Huang (092)</p>

# October 9th (Thu.), 2008 Technical Sessions IV

Room A (9:00 – 11:30) Estimation	Room B (9:00 – 11:05) Vehicle Dynamics and Control III	Room C (9:00 – 11:30) Collision Avoidance	Room D (9:00 – 11:30) Driver Model	Room E (9:00 – 11:05) Electric/Hybrid Vehicle I
<p><b>Lateral State Prediction by an Extended Kalman Filter using Reliability-Weighted Measurements from Multiple Sensors</b> M. Aso (Toyota Motor), K. Niki, D. Caveney (Toyota Motor Engineering &amp; Manufacturing North America) (009)</p>	<p><b>Development of a Variable Camber Controller along with a State Observer</b> I. Kuwayama (Bridgestone, Politecnico di Milano) F. Baldoni (Bridgestone Technical Center Europe S.p.A.), F. Cheli (Politecnico di Milano) (026)</p>	<p><b>Intelligent Fuzzy Neural Sliding Mode Control for Vehicle Longitudinal Collision Avoidance</b> K. H. Cheng (Industrial Tech. Research Inst.), L. T. Chen, J. H. Wang (077)</p>	<p><b>A Path Tracking Scenario without Preview for Analysis of Driver Characteristics</b> A. Nilsson (KTH), A. S. Trigell, L. Drugge (064)</p>	<p><b>Configuration, Sizing and Control of Power-Split Hybrid Vehicles</b> J. Liu (Univ. of Michigan), H. Peng (102)</p>
<p><b>Vehicle Sideslip Angle Estimation by using High Gain Observer</b> X. Gao (Tongji Univ.), Z. Yu (014)</p>	<p><b>LPV Control of Electric Power Steering Considering the Variety of Assist Gain</b> Q. Liu (Shanghai Koal Automobile Accessory, Tongji Univ.), H. Chen (Tongji Univ.) (146)</p>	<p><b>Analysis of Braking Behavior in Car Following and Its Application to Driver Assistance System</b> T. Wada (Kagawa Univ.), S. Doi, A. Nishiyama K. Isaji (DENSO), N. Tsuru, H. Kaneko (Paris Miki) (082)</p>	<p><b>Modeling and Analysis of Vehicle Following Task based on Mode Segmentation</b> T. Suzuki (Nagoya Univ.), T. Akita, S. Inagaki, S. Hayakawa (Toyota Technological Inst.), N. Tuchida (060)</p>	<p><b>AC Impedance Analysis of Supercapacitors for Hybrid Fuel Cell Vehicle Control</b> Y. M. Sun (National Tsing Hua Univ.), C. H. Wu, C. W. Hong (044)</p>
<p><b>Sideslip Angle Estimation Using Inertial Sensors for Detecting Vehicle Dangerous Situation: Simulation Study</b> H. Kim (Gwangju Inst. of Sci. and Tech.), J. Ryu (160)</p>	<p><b>Vehicle Dynamic Enhancement Using Controlled Moving Mass</b> A. Goodarzi (Iran Univ. of Sci. &amp; Tech.), F. Diba (002)</p>	<p><b>Multi-Vehicle Adaptive Cruise Control with Collision Avoidance</b> S. Moo (Seoul National Univ.), K. Yi, H. J. Kang (MANDO) (062)</p>	<p><b>LPV Modeling of Vehicle Occupants</b> E. van der Laan (Eindhoven Univ. of Tech.), F. Veldpaus, M. Steinbuech (078)</p>	<p><b>Active Control of Torque Ripple for a Hybrid Powertrain: An Energetic Approach</b> J. P. Gauthier (Université de Sherbrooke), P. Micheau, P. Coirault (Université de Poitiers) (129)</p>
<p><b>Analysis of Accelerometer-based Kinematic Yaw Rate Estimators</b> M. Hrgetić (Univ. of Zagreb), J. Deur, N. Kranjčević, E. Tseng (Ford Research and Advanced Engineering), M. L. Ayat (Ford Research Center) (165)</p>	<p><b>Skid Steering based Trajectory Tracking Controller of Robotic Vehicle with Articulated Suspension</b> J. Kang (Seoul National Univ.), W. Kim, S. Jung (Samsung Techwin), K. Yi (Seoul National Univ.) (081)</p>	<p><b>Collision Mitigation System Improvements with Avoidance Trajectory Computation</b> S. Glaser (LCPC – LIVIC), D. Gruyer, L. Nouvelière (IBISC-CNRS-FRE), J. M. Blosseville (INRETS-LEMCO) (066)</p>	<p><b>Construction of a Driving Agent for Target Tracking Driving and Learning Process</b> K. Togai (Mitsubishi Motors), H. Tamaki (Kobe Univ.) (051)</p>	<p><b>Development of Electric Vehicle for On-Road Test</b> M. Kamachi (Mitsubishi Motors), H. Miyamoto, H. Yoshida (010)</p>
<p><b>Virtual Sensors: an Original Approach for Dynamic Variables Estimation in Automotive Control Systems</b> P. Borodani (Centro Ricerche Fiat) (163)</p>	<p><b>Development of a Unified Chassis Control System for Vehicle Stability and Maneuverability</b> W. Cho (Seoul National Univ.), J. Yoon, J. Kim (Hyundai Mobis), K. Yi (Seoul National Univ.) (061)</p>	<p><b>Dependence of Driver's Brake Timing on Rear-End Collision Warning Logics</b> M. Itoh (Univ. of Tsukuba), T. Inagaki (025)</p>	<p><b>Effects of Declined Driver's Time Delay on the Handling Properties of Vehicle</b> J. Ahmadi (Amirkabir Univ. of Tech.), R. Hasanzadeh (K.N. Toosi Univ. of Tech.), R. Kazemi, A. Ghaffari (005)</p>	<p><b>Optimization of PEM Fuel Cell Stack Model with a RSM</b> D. Xuan (Chonnam National Univ.), J. Kim, Y. Nan, Q. Ning, Y. Kim (139)</p>
<p><b>Embedded Estimation of the Tire/Road Forces and Validation in a Laboratory Vehicle</b> M. Doumiati (HEUDIASYC, UMR 6599 CNRS-UTC), G. Baffet, D. Lechner (INRETS-MA Lab.), A. Victorino (HEUDIASYC, UMR 6599 CNRS-UTC), A. Charara (068)</p>		<p><b>Theoretical and Empirical Comparison about Evaluation Indices Concerning Driver's Rear-End Collision Risk</b> S. Kitajima (Japan Automobile Research Inst.), Y. Marumo (Nihon Univ.), T. Hiraoka (Kyoto Univ.), M. Itoh (Univ. of Tsukuba) (183)</p>	<p><b>Development of Universal Driver Model for Predictive Evaluation of Vehicle's Active Safety</b> Y. Furukawa (Shibaura Inst. of Tech.), T. Tomaru, M. Tamada (Kozo Keikaku Engineering) (093)</p>	

# October 9th (Thu.), 2008

## Technical Sessions V

Room A (12:45 – 14:50) Suspension Control II	Room B (12:45 – 14:00) Rollover Prevention	Room C (12:45 – 14:50) Steer-by-Wire	Room D (12:45 – 14:50) Motorcycle	Room E (12:45 – 14:50) Electric/Hybrid Vehicle II
<p><b>Adaptive VSS Observer for Semi-active Suspension Systems</b> M. Amano (Kobe Univ.), T. Fukao, N. Itagaki (Hitachi), N. Ichimaru, T. Kobayashi, T. Gankai (130)</p> <p><b>Semi-Active Suspension Systems based on Nonlinear Control</b> N. Itagaki (Hitachi), T. Fukao (Kobe Univ.), M. Amano, N. Ichimaru (Hitachi), T. Kobayashi, T. Gankai (132)</p> <p><b>Robust Control Scheme to Design Active Suspension Achieving the Best Ride Comfort at Any Specified Location on Vehicles</b> M. Oya (Kyushu Inst. of Tech.), Y. Tsuchida, Q. Wang (030)</p> <p><b>Structural Formula of Unsprung Resonance Frequency Derived from Motion Equation of Quarter Model and the Control Law</b> F. Momiya (Truck Dynamics lab.) (018)</p> <p><b>The Jacobian Expression of Roll Center: Derivation and Interpretation with Application to a Suspension with Active Camber</b> S. M. Laws (Stanford Univ.), J. C. Gerdes (114)</p>	<p><b>Unified Chassis Control for Rollover Prevention, Maneuverability and Lateral Stability</b> J. Yoon (Seoul National Univ.), W. Cho, B. Koo (Mando), K. Yi (Seoul National Univ.) (059)</p> <p><b>Sliding-mode Control Design of Electric Stability Control for Rollover Prevention</b> B. C. Chen (National Taipei Univ. of Tech.), W. F. Hsu (074)</p> <p><b>Rollover Prevention through Model Predictive Direct Yaw Moment Control</b> L. K. Chen (National Taiwan Univ. of Sci. and Tech.), C. F. Cheng, M. F. Luo (Chung-Shan Inst. of Sci. and Tech.) (112)</p>	<p><b>Development of a Steering Simulator</b> S. Asai (Toyota Central R&amp;D Labs.), H. Kuroyanagi, Y. Hattori, E. Ono, I. Kushiro (Toyota Motor) (008)</p> <p><b>Four-Wheel Active Steering Control Based on Human Sensitivity</b> Y. Hattori (Toyota Central R&amp;D Labs.), E. Ono, K. Fukui, Y. Muragishi, T. Kojo (Toyota Motor) T. Limpibuntern, M. Tanimoto, S. Sato (017)</p> <p><b>New Actuator for Steer-by-Wire Technology: Requirement Analysis and Actuator Design</b> W. Missaoui (Ecole Nationale d'Ingénieurs de Tunis, Ecole Centrale de Lille), L. E. A. Ouni (Ecole Nationale d'Ingénieurs de Tunis), F. Gillon (Ecole Centrale de Lille), M. Benrejeb (Ecole Nationale d'Ingénieurs de Tunis), P. Brochet (Ecole Centrale de Lille) (117)</p> <p><b>Development and Control of a Quarter-Vehicle Testbed for a Fully Active X-by-Wire Demonstrator</b> V. Nachtigal (Univ. of Paderborn), K. P. Jäker, A. Trächtler (049)</p> <p><b>Bilateral Control of Human Machine Interface for Steer-by-Wire System</b> R. Hayama (JTEKT), S. Maeda, S. Kawahara, S. Nakano, H. Kumamoto (Kyoto Univ.) (040)</p>	<p><b>Dynamics and Control of Small Wheel Bicycle for Urban Transportation</b> C. Nakagawa (Univ. of Tokyo), Y. Suda, K. Nakano, S. Takehara (Tokyo Metropolitan Univ.) (180)</p> <p><b>Motorcycle Dynamics Enhancement using Integrated Steering/ Seat Control</b> A. Goodarzi (Iran Univ. of Sci. and Tech.), A. Soltani (001)</p> <p><b>Parameter Study of Motorcycle Riding by Model Predictive Control</b> S. Rowell (Romax Tech.), A. A. Popov (Univ. of Nottingham), J. P. Meijaard (Univ. of Twente) (090)</p> <p><b>Design and Evaluation of Lane-Keeping-Assistance System for Motorcycles</b> N. Katagiri (Nihon Univ.), Y. Marumo, H. Tsunashima (150)</p> <p><b>Study on Construction of Rider Robot for Motorcycles</b> Y. Suzuki (Nihon Univ.), I. Kageyama (186)</p>	<p><b>Slip-Ratio Based Yaw-Rate Control with Driving Stiffness Identification for Electric Vehicle</b> T. Kanou (Yokohama National Univ.), H. Fujimoto (113)</p> <p><b>Torque Distribution Control of in-Wheel Motor 4WD EV for Fuel Economy Enhancement</b> Z. Lijun (Tongji Univ.), W. Miao, Y. Zhuoping (096)</p> <p><b>A Control Strategy for an Electrical Vehicle using Two In-Wheel Motors and Steering Mechanism</b> F. K. Wu (National Tsing Hua Univ.), T. J. Yeh (083)</p> <p><b>Brake Control of Electric Vehicles Integrating Regenerative Brake and Vehicle Stability Regulation</b> L. Zhou (Tsinghua Univ.), Y. Luo, K. Li, X. Lian (056)</p> <p><b>Energy Recuperation in Electrically Driven Road Vehicles through Regenerative Braking</b> A. E. Hartavi (Istanbul Technical Univ.), I. M. C. Uygan, V. Sezer, T. Acarman (Galatasaray Univ.), L. Güvenç (Istanbul Technical Univ.), A. Göktaş, V. Kılıç (Ford Otosan), M. Yıldırım (188)</p>

AVEC '08 Program

# October 9th (Thu.), 2008

## Technical Sessions VI

<b>Room A (15:05 – 16:45)</b> <b>Simulation Technology</b>	<b>Room B (15:05 – 16:20)</b> <b>Heavy-Duty Vehicle</b>	<b>Room C (15:05 – 16:45)</b> <b>Integrated Control II</b>	<b>Room D (15:05 – 16:45)</b> <b>Powertrain and Drivetrain Control II</b>	<b>Room E (15:05 – 16:45)</b> <b>Electric/Hybrid Vehicle III</b>
<p><b>Advanced Testing and Simulation Techniques in Handling Body Deformation</b> K. Miyagawa (Daihatsu Motor), Y. Maruyama, M. Nasada, P. D. Carlo (LMS Italiana), G. Conti, V. Cibrario <b>(151)</b></p> <p><b>Analysis of Detailed Embedded Drivetrains in Complete Vehicles using 3D Multi-Body Simulation</b> S. Mulski (INTEC), L. Maurer <b>(164)</b></p> <p><b>Simulation-Based Automated Verification of Safety-Critical Chassis-Control Systems</b> M. Gäfvert (Modelon), J. Hultén, J. Andreasson, A. Junghanns (QTronic), J. Mauss, M. Tatar <b>(174)</b></p> <p><b>Design of MIMO Feedback System for Multi-axis Hydraulic Road Simulator</b> J. W. Kim (Chonnam National Univ.), D. J. Xuan, Y. H. Nan, Y. B. Kim <b>(140)</b></p>	<p><b>A New Method to Study Vehicle Ride Comfort</b> L. Jie (Jilin Univ.), Q. Yuying, Z. Qi <b>(048)</b></p> <p><b>Subjective and Objective Measurements for Comfortable Truck Driver's Seat</b> C. F. Tan (Technical Univ. Eindhoven), F. Delbressine, W. Chen, M. Rauterberg <b>(033)</b></p> <p><b>Active Rear Steering Control of a Tractor - Semi-Trailer</b> B. A. Jujnovich (Sinclair Knight Merz), A. M. C. Odhams (Cambridge Univ.), R. L. Roebuck, D. Cebon <b>(097)</b></p>	<p><b>Integrated Vehicle Dynamics Control for High Performance All Wheel Drive Vehicle</b> Y. Ushiroda (Mitsubishi Motors), K. Sawase, T. Miura, N. Takahashi, K. Suzuki <b>(057)</b></p> <p><b>Closed-Loop Performance Analysis on Integrated Control of Active Front Steering and Direct Yaw Moment Control Using Braking Forces</b> L. Liu (Tokyo Univ. of Agri. and Tech.), P. Raksincharoensak, M. Takase, Y. Terashima, M. Nagai <b>(149)</b></p> <p><b>Low Complexity MPC Schemes for Integrated Vehicle Dynamics Control Problems</b> P. Falcone (Chalmers Univ. of Tech.), F. Borrelli (U. C. Berkeley), H. E. Tseng (Ford Research Labs.), J. Asgari, D. Hrovat <b>(179)</b></p> <p><b>Improvements in Vehicle Handling through the Integration of Active Steering, Active Suspension and Electronic Stability Control</b> C. Rengaraj (Univ. of Sunderland), A. Adgar, D. A Crolla <b>(116)</b></p>	<p><b>Design and Control of an Electromechanical Variable Rotary Valve System for Four-stroke Engines</b> P. K. Wong (Univ. of Macau), K. W. Mok, C.M. Vong <b>(041)</b></p> <p><b>Mechanical Inertia of Cvt Power Train of Passenger Car During Acceleration</b> J. Mamala (Opole Univ. of Tech.), J. Jantos, S. Brol <b>(159)</b></p> <p><b>Performance Evaluation of a Motorcycle with the Electronically-Controlled Continuously Variable Transmission</b> J. C. Tzou (Kun Shan Univ.), S. C. Wu, T. F. Chen (Taiwan Power), C. Y. Cheng (National Cheng Kung Univ.) <b>(032)</b></p> <p><b>A Study on Online LS-SVM for Modelling of Electronically-controlled Automotive Engine Performance</b> C. m. Vong (University of Macau), P. k. Wong, K. Li, R. Zhang <b>(015)</b></p>	<p><b>Influence of Driver, Route and Vehicle Mass on Hybrid Electric Truck Fuel Economy</b> T. van Keulen (Eindhoven Univ. of Tech.), B. de Jager, M. Steinbuch <b>(154)</b></p> <p><b>A Prototype of Hybrid Solar Vehicle: Simulations and On-Board Measurements</b> G. Adinolfi (DIIIIE), I. Arsie (DIMEC), R. Di Martino, A. Giustiniani (DIIIIE), G. Petrone, G. Rizzo (DIMEC), M. Sorrentino <b>(178)</b></p> <p><b>MCU and CAN Based Direct Drive Electric Vehicle</b> Y. R. Yang (Ming Chi Univ. of Tech.) <b>(170)</b></p> <p><b>Modeling and Control of a Mild-Hybrid City Car with a Downsized Turbo-Charged CNG Engine</b> P. Tona (IFP Powertrain Engineering), P. Gautier, R. Amari <b>(085)</b></p>