

2013 IEEE Intelligent Vehicles Symposium

(IV 2013)

**Gold Coast City, Australia
23 - 26 June 2013**

Pages 1-712



**IEEE Catalog Number: CFP13IVS-POD
ISBN: 978-1-4673-2753-4**

TABLE OF CONTENTS

FORWARD COLLISION WARNING SYSTEMS USING HEADS-UP DISPLAYS: TESTING USABILITY OF TWO NEW METAPHORS	1
<i>P. Alves, J. Goncalves, R. Rossetti, E. Oliveira, C. Olaverri-Monreal</i>	
HUMAN-CENTRIC ANALYSIS OF DRIVER INATTENTION	7
<i>R. Taib, K. Yu, J. Jung, A. Hess, A. Maier</i>	
USER EXPERIENCE EVALUATION IN AN AUTOMOTIVE CONTEXT	13
<i>M. Korber, A. Eichinger, K. Bengler, C. Olaverri-Monreal</i>	
VEHICLE OPERATION SAFETY MONITORING USING CONTEXT BASED METRICS: A CASE STUDY	19
<i>J. Ward, S. Worrall, G. Agamennoni, E. Nebot</i>	
ANOMALY DETECTION IN DRIVING BEHAVIOUR BY ROAD PROFILING	25
<i>G. Agamennoni, J. Ward, S. Worrall, E. Nebot</i>	
SEEN AND MISSED TRAFFIC OBJECTS: A TRAFFIC OBJECT SPECIFIC AWARENESS ESTIMATION	31
<i>T. Bar, D. Linke, D. Nienhuser, J. Zollner</i>	
ATTITUDES AND OPINIONS TOWARDS INTELLIGENT SPEED ADAPTATION	37
<i>J. Wall, V. Cuenca, K. Creef, B. Barnes</i>	
ELICITATION OF MENTAL STATES AND USER EXPERIENCE FACTORS IN A DRIVING SIMULATOR	43
<i>A. Hess, J. Jung, A. Maier, R. Taib, K. Yu, B. Itzstein</i>	
EFFECT-ORIENTED REQUIREMENTS ELICITATION AND SPECIFICATION	49
<i>T. Ronneberger, O. Uenalan, M. Eisenbarth, A. Hess</i>	
EVALUATION OF FISHEYE-CAMERA BASED VISUAL MULTI-SESSION LOCALIZATION IN A REAL-WORLD SCENARIO	57
<i>P. Muehlfellner, P. Furgale, W. Derendarz, R. Phillippsen</i>	
REAL-TIME ESTIMATION OF DRIVABLE IMAGE AREA BASED ON MONOCULAR VISION	63
<i>A. Neto, A. Victorino, I. Fantoni, J. Ferreira</i>	
SENSITIVITY ANALYSIS OF MODEL BASED FUSION OF CAMERA SYSTEMS WITH NAVIGATION DATA	69
<i>M. Wimmershoff, C. Klas, A. Zlocki, L. Eckstein</i>	
RECOGNITION OF SUPPLEMENTARY SIGNS FOR CORRECT INTERPRETATION OF TRAFFIC SIGNS	76
<i>A. Puthon, F. Moutarde, F. Nashashibi</i>	
FAST AND PRECISE LOCALIZATION AT STOP INTERSECTIONS	82
<i>A. Barth, J. Siegemund, J. Schwehr</i>	
VISION-BASED POTENTIAL COLLISION DETECTION FOR REVERSING VEHICLE	88
<i>M. Monwar, B. Kumar</i>	
ASSESSMENT OF PATH RESERVATION IN DISTRIBUTED REAL-TIME VEHICLE GUIDANCE	94
<i>S. Senge</i>	
DEVELOPMENT OF FULL SPEED RANGE ACC WITH SIVIC, A VIRTUAL PLATFORM FOR ADAS PROTOTYPING, TEST AND EVALUATION	100
<i>D. Gruyer, S. Pechberti, S. Glaser</i>	
A STUDY ON THE CONFIRMATION OF PEDESTRIANS TO APPROACHING RIGHT/LEFT TURNING VEHICLE WHILE CROSSING THE CROSSWALK	106
<i>H. Hamaoka, T. Hagiwara, M. Tada, K. Munehiro</i>	
UNSUPERVISED MOTION LEARNING FROM A MOVING PLATFORM	111
<i>V. Romero-Cano, J. Nieto, G. Agamennoni</i>	
TOWARDS DRIVING AUTONOMOUSLY: AUTONOMOUS CRUISE CONTROL IN URBAN ENVIRONMENTS	116
<i>R. Kohlhaas, T. Schamm, D. Lenk, J. Zollner</i>	
EXTENDING DRIVING SIMULATOR CAPABILITIES TOWARD HARDWARE-IN-THE-LOOP TESTBEDS AND REMOTE VEHICLE INTERFACES	122
<i>K. Swanson, A. Brown, S. Brennan, C. LaJambe</i>	
ZERO MUTUAL INTERFERENCE NETWORK FOR INTELLIGENT VEHICLE COMMUNICATION	128
<i>V. Kuo, R. Fitch</i>	

GLOBAL AND LOCAL FRAMEWORKS FOR VEHICLE STATE ESTIMATION USING TEMPORALLY PREVIEWED MAPPED LANE FEATURES	134
<i>A. Brown, S. Brennan</i>	
VEHICLE SELF-LOCALIZATION WITH HIGH-PRECISION DIGITAL MAPS.....	141
<i>A. Schindler</i>	
TOWARDS MAPPING OF DYNAMIC ENVIRONMENTS WITH FMCW RADAR.....	147
<i>B. Clarke, S. Worrall, G. Brooker, E. Nebot</i>	
AUTOMATIC SCENARIO GENERATION BASED ON LASERSCANNER REFERENCE DATA AND ADVANCED OFFLINE PROCESSING.....	153
<i>U. Lages, M. Spencer, R. Katz</i>	
ROBUST NON-LINEAR SMOOTHING FOR VEHICLE STATE ESTIMATION.....	156
<i>G. Agamennoni, S. Worrall, J. Ward, E. Nebot</i>	
COMPARISON OF TRAJECTORY TRACKING CONTROLLERS FOR EMERGENCY SITUATIONS	163
<i>D. Heb, M. Althoff, T. Sattel</i>	
VEHICLE PATH PLANNING WITH MAXIMIZING SAFE MARGIN FOR DRIVING USING LAGRANGE MULTIPLIERS	171
<i>Q. Do, H. Tehrani, N. Nejad, K. Yoneda, S. Ryohei, S. Mita</i>	
UNSUPERVISED DRIVE TOPIC FINDING FROM DRIVING BEHAVIORAL DATA	177
<i>T. Bando, K. Takenaka, S. Nagasaka, T. Taniguchi</i>	
AN EXPERIMENTAL STUDY ON LONGITUDINAL DRIVING ASSISTANCE BASED ON MODEL PREDICTIVE CONTROL	183
<i>H. Okuda, Y. Tazaki, T. Suzuki</i>	
STEREO IMAGE WARPING FOR IMPROVED DEPTH ESTIMATION OF ROAD SURFACES	189
<i>N. Einecke, J. Eggert</i>	
A NEW ROBUST COOPERATIVE-REACTIVE FILTER FOR VEHICLE LOCALIZATION: THE EXTENDED KALMAN PARTICLE SWARM 'EKPS'	195
<i>A. Bacha, D. Gruyer, S. Mammari</i>	
AUTONOMOUS VEHICLE SOCIAL BEHAVIOR FOR HIGHWAY ENTRANCE RAMP MANAGEMENT	201
<i>J. Wei, J. Dolan, B. Litkouhi</i>	
ROBUST PREDICTIVE CONTROL FOR SEMI-AUTONOMOUS VEHICLES WITH AN UNCERTAIN DRIVER MODEL	208
<i>A. Gray, Y. Gao, J. Hedrick, F. Borrelli</i>	
CYCLOSTATIONARY FEATURE ANALYSIS OF CEN-DSRC FOR COGNITIVE VEHICULAR NETWORKS.....	214
<i>S. Kandeepan, G. Baldini, S. Dieter</i>	
TRACKING AN ON THE RUN VEHICLE IN A METROPOLITAN VANET.....	220
<i>T. Reza, M. Barbeau, B. Alsubaihi</i>	
CADAS: A MULTIMODAL ADVANCED DRIVER ASSISTANCE SYSTEM FOR NORMAL URBAN STREETS BASED ON ROAD CONTEXT UNDERSTANDING	228
<i>C. Guo, J. Meguro, Y. Kojima, T. Naito</i>	
ONLINE EXTRINSIC MULTI-CAMERA CALIBRATION USING GROUND PLANE INDUCED HOMOGRAPHS	236
<i>M. Knorr, W. Niehsen, C. Stiller</i>	
ACCURATE BEHAVIOR PREDICTION ON HIGHWAYS BASED ON A SYSTEMATIC COMBINATION OF CLASSIFIERS.....	242
<i>S. Bonnin, T. Weisswawng, F. Kummert, J. Schmudderich</i>	
AN ALGORITHM TO CALCULATE OPTIMIZED COORDINATED TRAJECTORIES OF INTELLIGENT VEHICLES IN A SEGMENT OF ROAD FOR ANY LANE CONFIGURATION.....	250
<i>R. Reghelini, L. Arruda</i>	
ACTIVE SAFETY FOR VULNERABLE ROAD USERS BASED ON SMARTPHONE POSITION DATA.....	256
<i>M. Liebner, F. Klanner, C. Stiller</i>	
SWITCHABLE CONSTRAINTS AND INCREMENTAL SMOOTHING FOR ONLINE MITIGATION OF NON-LINE-OF-SIGHT AND MULTIPATH EFFECTS.....	262
<i>N. Sunderhauf, M. Obst, S. Lange, G. Wanielik, P. Protzel</i>	
ONLINE ESTIMATION OF VEHICLE DRIVING RESISTANCE PARAMETERS WITH RECURSIVE LEAST SQUARES AND RECURSIVE TOTAL LEAST SQUARES.....	269
<i>S. Rhode, F. Gauterin</i>	

SELECTIVE ATTENTION FOR DETECTION AND TRACKING OF ROAD-NETWORKS IN AUTONOMOUS DRIVING	277
<i>A. Unterholzner, H. Wuensche</i>	
HOW TO LEARN AN ILLUMINATION ROBUST IMAGE FEATURE FOR PLACE RECOGNITION.....	285
<i>H. Lategahn, J. Beck, B. Kitt, C. Stiller</i>	
AN INTEGRATED ADAS FOR ASSESSING RISKY SITUATIONS IN URBAN DRIVING	292
<i>T. Weisswange, B. Bolder, J. Fritsch, S. Hasler, C. Goerick</i>	
FAULT DETECTION FOR VEHICULAR AD-HOC WIRELESS NETWORKS.....	298
<i>S. Worrall, G. Agamennoni, J. Ward, E. Nebot</i>	
GENERATION OF AN INTEGRATED 3D CITY MODEL WITH VISUAL LANDMARKS FOR AUTONOMOUS NAVIGATION IN DENSE URBAN AREAS.....	304
<i>B. Soheilian, O. Tournaire, N. Paparoditis, B. Vallet, J. Papelard</i>	
A REVIEW OF RECENT DEVELOPMENTS IN VISION-BASED VEHICLE DETECTION.....	310
<i>S. Sivaraman, M. Trivedi</i>	
CONVOLUTIONAL NEURAL NETWORKS FOR NIGHT-TIME ANIMAL ORIENTATION ESTIMATION	316
<i>R. Wagner, M. Thom, M. Gabb, M. Limmer, R. Schweiger, A. Rothermel</i>	
FUEL EFFICIENCY IMPROVEMENT IN HEVS USING ELECTROMECHANICAL BRAKE SYSTEM.....	322
<i>M. Khodabakhshian, J. Wikander, L. Feng</i>	
PEDESTRIAN DETECTION BASED ON LIDAR-DRIVEN SLIDING WINDOW AND RELATIONAL PARTS-BASED DETECTION	328
<i>L. Oliveira, U. Nunes</i>	
MODELLING OF TRAFFIC SITUATIONS AT URBAN INTERSECTIONS WITH PROBABILISTIC NON-PARAMETRIC REGRESSION	334
<i>Q. Tran, J. Firl</i>	
NATURALISTIC LANE-KEEPING BASED ON HUMAN DRIVER DATA	340
<i>I. Rano, H. Edelbrunner, G. Schoner</i>	
SKIN SEGMENTATION USING A MULTIBAND CAMERA FOR EARLY PEDESTRIAN DETECTION	346
<i>K. Kidono, Y. Kanzawa, T. Tagawa, Y. Kojima, T. Naito</i>	
OBSTACLE AVOIDANCE VIA SOCIAL MEDIATION IN COOPERATIVE PAYLOAD TRANSPORTATION.....	352
<i>R. Singh, S. Lal, J. Vanualailai</i>	
ANYTIME PATH PLANNING IN GRADUATED STATE SPACE	358
<i>H. Zhang, G. Xiong, B. Su, J. Gong, Y. Jiang, H. Chen, W. Lan</i>	
PROBABILISTIC NON-LINE-OF-SIGHT DETECTION IN RELIABLE URBAN GNSS VEHICLE LOCALIZATION BASED ON AN EMPIRICAL SENSOR MODE.....	363
<i>M. Obst, G. Wanielik</i>	
TOWARDS LEVERAGING THE DRIVER'S MOBILE DEVICE FOR AN INTELLIGENT, SOCIABLE IN-CAR ROBOTIC ASSISTANT.....	369
<i>K. Williams, J. Peters, C. Breazeal</i>	
ROAD USER TRACKING AT INTERSECTIONS USING A MULTIPLE-MODEL PHD FILTER	377
<i>D. Meissner, S. Reuter, K. Dietmayer</i>	
EXPERIMENTAL IMPLIMENTATION OF A FUZZY CONTROLLER FOR AN ACTIVE HYDRAULICALLY INTERCONNECTED SUSPENSION ON A SPORT UTILITY VEHICLE	383
<i>Q. Lam, L. Wang, N. Zhang</i>	
A SAMPLING-BASED PARTIAL MOTION PLANNING FRAMEWORK FOR SYSTEM-COMPLIANT NAVIGATION ALONG A REFERENCE PATH.....	391
<i>U. Schwesinger, M. Rufli, P. Furgale, R. Siegwart</i>	
EYE RECOGNITION IN NEAR-INFRARED IMAGES FOR DRIVER'S DROWSINESS MONITORING.....	397
<i>B. Cyganek, S. Gruszczynski</i>	
MONOCULAR CAR VIEWPOINT ESTIMATION WITH CIRCULAR REGRESSION FORESTS	403
<i>C. Herdtweck, C. Curio</i>	
MERGE RECOMMENDATIONS FOR DRIVER ASSISTANCE: A CROSS-MODAL, COST-SENSITIVE APPROACH	411
<i>S. Sivaraman, M. Trivedi, M. Toppelhofer, T. Shannon</i>	
HIERARCHICAL PATH PLANNING AND FLIGHT CONTROL OF SMALL AUTONOMOUS HELICOPTERS USING MPC TECHNIQUES.....	417
<i>C. Liu, W. Chen</i>	

LEARNING APPEARANCE MODELS FOR ROAD DETECTION	423
<i>J. Alvarez, M. Salzmann, N. Barnes</i>	
LANE CHANGE TRAJECTORY PREDICTION BY USING RECORDED HUMAN DRIVING DATA	430
<i>W. Yao, H. Zhao, P. Bonnifait, H. Zha</i>	
VISION-BASED PARKING ASSISTANCE SYSTEM FOR LEAVING PERPENDICULAR AND ANGLE PARKING LOTS	437
<i>D. Llorca, S. Alvarez, M. Sotelo</i>	
A VISION-BASED LANE DETECTION SYSTEM COMBINING APPEARANCE SEGMENTATION AND TRACKING OF SALIENT POINTS	443
<i>V. Bottazzi, P. Borges, J. Jo</i>	
LANELOC: LANE MARKING BASED LOCALIZATION USING HIGHLY ACCURATE MAPS	449
<i>M. Schreiber, C. Knoppel, U. Franke</i>	
DYNAMIC SIDE-VIEW MIRROR: ASSISTING SITUATION AWARENESS IN BLIND SPOTS	455
<i>J. Kuwana, M. Itoh, T. Inagaki</i>	
NOISE-RESILIENT ROAD SURFACE AND FREE SPACE ESTIMATION USING DENSE STEREO	461
<i>J. Suhr, H. Jung</i>	
LEARNING A MULTIVIEW PART-BASED MODEL IN VIRTUAL WORLD FOR PEDESTRIAN DETECTION	467
<i>J. Xu, D. Vazquez, A. Lopez, J. Marin, D. Ponsa</i>	
SELF-SUPERVISED CALIBRATION FOR ROBOTIC SYSTEMS	473
<i>J. Maye, P. Furgale, R. Siegwart</i>	
CLASSIFICATION OF IMAGES IN FOG AND FOG-FREE SCENES FOR USE IN VEHICLES	481
<i>M. Pavlic, G. Rigoll, S. Ilic</i>	
OBSTACLE AVOIDANCE CONTROLLER GENERATING ATTAINABLE SET-POINTS FOR THE NAVIGATION OF MULTI-ROBOT SYSTEM	487
<i>A. Benzerrouk, L. Adouane, P. Martinet</i>	
SHORT-TERM TRAFFIC VOLUME PREDICTION USING CLASSIFICATION AND REGRESSION TREES	493
<i>Y. Xu, Q. Kong, Y. Liu</i>	
STEREO-BASED MOTION DETECTION AND TRACKING FROM A MOVING PLATFORM	499
<i>V. Romero-Cano, J. Nieto</i>	
MODELING UNSTRUCTURED ENVIRONMENTS WITH DYNAMIC PERSISTENCE GRIDS AND OBJECT DELIMITERS IN URBAN TRAFFIC SCENARIOS	505
<i>A. Vatavu, S. Nedeveschi</i>	
PROPOSAL OF A VIRTUAL AND IMMERSIVE 3D ARCHITECTURE DEDICATED FOR PROTOTYPING, TEST AND EVALUATION OF ECO-DRIVING APPLICATIONS	511
<i>D. Gruyer, O. Orfila, V. Judalet, S. Pechberti, B. Lusetti, S. Glaser</i>	
AUTONOMOUS EVASIVE MANEUVERS TRIGGERED BY INFRASTRUCTURE-BASED DETECTION OF PEDESTRIAN INTENTIONS	519
<i>S. Kohler, B. Schreiner, S. Ronalter, K. Doll, U. Brunsman, K. Zindler</i>	
LEARNING TO SEGMENT ROADS FOR TRAFFIC ANALYSIS IN URBAN IMAGES	527
<i>M. Santos, M. Linder, L. Schnitman, U. Nunes, L. Oliveira</i>	
ANALYSIS OF 3 AND 4 BRANCH EPICYCLIC TRANSMISSION SYSTEMS FOR HYBRID ELECTRICAL VEHICLES USING MATRIX METHOD AND TSA TOOL	533
<i>Q. Ren, A. Elmarakbi, R. Trimble</i>	
BATCH-MODE ACTIVE LEARNING FOR TRAFFIC SIGN RECOGNITION	541
<i>D. Nienhuser, J. Zollner</i>	
FOCUSED TRAJECTORY PLANNING FOR AUTONOMOUS ON-ROAD DRIVING	547
<i>T. Gu, J. Snider, J. Dolan, J. Lee</i>	
MAKING VISUAL SLAM CONSISTENT WITH GEO-REFERENCED LANDMARKS	553
<i>G. Bresson, R. Aufrere, R. Chapuis</i>	
COLLISION MITIGATION FOR CROSSING TRAFFIC IN URBAN SCENARIOS	559
<i>P. Heck, J. Bellin, M. Matousek, S. Wonneberger, O. Sychrovsky, R. Sara, M. Maurer</i>	
DETECTING PARALLEL MOVING VEHICLES WITH MONOCULAR OMNIDIRECTIONAL SIDE CAMERAS	567
<i>K. Schueler, M. Raaijmakers, S. Neumaier, U. Hofmann</i>	
INCREASING COMPLEXITY OF DRIVING SITUATIONS AND ITS IMPACT ON AN ADAS FOR ANTICIPATORY ASSISTANCE FOR THE REDUCTION OF FUEL CONSUMPTION	573
<i>C. Rommerskirchen, M. Helmbrecht, K. Bengler</i>	

INTUITIVE VISUALIZATION OF VEHICLE DISTANCE, VELOCITY AND RISK POTENTIAL IN REAR-VIEW CAMERA APPLICATIONS	579
<i>C. Roessing, A. Reker, M. Gabb, K. Dietmayer, H. Lensch</i>	
FROM STIXELS TO OBJECTS - A CONDITIONAL RANDOM FIELD BASED APPROACH.....	586
<i>F. Erbs, B. Schwarz, U. Franke</i>	
AN ITERATIVE DYNAMIC PROGRAMMING APPROACH FOR THE GLOBAL OPTIMAL CONTROL OF HYBRID ELECTRIC VEHICLES UNDER REAL-TIME CONSTRAINTS	592
<i>H. Wahl, F. Gauterin</i>	
LOW SPEED MANEUVERING ASSISTANCE FOR LONG VEHICLE COMBINATIONS	598
<i>C. Hoel, P. Falcone</i>	
OPTIMAL LONGITUDINAL CONTROL PLANNING WITH MOVING OBSTACLES.....	605
<i>J. Johnson, K. Hauser</i>	
STATE AND EXISTENCE ESTIMATION WITH OUT-OF-SEQUENCE MEASUREMENTS FOR A COLLISION AVOIDANCE SYSTEM.....	612
<i>A. Westenberger, M. Gabb, M. Muntzinger, M. Fritzsche, K. Dietmayer</i>	
DRIVING SIMULATION FOR ANALYZING THE SAFETY AND FUEL SAVING EFFECTS OF A CONNECTED BUS SYSTEM ON FREEWAYS	618
<i>C. Chang, C. Wei</i>	
AUTOMATIC VEHICLE CLASSIFICATION AND TRACKING METHOD FOR VEHICLE MOVEMENTS AT SIGNALIZED INTERSECTIONS.....	624
<i>C. Chai, Y. Wong</i>	
ROAD COURSE ESTIMATION IN UNKNOWN, STRUCTURED ENVIRONMENTS	630
<i>G. Tanzmeister, M. Friedl, A. Lawitzky, D. Wollherr, M. Buss</i>	
GPS-BIAS CORRECTION FOR PRECISE LOCALIZATION OF AUTONOMOUS VEHICLES.....	636
<i>K. Jo, K. Chu, M. Sunwoo</i>	
FEATURE-BASED MONOCULAR VEHICLE TURN RATE ESTIMATION FROM A MOVING PLATFORM.....	642
<i>M. Gabb, A. Kaliuk, T. Ruland, O. Lohlein, A. Westenberger, K. Dietmayer</i>	
TERRAIN MAPPING FOR OFF-ROAD AUTONOMOUS GROUND VEHICLES USING RATIONAL B-SPLINE SURFACES AND STEREO VISION.....	648
<i>A. Broggi, E. Cardarelli, S. Cattani, M. Sabbatelli</i>	
PEDESTRIAN DETECTION BY SCENE DEPENDENT CLASSIFIERS WITH GENERATIVE LEARNING.....	654
<i>H. Yoshida, D. Suzuo, D. Deguchi, I. Ide, H. Murase, T. Machida, Y. Kojima</i>	
IN-VEHICLE DISPLAYS: DRIVING INFORMATION PRIORITIZATION AND VISUALIZATION.....	660
<i>C. Olaverri-Monreal, C. Lehsing, N. Trubswetter, C. Schepp, K. Bengler</i>	
VISION-BASED ESTIMATION OF DRIVER DROWSINESS WITH ORD MODEL USING EVIDENCE THEORY	666
<i>X. Li, E. Seignez, P. Loonis</i>	
A LEARNING CONCEPT FOR BEHAVIOR PREDICTION IN TRAFFIC SITUATIONS	672
<i>R. Graf, H. Deusch, M. Fritzsche, K. Dietmayer</i>	
HIGHER-ORDER SLIDING MODE CONTROL FOR LATERAL DYNAMICS OF AUTONOMOUS VEHICLES, WITH EXPERIMENTAL VALIDATION	678
<i>G. Tagne, R. Talj, A. Charara</i>	
STEP AND CURB DETECTION FOR AUTONOMOUS VEHICLES WITH AN ALGEBRAIC DERIVATIVE-BASED APPROACH APPLIED ON LASER RANGEFINDER DATA.....	684
<i>E. Pollard, J. Perez, F. Nashashibi</i>	
DRIVING RISK ASSESSMENT WITH BELIEF FUNCTIONS.....	690
<i>J. Daniel, J. Lauffenburger, S. Bernet, M. Basset</i>	
AUTOMATED EXTRINSIC LASER AND CAMERA INTER-CALIBRATION USING TRIANGULAR TARGETS	696
<i>S. Debattisti, L. Mazzei, M. Panciroli</i>	
ENHANCED ABS FOR IN-WHEEL ELECTRIC VEHICLES USING DATA FUSION	702
<i>A. Dadashnialehi, A. Bab-Hadiashar, Z. Cao, A. Kapoor</i>	
UNMANNED AIRCRAFT SYSTEMS CAPABILITY RESEARCH PRIORITIES	708
<i>P. Maguire, S. Giese, D. Carr, J. Chahl</i>	
A SIMULATION TOOL SUITE FOR DEVELOPING CONNECTED VEHICLE SYSTEMS	713
<i>M. Tideman, M. Noort</i>	
URBAN LOCALIZATION WITH CAMERA AND INERTIAL MEASUREMENT UNIT	719
<i>H. Lategahn, M. Schreiber, J. Ziegler, C. Stiller</i>	

TOWARDS THE DEVELOPMENT OF A LASERSCANNER-BASED COLLISION AVOIDANCE SYSTEM FOR TRAMS	725
<i>R. Katz, R. Schulz</i>	
NON-PARAMETRIC OCCUPANCY MAP USING MILLIONS OF RANGE DATA	730
<i>C. Deymier, D. Vivet, T. Chateau</i>	
ADVANCED DRIVER ASSISTANCE SYSTEM FOR OPTIMIZED RECUPERATION UNDER CONSIDERATION OF PARAMETER UNCERTAINTIES	738
<i>S. Koehler, A. Viehl, O. Bringmann, W. Rosenstiel</i>	
BUILDING VARIABLE RESOLUTION OCCUPANCY GRID MAP FROM STEREOSCOPIC SYSTEM - A QUADTREE BASED APPROACH	744
<i>Y. Li, Y. Ruichek</i>	
OCCCLUSION HANDLING USING DISCRIMINATIVE MODEL OF TRAINED PART TEMPLATES AND CONDITIONAL RANDOM FIELD	750
<i>H. Niknejad, T. Kawano, Y. Oishi, S. Mita</i>	
STRATEGIC DYNAMIC TRAFFIC ROUTING ALGORITHM FOR GLOBALLY OPTIMIZED URBAN TRAFFIC	756
<i>M. Richter, H. Kabza</i>	
TOWARDS A VIABLE AUTONOMOUS DRIVING RESEARCH PLATFORM	763
<i>J. Wei, J. Snider, J. Kim, J. Dolan, R. Rajkumar, B. Litkouhi</i>	
PREDICTIVE VIRTUAL LANE USING RELATIVE MOTION BETWEEN A VEHICLE AND LANES	771
<i>Y. Son, S. Lee, C. Chung</i>	
NEXT GENERATION WIRED INTRA-VEHICLE NETWORKS, A REVIEW	777
<i>S. Tuohy, M. Glavin, E. Jones, M. Trivedi, L. Kilmartin</i>	
AN IMPROVED APPROACH FOR ROBUST ROAD MARKING DETECTION AND TRACKING APPLIED TO MULTI-LANE ESTIMATION	783
<i>M. Revilloud, D. Gruyer, E. Pollard</i>	
BELIEF PROPAGATION STEREO MATCHING COMPARED TO ISGM ON BINOCULAR OR TRINOCULAR VIDEO DATA	791
<i>W. Khan, V. Suaste, D. Caudillo, R. Klette</i>	
LEARNING-BASED APPROACH FOR ONLINE LANE CHANGE INTENTION PREDICTION	797
<i>P. Kumar, M. Perrollaz, S. Lefevre, C. Laugier</i>	
INTEGRATED AUTOMATED VEHICLE STRING LONGITUDINAL CONTROL	803
<i>S. Mammari, N. Oufroukh, L. Nouveliere, D. Gruyer</i>	
TOWARD AUTOMATED DRIVING IN CITIES USING CLOSE-TO-MARKET SENSORS: AN OVERVIEW OF THE V-CHARGE PROJECT	809
<i>P. Furgale, U. Schwesinger, M. Rufli, W. Derendarz, H. Grimmett, P. Muhlfehlner, S. Wonneberger, J. Timpner, S. Rottmann, B. Li, B. Schmidt, T. Nguyen, E. Cardarelli, S. Cattani, S. Bruning, S. Horstmann, M. Stellmacher, H. Mielenz, K. Koser, M. Beermann, C. Hane, L. Heng, G. Lee, F. Fraundorfer, R. Iser, R. Triebel, I. Posner, P. Newman, L. Wolf, M. Pollefeys, S. Brosig, J. Effertz, C. Pradalier, R. Siegwart</i>	
IPCC ALGORITHM: MOBILE DETECTION IN 3D-LIDAR AND CAMERA DATA	817
<i>C. Deymier, T. Chateau</i>	
EXPLORATION OF FPGA-BASED DENSE BLOCK MATCHING FOR MOTION ESTIMATION AND STEREO VISION ON A SINGLE CHIP	823
<i>H. Sahlbach, R. Ernst, S. Wonneberger, T. Graf</i>	
TOWARDS AUTONOMOUS DRIVING IN A PARKING GARAGE: VEHICLE LOCALIZATION AND TRACKING USING ENVIRONMENT-EMBEDDED LIDAR SENSORS	829
<i>A. Ibsch, S. Stumper, H. Altinger, M. Neuhausen, M. Tschenstschner, M. Schlipfing, J. Salmen, A. Knoll</i>	
ADAPTIVE STEERING CONTROL FOR AUTONOMOUS LANE CHANGE MANEUVER	835
<i>P. Petrov, F. Nashashibi</i>	
NIGHT TIME ROAD CURVATURE ESTIMATION BASED ON CONVOLUTIONAL NEURAL NETWORKS	841
<i>O. Hartmann, R. Schweiger, R. Wagner, F. Schule, M. Gabb, K. Dietmayer</i>	
VEHICLE ROAD NAVIGATION TO MINIMIZE POLLUTANT EXPOSURE	847
<i>J. Luo, A. Vu, M. Barth</i>	
CAMERA BASED DETECTION AND CLASSIFICATION OF SOFT SHOULDERS, CURBS AND GUARDRAILS	853
<i>A. Seibert, M. Hahnel, A. Tewes, R. Rojas</i>	
COMBINED THROTTLE AND BRAKE CONTROL FOR VEHICLE CRUISE CONTROL: A MODEL FREE APPROACH	859
<i>H. Kim, K. Yi</i>	

PERFORMANCE EVALUATION OF NEIGHBOR-AWARENESS AT THE MEDIA ACCESS CONTROL (MAC) LAYER FOR VEHICULAR AD-HOC NETWORKS (VANETS)	865
<i>M. Booyen, G. Rooyen</i>	
APPLICATION OF HIERARCHICAL BAYESIAN ESTIMATION TO CALIBRATING A CAR-FOLLOWING MODEL WITH TIME-VARYING PARAMETERS	870
<i>M. Kasai, S. Shibagaki, S. Terabe</i>	
OPTIMIZED FUEL CONSUMPTION TRAJECTORIES OF INTELLIGENT VEHICLES IN A SEGMENT OF ROAD FOR ANY LANE CONFIGURATION	876
<i>R. Reghelin, L. Arruda</i>	
VEHICLE DETECTION AND TRACKING AT INTERSECTIONS BY FUSING MULTIPLE CAMERA VIEWS	882
<i>E. Strigel, D. Meissner, K. Dietmayer</i>	
PROBABILISTIC STATES PREDICTION ALGORITHM USING MULTI-SENSOR FUSION AND APPLICATION TO SMART CRUISE CONTROL SYSTEMS	888
<i>B. Kim, K. Yi</i>	
DYNAMICAL RECONFIGURATION STRATEGY OF A MULTI SENSOR DATA FUSION ALGORITHM BASED ON INFORMATION THEORY	896
<i>N. Tmazirte, M. Najjar, C. Smaili, D. Pomorski</i>	
TOWARDS MULTI-CUE URBAN CURB RECOGNITION	902
<i>M. Enzweiler, P. Greiner, C. Knoppel, U. Franke</i>	
LIDAR SCAN MATCHING EKF-SLAM USING THE DIFFERENTIAL MODEL OF VEHICLE MOTION	908
<i>D. Wang, H. Liang, T. Mei, H. Zhu, J. Fu, X. Tao</i>	
DETECTING DRIVER INATTENTION BY ROUGH ICONIC CLASSIFICATION	913
<i>G. Masala, E. Grosso</i>	
TARGETED TRAJECTORIES OPTIMIZATION FROM 2D LIDAR MEASUREMENTS	919
<i>A. Vu, S. Kato</i>	
FAULT DIAGNOSIS OF IN-WHEEL BLDC MOTOR DRIVE FOR ELECTRIC VEHICLE APPLICATION	925
<i>A. Tashakori, M. Ektesabi</i>	
ON PATH PLANNING METHODS FOR AUTOMOTIVE COLLISION AVOIDANCE	931
<i>D. Madas, M. Nosratinia, M. Keshavarz, P. Sundstrom, R. Philippsen, A. Eidehall, K. Dahlen</i>	
FROM GRID MAPS TO PARAMETRIC FREE SPACE MAPS - A HIGHLY COMPACT, GENERIC ENVIRONMENT REPRESENTATION FOR ADAS	938
<i>M. Schreier, V. Willert, J. Adamy</i>	
PREDICTING VELOCITY PROFILES OF ROAD USERS AT INTERSECTIONS USING CONFIGURATIONS	945
<i>M. Platho, H. Grob, J. Eggert</i>	
A 2D/3D VISION BASED APPROACH APPLIED TO ROAD DETECTION IN URBAN ENVIRONMENTS	952
<i>G. Vitor, D. Lima, A. Victorino, J. Ferreira</i>	
MODELING AND CONTROL OF A PLATOON OF AUTONOMOUS BUSES	958
<i>S. Lam, J. Katupitiya</i>	
A LINEAR LATERAL DYNAMIC MODEL OF SKID STEERED WHEELED VEHICLE	964
<i>Y. Zhang, J. Hu, X. Li, S. Lyu, J. Guo</i>	
SMART AND GREEN ACC, ADAPTATION OF THE ACC STRATEGY FOR ELECTRIC VEHICLE WITH REGENERATIVE CAPACITY	970
<i>S. Glaser, O. Orfila, L. Nouveliere</i>	
AN EFFICIENT LANE DETECTION ALGORITHM FOR LANE DEPARTURE DETECTION	976
<i>H. Jung, J. Min, J. Kim</i>	
ESTIMATION OF SPACE-SPEED PROFILES : A FUNCTIONAL APPROACH USING SMOOTHING SPLINES	982
<i>C. Andrieu, G. Pierre, X. Bressaud</i>	
VIRTUAL TRAFFIC LIGHTS IN PARTIAL DEPLOYMENT SCENARIOS	988
<i>H. Conceicao, M. Ferreira, P. Steenkiste</i>	
MARKOV RANDOM FIELD MODEL FOR SINGLE IMAGE DEFOGGING	994
<i>L. Caraffa, J. Tarel</i>	
PRECEDING VEHICLE STATE PREDICTION	1000
<i>R. Pandita, D. Caveney</i>	
COMPARING COOPERATIVE AND NON-COOPERATIVE CRASH RISK-ASSESSMENT	1007
<i>S. Demmel, D. Gruyer, A. Rakotonirainy</i>	

A K-LEADER FUEL-EFFICIENT TRAFFIC MODEL	1014
<i>T. Awal, L. Kulik, K. Ramamohanrao</i>	
COMBINING MODEL AND TEMPLATE-BASED VEHICLE TRACKING FOR AUTONOMOUS CONVOY DRIVING.....	1022
<i>C. Fries, T. Luettel, H. Wuensche</i>	
INTERACTIVE SCENE PREDICTION FOR AUTOMOTIVE APPLICATIONS.....	1028
<i>A. Lawitzky, D. Althoff, C. Passenberg, G. Tanzmeister, D. Wollherr, M. Buss</i>	
IN-VEHICLE HAND ACTIVITY RECOGNITION USING INTEGRATION OF REGIONS	1034
<i>E. Ohn-Bar, M. Trivedi</i>	
DRIVER CLASSIFICATION AND DRIVING STYLE RECOGNITION USING INERTIAL SENSORS.....	1040
<i>M. Ly, S. Martin, M. Trivedi</i>	
LANE RECOGNITION SELF-LEARNING SCHEME OF MOBILE ROBOT BASED ON INTEGRATED PERCEPTION SYSTEM	1046
<i>Y. Yang, H. Zhu, M. Fu, M. Wang</i>	
SPATIO-TEMPORAL PREDICTION OF COLLISION CANDIDATES FOR STATIC AND DYNAMIC OBJECTS IN MONOCULAR IMAGE SEQUENCES.....	1052
<i>A. Schaub, D. Burschka</i>	
OPTIMAL CONTROLS OF FLEET TRAJECTORIES FOR FUEL AND EMISSIONS	1059
<i>X. Ma</i>	
AN ANALYSIS OF BEIDOU NAVIGATION SATELLITE SYSTEM (BDS) BASED POSITIONING FOR TRAIN COLLISION EARLY WARNING.....	1065
<i>J. Liu, B. Cai, J. Wang</i>	
BELT UP: INVESTIGATING THE IMPACT OF IN-VEHICULAR CONVERSATION ON DRIVING PERFORMANCE	1071
<i>A. Sathyanarayana, N. Shokouhi, S. Sadjadi, J. Hansen</i>	
A CASE STUDY ON IMPLEMENTING FUTURE HUMAN-MACHINE INTERFACES	1077
<i>L. Mercep, G. Spiegelberg, A. Knoll</i>	
COOPERATIVE MULTI-ROBOT NAVIGATION, EXPLORATION, MAPPING AND OBJECT DETECTION WITH ROS.....	1083
<i>R. Reid, A. Cann, C. Meiklejohn, L. Poli, A. Boeing, T. Braunl</i>	
INCENTIVE SHARED TRAJECTORY CONTROL FOR HIGHLY-AUTOMATED DRIVING	1089
<i>V. Judalet, S. Glaser, B. Lusetti</i>	
LATERAL DYNAMIC SIMULATION OF SKID STEERED WHEELED VEHICLE	1095
<i>X. Li, Y. Zhang, J. Hu, C. Jing, J. Guo</i>	
VISUAL EGO-VEHICLE LANE ASSIGNMENT USING SPATIAL RAY FEATURES.....	1101
<i>T. Kuhl, F. Kummert, J. Fritsch</i>	
HIGH-PERFORMANCE VISUAL ODOMETRY WITH TWO-STAGE LOCAL BINOCULAR BA AND GPU	1107
<i>W. Lu, Z. Xiang, J. Liu</i>	
MOVING FROM ANALOG TO DIGITAL DRIVING	1113
<i>A. Broggi, S. Debattisti, M. Panciroli, P. Porta</i>	
CONTROL ARCHITECTURE FOR CYBERNETIC TRANSPORTATION SYSTEMS IN URBAN ENVIRONMENTS	1119
<i>D. Gonzalez, J. Perez</i>	
CPHD FILTER ADDRESSING OCCLUSIONS WITH PEDESTRIANS AND VEHICLES TRACKING	1125
<i>L. Lamard, R. Chapuis, J. Boyer</i>	
MCMC PARTICLE FILTER-BASED VEHICLE TRACKING METHOD USING MULTIPLE HYPOTHESES AND APPEARANCE MODEL	1131
<i>Y. Lim, D. Kim, C. Lee</i>	
COMPLEX GROUND PLANE DETECTION BASED ON V-DISPARITY MAP IN OFF-ROAD ENVIRONMENT	1137
<i>Y. Dai, W. Wang, Y. Kawamata</i>	
A LANE MARKING EXTRACTION APPROACH BASED ON RANDOM FINITE SET STATISTICS.....	1143
<i>F. Zhang, H. Stahle, C. Chen, C. Buckl, A. Knoll</i>	
EFFECT OF DISTRACTION ON DRIVING PERFORMANCE USING TOUCH SCREEN WHILE DRIVING ON TEST TRACK	1149
<i>T. Hagiwara, R. Sakakima, T. Hashimoto, T. Kawai</i>	

ESTIMATING DRIVER AWARENESS OF PEDESTRIANS FROM DRIVING BEHAVIOR BASED ON A PROBABILISTIC MODEL	1155
<i>Y. Fukagawa, K. Yamada</i>	
PREDICTION OF DRIVER'S STOP OR GO AT YELLOW TRAFFIC SIGNAL FROM VEHICLE BEHAVIOR	1161
<i>R. Mabuchi, K. Yamada</i>	
A LIDAR-BASED METHOD FOR THE DETECTION AND COUNTING OF POWERED TWO WHEELERS	1167
<i>Y. Prabhakar, P. Subirats, C. Lecomte, E. Violette, A. Bensrhair</i>	
ROAD BOUNDARY DETECTION FOR RUN-OFF ROAD PREVENTION BASED ON THE FUSION OF VIDEO AND RADAR	1173
<i>F. Janda, S. Pangerl, E. Lang, E. Fuchs</i>	
VIDEO-BASED TRAILER DETECTION AND ARTICULATION ESTIMATION	1179
<i>L. Caup, J. Salmen, I. Muharemovic, S. Houben</i>	
VEHICLE LOCALIZATION USING ROAD MARKINGS	1185
<i>T. Wu, A. Ranganathan</i>	
IMPLICATIONS FOR UNMANNED SYSTEMS RESEARCH OF MILITARY UAV MISHAP STATISTICS	1191
<i>S. Giese, D. Carr, J. Chahl</i>	
REAL-TIME STEREO VISION: OPTIMIZING SEMI-GLOBAL MATCHING	1197
<i>M. Michael, J. Salmen, J. Stallkamp, M. Schlipsing</i>	
AN EFFICIENT OBSTACLE DETECTION APPROACH FOR ORGANIZED POINT CLOUDS	1203
<i>C. Mendes, F. Osorio, D. Wolf</i>	
FAST ROAD DETECTION FROM COLOR IMAGES	1209
<i>B. Wang, V. Fremont</i>	
PILOT STUDY ON PEDESTRIAN STEP FREQUENCY IN NATURALISTIC DRIVING ENVIRONMENT	1215
<i>R. Tian, E. Du, K. Yang, P. Jiang, F. Jiang, Y. Chen, R. Sherony, H. Takahashi</i>	
TRAFFIC PANELS DETECTION USING VISUAL APPEARANCE	1221
<i>A. Gonzalez, L. Bergasa, J. Yebes, J. Almazan</i>	
TIRE-ROAD FRICTION COEFFICIENT ESTIMATION WITH VEHICLE STEERING	1227
<i>S. Hong, J. Hedrick</i>	
AUGMENTING NIGHT VISION VIDEO IMAGES WITH LONGER DISTANCE ROAD COURSE INFORMATION	1233
<i>F. Schule, R. Schweiger, K. Dietmayer</i>	
ROAD DETECTION AND MAPPING USING 3D ROLLING WINDOW	1239
<i>B. Qin, Z. Chong, T. Bandyopadhyay, M. Ang, E. Frazzoli, D. Rus</i>	
ROAD SIDE DETECTION AND RECONSTRUCTION USING LIDAR SENSOR	1247
<i>A. Hervieu, B. Soheilian</i>	
STRATEGIC DECISION MAKING FOR AUTOMATED DRIVING ON TWO-LANE, ONE-WAY ROADS USING MODEL PREDICTIVE CONTROL	1253
<i>J. Nilsson, J. Sjoberg</i>	
STEREO ACCURACY FOR COLLISION AVOIDANCE FOR VARYING COLLISION TRAJECTORIES	1259
<i>W. Khan, R. Klette</i>	
MULTI-OBJECTIVE OPERATION CONTROL OF RAIL VEHICLES	1265
<i>Y. Fan, B. Cai, W. Shangguan, J. Wang, D. Jiang</i>	
WEIGHTED V-DISPARITY APPROACH FOR OBSTACLES LOCALIZATION IN HIGHWAY ENVIRONMENTS	1271
<i>N. Fakhfakh, D. Gruyer, D. Aubert</i>	
INTERACTIVE RISKY BEHAVIOR MODEL FOR 3-CAR OVERTAKING SCENARIO USING JOINT BAYESIAN NETWORK	1279
<i>O. Karaduman, H. Eren, H. Kurum, M. Celenk</i>	
A MULTIMODAL INTERACTION CONCEPT FOR COOPERATIVE DRIVING	1285
<i>M. Zimmermann, K. Bengler</i>	
THE USE OF SPATIAL MEMORY FOR ADVANCED DRIVER ASSISTANCE SYSTEMS: PREVENTING STATIONARY ACC FALSE ALARMS	1291
<i>H. Deusch, R. Graf, M. Fritzsche, K. Dietmayer</i>	
MULTI-LANE DETECTION IN URBAN DRIVING ENVIRONMENTS USING CONDITIONAL RANDOM FIELDS	1297
<i>J. Hur, S. Kang, S. Seo</i>	

INTEGRATED CONTROL SYSTEMS OF ACTIVE FRONT STEERING AND DIRECT YAW MOMENT CONTROL USING DYNAMIC INVERSION	1303
<i>I. Yang, S. Byun, B. Seo, D. Lee, D. Han</i>	
COMBINING SPACE EXPLORATION AND HEURISTIC SEARCH IN ONLINE MOTION PLANNING FOR NONHOLONOMIC VEHICLES	1307
<i>C. Chen, M. Rickert, A. Knoll</i>	
MEETING THE REAL-TIME CONSTRAINTS WITH STANDARD ETHERNET IN AN IN- VEHICLE NETWORK.....	1313
<i>Y. Lee, K. Park</i>	
OPERATOR FATIGUE IN ARMY PERSONNEL: A MULTI-METHOD RESEARCH PROGRAM	1319
<i>J. Fidock, E. Aidman, V. Demczuk, C. Chadunow, K. Johnson, G. Coombs</i>	
A VISUAL BASED APPROACH FOR DROWSINESS DETECTION	1324
<i>B. Akrouf, W. Mahdi</i>	
OBJECT TRACKING FROM MEDIUM LEVEL STEREO CAMERA DATA PROVIDING DETAILED SHAPE ESTIMATION USING LOCAL GRID MAPS	1330
<i>J. Aue, M. Schmid, T. Graf, J. Effertz, P. Muehlfellner</i>	
INTELLIGENT TRACTION CONTROL IN ELECTRIC VEHICLES USING A NOVEL ACOUSTIC APPROACH FOR ONLINE ESTIMATION OF ROAD-TIRE FRICTION	1336
<i>P. Boyraz, D. Dogan</i>	
JOINT PROBABILISTIC DATA ASSOCIATION FUSION APPROACH FOR PEDESTRIAN DETECTION	1344
<i>F. Garcia, A. Escalera, J. Armingol</i>	
PARTIALLY OCCLUDED VEHICLE RECOGNITION AND TRACKING IN 3D	1350
<i>E. Ohn-Bar, S. Sivaraman, M. Trivedi</i>	
FUSING LASER POINT CLOUD AND VISUAL IMAGE AT DATA LEVEL USING A NEW RECONSTRUCTION ALGORITHM.....	1356
<i>L. Zhou</i>	
FROM AUTONOMOUS ROBOTICS TOWARD AUTONOMOUS CARS.....	1362
<i>A. Belbachir, R. Boutteau, P. Merriaux, J. Blosseville, X. Savatier</i>	
REAL-TIME MONOCULAR RANGING BY BAYESIAN TRIANGULATION	1368
<i>K. Nakamura, K. Ishigaki, T. Ogata, S. Muramatsu</i>	
FULL AUTO-CALIBRATION OF A SMARTPHONE ON BOARD A VEHICLE USING IMU AND GPS EMBEDDED SENSORS	1374
<i>J. Almazan, L. Bergasa, J. Yebes, R. Barea, R. Arroyo</i>	
STEERING RATE CONTROLLER BASED ON CURVATURE OF TRAJECTORY FOR AUTONOMOUS DRIVING VEHICLES.....	1381
<i>I. Bae, J. Kim, S. Kim</i>	
INFERRING DRIVER INTENTIONS USING A DRIVER MODEL BASED ON QUEUING NETWORK.....	1387
<i>L. Bi, X. Yang, C. Wang</i>	
AFFECTIVE INTERACTION WITH A COMPANION ROBOT IN AN INTERACTIVE DRIVING ASSISTANT SYSTEM.....	1392
<i>J. Yang, Y. Jo, J. Kim, D. Kwon</i>	
DESIGN AND IMPLEMENTATION OF A HIGH PERFORMANCE PEDESTRIAN DETECTION	1398
<i>A. Prioletti, P. Grisleri, M. Trivedi, A. Broggi</i>	
AN EXTREME LEARNING MACHINE-BASED PEDESTRIAN DETECTION METHOD	1404
<i>K. Yang, E. Du, E. Delp, P. Jiang, F. Jiang, Y. Chen, R. Sherony, H. Takahashi</i>	
PEDESTRIAN DETECTION USING HISTOGRAMS OF ORIENTED GRADIENTS OF GRANULE FEATURE	1410
<i>Y. Chan, L. Fu, P. Hsiao, M. Lo</i>	
RELIABILITY EVALUATION OF STEERING SYSTEM USING DYNAMIC FAULT TREE.....	1416
<i>S. Byun, I. Yang, M. Song, D. Lee</i>	
RE-IDENTIFICATION BY INDUCTIVE LOOP DETECTOR : EXPERIMENTATION ON TARGET ORIGIN - DESTINATION MATRIX	1421
<i>D. Guilbert, C. Bastard, S. Ieng, Y. Wang</i>	
ANALYTICAL STUDY OF THE IEEE 802.11P EDCA MECHANISM	1428
<i>W. Sun, H. Zhang, C. Pan, J. Yang</i>	
A NEW ECO-DRIVING ASSISTANCE SYSTEM FOR A LIGHT VEHICLE : ENERGY MANAGEMENT AND SPEED OPTIMIZATION	1434
<i>Q. Cheng, L. Nouveliere, O. Orfila</i>	

**PLANNING AND CONTROL FOR A FULLY-AUTOMATIC PARALLEL PARKING ASSIST
SYSTEM IN NARROW PARKING SPACES 1440**

K. Cheng, Y. Zhang, H. Chen

Author Index