

Contents

01	Hengyu LI, Jun LUO, Jinbo CHEN, Zhixiang LIU ,Shaorong XIE - Development of Robot Bionic Eye with Spherical Parallel Manipulator Based on Oculomotor Control Model	1
02	Xiaoyong LIU, Hui FU - A Hybrid Algorithm for Text Classification Problem	8
03	Li LI, Fei QIAO - A Modular Simulation System for Semiconductor Manufacturing Scheduling	12
04	Zhiping FAN, Zhengzhe JIN - A Multi-weight Based Clustering Algorithm for Wireless Sensor Networks	19
05	Yang ZHANG, Weiming LIU - A novel pedestrian detection method based on Cost-Sensitive Support Vector Machine and Chaotic Particle Swarm Optimization with T mutation	22
06	Leijiang GUO, Wei WANG, Fangxin CHEN, Xiao TANG, Weijiang WANG - A Similar Duplicate Data Detection Method Based on Fuzzy Clustering for Topology Formation	26
07	Weizhe ZHANG, Hongli ZHANG, Hong ZHANG, Gui CHEN, Yifan WEI - A web partition algorithm based on support vector machine	31
08	Fu qing ZHAO, Jian xin TANG, Jian hua ZOU, Jonrinal DI - An Effective Hybrid Particle Swarm Optimization with Decline Disturbance Index for Expanded Job-shop Scheduling Problem	34
09	Weihua MA, Rongrong SONG - Analyses of the Additional Stiffness Function of the Traction Bar on the Vertical Dynamics Performance of Subway Vehicle	39
10	Bing HAN, Yinglan FANG - Application of CMMI in Software Product Development Process	44
11	Wang JUNNIAN, Su HAI, Yan YIDUO, Zhou MINGHUI - A mine personnel and equipment positioning system, based on the ZigBee technology of wireless sensor networks	48
12	Ping WANG, Rong CHEN - Control Circuit Analysis and Conversion Calculation of Electric Switch Machine of High Speed Railway Turnout	52
13	Dai HAIFENG, Wei XUEZHE, Sun ZECHANG - Design and Implementation of a UKF-based SOC Estimator for LiMnO ₂ Batteries Used on Electric Vehicles	57
14	Hung-Cheng CHEN, Long-Yi CHANG - Design and Implementation of a ZigBee-Based Wireless Automatic Meter Reading System	64
15	Ping WANG, Rong CHEN, Shun-xi QUAN - Development and Application of Wheel-set Lateral Displacement Test System in High Speed Railway Turnout Zone	69
16	Zheng LIU, Weiguo ZHAO, Jing WANG, Meng ZHANG - Energy conserving based k-coverage algorithm for dense wireless sensor networks	74
17	Jialei TAN, Yushu XIE, Peiyi WANG, Tong WANG, Bin HU - Experiments for Verification of the Effectiveness of Smoke Control System in a Typical Subway Station	78
18	Wenpeng LU, Heyan HUANG, Chaoyong ZHU - Feature Words Selection for Knowledge-based Word Sense Disambiguation with Syntactic Parsing	82
19	Yafeng WANG, Meng LI, Wei XIANG - Graph Based Interference Coordination for Relay Networks	88
20	Bo CHENG - Hierarchical Cloud Service Workflow Scheduling Optimization Schema Using Heuristic Generic Algorithm	92
21	Jianping ZHOU, Zhen WANG, Deming YUAN, Hao SHEN - l_2-l_∞ Filtering for Discrete Time-Delay Markovian Jump Neural Networks	96
22	Yongquan ZHOU, Jiakun LIU, Guangwei ZHAO - Leader Glowworm Swarm Optimization Algorithm for Solving Nonlinear Equations Systems	101
23	Zhou HONGGEN, Jing XUWEN, Pan BAOJUN, Zhang XIAOJUN - Ontology Theroy Based Process Planning and Supporting System under E-manufacturing	107
24	Qin WANG - Partial Inverse Most Unbalanced Spanning Tree Problem	111
25	Dan YU, Jingjing MA, Jian YANG - Prediction of Un-safety Driving Status in Automotive Vehicle Based on Hidden Markov	115
26	Feng CHEN, Yuanhua JIA, Jian LI - Research of Integrated Control Methods and its Simulation for Freeway Mainline and Related Ramp	119
27	Bing HAN, Yinglan FANG - Research of Software Model Method Oriented to CMMI System	123
28	Ping LI, Guangwen FU, Dong YANG, Guoling HU, Jianlong ZHENG - Research on Effects of Deicing Salt on Adhesion properties between Asphalt Mortar and Aggregate	127
29	Tao JIANG - Research on Metamodel Consistency Verification Based on First-order Logical Inference	132
30	Yao PEI, Yangang WU, Dacheng JIA - Research on PD Signals Denoising Based on EMD Method	137
31	Zhiying ZHU, Yukun SUN, Yonghong HUANG, Xiaofu JI - Rotor Displacement Estimation for MB Sensorless Control	141
32	Liyang WANG, Zheng LIU - RVM with wavelet kernel combined with PSO for short-term load forecasting in electric power systems	146
33	Yuesheng GU, Yongchang SHI, Jianping WANG - Sensorless Vector Control of AC Servo System with Artificial Neural Network Observer and Fuzzy Speed Controller	150
34	Shaojiang WANG, Rui TANG, Li HOU, Qi ZHANG - Sliding Mode Control with Grey Prediction for an Electro-Hydraulic Velocity Servo System	154
35	Dehai CHANG, Bin LI, Qingshan WANG - The Research on the Describing Knowledge of GIS Path Based on Natural Language	159
36	Zhixiang HOU, Dan YU, Jiahua ZHANG, Yihu WU - Transit Priority Signal Control Method of Isolated Intersection	163
37	Fei PENG, Yao ZHAO - Triangle Sampling Path Planning in Environment with Danger Zones for Assembly/Disassembly	167
38	Chao LU, Dan DENG, Lianxiu LI - Ultrasonic Phased Array Inspection for Gas Pressure Welds Joint of High Speed Railway	173
39	Jaroslaw LUSZCZ - Motor Cable Effect on the Converter-Fed AC Motor Common Mode Current	177
40	Farzaneh MAHDIAN, Vahid RAFE, Reza RAFEH - A Framework to Automatic Deadlock Detection in Concurrent Programs	182

PRZEGŁĄD ELEKTROTECHNICZNY (Electrical Review) Vol 2012, No 1b

Contents

41	Leszek PETRYKA, Robert HANUS, Marcin ZYCH - Application of gamma absorption method to two phase flow measurement in pipelines	185
42	Krzysztof POSOBKIEWICZ, Krzysztof GÓRECKI - The problem of the measurement of watt-hour efficiency of power electronic circuits	189
43	Imene KEBBATI, Yamna HAMMOU, Abdellah MANSOURI, Mohamed BOURAHLA - Sliding mode control with a robust observer of induction motor	193
44	Przemysław KOBEL, Włodzimierz KORDYLEWSKI, Tadeusz MACZKA, Ryszard KORDAS, Mirosław MILEWICZ - Electromagnetic interference generated during the plasma-assisted kindling of a boiler	198
45	Ryszard KACPRZYK, Adam PELESZ - Influence of electrification of aerosol particles in the process of an object coverage	203
46	Przemysław TABAKA, Stanisław DERLECKI - Analysis of electrical parameters of light sources used by household and municipal customers	207
47	Mariusz KRAJEWSKI, Sergiusz SIENKOWSKI, Paweł ZAWADZKI - Computer software for calibration digital multimeters and calibrators	213
48	Krzysztof BILLEWICZ - Smart Metering and overload protection	217
49	Witold MIELCAREK, Krystyna PROCIÓW, Joanna WARYCHA - Ceramic separators to place between green compacts during varistor sintering	227
50	Andrzej Ł. CHOJNACKI - The impact of location of operating of MV insulators on their reliability properties and coefficients	222
51	Tomasz KULEJ - Regulated Capacitance Multiplier in CMOS technology	227
52	Jerzy SZYMAŃSKI - Voltage disturbances in ungrounded power systems caused by voltage frequency converters	231
53	Tadeusz GLINKA, Marcin GLINKA - Variants of the wind turbines solutions	239
54	Ji HAIYING, Luo YONGFEN, Ji SHENGQIANG, Li JISHENG, Li YANMING - Simulation of Cross-shaped Ultrasonic Array Applied to Partial Discharge Location in Oil	245
55	Wang YIJIE, Wang WEI, Xu DIANGUO - A Single-stage LED Driver for The Street Lighting System	250
56	Guozhen HU, Shanxu DUAN, Tao CAI, Baoqi LIU - Modeling, Control and Implementation of a Lithium-ion Battery Charger in Electric Vehicle Application	255
57	Darko BRODIC - Methodology for the evaluation of the algorithms for text segmentation based on errors type	259
58	Đurđe M. PERIŠIĆ, Aleksandar ŽORIĆ, Slobodan OBRADOVIĆ, Petar SPALEVIĆ - Application of Frequency Locked Loop in Consumption Peak Load Control	264
59	Nasim RASHIDI-RAD, Abdolreza RAHMATI, Adib ABRISHAMIFAR - Comparison of Reliability in Modular Multilevel Inverters	268
60	Fatih YAMAN, Asım Egemen YILMAZ - Elitist Genetic Algorithm Performance on the Uniform Circular Antenna Array Pattern Synthesis Problem	273
61	Hui LI, Yue-hong SHEN, Jian-gong WANG - Online Blind Separation of Dependent Sources Using Nonnegative Matrix Factorization Based on KL Divergence	278
62	Grzegorz POPEK, Marian KAMPIK - Effect of the clock signal jitter on the effective value of the digitally synthesized sinewave	282
63	Piotr BORKOWSKI, Grzegorz DRYGAŁA - Surge arrester dedicated to high-speed vacuum circuit breakers operating on countercurrent principle for the 3 kV DC electric traction supply systems	286
64	Erdal IRMAK - A Real Time Application for Analysing Impacts of Frequency Variation on Induction Motor Parameters	290

Note from the Editor

This issue contents selected best papers recommended by Scientific Committees of two conferences: ICICTA 2012 (5th International Conference on Intelligent Computation Technology and Automation, Zhangjiajie, China). Przegląd Elektrotechniczny does not publish special conference issues – papers recommended by Scientific Committees of Conferences are next treated as normally submitted papers.