

Contents

| | | |
|----|--|-----|
| 01 | Benedikt SCHMUELLING, Sarp G. CIMEN, Jana DEMTROEDER - Comparative Study of the Transmission Characteristic of Unequal Compensated Inductive Power Supply Systems for Electric Vehicles | 1 |
| 02 | Mahidur R. SARKER, Azah MOHAMED, Ramizi MOHAMED - Performance evaluation modeling a Microelectromechanical system based Finite Element piezoelectric Shear Actuated Beam | 5 |
| 03 | Jacek RĄBKOWSKI, Roman BARLIK - Experimental evaluation of GaN Gate Injection Transistors | 9 |
| 04 | Katarzyna Dąbrowska-Kubik - DevOntoCreator: an ontology-based approach to software engineering | 13 |
| 05 | Mykhailo FEDOROV - Parallel computing techniques on enhancement of thermal-hydraulic analysis of fluid flow networked systems | 18 |
| 06 | Oleg Finko, Dmitriy Samoylenko, Sergey Dichenko, Nikolay Eliseev - Parallel generator of q-valued pseudorandom sequences based on arithmetic polynomials | 24 |
| 07 | Agnieszka KOMOROWSKA - Syntax-based distance for multilevel multidimensional decision rules | 28 |
| 08 | Tomasz TOPA, Artur NOGA - Implementation of the Method of Moments on GPU with CUDA architecture | 34 |
| 09 | Bartosz RUSTECKI, Piotr MURAWSKI, Bolesław KALKICKI - Heated mattresses usefulness estimation in attempt to maintain balance of heat of patients under long surgical procedures | 41 |
| 10 | Mariusz BEDNARCZYK, Grzegorz RÓŻAŃSKI - Tactical Ad Hoc Battlefield Networking | 44 |
| 11 | Jarosław BUGAJ, Marian WNUK - Analysis of the impact of surface on parameters of cylindrical microstrip antennas | 48 |
| 12 | Radosław CHECIŃSKI, Anna KASZUBA, Jerzy ŁOPATKA, Robert KRAWCZAK - Analysis of using COTS radio modems for Unmanned Ground Vehicle remote | 52 |
| 13 | Rafał GIL, Piotr KANIEWSKI - Algorithms of Reconstruction of Unmanned Aerial Vehicle Trajectory | 57 |
| 14 | Jan M. KELNER, Cezary ZIÓŁKOWSKI - The use of SDF technology to BPSK and QPSK emission sources' location | 61 |
| 15 | Jarosław MAGIERA¹, Ryszard J. KATULSKI - Analysis and research on anti-spoofing system for GPS | 66 |
| 16 | Mateusz MALANOWSKI, Piotr SAMCZYŃSKI, Krzysztof KULPA, Grzegorz KRAWCZYK, Krzysztof BOROWIEC, Damian GROMEK, Adam GORZELAŃCYK - Real-time SAR imaging using miniaturized 94 GHz radar | 70 |
| 17 | Krzysztof MALON, Michał KRYK, Jerzy ŁOPATKA - Evaluation of response jamming effectiveness in mobile networks | 73 |
| 18 | Jan MATUSZEWSKI - The radar signature for data base needs in airplanes self protection systems | 77 |
| 19 | Leszek NOWOSIELSKI, Marian WNUK - Measurement of shielding effectiveness | 81 |
| 20 | Bronisław STEC, Czesław REĆKO - Quadrature frequency detector with diode ring | 85 |
| 21 | Waldemar SUSEK, Bronisław STEC - Noise signal radar sensor of active defense system | 88 |
| 22 | Marian WNUK, Jan MATUSZEWSKI, Zdzisław CHUDY - The new technologies and threatening electromagnetic devices in electronic warfare | 92 |
| 23 | Cezary ZIÓŁKOWSKI, Jan M. KELNER - Influence of the propagation environment on statistical properties of bearing | 96 |
| 24 | Miroslaw CZYŻEWSKI, Adam Konrad RUTKOWSKI, Adam KAWALEC, Adam SŁOWIK - The complex signals generator for the purposes of the direction finding systems investigations | 100 |
| 25 | Jerzy KAPELEWSKI - A graphene-magnetodielectric multilayered structure as a prospective EMI shielding material | 104 |
| 26 | Czesław LEŚNIK, Piotr SERAFIN, Hubert MILCZAREK - Experimental verification of the Range-Doppler Algorithm in a continuous wave SAR system | 108 |
| 27 | Andrzej MODRZEWSKI, Mariusz ZYCH - Interference measurement receiver in air surveillance radar | 112 |
| 28 | Tadeusz PIETKIEWICZ - A method of recognition of maritime objects based on FLIR (forward looking infra-red) sensor images | 116 |
| 29 | Adam Konrad RUTKOWSKI - The portable device for the monopulse direction finding of microwave sources by means of phase method | 120 |
| 30 | Marek WANCERZ, Piotr MILLER - The slack bus effect on the power system operation | 124 |

PRZEGŁĄD ELEKTROTECHNICZNY Vol 2015, No 3

Contents

| | | |
|----|--|-----|
| 31 | Robert HANUS, Marcin ZYCH, Leszek PETRYKA - Application of classical spectral analysis to identify the structure of liquid-gas two-phase flow in a pipeline | 130 |
| 32 | Jamal A. ALI, Mohammad A. HANNAN and Azah MOHAMED - Rule-based Fuzzy and V/f Control for Induction Motor Speed Responses Using SVPWM Switching Technique | 133 |
| 33 | Rafael SOUZA, Thales SOUSA - A New Proposal for Demand Response Program and Its Impacts on the Spot Price in the Brazilian Electricity Market | 137 |
| 34 | Jakson P. BONALDO, Helmo K. M. PAREDES, José A. POMILIO - Multifunctional Current Reference Generation Strategy for Grid-tied Power Electronic Converter | 142 |
| 35 | Zuzanna SIWCZYŃSKA - Contributions to the power theory for long transmission lines in the discrete time domain | 149 |
| 36 | Paweł ROMUSZEWSKI, Arkadiusz MYSTKOWSKI, Ewa PAWŁUSZEWICZ - Modelling and identification of the didactic station: Festo MPS® PA Compact Workstation | 152 |
| 37 | Jerzy S. ZIELIŃSKI - Internet of Everything (IoE) in Smart Grid | 157 |
| 38 | Andrzej HOLICZER - An algorithm for contactless weld tracking basing on an image coming from a linear CCD sensor | 160 |
| 39 | Tomasz MIAZGA, Janusz WIŚNIEWSKI - A neural estimator of the rotor poles position for the permanent magnet synchronous motor | 165 |
| 40 | Stanisław CZAPP, Grzegorz MAŃKOWSKI, Maciej SCHULZ, Sławomir THIEL - Problematic case of protection against electric shock in 110 kV power line | 171 |
| 41 | Piotr J. SERKIES, Krzysztof SZABAT - Application of the moving horizon estimation MHE to the mechanical state estimation in drive with elastic coupling | 175 |
| 42 | Paweł SZCZEŚNIAK - Properties studies of series AC voltage compensator based on matrix converter | 179 |
| 43 | Michał MIELCZAREK, Janusz GAJDA - Individual vehicle speed estimation on the base of magnetic profile analysis | 186 |
| 44 | Paweł SURMA - Design of DC-DC converter with the switched capacitors | 190 |
| 45 | Zbigniew ŁUKASIK, Aldona KUŚMIŃSKA-FIJAŁKOWSKA, Waldemar NOWAKOWSKI - Europe's energy efficiency requirements for household appliances | 194 |
| 46 | Sławomir ZALEWSKI - Metropolitan Orbital Lighting System (MOLS) | 197 |
| 47 | Expert Opinion: Roadmap of the development of Electrical Engineering in Poland | 201 |