

Contents

| | | |
|----|--|------|
| 01 | Piya SIRIKAN¹, Chakrapong CHARUMIT - Analytical Performance Investigation of Unsymmetrical Two-Phase Induction Motor Drives using Indirect RFOC Strategy Under Unbalanced Voltage Supply Conditions | 1 |
| 02 | Mohd Afifi JUSOH, Muhamad Zalani DAUD, Mohd Zamri IBRAHIM - Fuzzy logic-based control strategy for hourly power dispatch of grid-connected photovoltaic with hybrid energy storage | 11 |
| 03 | Jeremiah S. Varghese, Benhur Ruhneb, D.Jackuline Moni, H. Victor Du John - Light absorption of a polymer based single/multi junction solar cell model | 19 |
| 04 | Hassane Ezziane, Hamza Houassine, Samir Moulahoum, Moustafa Sahnoune Chaouche - Classifying Transformer Winding Fault Type, Location and Extent using FRA based on Support Vector Machine | 23 |
| 05 | Ayman M Mansour, Fayez Khazalah, Mohammad A Obeidat - Suspected Adverse Drug Reaction Detection using Association Rules Mining and Fuzzy sets | 34 |
| 06 | MOHD HELMI MANSOR, FARRUKH NAGI, AGILESWARI RAMASAMY, MARAYATI MARSADEK, NUR AZZAMMUDIN RAHMAT - Economic dispatch - shift factor evaluation and load profile power flow simulations in Excel VBA macro | 44 |
| 07 | Syahri Muharom, Budi Prasetyo - Automatics Detect and Shooter Robot Based on Object Detection Using Camera | 50 |
| 08 | Tomasz MATUSIAK, Jakub KASZCZYSZYN, Arkadiusz DĄBROWSKI - Bonding methods of ceramic materials with deposited carbon layers | 55 |
| 09 | Marek LEŚNIEWICZ - Method and system for testing the frequency of generators | 59 |
| 10 | Andriy CHABAN, Marek LIS, Andrzej SZAFRANIEC, Vitaliy LEVONIUK - The mathematical modelling of transient processes in a drive system including asynchronous and synchronous drives of susceptible motion transmission | 66 |
| 11 | Aleksander CHUDY, Paweł A. MAZUREK - Introduction to the algorithms design for managing distribution networks with electric vehicle charging stations | 71 |
| 12 | Adam Jakubas, Mariusz NAJGEBAUER, Radosław JASTRZĘBSKI – Application of hysteresis loop modelling to description of soft magnetic composites cores based on nanocrystalline material | 75 |
| 13 | S.Y. KOVALYSHYN, S.V. MYAGKOTA, V.V. PTASHNYK, S. O. KHARCHENKO, A. TOMPOROWSKI, P. KIEŁBASA - Investigation of the effect of pre-sowing electrical stimulation of winter rapeseed on its spectral-luminescent properties | 79 |
| 14 | Joanna KOZIEŁ, Michał MAJKA, Andrzej WAC- WŁODARCZYK, Krzysztof NAGLAK - Optimization of the wind farm structure through the use of PV installations and the use of pumped storage power plants | 84 |
| 15 | Anna KOZIOROWSKA, Dominik POTYRAŁA, Michał MACEK, Robert KRASOWSKI - The smart home systems projects based on the Arduino platform | 88 |
| 16 | Stanisław LIS, Tomasz SZUL, Jozef KRILEK, Ján MELICHERČÍK, Tomáš KUVIK - Assessment of the economic effectiveness of the use of energy storage in a photovoltaic installation operating under the Prosumpt program | 92 |
| 17 | Joanna MICHAŁOWSKA - Prediction and Assessment of Exposure to Electromagnetic Field During a Helicopter Flight | 96 |
| 18 | Anna MIERNIK, Aneta ŁOPATKA - Identification of the degree of development of Aspergillus mold in a biological substance using photon emission | 100 |
| 19 | Maryna MIKHALIEVA, Vasyl PARAKUDA, Yuri SHABATURA, Lubomyra ODOSII, Krzysztof PRZYSTUPA - Electrical method for a water control after an osmosis process for the standard unit of ultrasound power in the aquatic environment | 104 |
| 20 | Tomasz RYMARCZYK, Jan SIKORA - Applications of the second-order edge element method versus zero order in optical diffusion tomography | 107 |
| 21 | Krzysztof KRÓL, Tomasz RYMARCZYK, Michał OLESZEK, Piotr BOŻEK, Paweł TCHÓRZEWSKI, Edward KOZŁOWSKI - Using a classification tree to identify seepage in flood embankments | 111 |
| 22 | Bartosz PRZYSUCHA, Tomasz RYMARCZYK, Dariusz WÓJCİK - Detection of cardiac arrhythmias in body surface potential mapping (BSMP) measurements | 115 |
| 23 | Dariusz SZTAFROWSKI, Edyta SZCZUKA - Impact of the effect of the 50 Hz magnetic field on the results of the measurement of electrodermal activity | 119 |
| 24 | Łukasz KRZAK, Cezary WOREK, Grzegorz GAJOCH, Janusz WITKOWSKI - Adaptive radio communication layer for a stationary water meter reading system | 123 |
| 25 | Adam KONIECZKA, Michał ADAMSKI, Adam DĄBROWSKI, Agata DĄBROWSKA, Tomasz JANKOWSKI - Distributed air pollution measurement system | 127 |
| 26 | Cezary WOREK, Łukasz KRZAK, Grzegorz GAJOCH, Janusz WITKOWSKI - Two-band, SDR-based base station for smart metering applications | 131 |
| 27 | Jarosław Wróbel, Sebastian Odrzywolski, Sebastian Złotnik, Jacek Boguski, Malwina Liszewska, Bogusław Budner, Bartłomiej Jankiewicz, Kacper Matuszelański - Investigation of homogeneity of InAs thin layers obtained by molecular beam epitaxy technique training safety assessment in the context of electromagnetic field exposure | 135 |
| 28 | Ireneusz PLEBANKIEWICZ, 2. Wojciech PRZYBYŁ - Solar Energy Storage - solution based on commercial silicon solar cells and supercapacitors | 1392 |

PRZEGLĄD ELEKTROTECHNICZNY Vol 2022, No 1

Contents

| | | |
|----|---|-----|
| 29 | Krzysztof POSOBKIEWICZ, Aleksander DATA, Krzysztof GÓRECKI - Practical realisation of set-up for the measurement of thermal parameters of power MOSFETs | 143 |
| 30 | Agnieszka Czapiewska, Andrzej Łuksza, Ryszard Studański, Andrzej Żak - Diversity Combining with RLS Adaptive Filtering for Hydroacoustic Data Transmission | 147 |
| 31 | Emilian ŚWITALSKI, Krzysztof GÓRECKI - Embedded system dedicated to investigations of electrolyser properties | 151 |
| 32 | Agnieszka IWAN, Ireneusz PLEBANKIEWICZ, Stanisław MALECZEK, Wojciech PRZYBYŁ, Krzysztof A. BOGDANOWICZ - Innovative solar chargers - WITI solutions | 155 |
| 33 | Olga BŁASZKIEWICZ, Robert BURCZYK, Agnieszka CZAPIEWSKA, Małgorzata GAJEWSKA, Sławomir GAJEWSKI, Jarosław SADOWSKI - Transmission quality estimation in LTE basing on indicators measured by radio module | 158 |
| 34 | Wojciech PRZYBYŁ, Ireneusz PLEBANKIEWICZ, Krzysztof A. Bogdanowicz, Adam Januszko, Agnieszka IWAN - The role of camouflage for the long-term operation of dual-use electrical devices | 162 |
| 35 | Krzysztof A. BOGDANOWICZ¹, Wojciech PRZYBYŁ, Agnieszka IWAN, Andrzej KAIM - Application of coupled thermovision-chronoamperometry techniques to the analysis of thin films for solar cells | 166 |
| 36 | Janusz Woźny, Andrzej Kubiak - Investigation of the Properties of a Thick-Film Silver-Silicon Carbide Contact Treated by a Laser Beam. | 169 |
| 37 | Agnieszka GONCIARZ, Krzysztof. BOGDANOWICZ, Robert PICH, Adam JANUSZKO, Agnieszka IWAN - The analysis of the hydrophilic properties of TiO ₂ and TiO ₂ -Ag layers depending on weather conditions and synthesis modification for photovoltaic applications | 173 |
| 38 | Robert PICH, Krzysztof BOGDANOWICZ, Agnieszka GONCIARZ, Adam JANUSZKO, Agnieszka IWAN - Influence of the TiO ₂ layer deposition technique on the photovoltaic parameters of silicon solar cells | 177 |
| 39 | Mateusz DIONIZY, Przemysław NIEDZIELSKI, Ewa RAJ, Zbigniew LISIK - Numerical analysis of liquid cooling in hybrid basic solar modules | 180 |
| 40 | Kacper PODBUCKI - Possibilities and limitations of environment monitoring with usage of LiDAR scanner | 184 |
| 41 | Jakub SUDER - Possibilities of processing video sequences in embedded systems | 188 |
| 42 | Jakub KISAŁA - Influence of an additional magnetic field during magnetron sputtering on the GMR effect in thin-film structures | 192 |
| 43 | Przemysław Niedzielski, Mateusz Dionizy, Ewa Raj, Zbigniew Lisik - The influence of free convection on the efficiency of heat removal in PV / T modules | 196 |
| 44 | Marek PAVLÍK¹, Ján ZBOJOVSKÝ - Determination of effect of photovoltaic cells defect on electricity produce by use mathematical model | 200 |
| 45 | Ján ZBOJOVSKÝ, Ľuboš ŠÁRPATAKY, Miloš ŠÁRPATAKY - Shielding effectiveness of concrete in dependence of his electric properties | 204 |
| 46 | S.K.B.Pradeep Kumar Ch , G. Balamurugan, Y. Butchi raju - Optimal Infusion and Grading of Combined DGs and Capacitor Banks for Line Loss Minimization and Enhancement of Voltages in Radial Circuit System | 208 |
| 47 | Noor Asyikin SULAIMAN, Kai Wern CHUINK, Muhammad Noorazlan Shah ZAINUDIN, Azdiana Md YUSOP, Siti Fatimah SULAIMAN, Md Pauzi ABDULLAH - Data-driven fault detection and diagnosis for centralised chilled water air conditioning system | 217 |
| 48 | M. S. I. M. Zin, M. A. K. Mustafah, F. Arith, A. A. M. Isa, L. Barukang, G. Markarian - Development of Low-Cost IoT-Based Wireless Healthcare Monitoring System | 222 |
| 49 | Jerzy HICKIEWICZ, Piotr RATAJ, . Przemysław SADŁOWSKI - II Congress of Polish Electrical Engineers in Toruń in 1921 | 228 |