

# **2016 IEEE International Conference on the Science of Electrical Engineering (ICSEE 2016)**

**Eilat, Israel  
16-18 November 2016**



**IEEE Catalog Number: CFP16F68-POD  
ISBN: 978-1-5090-2153-6**

**Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\*This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

|                         |                   |
|-------------------------|-------------------|
| IEEE Catalog Number:    | CFP16F68-POD      |
| ISBN (Print-On-Demand): | 978-1-5090-2153-6 |
| ISBN (Online):          | 978-1-5090-2152-9 |

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

|                                                                                                                                 |            |
|---------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>F-DIVERGENCE INEQUALITIES VIA FUNCTIONAL DOMINATION.....</b>                                                                 | <b>1</b>   |
| <i>Igal Sason ; Sergio Verdú</i>                                                                                                |            |
| <b>STABILITY OF THE SDDRE BASED ESTIMATOR FOR STOCHASTIC NONLINEAR SYSTEM .....</b>                                             | <b>6</b>   |
| <i>Ilan Rusnak</i>                                                                                                              |            |
| <b>GUIDANCE LAW AGAINST SPIRALING TARGET: CONSTANT VELOCITY AMPLITUDE .....</b>                                                 | <b>11</b>  |
| <i>Liat Peled-Eitan ; Ilan Rusnak</i>                                                                                           |            |
| <b>ENRICH THE DATA DENSITY OF CLUSTER FOR IMBALANCED LEARNING USING<br/>IMMUNE REPRESENTATIVES .....</b>                        | <b>16</b>  |
| <i>Xusheng Ai ; Jian Wu ; Zhiming Cui ; Xuefeng Xian ; Yufeng Yao</i>                                                           |            |
| <b>ON THE REAL-TIME POWER SHARING PROBLEM.....</b>                                                                              | <b>21</b>  |
| <i>Ido Avraham ; Maxim Kristalny ; Yoash Levron ; Leonid Mirkin</i>                                                             |            |
| <b>LEAST MEAN SQUARES ERROR BASED FILTER OF LINEAR SYSTEM WITH PRESCRIBED<br/>CONVERGENCE RATE.....</b>                         | <b>26</b>  |
| <i>Ilan Rusnak</i>                                                                                                              |            |
| <b>OBSERVABLE CANONICAL FORMS OF MULTI-MACHINE POWER SYSTEMS USING DQ0<br/>SIGNALS .....</b>                                    | <b>31</b>  |
| <i>Yoash Levron ; Juri Belikov</i>                                                                                              |            |
| <b>REAL-TIME IMPLEMENTATION OF SIMPLE ADAPTIVE CONTROL ALGORITHM TO TWO<br/>AXES GIMBAL .....</b>                               | <b>36</b>  |
| <i>Ilan Rusnak ; Ohad Hertz ; Yotam Dana</i>                                                                                    |            |
| <b>ELECTRICITY COST MINIMIZATION IN COOLING SYSTEMS WITH STORAGE.....</b>                                                       | <b>41</b>  |
| <i>Solomon Eyal Shimony</i>                                                                                                     |            |
| <b>AUTOMATION AND SPEED-UP OF THE RSC N-FINDR ALGORITHM FOR ENDMEMBER<br/>EXTRACTION .....</b>                                  | <b>46</b>  |
| <i>Alex Jivín ; Stanley R. Rotman</i>                                                                                           |            |
| <b>SELECTIVE GMM EM FOR TELEPHONE DIARIZATION .....</b>                                                                         | <b>51</b>  |
| <i>Tal Levy ; Itsik Lapidot</i>                                                                                                 |            |
| <b>KERNEL METHOD FOR SPEECH SOURCE ACTIVITY DETECTION IN MULTI-MODAL<br/>SIGNALS .....</b>                                      | <b>56</b>  |
| <i>David Dov ; Ronen Talmon ; Israel Cohen</i>                                                                                  |            |
| <b>SPATIO-SPECTRAL MASKING FOR SPHERICAL ARRAY BEAMFORMING.....</b>                                                             | <b>61</b>  |
| <i>Uri Abend ; Boaz Rafaely</i>                                                                                                 |            |
| <b>SUBSPACE SELECTION FOR ANOMALY DETECTION: AN INFORMATION THEORY<br/>APPROACH .....</b>                                       | <b>66</b>  |
| <i>Marcelo Bacher ; Irad Ben-Gal ; Erez Shmueli</i>                                                                             |            |
| <b>THE GAUSSIAN STATE-DEPENDENT CHANNEL WITH RATE-LIMITED DECODER STATE-<br/>INFORMATION .....</b>                              | <b>71</b>  |
| <i>Shraga I. Bross ; Amos Lapidot</i>                                                                                           |            |
| <b>BLIND DECONVOLUTION VIA MAXIMUM KURTOSIS ADAPTIVE FILTERING .....</b>                                                        | <b>76</b>  |
| <i>Deborah Pereg ; Doron Ben-Zvi</i>                                                                                            |            |
| <b>SDSM: FAST AND SCALABLE SECURITY SUPPORT FOR DIRECTORY-BASED<br/>DISTRIBUTED SHARED MEMORY .....</b>                         | <b>81</b>  |
| <i>Ofir Shwartz ; Yitzhak Birk</i>                                                                                              |            |
| <b>EXPERIMENTAL VERIFICATION OF INTERNAL RESISTANCE AND CAPACITANCE OF<br/>CPQ2300S LI-ION ULTRACAPACITORS (JSR CO.).....</b>   | <b>86</b>  |
| <i>A. Yahalom ; Y. Dahan ; V. Prihodko ; M. Averbukh</i>                                                                        |            |
| <b>THE GAUSSIAN WIRETAP CHANNEL WITH CORRELATED SOURCES AT THE<br/>TERMINALS: SECRET COMMUNICATION AND KEY GENERATION .....</b> | <b>89</b>  |
| <i>Alexander Bunin ; Pablo Piantanida ; Shlomo Shamai Shitz</i>                                                                 |            |
| <b>OBLIVIOUS PROCESSING IN A FRONTHAUL CONSTRAINED GAUSSIAN CHANNEL .....</b>                                                   | <b>94</b>  |
| <i>Adi Homri ; Michael Peleg ; Shlomo Shamai</i>                                                                                |            |
| <b>THE REGULATION PROBLEM FOR THE ONE-DIMENSIONAL SCHRÖDINGER EQUATION<br/>VIA THE BACKSTEPPING APPROACH.....</b>               | <b>99</b>  |
| <i>Hua-Cheng Zhou ; George Weiss</i>                                                                                            |            |
| <b>A REAL-LIFE EXPERIMENTAL STUDY ON SEMI-SUPERVISED SOURCE LOCALIZATION<br/>BASED ON MANIFOLD REGULARIZATION .....</b>         | <b>104</b> |
| <i>Bracha Laufer-Goldshtein ; Ronen Talmon ; Sharon Gannot</i>                                                                  |            |

|                                                                                                                                                           |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>INFRARED SPECTROSCOPY AND MULTIVARIATE ANALYSIS: CLASSIFICATION OF MIXED FUSARIUM SPECIES SOLANI AND OXYSPORUM ISOLATES AT THE SPECIES LEVEL .....</b> | <b>109</b> |
| <i>A. Salman ; E. Shufan ; I. Lapidot ; L. Tsrer ; S. Mordechai ; U. Sharaha ; M. Huleihel</i>                                                            |            |
| <b>ENHANCING THE POWER PRODUCTION OF PV MODULES BY REARRANGING THE SOLAR-CELLS INTERCONNECTIONS .....</b>                                                 | <b>114</b> |
| <i>Assaf Peled ; Joseph Appelbaum</i>                                                                                                                     |            |
| <b>ON THE CAPACITY OF THE CARBON COPYING ONTO DIRTY PAPER CHANNEL .....</b>                                                                               | <b>118</b> |
| <i>Stefano Rini ; Shlomo Shamai Shitz</i>                                                                                                                 |            |
| <b>A MATLAB-SIMULINK MODEL OF NETWORK REACTIVE POWER COMPENSATION BASED ON BINARY SWITCHABLE CAPACITORS AND THYRISTOR-CONTROLLED REACTOR .....</b>        | <b>123</b> |
| <i>Y. Beck ; Y. Berkovich ; Z. Müller ; J. Tlustý</i>                                                                                                     |            |
| <b>VISUAL REINFORCEMENT LEARNING FOR OBJECT RECOGNITION IN ROBOTICS .....</b>                                                                             | <b>128</b> |
| <i>Dan Malowany ; Hugo Guterman</i>                                                                                                                       |            |
| <b>PERFORMANCE ANALYSIS OF EMPIRICAL FOURIER TRANSFORM BASED POWER TRANSFORMER DIFFERENTIAL PROTECTION.....</b>                                           | <b>133</b> |
| <i>Sishaj P Simon ; M. Senthil Kumar ; K. Sundareswaran ; C Christopher Columbus</i>                                                                      |            |
| <b>FRAME RATE REDUCTION OF DEPTH CAMERAS BY RGB-BASED DEPTH PREDICTION .....</b>                                                                          | <b>138</b> |
| <i>Daniel Rotman ; Omer Cohen ; Guy Gilboa</i>                                                                                                            |            |
| <b>DESIGNING AND ENCODING QC-LDPC CODES USING MATRICES OVER COMMUTATIVE RINGS .....</b>                                                                   | <b>143</b> |
| <i>Ishai Hani</i>                                                                                                                                         |            |
| <b>DESIGN METHODOLOGY FOR STATEFUL MEMRISTIVE LOGIC GATES .....</b>                                                                                       | <b>148</b> |
| <i>Nimrod Wald ; Shahar Kvatinsky</i>                                                                                                                     |            |
| <b>ROUTING ALGORITHMS FOR COGNITIVE NETWORKS.....</b>                                                                                                     | <b>153</b> |
| <i>Itai Dabran ; Danny Raz</i>                                                                                                                            |            |
| <b>ROBIL — ISRAELI PROGRAM FOR RESEARCH AND DEVELOPMENT OF AUTONOMOUS UGV: PERFORMANCE EVALUATION METHODOLOGY .....</b>                                   | <b>158</b> |
| <i>Daniel Meltz ; Hugo Guterman</i>                                                                                                                       |            |
| <b>AN ALTERNATING DIRECTION METHOD FOR OPTICAL FLOW ESTIMATION WITH LP REGULARIZATION .....</b>                                                           | <b>163</b> |
| <i>Naftali Zon ; Nahum Kiryati</i>                                                                                                                        |            |
| <b>ON THE CAPACITY OF THE GAUSSIAN BROADCAST CHANNEL WITH STATES KNOWN AT THE TRANSMITTER.....</b>                                                        | <b>168</b> |
| <i>Leila Ghabeli ; Stefano Rini</i>                                                                                                                       |            |
| <b>ANALYTICAL APPROXIMATION FOR PHOTONIC ARRAY MODES IN 2D PHOTONIC DEVICES .....</b>                                                                     | <b>173</b> |
| <i>Lidor Giladi ; Elena Smith ; Vladislav Shteeman ; Amos A. Hardy</i>                                                                                    |            |
| <b>CONTROL OF A VIRTUAL INFINITE CAPACITOR USED TO STABILIZE THE OUTPUT VOLTAGE OF A PFC .....</b>                                                        | <b>178</b> |
| <i>Shuyue Lin ; Jun Lin ; George Weiss ; Xiaowei Zhao</i>                                                                                                 |            |
| <b>SPEECH QUALITY ASSESSMENT USING EEG SIGNALS .....</b>                                                                                                  | <b>183</b> |
| <i>Omri Bar ; Ilan D. Shallom</i>                                                                                                                         |            |
| <b>COMPARISON OF JML, EKF AND SDDRE FILTERS OF NONLINEAR DYNAMIC SYSTEMS .....</b>                                                                        | <b>188</b> |
| <i>Ilan Rusnak</i>                                                                                                                                        |            |
| <b>SIMULATION AND THEORY OF TEM TRANSMISSION LINES RADIATION LOSSES.....</b>                                                                              | <b>192</b> |
| <i>Reuven Iancu ; Vladimir Vulfin</i>                                                                                                                     |            |
| <b>VOLTAGE STABILITY ANALYSIS USING QUADRATIC OBJECTIVE FUNCTION TAKING INTO ACCOUNT EQUALITY CONSTRAINTS .....</b>                                       | <b>196</b> |
| <i>Grigory Shabalin ; Andrei Pazderin ; Pavel Bannykh ; Eduard Balakh</i>                                                                                 |            |
| <b>DESIGN OF AN IMPLANTED ANTENNA INSIDE THE HUMAN BODY FOR A PACEMAKER APPLICATION .....</b>                                                             | <b>201</b> |
| <i>Neria Shimonov ; Vladimir Vulfin ; Shai Sayfan-Altman ; Reuven Iancu</i>                                                                               |            |
| <b>SPEAKER DIARIZATION BASED ON LOCALLY LINEAR EMBEDDING .....</b>                                                                                        | <b>204</b> |
| <i>Ori Shahar ; Lee Twito ; Nurit Spingarn ; Israel Cohen</i>                                                                                             |            |
| <b>POWER ALLOCATION FOR COVERT COMMUNICATION, WITH APPLICATION TO UNDERWATER ACOUSTIC CHANNEL .....</b>                                                   | <b>208</b> |
| <i>Tsvi G. Dvorkind</i>                                                                                                                                   |            |
| <b>CODING PERFORMANCE OF NON-INTERLEAVED NON-MEMORYLESS OPTICAL WIRELESS CHANNELS .....</b>                                                               | <b>213</b> |
| <i>Dima Bykhovsky ; Dor Cohen ; Dor Benafsha</i>                                                                                                          |            |

|                                                                                                                                                                             |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>POINT CLOUD REGISTRATION USING A VIEWPOINT DICTIONARY .....</b>                                                                                                          | <b>217</b> |
| <i>David Avidar ; David Malah ; Meir Barzohar</i>                                                                                                                           |            |
| <b>PRINTABLE GRATING PATTERNS OF PDMS BY DIP-PEN NANOLITHOGRAPHY .....</b>                                                                                                  | <b>222</b> |
| <i>Zeev Fradkin ; Dima Bykhovsky ; Moshe Zohar ; Almog Azulay ; Saad Tapuchi</i>                                                                                            |            |
| <b>GAUSSIAN MIXTURE DIFFUSION.....</b>                                                                                                                                      | <b>225</b> |
| <i>Jeremias Sulam ; Yaniv Romano ; Michael Elad</i>                                                                                                                         |            |
| <b>ASYMPTOTIC PERFORMANCE ANALYSIS OF ZERO FORCING DSL SYSTEMS.....</b>                                                                                                     | <b>230</b> |
| <i>S. M. Zafaruddin ; Udi Klein ; Itsik Bergel ; Amir Leshem</i>                                                                                                            |            |
| <b>QUANTUM ENTANGLEMENT IN ELECTRIC CIRCUITS: FROM ANOMALOUS CROSSTALK<br/>TO ELECTROMAGNETIC COMPATIBILITY IN NANO-ELECTRONICS.....</b>                                    | <b>235</b> |
| <i>Gregory Slepian ; Amir Boag ; Vladimir Mordachev ; Eugene Sinkevich ; Giovanni Miano ; Mikhail E. Portnoi ;<br/>Sergey Maksimenko ; Polina Kuzhir ; Antonio Maffucci</i> |            |
| <b>COMPOSITE MEASUREMENT FROM ASYNCHRONOUS LOS AND UNKNOWN SENSOR<br/>POSITION.....</b>                                                                                     | <b>239</b> |
| <i>Itzik Klein ; Yeshaya Lipman ; Yaakov Bar-Shalom</i>                                                                                                                     |            |
| <b>REDUCING ARTIFACTS OF INTRA-FRAME VIDEO CODING VIA SEQUENTIAL DENOISING.....</b>                                                                                         | <b>244</b> |
| <i>Yehuda Dar ; Alfred M. Bruckstein ; Michael Elad ; Raja Giryes</i>                                                                                                       |            |
| <b>RANDOMIZED INDEPENDENT COMPONENT ANALYSIS .....</b>                                                                                                                      | <b>249</b> |
| <i>Matan Sela ; Ron Kimmel</i>                                                                                                                                              |            |
| <b>A NOVEL APPROACH TO ARC FLASH MITIGATION USING PASSIVE SERIES FILTERS.....</b>                                                                                           | <b>254</b> |
| <i>Amir Khan ; Nagy Bengiamin</i>                                                                                                                                           |            |
| <b>STORAGE BECOMES FIRST CLASS MEMORY .....</b>                                                                                                                             | <b>259</b> |
| <i>Netanel Katzburg ; Amit Golander ; Shlomo Weiss</i>                                                                                                                      |            |
| <b>COMPARING PASSIVE AND ACTIVE BIASING NETWORKS FOR A PHOTOMULTIPLIER<br/>TUBE SENSOR USING SPICE .....</b>                                                                | <b>264</b> |
| <i>Natan Krihely</i>                                                                                                                                                        |            |
| <b>NATURAL CONTRAST ENHANCEMENT FOR DICHROMATS USING SIMILARITY MAPS .....</b>                                                                                              | <b>269</b> |
| <i>Guy Tennenholtz ; Ido Zachevsky</i>                                                                                                                                      |            |
| <b>MAGNETO-LITHOGRAPHY, A SIMPLE AND INEXPENSIVE METHOD FOR HIGH-<br/>THROUGHPUT, SURFACE PATTERNING .....</b>                                                              | <b>274</b> |
| <i>Amos Bardea ; Alexander Yoffe</i>                                                                                                                                        |            |
| <b>VOLLEYBOT: A COMPETATIVE FRAMEWORK FOR AI AND UAV RESEARCH AND<br/>DEVELOPMENT .....</b>                                                                                 | <b>277</b> |
| <i>Shraga Shoval</i>                                                                                                                                                        |            |
| <b>PERFORMANCE BOOSTING OF A PEDESTRIAN DETECTOR USING MULTIPLE CAMERAS .....</b>                                                                                           | <b>282</b> |
| <i>Oded Yechiel ; Assaf Livne ; Rami R. Hagege ; Hugo Guterman</i>                                                                                                          |            |
| <b>MULTI-VIEW KERNEL-BASED DATA ANALYSIS .....</b>                                                                                                                          | <b>287</b> |
| <i>Amir Averbuch ; Moshe Salhov ; Ofir Lindenbaum ; Avi Silberschatz ; Yoel Shkolnisky</i>                                                                                  |            |
| <b>ANALYSIS OF OPTICAL CHARACTERISTICS OF HOLEY PHOTONIC CRYSTALS WITH<br/>EXTENDED COUPLED-MODE FORMALISM .....</b>                                                        | <b>292</b> |
| <i>Lidor Giladi ; Elena Smith ; Vladislav Shteeman ; Amos A. Hardy</i>                                                                                                      |            |
| <b>A WARNING ABOUT THE USE OF REDUCED MODELS OF SYNCHRONOUS GENERATORS .....</b>                                                                                            | <b>297</b> |
| <i>Elad Venezian ; George Weiss</i>                                                                                                                                         |            |
| <b>STABILITY OF THE INTEGRAL CONTROL OF STABLE NONLINEAR SYSTEMS .....</b>                                                                                                  | <b>302</b> |
| <i>George Weiss ; Vivek Natarajan</i>                                                                                                                                       |            |
| <b>ANALYTIC STEADY-STATE SOLUTION OF FINE ALIGNMENT WITH VELOCITY<br/>MEASUREMENTS.....</b>                                                                                 | <b>307</b> |
| <i>Alexander Tsukerman ; Itzik Klein</i>                                                                                                                                    |            |
| <b>INFINITE VIRTUAL CAPACITOR REALIZATION FOR GRID-CONNECTED POWER<br/>CONVERTERS .....</b>                                                                                 | <b>311</b> |
| <i>M. Mellincovsky ; M. M. Peretz ; V. Yuhimenko ; A. Kuperman</i>                                                                                                          |            |
| <b>USING IMPROVED OUTLIER ESTIMATION FOR HYPERSPECTRAL TARGET DETECTION .....</b>                                                                                           | <b>314</b> |
| <i>Sagiv Dvash ; Stanley Rotman</i>                                                                                                                                         |            |
| <b>OPTIMIZATION OF OFDM SYSTEM WITH NONLINEAR POWER AMPLIFIER AND<br/>MODIFIED ITERATIVE RECEIVER .....</b>                                                                 | <b>317</b> |
| <i>Noam Davidovitz ; Ilia Iofedov ; Dov Wulich</i>                                                                                                                          |            |
| <b>WIRETAP CHANNELS WITH RANDOM STATES NON-CAUSALLY AVAILABLE AT THE<br/>ENCODER.....</b>                                                                                   | <b>322</b> |
| <i>Ziv Goldfeld ; Paul Cuff ; Haim H. Permuter</i>                                                                                                                          |            |
| <b>COMPARISON OF BINAURAL MULTICHANNEL WIENER FILTERS WITH BINAURAL CUE<br/>PRESERVATION OF THE INTERFERER.....</b>                                                         | <b>327</b> |
| <i>Elior Hadad ; Daniel Marquardt ; Simon Doclo ; Sharon Gannot</i>                                                                                                         |            |

|                                                                                                                    |            |
|--------------------------------------------------------------------------------------------------------------------|------------|
| <b>REAL-TIME COCHLEAR NOISE REDUCTION ALGORITHM FOR EMBEDDED PLATFORMS .....</b>                                   | <b>332</b> |
| <i>Uriya Saroussi ; Miriam Furst ; Shlomo Weiss</i>                                                                |            |
| <b>SINGLE-LETTER BOUNDS ON THE FEEDBACK CAPACITY OF UNIFILAR FINITE-STATE CHANNELS .....</b>                       | <b>337</b> |
| <i>Oron Sabag ; Haim H. Permuter ; Henry D. Pfister</i>                                                            |            |
| <b>INVESTIGATION OF A MULTI-HORN ANTENNA .....</b>                                                                 | <b>342</b> |
| <i>Y. Levy ; M. Raminfar ; E. Levine ; H. Matzner</i>                                                              |            |
| <b>A BALANCED, SERIES-FED MICROSTRIP ARRAY ANTENNA WITH LOW SIDELOBES .....</b>                                    | <b>344</b> |
| <i>L. Bezalel ; A. Frenkel ; H. Matzner ; E. Levine</i>                                                            |            |
| <b>SECTORIAL ANTENNA BASED ON VERTICAL MICROSTRIP ELEMENTS.....</b>                                                | <b>346</b> |
| <i>Y. Gabbai ; H. Matzner ; E. Levine</i>                                                                          |            |
| <b>UNSUPERVISED DETECTION OF AVAILABLE PARKING SPOTS .....</b>                                                     | <b>348</b> |
| <i>Yonatan Urman ; Tamir Baruch Yampolsky ; Rami Cohen</i>                                                         |            |
| <b>AN ULTRA WIDEBAND ANTENNA FOR CYBER APPLICATIONS.....</b>                                                       | <b>353</b> |
| <i>E. Shmelkin ; E. Levine ; H. Matzner</i>                                                                        |            |
| <b>CONDITIONAL AND RELEVANT COMMON INFORMATION .....</b>                                                           | <b>355</b> |
| <i>Amos Lapidoth ; Michèle Wigger</i>                                                                              |            |
| <b>DESIGN OF REFLECTARRAY ANTENNA BASED ON FRESNEL ZONE PLATES WITH AMC STRUCTURE .....</b>                        | <b>360</b> |
| <i>Sason Dan ; Vladimir Vulfin ; Reuven Shavit</i>                                                                 |            |
| <b>NAVIGATION APPROACHES FOR HOVERING AUTONOMOUS UNDERWATER VEHICLES.....</b>                                      | <b>364</b> |
| <i>Alon Baruch ; Eran Kamber ; Itay Arbel ; Boris Braginsky ; Hugo Guterman</i>                                    |            |
| <b>CMOS-SOI-NEMS UNCOOLED INFRARED PRESENCE SENSOR.....</b>                                                        | <b>369</b> |
| <i>Alex Zviagintsev ; Tanya Blank ; Sharon Bar-Lev ; Igor Brouk ; Ilan Bloom ; Yael Nemirovsky</i>                 |            |
| <b>TWO MEASURES OF DEPENDENCE.....</b>                                                                             | <b>374</b> |
| <i>Amos Lapidoth ; Christoph Pfister</i>                                                                           |            |
| <b>RESONANT LCC DC-DC CONVERTER WITH BOUNDARY CONTROL.....</b>                                                     | <b>379</b> |
| <i>Yoram Horen ; Svetlana Bronshtein</i>                                                                           |            |
| <b>SINGLE TO THREE PHASE CONVERSION FOR RURAL POWER APPLICATIONS .....</b>                                         | <b>383</b> |
| <i>S. Bronshtein ; B. Epshtein ; A. Bronshtein</i>                                                                 |            |
| <b>THE VIRTUAL INFINITE CAPACITOR-BASED ACTIVE SUBMODULE FOR MMC.....</b>                                          | <b>387</b> |
| <i>Jun Lin ; George Weiss</i>                                                                                      |            |
| <b>TEXTURE SEGMENTATION FOR SEAM CARVING.....</b>                                                                  | <b>392</b> |
| <i>Gilor Raz ; Ron Shmueli ; Eyal Katz</i>                                                                         |            |
| <b>ON ITERATIVE DECODING OF SHORT CODES .....</b>                                                                  | <b>397</b> |
| <i>Nimrod Shacham ; Ofer Amrani</i>                                                                                |            |
| <b>ANALYSIS OF FEEDBACK NETWORKS WITH MULTIPLE DEPENDENT SOURCES BY SUPERPOSITION.....</b>                         | <b>400</b> |
| <i>Pavel Shanin ; Liron I. Allerhand</i>                                                                           |            |
| <b>THE RESOLUTION OF BINARY HYPOTHESIS TESTING .....</b>                                                           | <b>405</b> |
| <i>Yuval Kochman ; Michael Bell</i>                                                                                |            |
| <b>NOVEL METHOD OF OPTIMIZATION OF LOSSES IN POWER GRID.....</b>                                                   | <b>410</b> |
| <i>Zdenek Müller ; Miroslav Müller ; Valeria Tuzikova ; Josef Thusty ; Martin Cernan ; Yuval Beck ; Gady Golan</i> |            |
| <b>MEMRISTIVE MEMORY PROCESSING UNIT (MPU) CONTROLLER FOR IN-MEMORY PROCESSING .....</b>                           | <b>415</b> |
| <i>Rotem Ben Hur ; Shahar Kvatinsky</i>                                                                            |            |
| <b>DETECTION OF DISTRESS IN SPEECH .....</b>                                                                       | <b>420</b> |
| <i>Yehav Alkaher ; Osher Dahan ; Yair Moshe</i>                                                                    |            |
| <b>TRAVELING-WAVE RING OSCILLATOR — A NEW ARCHITECTURE FOR A TRANSMISSION LINE BASED OSCILLATOR .....</b>          | <b>425</b> |
| <i>Boris Likhterov ; Alexander Belenky</i>                                                                         |            |
| <b>CONTROL AND VOLTAGE REGULATION OF GENERAL TRANSPOSED SERIES-PARALLEL CONVERTER.....</b>                         | <b>430</b> |
| <i>Yuval Beck ; Sigmond Singer</i>                                                                                 |            |
| <b>NAVIGATION USING IMAGE TRACKING.....</b>                                                                        | <b>434</b> |
| <i>Stephen C. Stubberud ; Kathleen A. Kramer ; Allen R. Stubberud</i>                                              |            |
| <b>COEXISTENCE MECHANISMS IN ULTRA-WIDEBAND BODY AREA NETWORK .....</b>                                            | <b>439</b> |
| <i>Natan Keren ; Arie Reichman</i>                                                                                 |            |
| <b>MODELING AND SIMULATIONS OF MOSQWELL TRANSISTOR FUTURE BUILDING BLOCK FOR OPTICAL COMMUNICATION .....</b>       | <b>444</b> |
| <i>Michael Bendayan ; Avi Karsenty ; Avraham Chelly</i>                                                            |            |

|                                                                                                                                          |            |
|------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>UNIFORM-BASED NEURAL NETWORK AND ITS APPLICATION FOR CONTROL OF MOBILE ROBOTS .....</b>                                               | <b>449</b> |
| <i>Evgeny Kagan ; Alexander Rybalov ; Hodaya Ziv</i>                                                                                     |            |
| <b>SONAR-BASED FLOCKING IN THE ROBOT'S TEAM WITH RADIO COMMUNICATION .....</b>                                                           | <b>454</b> |
| <i>Evgeny Kagan ; Mor Kaizer ; Sharon Makmal ; Irad Ben-Gal</i>                                                                          |            |
| <b>THE EFFECT OF INTERCONNECTING SOLAR CELLS IN THE PV MODULE ON THE POWER OUTPUT .....</b>                                              | <b>459</b> |
| <i>Yehya Massalha ; Joseph Appelbaum</i>                                                                                                 |            |
| <b>AUTOMATED SUPERVISED SEGMENTATION OF ANATOMICAL FIBER TRACTS USING AN ADABOOST FRAMEWORK .....</b>                                    | <b>463</b> |
| <i>Michal Heker ; Rula Amer ; Guy Alexandroni ; Hayit Greenspan</i>                                                                      |            |
| <b>ESTIMATION OF SPEAKER INDIVIDUAL SPECTRAL ENVELOPE FOR PITCH TRACKING IMPROVEMENT .....</b>                                           | <b>468</b> |
| <i>Yaniv Zonis ; Yaakov Buchris ; Israel Cohen</i>                                                                                       |            |
| <b>EXPLOITING SPATIAL PHASE IN DECONVOLUTION OF STRUCTURED STOCHASTIC TEXTURES.....</b>                                                  | <b>473</b> |
| <i>Ido Zachevsky ; Yehoshua Y. Zeevi</i>                                                                                                 |            |
| <b>SLOT SILICON-GALLIUM NITRIDE WAVEGUIDE REALIZING 1×4 OPTICAL POWER SPLITTER .....</b>                                                 | <b>478</b> |
| <i>Dror Malka ; Yossef Danan ; Zeev Zalevsky</i>                                                                                         |            |
| <b>SHORT CIRCUIT FAULT DETECTION IN TWO WIRE TRANSMISSION LINE.....</b>                                                                  | <b>483</b> |
| <i>Michael Suleymanov ; Yosef Pinhasi ; Asher Yahalom</i>                                                                                |            |
| <b>THREE-PHASE STATE ESTIMATION MODEL FOR DISTRIBUTION GRIDS .....</b>                                                                   | <b>487</b> |
| <i>Pavel Chusovitin ; Ilya Polyakov ; Andrey Pazderin</i>                                                                                |            |
| <b>GRAPH-CONSTRAINED SUPERVISED DICTIONARY LEARNING FOR MULTI-LABEL CLASSIFICATION.....</b>                                              | <b>492</b> |
| <i>Yael Yankelevsky ; Michael Elad</i>                                                                                                   |            |
| <b>A TOTAL VARIATION SCALE-SPACE AND IMAGE RESIZING .....</b>                                                                            | <b>497</b> |
| <i>Yedidya Hyams ; Moshe Porat</i>                                                                                                       |            |
| <b>MULTIPLE DOA ESTIMATION AND BLIND SOURCE SEPARATION USING ESTIMATION-MAXIMIZATION .....</b>                                           | <b>502</b> |
| <i>Yuval Dorfan ; Ofer Schwartz ; Boaz Schwartz ; Emanuel A. P. Habets ; Sharon Gannot</i>                                               |            |
| <b>MENDING THE BIG-DATA MISSING INFORMATION .....</b>                                                                                    | <b>507</b> |
| <i>Hadassa Daltrophe ; Shlomi Dolev ; Zvi Lotker</i>                                                                                     |            |
| <b>STAR TRACKER FOR MOBILE APPLICATIONS .....</b>                                                                                        | <b>512</b> |
| <i>Revital Marbel ; Boaz Ben-Moshe ; Roi Yozevitch</i>                                                                                   |            |
| <b>IMPROVED GNSS VELOCITY ESTIMATION USING SENSOR FUSION.....</b>                                                                        | <b>517</b> |
| <i>Roman Morer ; Shlomi Hacohen ; Boaz Ben-Moshe ; Nir Shvalb ; Roi Yozevitch</i>                                                        |            |
| <b>EXPERIMENTAL VERIFICATION OF INTERNAL RESISTANCE AND CAPACITANCE OF CPQ2300S LI-ION ULTRACAPACITORS (JSR CO.).....</b>                | <b>522</b> |
| <i>A. Yahalom ; Y. Dahan ; V. Prihodko ; M. Averbukh</i>                                                                                 |            |
| <b>ANALOG FILTER REALIZATION FOR HUMAN — MACHINE INTERACTION IN AEROSPACE .....</b>                                                      | <b>525</b> |
| <i>Jan Boril ; Karel Zaplatilek ; Rudolf Jalovecky</i>                                                                                   |            |
| <b>CRY-BASED DETECTION OF DEVELOPMENTAL DISORDERS IN INFANTS.....</b>                                                                    | <b>530</b> |
| <i>Amit Oren ; Avi Matzliach ; Rami Cohen ; Hagit Friedman</i>                                                                           |            |
| <b>FPGA DESIGN OF NUMERICAL METHODS FOR THE ROBOTIC MOTION CONTROL TASK EXPLOITING HIGH-LEVEL SYNTHESIS .....</b>                        | <b>535</b> |
| <i>Fynn Schwiengelshohn ; Florian Kästner ; Michael Hübner</i>                                                                           |            |
| <b>ROBUST DROOP CONTROL OF GRID-CONNECTED INVERTERS .....</b>                                                                            | <b>540</b> |
| <i>M. Elkayam ; A. Kuperman ; J. M. Guerrero</i>                                                                                         |            |
| <b>DELIVERY OF QR CODES TO CELLULAR PHONES THROUGH DATA EMBEDDING IN AUDIO.....</b>                                                      | <b>544</b> |
| <i>Itai Dagan ; Gal Binyamin ; Alon Eilam</i>                                                                                            |            |
| <b>TRACKING PERFORMANCE ORIENTED DESIGN OF PROPORTIONAL-RESONANT CONTROLLERS UNDER FINITE CONTROL BANDWIDTH AND ACTUATOR DELAY .....</b> | <b>548</b> |
| <i>Y. Basha ; A. Belenky ; A. Kuperman</i>                                                                                               |            |
| <b>WHY SPENDING MORE MIGHT GET YOU LESS, DYNAMIC SELECTION OF INFLUENCERS IN SOCIAL NETWORKS .....</b>                                   | <b>553</b> |
| <i>Alon Sela ; Erez Shmueli ; Dima Goldenberg ; Irad Ben-Gal</i>                                                                         |            |

|                                                                                                                                      |            |
|--------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>LIGHT INVARIANT VIDEO CAMERA — MAKING FACES APPEAR THE SAME UNDER ANY LIGHT CONDITIONS .....</b>                                  | <b>557</b> |
| <i>Amir Kolaman ; Rami Hagege ; Hugo Guterman</i>                                                                                    |            |
| <b>GNSS DENIAL OF SERVICE AND THE PREPARATION FOR TOMORROW'S THREATS.....</b>                                                        | <b>562</b> |
| <i>Nir Flysher ; Roi Yozevitch ; Boaz Ben-Moshe</i>                                                                                  |            |
| <b>DIGITAL PREDISTORTION USING PIECEWISE MEMORY POLYNOMIAL FOR 802.11 WIFI APPLICATIONS .....</b>                                    | <b>567</b> |
| <i>Tomer Gidoni ; Eran Socher ; Emanuel Cohen</i>                                                                                    |            |
| <b>ENHANCEMENT OF BCI CLASSIFIERS THROUGH DOMAIN ADAPTATION .....</b>                                                                | <b>570</b> |
| <i>Hadas Benisty ; Daniel Furman ; Talor Abramovich ; Amir Ivry ; Hillel Pratt</i>                                                   |            |
| <b>WIDEBAND DEMODULATOR FOR OPTICAL WAVEFORMS .....</b>                                                                              | <b>575</b> |
| <i>Omri Lev ; Tal Wiener ; Deborah Cohen ; Yonina C. Eldar</i>                                                                       |            |
| <b>COMPLEX DATA ACQUISITION SYSTEM FOR THE MONITORING AND DIAGNOSIS USED IN ENERGETIC.....</b>                                       | <b>580</b> |
| <i>Petre-Marian Nicolae ; Marian Stefan Nicolae ; Ileana-Diana Nicolae ; Mircea Catalin Constantinescu</i>                           |            |
| <b>A DIVERSITY MULTIPLEXING TRADEOFF UNDER GENERALIZED SAMPLING EXPANSION.....</b>                                                   | <b>585</b> |
| <i>Nir Hadas ; Meir Feder</i>                                                                                                        |            |
| <b>ADAPTIVE THRESHOLD READ ALGORITHMS IN MULTI-LEVEL NON-VOLATILE MEMORIES WITH UNCERTAINTY .....</b>                                | <b>590</b> |
| <i>Amit Solomon ; Yuval Cassuto</i>                                                                                                  |            |
| <b>MULTI-CHANNEL FUSION FOR SEISMIC EVENT DETECTION AND CLASSIFICATION.....</b>                                                      | <b>595</b> |
| <i>Ofir Lindenbaum ; Neta Rabin ; Yuri Bregman ; Amir Averbuch</i>                                                                   |            |
| <b>BANDWIDTH SELECTION FOR KERNEL-BASED CLASSIFICATION .....</b>                                                                     | <b>600</b> |
| <i>Ofir Lindenbaum ; Arie Yeredor ; Amir Averbuch</i>                                                                                |            |
| <b>D-DECOMPOSITION APPLICATION FOR PSS TUNING PARAMETERS ESTIMATION .....</b>                                                        | <b>605</b> |
| <i>Valeriy Tashchilin ; Rinat Idrisov ; Pavel Chusoitin ; Andrey Pazderin</i>                                                        |            |
| <b>SELECTING THE LASSO REGULARIZATION PARAMETER VIA BAYESIAN PRINCIPLES.....</b>                                                     | <b>610</b> |
| <i>Naor Huri ; Meir Feder</i>                                                                                                        |            |
| <b>DIMENSIONLESS NOMOGRAM APPROACH IN THE COURSES OF POWER ELECTRONICS AND ELECTRICAL DRIVES .....</b>                               | <b>615</b> |
| <i>M. Averbukh</i>                                                                                                                   |            |
| <b>DIFFERENTIAL SUB-HARMONIC INJECTION LOCK VCO WITH FAST START UP .....</b>                                                         | <b>618</b> |
| <i>Nitzan Oz ; Emanuel Cohen</i>                                                                                                     |            |
| <b>ENERGY STORAGE SYSTEMS — GRID CONNECTION USING SYNCHRONVERTERS .....</b>                                                          | <b>623</b> |
| <i>Gal Barzilai ; Lior Marcus ; George Weiss</i>                                                                                     |            |
| <b>RATE ANALYSIS OF DISTRIBUTED MULTIUSER MIMO PROTOCOLS FOR THE 802.11AC .....</b>                                                  | <b>628</b> |
| <i>Joseph Kampeas ; Asaf Cohen ; Omer Gurewitz</i>                                                                                   |            |
| <b>FRAGILITY OF THE SEMIDEFINITE RELAXATION FOR THE OPTIMAL POWER FLOW PROBLEM.....</b>                                              | <b>633</b> |
| <i>Ivan Zorin ; Sergey Vasilyev ; Elena Gryazina</i>                                                                                 |            |
| <b>DIGITAL MULTI-LEVEL CLOSED LOOP DESIGN FOR WIDEBAND ENVELOPE TRACKING SYSTEMS .....</b>                                           | <b>638</b> |
| <i>Elinor Kashani ; Eran Socher ; Emanuel Cohen</i>                                                                                  |            |
| <b>TECHNICAL AND ECONOMIC COMPARISON BETWEEN FIXED AND SUN-TRACKING PV POWER PLANTS IN THE NEGEV DESERT .....</b>                    | <b>643</b> |
| <i>M. Roitman ; I. S. Zitan ; D. Zaharin</i>                                                                                         |            |
| <b>A DYNAMIC TF-GSC BEAMFORMER FOR DISTRIBUTED ARRAYS WITH DUAL-RESOLUTION SPEECH-PRESENCE-PROBABILITY ESTIMATORS .....</b>          | <b>647</b> |
| <i>Anna Barnov ; Alejandro Cohen ; Morag Agmon ; Vered Bar Bracha ; Shmulik Markovich-Golan ; Sharon Gannot</i>                      |            |
| <b>EFFECT OF METAL BUFFER LAYER AND THERMAL ANNEALING ON HFOX-BASED RERAMS.....</b>                                                  | <b>652</b> |
| <i>Jury Sandrini ; Behnoush Attarimashalkoubek ; Elmira Shahrabi ; Igor Krawczuk ; Yusuf Leblebici</i>                               |            |
| <b>VISION: VIDEO-ORIENTED UWB-BASED INTELLIGENT UBIQUITOUS SENSING .....</b>                                                         | <b>657</b> |
| <i>Dajana Cassioli ; Antiniscia Di Marco ; Francesco Gallo ; Stefano Pace ; Luigi Pomante ; Claudia Rinaldi</i>                      |            |
| <b>A DYNAMIC LOAD BALANCING ARCHITECTURE FOR SDN.....</b>                                                                            | <b>662</b> |
| <i>Hadar Sufiev ; Yoram Haddad</i>                                                                                                   |            |
| <b>PERFORMANCE EVALUATION OF COMP COORDINATED SCHEDULING OVER DIFFERENT BACKHAUL INFRASTRUCTURES: A REAL USE CASE SCENARIO .....</b> | <b>665</b> |
| <i>A. Marotta ; K. Kondepu ; F. Giannone ; S. Doddikrinda ; D. Cassioli ; C. Antonelli ; L. Valcarengi ; P. Castoldi</i>             |            |
| <b>ON CHIRP EXCITATION AND COMPRESSION FOR ULTRASOUND IMAGING .....</b>                                                              | <b>670</b> |
| <i>Dorin Danial ; Moshe Porat ; Zvi Friedman</i>                                                                                     |            |

|                                                                                                                                                |            |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>IN-VIVO ENERGY HARVESTING NANO ROBOTS .....</b>                                                                                             | <b>675</b> |
| <i>Shlomi Dolev ; Sergey Frenkel ; Michael Rosenblit ; Ram Prasad Narayanan ; K Muni Venkateswarlu</i>                                         |            |
| <b>IMPROVEMENTS TO PLDA I-VECTOR SCORING FOR SHORT SEGMENTS CLUSTERING .....</b>                                                               | <b>680</b> |
| <i>Itay Salmun ; Irit Opher ; Itshak Lapidot</i>                                                                                               |            |
| <b>ON A ONE STEP STOCHASTIC PURSUER-EVADER GAME.....</b>                                                                                       | <b>684</b> |
| <i>György Hexner ; Ilan Rusnak ; Haim Weiss</i>                                                                                                |            |
| <b>OPTIMAL CONTROL OF VNF DEPLOYMENT AND SCHEDULING .....</b>                                                                                  | <b>688</b> |
| <i>Mark Shifrin ; Erez Biton ; Omer Gurewitz</i>                                                                                               |            |
| <b>AUTONOMOUS ROBOT FOR TUNNEL MAPPING.....</b>                                                                                                | <b>693</b> |
| <i>Aviv Rubinstein ; Tom Erez</i>                                                                                                              |            |
| <b>TWO ASYMMETRIC DESCRIPTIONS FROM MANY SYMMETRIC DESCRIPTIONS .....</b>                                                                      | <b>697</b> |
| <i>Adam Mashiach ; Yuval Kochman ; Jan Østergaard ; Ram Zamir</i>                                                                              |            |
| <b>LEARNING AN ATTENTION MODEL IN AN ARTIFICIAL VISUAL SYSTEM .....</b>                                                                        | <b>702</b> |
| <i>Alon Hazan ; Yuval Harel ; Ron Meir</i>                                                                                                     |            |
| <b>DISTORTING REGIMES AND THEIR MEASUREMENT SYSTEMS FOR THE DIAGNOSIS<br/>PURPOSES IN THREE-PHASE SYSTEMS .....</b>                            | <b>707</b> |
| <i>Petre-Marian Nicolae ; Marian Stefan Nicolae ; Ileana-Diana Nicolae</i>                                                                     |            |
| <b>BABY CRY DETECTION IN DOMESTIC ENVIRONMENT USING DEEP LEARNING .....</b>                                                                    | <b>712</b> |
| <i>Yizhar Lavner ; Rami Cohen ; Dima Ruinskiy ; Hans Ijzerman</i>                                                                              |            |
| <b>DIAGNOSIS OF PARKINSON'S DISEASE FROM CONTINUOUS SPEECH USING DEEP<br/>CONVOLUTIONAL NETWORKS WITHOUT MANUAL SELECTION OF FEATURES.....</b> | <b>717</b> |
| <i>Alex Frid ; Ariel Kantor ; Dimitri Svechin ; Larry M. Manevitz</i>                                                                          |            |
| <b>OPTIMAL ENCODING AND DECODING FOR POINT PROCESS OBSERVATIONS: AN<br/>APPROXIMATE CLOSED-FORM FILTER.....</b>                                | <b>721</b> |
| <i>Yuval Harel ; Ron Meir ; Manfred Oppel</i>                                                                                                  |            |
| <b>WAVELENGTH DEMULTIPLEXER OPERATING OVER MODE DIVISION MULTIPLEXED<br/>SIGNALS ON RECTANGULAR CORE FIBER .....</b>                           | <b>726</b> |
| <i>Miri Blau ; Dan M. Marom</i>                                                                                                                |            |
| <b>ROBUST ERROR DETECTING CODES FOR MULTILEVEL MEMORIES.....</b>                                                                               | <b>730</b> |
| <i>Osnat Keren ; Yaara Neumeier</i>                                                                                                            |            |
| <b>INDUCED MODE MIXING IN SDM OPTICAL COMMUNICATIONS FOR REDUCED<br/>COMPUTATION COMPLEXITY .....</b>                                          | <b>735</b> |
| <i>Miri Blau ; Dan M. Marom</i>                                                                                                                |            |
| <b>ADAPTIVE WEIGHTING PARAMETER IN AUDIO-VISUAL VOICE ACTIVITY DETECTION .....</b>                                                             | <b>739</b> |
| <i>Matar Buchbinder ; Yaakov Buchris ; Israel Cohen</i>                                                                                        |            |
| <b>OPTIMAL SWITCHING IN A THREE-LEVEL INVERTER: AN ANALYTICAL APPROACH.....</b>                                                                | <b>744</b> |
| <i>Almog Salman ; Yair Cohen ; Lior Simchon ; Tirza Routenberg ; Raul Rabinovici</i>                                                           |            |
| <b>NONLINEAR WAVEGUIDE NANOCOMPOSITE CORE .....</b>                                                                                            | <b>749</b> |
| <i>Moran Bin Nun ; Yedidya Lior ; Dan M. Marom</i>                                                                                             |            |
| <b>LOW TEMPERATURE POLY-SILICON THIN FILM TRANSISTOR FLEXIBLE SENSING<br/>CIRCUIT.....</b>                                                     | <b>753</b> |
| <i>D. M. Keren ; A. Efrati ; F. Maita ; L. Maiolo ; A. Minoti ; A. Pecora ; G. Fortunate ; M. Zajac ; Y. Shacham-Diamand</i>                   |            |
| <b>DEFICIENCIES IN SPRAYING TECHNIQUES FOR KEY EXCHANGE IN MANETS .....</b>                                                                    | <b>756</b> |
| <i>Ariel Stulman</i>                                                                                                                           |            |
| <b>ANALYSIS OF CONVERSION TIME IN ASYNCHRONOUS SUCCESSIVE CHARGE<br/>REDISTRIBUTION ADC WITH VARYING RATE OF CHARGE TRANSFER.....</b>          | <b>759</b> |
| <i>Dariusz Koscielnik ; Marek Miskowicz ; Jakub Szyduczynski ; Mirosław Pawlak</i>                                                             |            |
| <b>ACK UTILIZATION FOR TRAFFIC CLASSIFICATION.....</b>                                                                                         | <b>764</b> |
| <i>Joseph Kampeas ; Asaf Cohen ; Omer Gurevitz</i>                                                                                             |            |
| <b>OFF-ROAD PATH AND OBSTACLE DETECTION USING MONOCULAR CAMERA .....</b>                                                                       | <b>769</b> |
| <i>Idan Nadav ; Eyal Katz</i>                                                                                                                  |            |
| <b>AUTOMATIC PARKING IDENTIFICATION AND VEHICLE GUIDANCE WITH ROAD<br/>AWARENESS.....</b>                                                      | <b>774</b> |
| <i>Guy Krasner ; Eyal Katz</i>                                                                                                                 |            |
| <b>ADVANCED ALGORITHMS FOR OPERATIONAL BENEFITS IN FUTURE SMART GRIDS .....</b>                                                                | <b>779</b> |
| <i>Nezah Calamaro ; Doron Shmilovitz ; Yuval Beck</i>                                                                                          |            |
| <b>IMPROVED COVARIANCE MATRIX FOR TARGET DETECTION IN HYPERSPECTRAL<br/>IMAGING .....</b>                                                      | <b>784</b> |
| <i>Ilan Schwartzman ; Shimrit Maman ; Dan G. Blumberg ; Stanley R. Rotman</i>                                                                  |            |

|                                                                                                                  |            |
|------------------------------------------------------------------------------------------------------------------|------------|
| <b>UDE REPETITIVE CONTROL FOR ESTIMATION OF HARMONIC DISTURBANCES WITH TIME DELAY UDE BASED CONTROLLER .....</b> | <b>788</b> |
| <i>N. Alshek ; M. Elkayam ; A. Kuperman</i>                                                                      |            |
| <b>PERFORMANCE OF RANDOM SPACE-TIME PRECODED INTEGER FORCING OVER COMPOUND MIMO CHANNELS .....</b>               | <b>792</b> |
| <i>Elad Domanovitz ; Uri Erez</i>                                                                                |            |
| <b>A MULTI-TURN TWISTED INDUCTOR FOR ON-CHIP CROSS-TALK REDUCTION .....</b>                                      | <b>797</b> |
| <i>Peter Martin ; Richard Horn ; Kobi Ben Atar</i>                                                               |            |
| <b>A NOTE ON FEEDBACK COMMUNICATION WITH MISMATCHED DECODING .....</b>                                           | <b>802</b> |
| <i>Amos Lapidoth</i>                                                                                             |            |
| <b>CMOS MULTI-PHASE SWITCHED CAPACITOR STEP-UP DC-DC CONVERTER .....</b>                                         | <b>807</b> |
| <i>Mahesh Zanwar ; Subhajit Sen</i>                                                                              |            |
| <b>SELF-TIMED CONTROL OF TWO-PHASE SWITCHED CAPACITOR CONVERTERS.....</b>                                        | <b>812</b> |
| <i>Sergey Mileiko ; Alexander Kushnerov ; Danil Sokolov ; Alexandre Yakovlev</i>                                 |            |
| <b>UTILISATION OF BACK-TO-BACK VSC IN A DISTRIBUTION NETWORK WITH DG.....</b>                                    | <b>816</b> |
| <i>Han Qin ; Ruizhu Wu ; Ahmed M. Abd-El-Motaleb ; Li Ran ; Xiaochuan Deng ; Partha Sensarma</i>                 |            |
| <b>Author Index</b>                                                                                              |            |