

21st International Conference on Circuits, Systems, Communications and Computers (CSCC 2017)

MATEC Web of Conferences Volume 125 (2017)

Heraklion, Greece
14 - 17 July 2017

Editors:

Nikos Mastorakis
Valeri Mladenov
Aida Bulucea

ISBN: 978-1-5108-4968-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution license:
<http://creativecommons.org/licenses/by/2.0/>

You are free to:

Share – copy and redistribute the material in any medium or format.

Adapt – remix, transform, and build upon the material for any purpose, even commercial.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. The copyright is retained by the corresponding authors.

Printed by Curran Associates, Inc. (2017)

For additional information, please contact EDP Sciences – Web of Conferences
at the address below.

EDP Sciences – Web of Conferences
17, Avenue du Hoggar
Parc d'Activité de Courtabœuf
BP 112
F-91944 Les Ulis Cedex A
France

Phone: +33 (0) 1 69 18 75 75

Fax: +33 (0) 1 69 28 84 91

contact-edps@webofconferences.org

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
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

TRANSIENT RESPONSE OF LOW-POWER ECG RECODING AMPLIFIERS FOR USE WITH UN-GELLED ELECTRODES	1
<i>Burke Martin J., Tuohy Oscar</i>	
X-BAND CORE CHIP SICE DESIGN FOR PHASED ARRAY T/R MODULES	7
<i>Timoshenkov Valeri, Efimov Andrey</i>	
DESIGN OF A FULL 1MB STT-MRAM BASED ON ADVANCED FDSOI TECHNOLOGY	12
<i>Jabeur Kotb, Prenat Guillaume</i>	
COMPARATIVE ANALYSIS OF RESONANT CONVERTERS FOR ENERGY STORAGE SYSTEMS	16
<i>Vuchev Stoyan, Arnaudov Dimitar, Hinov Nikolay</i>	
ZHOU METHOD FOR THE SOLUTIONS OF SYSTEM OF PROPORTIONAL DELAY DIFFERENTIAL EQUATIONS	22
<i>Edeki S.O., Akinlabi G.O., Hinov Nikolay</i>	
EVALUATION OF SUSTAINABLE PRACTICES WITHIN PROJECT MANAGEMENT METHODS	27
<i>Shah Satya, Naghi Ganji Elmira, Coutroubis Alec</i>	
LEAN PRODUCTION PRACTICES TO ENHANCE ORGANISATIONAL PERFORMANCE	34
<i>Shah Satya, Naghi Ganji Elmira, Coutroubis Alec</i>	
ASSESSMENT OF THE STABILITY OF MORPHOLOGICAL ECG FEATURES AND THEIR POTENTIAL FOR PERSON VERIFICATION/IDENTIFICATION	41
<i>Matveev Mikhail, Christov Ivaylo, Krasteva Vessela, Bortolan Giovanni, Simov Dimitar, Mudrov Nikolay, Jekova Irena</i>	
STATE-SPACE COIL MODELLING IN PLASMA MAGNETIC CONFINEMENT DEVICES	45
<i>Garrido Aitor J., Garrido Izaskun, González Diego, Molinuevo Odei, Lekube Jon, Carrascal Edorta</i>	
NOVEL ASYMMETRICAL PULSE WIDTH MODULATION METHOD	52
<i>Baimel Dmitry, Tapuchi Saad, Baimel Nina</i>	
HOME AUTOMATION AND SIMULATION OF PRESENCE IN EMPTY ENVIRONMENTS	56
<i>Marques Israel, Garcia Paulo</i>	
THE CONTINUOUS-TIME H_∞ MODEL MATCHING PROBLEM WITH INTEGRAL CONTROL IN IMI OPTIMIZATION	60
<i>Akin Murat, Acarman Tankut</i>	
SIMULATOR FOR TESTING HARDWARE AND SOFTWARE OF THE OFFICE SYSTEM WITH RFID TAGS	66
<i>Nowicki Tadeusz, Chlebicki Krzysztof, Pierzchala Dariusz, Worwa Kazimierz, Waszkowski Robert</i>	
MULTI-FACETED METHODOLOGY OF THE RISK ANALYSIS AND MANAGEMENT REFERRING TO THE IT SYSTEM SUPPORTING THE PROCESSING OF DOCUMENTS AT DIFFERENT LEVELS OF SENSITIVITY	73
<i>Kiedrowicz Maciej</i>	
SYSTEM RISK MODEL OF THE IT SYSTEM SUPPORTING THE PROCESSING OF DOCUMENTS AT DIFFERENT LEVELS OF SENSITIVITY	85
<i>Stanik Jerzy</i>	
A COMPUTER SYSTEM FOR CBRN CONTAMINATION THREATS ANALYSIS SUPPORT, PREDICTION THEIR EFFECTS AND ALARMING THE POPULATION: POLISH CASE STUDY	98
<i>Tarapata Zbigniew, Antkiewicz Ryszard, Chmielewski Mariusz, Dyk Michal, Kasprzyk Rafal, Kulas Wojciech, Najgebauer Andrzej, Pierzchala Dariusz, Rulka Jaroslaw</i>	
ANALYTICAL PROCESSING SYSTEM OF BUSINESS PROCESSES, METHODS OF EXPLORATION OF BUSINESS PROCESS DEFINITIONS AND INSTANCES	106
<i>Koszela Jaroslaw</i>	
DYNAMIC BUSINESS PROCESS IN WORKFLOW SYSTEMS	114
<i>Kiedrowicz Maciej</i>	
ON A GENERALIZED SQUARED GAUSSIAN DIFFUSION MODEL FOR OPTION VALUATION	122
<i>Edeki S.O., Ugbebor O.O.</i>	
OPTIMIZATION OF EQUIPMENT DEPLOYMENT ON FIRE TRUCKS	127
<i>Nowicki Tadeusz</i>	
HIGH-LEVEL CONTROL SYSTEM FOR BIOMIMETIC AUTONOMOUS UNDER-WATER VEHICLE	133
<i>Praczyk Tomasz, Szymak Piotr</i>	

RESEARCH OF THE METHOD OF PSEUDO-RANDOM NUMBER GENERATION BASED ON ASYNCHRONOUS CELLULAR AUTOMATA WITH SEVERAL ACTIVE CELLS	143
<i>Bilan Stepan, Bilan Mykola, Bilan Sergii</i>	
MEASUREMENT OF FOUR-PANE BUILDING WINDOW FILLED WITH A PCM	149
<i>Kolacek Martin</i>	
ACTIVE DAMPING OF MULTIDIMENSIONAL MECHANIC SYSTEMS	153
<i>Úředníček Zdenek, Maloch Jaroslav</i>	
UTILIZATION OF 3D SENSORS IN ROBOTICS	157
<i>Marčaník Miroslav, Šustek Michal, Tomášek Pavel, Jašek Roman</i>	
MULTIVARIATE STUDY OF SPECTRAL DATA OF OILS	162
<i>Vaskova Hana, Buckova Martina</i>	
PREDICTIVE CONTROL OF MULTIVARIABLE TIME-DELAY SYSTEMS	166
<i>Marek Kubalcik, Vladimír Bobal</i>	
THE EFFECT OF BLINDS ON WORKPLACE ILLUMINANCE	172
<i>Vincenec Jiri, Mitas Martin</i>	
DC MOTORS AND SERVO-MOTORS CONTROLLED BY RASPBERRY PI 2B	176
<i>Šustek Michal, Marčaník Miroslav, Tomášek Pavel, Úředníček Zdenek</i>	
STEPS TOWARDS MODERN TRENDS IN DISTRICT HEATING	181
<i>Vasek Lubomir, Dolinay Viliam</i>	
VALIDATION OF NEW CFD RELEASE BY GROUND-COUPLED HEAT TRANSFER TEST CASES	187
<i>Sehnalek Stanislav</i>	
CFD VALIDATION BY MEASUREMENT OF SPECIALIZED VENTILATION EQUIPMENTS ON DUCT TRACT	192
<i>Sehnalek Stanislav</i>	
EFFECT OF IMPLEMENTATION QUADRUPLE GLAZING PANEL INTO THE WALLS ON THE AIRBORNE SOUND INSULATION OF BUILDING FACADES	197
<i>Drabek Pavel</i>	
COMPARISON OF TWO INTERNATIONALLY RECOGNIZED METHODS FOR DETERMINING THE SOUND ABSORPTION COEFFICIENT	202
<i>Drabek Pavel</i>	
MODELING THE YIELD OF HYDROLYSIS PROCESS OF LEATHER SHAVINGS	206
<i>Vaskova Hana, Kocurek Pavel</i>	
THERMOELECTRIC COOLING IN COMBINATION WITH PHOTOVOLTAICS AND THERMAL ENERGY STORAGE	210
<i>Skovajsa Jan, Zálešák Martin</i>	
USING FORMAL METHODS IN DISTRIBUTED SYSTEM DESIGN	216
<i>Emad Awwama, Mohammad Kadi, Said Krayem, Ivo Lazar, Ahmad Rihawi</i>	
THE FAMILY HOUSE CONTROL SYSTEM BASED ON RASPBERRY PI	220
<i>Sysala Tomas, Fogl David, Neumann Petr</i>	
TESTING OF METHOD FOR ASSESSING OF ROOM THERMAL STABILITY	227
<i>Charvátová Hana, Zálešák Martin</i>	
CALCULATION OF SHIELDING EFFECTIVENESS OF MATERIALS FOR SECURITY DEVICES	232
<i>Kovar Stanislav, Valouch Jan, Urbancokova Hana</i>	
HYBRID EXTENSION FOR ADVANCED TECHNOLOGY ZONE	236
<i>Mach Václav</i>	
ADVANCED HARDWARE PROTECTION OF METALLIC LOOPS	239
<i>Mach Václav, Adámek Milan</i>	
IMMUNITY OF ELECTRONIC DEVICES AGAINST RADIO-FREQUENCY ELECTROMAGNETIC FIELDS	243
<i>Urbancokova Hana, Kovar Stanislav, Halaska Ondrej, Valouch Jan</i>	
DIVIDING OF METAL AND PLASTIC COMPONENTS OF PRINTED CIRCUIT BOARDS	248
<i>Krenek Jiri, Janacova Dagmar, Liska Ondrej, Vasek Vladimír, Suba Oldrich</i>	
THE INFLUENCE OF REGRESSION CURVE PARAMETERS OF CREEP BEHAVIOUR ON MEASURED DATA PREDICTION	253
<i>Reznicek Martin, Vaclav Janostik, Bilek Ondrej</i>	
EVALUATION OF NANO-MECHANICAL PROPERTIES AND MORPHOLOGY OF FILLED POLYPROPYLENE MODIFIED BY IRRADIATION	257
<i>Ovsik Martin, Stanek Michal, Reznicek Martin</i>	

INFLUENCE OF ELECTRON BEAM IRRADIATED ON THE SURFACE PROPERTIES OF POLYAMIDE MEASURED BY MICRO-INDENTATION TEST	261
<i>Ovsik Martin, Stanek Michal, Senkerik Vojtech</i>	
ULTRA NANO-HARDNESS OF SURFACE LAYER OF IRRADIATED HIGH-DENSITY POLYETHYLENE (HDPE)	265
<i>Manas David, Dobransky Jozef, Chvatalova Lenka</i>	
MECHANICAL PROPERTIES OF SURFACE LAYER OF UNFILLED POLYPROPYLENE.....	270
<i>Manas David, Dobransky Jozef, Chvatalova Lenka</i>	
COMPARISON OF INTEGRATED AND COMPOSED STEP-DOWN CONVERTER IN TERMS OF EMC	274
<i>Janku Peter, Lorenc Luboš, Dulík Tomáš</i>	
AN ANALYTICAL DYNAMIC MODEL OF HEAT TRANSFER FROM THE HEATING BODY TO THE HEATED ROOM.....	280
<i>Mižáková Jana, Pitel Ján</i>	
IMPACT BEHAVIOUR OF ACRYLONITRILE-BUTADIENE-STYRENE AFTER TEMPERATURE AND HUMIDITY LOAD	285
<i>Hylova Lenka, Manas Miroslav</i>	
OPTIMIZATION OF FALL HEIGHT SETTING FOR DROP WEIGHT TESTED POLYPROPYLENE.....	289
<i>Hylova Lenka, Manas Miroslav</i>	
IMPACT RESISTANCE OF HIGH-DENSITY POLYETHYLENE AGAINST FALLING PENETRATOR WITH DIFFERENT POTENTIAL ENERGY	293
<i>Mizera Ales, Chalupa Petr, Hudec Ivan</i>	
INFLUENCE OF FALL HEIGHT ON HIGH IMPACT POLYSTYRENE DEFORMATION AND CHARACTERISTICS OF DROP WEIGHT TEST	297
<i>Mizera Ales, Chalupa Petr, Hudec Ivan</i>	
EFFECT OF PIGMENT CONCENTRATION ON MECHANICAL PROPERTIES OF POLYCARBONATE.....	301
<i>Janostik Vaclav, Senkerik Vojtech</i>	
CATALYTIC OXIDATION USING NITROUS OXIDE.....	305
<i>Juan Carlos Beltran-Prieto, Karel Kolomaznik</i>	
STUDY OF DISSOLUTION PROCESS AND ITS MODELLING.....	309
<i>Juan Carlos Beltran-Prieto, Luis Antonio Beltran-Prieto</i>	
DETECTING FIRE IN VIDEO STREAM USING STATISTICAL ANALYSIS.....	313
<i>Koplík Karel, Janku Peter, Voznyuk Olga, Dulík Tomáš, Snopek Petr</i>	
CHANGE OF NOTCH IMPACT STRENGTH DEPENDING ON RADIATION DOSE AND TEST TEMPERATURE	318
<i>Martin Bednarik, Pavel Stoklasek</i>	
INFLUENCE OF TEMPERATURE AND MOISTURE ON THE MECHANICAL PROPERTIES OF IRRADIATED THERMOPLASTICS MATERIALS	323
<i>Pavel Stoklasek, Martin Bednarik</i>	
COMPUTER NETWORKS IN EDUCATION	327
<i>Adamek Milan, Matysek Miroslav, Barinova Michaela</i>	
INTENSITY OF EMF GENERATED BY ELECTRONIC SAFETY SYSTEM DEVICES.....	333
<i>Pospisilik Martin, Vnencakova Eva, Kutaj Milan</i>	
THE BALANCE MODEL FOR HEAT TRANSPORT FROM HYDROLYTIC REACTION MIXTURE.....	337
<i>Janacova Dagmar, Kolomaznik Karel, Mokrejs Pavel, Vasek Vladimir, Krenek Jiri, Liska Ondrej</i>	
ADAPTIVE CONTROL OF NEURAL NETWORK SYNTHESIS	341
<i>Varacha Pavel</i>	
NON-STATIONARY BEHAVIOR OF ROOF DRAINAGE SYSTEMS	345
<i>Koláček Martin</i>	
COMPARATIVE STUDY OF INTELLIGENT SYSTEMS FOR MANAGEMENT OF GIT CANCERS.....	349
<i>Labib Nevine, Wadid Edward</i>	
CASCADE-BASED VOLTAGE-AMPLIFIER STAGE	355
<i>Pospisilik Martin</i>	
SINGLE STATOR DUAL PM ROTOR SYNCHRONOUS MACHINE WITH TWO-FREQUENCY SINGLE-INVERTER CONTROL, FOR THE PROPULSION OF HYBRID ELECTRIC VEHICLES	361
<i>Topor Marcel, Marignetti Fabrizio, Deaconu Sorin Ioan, Tutelea Lucian Nicolae</i>	
ENERGY EFFICIENCY TOOLS FOR RESIDENTIAL USERS.....	367
<i>Zacharioudakis Emmanouil, Leligou Helen C., Papadopoulou Aikaterini</i>	

A PERFORMANCE COMPARISON OF TWO EMOTION-RECOGNITION IMPLEMENTATIONS USING OPENCV AND COGNITIVE SERVICES API	373
<i>Beltrán Prieto Luis Antonio, Komínková-Oplatková Zuzana</i>	
AN APPROACH FOR ESTIMATION OF OPTIMAL ENERGY FLOWS IN BATTERY STORAGE DEVICES FOR ELECTRIC VEHICLES IN THE SMART GRID	378
<i>Vacheva Gergana, Kanchev Hristiyan, Hinov Nikolay, Stanev Rad</i>	
TRIANGULATION POSITIONING SYSTEM NETWORK	383
<i>Sfendourakis Marios, Nilavalan Rajagopal, Antonidakis Emmanuel</i>	
SELF-PROPELLED AUTONOMOUS 2D PARALLEL ROBOTS FOR SLIDING CUPPING-GLASS MASSAGE FOR BACK AND CHEST	388
<i>Sayapin Sergey, Sayapina Elena</i>	
ONLINE ADAPTIVE CORONARY HEART DISEASE RISK PREDICTION MODEL	394
<i>Lam Jostinah, Supriyanto Eko, Yahya Faris, Satria Muhammad Haikal, Kadiman Suhaini, Azan Aizai, Soesanto Amiliana</i>	
CONVERGECAST WITH UNBOUNDED NUMBER OF CHANNELS	399
<i>Plotnikov Roman, Erzin Adil, Zalyubovskiy Vyacheslav</i>	
ZERO-KNOWLEDGE UNIVERSAL LOSSLESS DATA COMPRESSION	407
<i>Fiorini Rodolfo A.</i>	
DESIGN AND STUDY OF A MICROSTRIP SLOT ANTENNA OPERATING AT 2.8/3.1/3.6/4.7/5.4 GHZ	414
<i>Lozada Angel, Piedrahita Andrés, Russi Gloria</i>	
5G TECHNOLOGIES BOOSTING EFFICIENT MOBILE LEARNING	421
<i>Leligou Helen C., Zacharioudakis Emnnouil, Bouta Louisa, Nikos Evangelos</i>	
GENERAL DATA ACQUISITION PLATFORM FOR WIRELESS SENSOR NETWORK BASED ON CC2538	427
<i>Yang Zhi-Jun, Ding Yang-Yang, Ding Hong-Wei, Su Yang</i>	
EFFICIENT SECRET KEY DELIVERY USING HEARTBEATS	432
<i>Cho Kwantae, Chung Byungho</i>	
AN IMPROVED TECHNIQUE FOR THE DETECTION OF PILOT CONTAMINATION ATTACKS IN TDD WIRELESS COMMUNICATION SYSTEMS	438
<i>Mihaylova Dimitriya, Valkova-Jarvis Zlatka, Iliev Georgi</i>	
COMMUNICATION FRAMEWORK FOR TELE-REHABILITATION SYSTEMS WITH QOS GUARANTEE	442
<i>Dandanov Nikolay, Semov Plamen, Ivanov Antoni, Christoff Nicole, Poulkov Vladimir</i>	
STATE-OF-THE-ART ON VIRTUALIZATION AND SOFTWARE DEFINED NETWORKING FOR EFFICIENT RESOURCE ALLOCATION ON MULTI-TENANT 5G NETWORKS	447
<i>Tsirakis Christos, Matzoros Panagiotis, Agapiou George</i>	
LOAD BALANCING IN 5G NETWORKS	453
<i>Tsirakis Christos, Matzoros Panagiotis, Sioutis Petros, Agapiou George</i>	
CONSIDERATIONS FOR IP INTERCONNECTION OF POWER GRID COMPONENTS	459
<i>Gezerlis Velissarios, Belesiotti Maria, Doukoglou Tilemachos, Chochliouros Ioannis</i>	
A NOVEL ARCHITECTURAL CONCEPT FOR ENHANCED 5G NETWORK FACILITIES	464
<i>Chochliouros Ioannis P., Giannoulakis Ioannis, Spiliopoulou Anastasia S., Belesiotti Maria, Kostopoulos Alexandros, Sfakianakis Evangelos, Kourtis Anastasios, Kafetzakis Emmanouil, Agapiou Stelios</i>	
MODELING AND SIMULATION OF BOTNET BASED CYBER-THREATS	471
<i>Kasprzyk Rafal, Paz Marcin, Tarapata Zbigniew</i>	
FREE AND OPEN SOURCE CHEMISTRY SOFTWARE IN RESEARCH OF QUANTITATIVE STRUCTURE-TOXICITY RELATIONSHIP OF PESTICIDES	479
<i>Rastija Vesna, Agic Dejan, Brlas Kristian, Masand Vijay</i>	
DIAGNOSTIC SYSTEM OF DRILL CONDITION IN LAMINATED CHIPBOARD DRILLING PROCESS	484
<i>Swiderski Bartosz, Kurek Jaroslaw, Osowski Stanislaw, Kruk Michal, Jegorowa Albina</i>	
EVALUATION OF DIAGNOSTIC CLASSIFIERS USING ARTIFICIAL CLINICAL CASES	490
<i>Antczak Karol, Walczak Andrzej, Paczkowski Michal</i>	
A COMPARATIVE STUDY OF CONTROL METHODS FOR A ROBOTIC MANIPULATOR WITH SIX DOF IN SIMULATION	496
<i>Smyrniou Georgia P., Papoutsidakis Michail, Tseles Dimitrios</i>	
SOFTWARE FOR ASSESSING THE PERFORMANCE OF ANTI-PLAGIARISM PROGRAMS	502
<i>Popescu Marius, Laszlo Csiki, Naaji Antoanela</i>	
INTELLECTUAL CAPITAL AND PREDEFINED HEADINGS IN SWEDISH HEALTH CARE SECTOR	509
<i>Terner Annika, Halilovic Amra</i>	

DESIGN AND IMPLEMENTATION OF APPLICATION FOR THE HEARING IMPAIRED PEOPLE	514
<i>Kim ChoulWoo, Kim Dongyun, Lee Hyundo, Park Hanseong, Kwon Giung, Park Eunju, Lim Hankyu</i>	
AUTOMATIC REGULATION OF WASTEWATER DISCHARGE	520
<i>Bolea Yolanda, Grau Antoni</i>	
LIQUID STORAGE CYLINDRICAL TANK - EARTHQUAKE ANALYSIS	526
<i>Kotrasová Kamila, Kormaníková Eva</i>	
LAMINATE CIRCULAR CYLINDRICAL SHELL	531
<i>Kormaníková Eva, Kotrasová Kamila</i>	
TESTING OF PROCESS CONTROL SYSTEMS IN MINING USING SIMULATION	536
<i>Okolnishnikov V.V., Rudometov S.V., Shakirov S.R., Zhuravlev S.S.</i>	
MOLECULAR DYNAMICS ON FPGA BASED ACCELERATED PROCESSING UNITS	540
<i>Malita Mihaela, Mihaita David, Stefan Gheorghe M.</i>	
MILK DUCT SEGMENTATION IN MICROSCOPIC HE IMAGES OF BREAST CANCER TISSUES	546
<i>Swiderski Bartosz, Kruk Michal, Osowski Stanislaw, Wieczorek Grzegorz, Kurek Jaroslaw, Chmielewski Leszek J., Orlowski Arkadiusz</i>	
NETWORK MODEL OF RISK ANALYSIS IN THE TECHNICAL STRUCTURES	550
<i>Walczak Andrzej, Napiórkowski Jaroslaw, Adamczyk Piotr, Kiryk Grzegorz</i>	
OPTIMIZATION OF WAVE PATTERN OF CORRUGATION ON PLATES OF HEAT EXCHANGER	558
<i>Dvorák Václav</i>	
HOMOGENEITY OF THE TEST VARIANTS IN ENTRANCE EXAMS	565
<i>Klufa Jindrich</i>	
USING MACHINE LEARNING METHODS JOINTLY TO FIND BETTER SET OF RULES IN DATA MINING	569
<i>SUG Hyontai</i>	
CROWDSOURCING AS AN IT HELP TOOL TO DETERMINE IMPACT IN THE HEALTH SECTOR	574
<i>López Juan Diego, Osorio Roberto, Moreno Luis, Gomez Jorge, López Francisco, Vilardy Aldo, Gutierrez Jairo, Gomez Liliana, Veléz Francisco</i>	
STRATEGIES FOR IMPROVING THE QUALITY OF POLLING SERVICE IN WIRELESS METROPOLITAN AREA NETWORK	579
<i>Yang Zhi-Jun, Su Yang, Ding Hong-Wei, Ding Yang-Yang</i>	
FUZZIFICATION OF FACIAL MOVEMENTS TO GENERATE HUMAN-MACHINE INTERFACES IN ORDER TO CONTROL ROBOTS BY XMPP INTERNET PROTOCOL	586
<i>Romualdo Ramírez Jesús A., Mendéz Franco Enrique, Tinoco Varela David</i>	
BIG DATA ANALYTICS IN THE MANAGEMENT OF BUSINESS	594
<i>Jelonek Dorota</i>	
RESULTS OF IMPLEMENTING ERP SYSTEM IN A MULTI-PLANT ENTERPRISE	600
<i>Wyslocka Elzbieta</i>	
3D MODEL OF FLOW IN MICRO CHANNELS	605
<i>Kudryashova Tatiana, Polyakov Sergey</i>	
AN EXPERIMENTAL DESIGN TO STUDY DECOMMITMENT IN A COLLABORATIVE MULTI-AGENT SYSTEM IN A SCHEDULING DOMAIN	610
<i>Van Dyne Michele, Tsatsoulis Costas</i>	
WEBSITE CLICKSTREAM DATA VISUALIZATION USING IMPROVED MARKOV CHAIN MODELLING IN APACHE FLUME	615
<i>Frhan Amjad Jumaah</i>	
DEPLOYMENT OF SIP IN MANET: CHALLENGES AND CIRCUMVENTION	623
<i>Abdelhamid Salma R., Shamardan Hossam-Eldeen M., Ghalwash Atef Z.</i>	
OPTIMIZED UAV OBJECT TRACKING FRAMEWORK BASED ON INTEGRATED PARTICLE FILTER WITH EGO-MOTION TRANSFORMATION MATRIX	629
<i>Askar Wesam, Elmowafy Osama, Youssif Aliaa, Elnashar Gamal</i>	
ADAPTIVE ALGORITHM FOR SOLUTION OF EARLY EXERCISE BOUNDARY PROBLEM OF AMERICAN PUT OPTION IMPLEMENTED IN MATHEMATICA	637
<i>Lukáš Ladislav</i>	
UNIVERSAL LANGUAGE EXTENSION FOR CONDUCTING LABORATORY EXPERIMENTS ON ANALOGUE AND DIGITAL CIRCUIT DESIGN	643
<i>Popov George, Krastev Filip</i>	
A CLUSTER EXPANSION FOR INTERACTING SPIN-FLIP PROCESSES	647
<i>Campanino Massimo, Gianfelice Michele</i>	

HIERARCHICAL MOTION-COMPENSATED FRAME RATE UP-CONVERSION USING GAUSSIAN PYRAMID AND GUIDANCE MOTION VECTOR.....	649
<i>Park Bumjun, Jeong Jechang</i>	
MULTIDIRECTIONAL MOTION ESTIMATION ALGORITHM FOR FRAME RATE UP-CONVERSION	654
<i>Yu Songhyun, Jeong Jechang</i>	
SENSOR-BASED SUPPORTING MOBILE SYSTEM PARKINSON DISEASE CLINICAL TESTS UTILISING BIOMEDICAL AND RFID TECHNOLOGIES	658
<i>Chmielewski Mariusz, Nowotarski Michal</i>	
SPLITTING MAGNITUDE RESPONSE INTO REAL AND IMAGINARY PARTS	669
<i>Shtrauss Vairis, Kalpinsh Aldis, Lomanovskis Uldis</i>	
ON THE REPRESENTATION OF SIGNALS SERIES BY FABER-SCHAUDER SYSTEM.....	673
<i>Grigoryan Tigran, Grigoryan Martin</i>	
A NEW STOCHASTIC INNER PRODUCT CORE DESIGN FOR DIGITAL FIR FILTERS.....	678
<i>Wong Ming Ming, Wong M. L. Dennis, Zhang Cishen, Hijazin Ismat</i>	
APPLICATION OF ENHANCED HADAMARD ERROR CORRECTING CODE IN VIDEO-WATERMARKING AND HIS COMPARISON TO REED-SOLOMON CODE	683
<i>Dziech Andrzej, Wassermann Jakob</i>	
STATISTICAL AND LEARNING AIDED CLASSIFIER FOR ECG BASED PREDICTIVE DIAGNOSTIC TOOL.....	691
<i>Bharali Sumi, Sarma Manash Pratim, Sarma Kandarpa Kumar, Mastorakis Nikos</i>	
DIVERGENCE CODING FOR CONVOLUTIONAL CODES	698
<i>Valery Zolotarev, Gennady Ovechkin, Dina Satybalдина, Nurlan Tashatov, Eldor Egamberdiyev</i>	
AN IOT-BASED SYSTEM THAT AIDS LEARNING FROM HUMAN BEHAVIOR: A POTENTIAL APPLICATION FOR THE CARE OF THE ELDERLY	703
<i>Saralegui Unai, Antón Miguel Ángel, Ordieres-Meré Joaquín</i>	
EXTRACTION OF HUMAN STEPPING PATTERN USING ACCELERATION SENSORS	708
<i>Toyohira Takayuki, Sato Kiminori, Watanabe Mutsumi</i>	
CONTROL OF FRAMED STRUCTURES USING INTELLIGENT MONITORING NETWORKS.....	713
<i>Foti Dora, La Scala Massimo, Lamonaca Silvia, Vacca Vitantonio</i>	
DEVELOPMENT OF SEASONAL ARIMA MODELS FOR TRAFFIC NOISE FORECASTING	719
<i>Guarnaccia Claudio, Mastorakis Nikos E., Quartieri Joseph, Tepedino Carmine, Kaminaris Stavros D.</i>	
ACOUSTIC EMISSIONS ANALYSIS OF A FOUR-POINT BENDING TEST ON A REINFORCED CONCRETE BEAM.....	727
<i>Corrado Chisari, Claudio Guarnaccia, Nicola Lamberti, Vincenzo Piluso, Joseph Quartieri, Gianvittorio Rizzano</i>	
EXPERIMENTAL VALIDATION OF AN INNOVATIVE PROCEDURE FOR THE ROLLING NOISE CORRECTION	733
<i>Viscardi Massimo, Napolitano Pasquale, Ferraiuolo Stefano</i>	
SPECIFICITY IN THE OPTICAL EXCITATION LOCK-IN THERMOGRAPHY RESULTS PROCESSING	740
<i>Stoynova Anna, Bonev Borislav</i>	
A METHOD FOR STRICT REMOTE USER IDENTIFICATION USING NON - REVERSIBLE GALOIS FIELD TRANSFORMATIONS	745
<i>Bardis Nikolaos G., Markovskiy Oleksandr P., Doukas Nikolaos</i>	
A TRANSLATION OF THE MALIA ALTAR STONE	750
<i>Revesz Peter Z.</i>	
THE CRETAN SCRIPT FAMILY INCLUDES THE CARIAN ALPHABET	755
<i>Revesz Peter Z.</i>	
MEAN SQUARE CONSISTENCY ON NUMERICAL SOLUTIONS OF STOCHASTIC WAVE EQUATION WITH CUBIC NONLINEARITIES ON 2D RECTANGLES.....	759
<i>Hazaimh Haziem M.</i>	
Author Index	