

CONTENTS

SECTION A - Systems, Process Control and Automation

<i>Synthesis of PID Algorithm for Speed Control of the DC Motor</i> Irina COJUHARI, Ion FIODOROV, Bartolomeu IZVOREANU, Dumitru MORARU	1
<i>Low Noise Current Controller Design for Table-level Balance Robot's Joint</i> Xuanhong LIAO, Shaojie SHEN, Zexiang LI, Lei YU	6
<i>CPU Execution Time Analysis based on RISC-V ISA Simulators: A Survey</i> Nicolai IUGA, Ionel ZAGAN, Vasile Gheorghita GAITAN	12
<i>Review of thermal performance enhancement of Solar Air Heater using shapes on absorber plate</i> Visarion-Cătălin IFRIM, Teodor POP	19
<i>Review of thermal performance enhancement of Solar Air Heater using baffles on absorber plate</i> Visarion-Cătălin IFRIM, Oana Vasilica GROSU	28
<i>Septic-convolution Kernel - Comparative Analysis of the Interpolation Error</i> Natasa SAVIC, Zoran MILIVOJEVIC, Bojan PRLINCEVIC, Dijana KOSTIC	36
<i>Simulated Test Environment for Low Voltage and Medium Voltage Distribution Cell Monitoring Systems</i> Radu FECHET, Adrian GRAUR, Marius PRELIPCEANU, Dragos VICOVEANU	42
<i>A Method of Hardware Implementation of Membrane Computing Architectures for Mobile Robot Control</i> Victor ABABII, Viorica SUDACEVSCHI, Viorel CARBUNE, Silvia MUNTEANU, Victoria ALEXEI, Victor LASCO	52
<i>Harmonics of the Component Formed by Pairs of Alternative Unitary Step, Symmetrical Regarding the Central Step of the PWM Inverter Output Voltage</i> Virgil MAIER, Sorin G. PAVEL, Horia G. BELEIU, Tudor S. PAVEL	57
<i>Analysis of Server Solutions Used for Microclimate Surveillance in LV / MV Switchgear Cells</i> Radu FECHET, Adrian GRAUR, Marius PRELIPCEANU, Dragos VICOVEANU	62
<i>Design and Development of an Autonomous Robot</i> Alin Ilie STINGU, Mihaela Codruta ANCUTI, Cristian SANDU	67

SECTION B - Communications and Computer Networks

<i>Improving ModBus Extension performance using PRU unit from Sitara AM335x</i> Cornel VENTUNEAC, Vasile Gheorghita GAITAN, Catalin LUPU	73
<i>New Snort rule for detection and prevention of SMTP e-mail bomb attacks</i> Andrei-Daniel TUDOSI, Doru Gabriel BALAN, Alin Dan POTORAC	78
<i>Secure network architecture based on distributed firewalls</i> Andrei-Daniel TUDOSI, Doru Gabriel BALAN, Alin Dan POTORAC	85
<i>Evaluation of a new spectrum sensing technique for Internet of Things: An AI approach</i> Partemie M. MUTESCU, Alexandru LAVRIC, Adrian I. PETRARIU, Valentin POPA	91
<i>Phase Shift Effects Analysis on Radiation Pattern of a Ground Plane Antenna Array</i> Cezar-Ion ADOMNITEI, Cezar-Eduard LESANU, Adrian DONE, Mihai DIMIAN, Iulian CHIUCHISAN, Ang YU	95
<i>Long-Wire Directive S-band Antenna</i> Cezar-Ion ADOMNITEI, Cezar-Eduard LESANU, Adrian DONE	101
<i>Zero-Trust Cybersecurity Approach for Dynamic 5G Network Slicing with Network Service Mesh and Segment-Routing over IPv6</i> Bruno DZOGOVIĆ, Bernardo SANTOS, Ismail HASSAN, Boning FENG, Van Thuan DO, Niels JACOT	105
<i>Comparative Analysis of The Performance of the Algorithms for the Filling in the Missing Value that Can Be Used in the Predictive Maintenance System of the UAVs</i> Dragos-Alexandru ANDRIOAIA, Vasile Gheorghita GAITAN	115

SECTION C - Electronics and Computer Aided Engineering

<i>Improved Single-LED Pulse Oximeter Design Based on Multi-Wavelength Analysis</i> Cătălin BEGUNI, Alin-Mihai CĂILEAN, Sebastian-Andrei AVĂTĂMĂNIȚEI, Mihai DIMIAN	119
<i>Multilevel Power Electronic Systems Adjusted by Algorithms of Multi-Zone Space-Vector Modulation: A Survey</i> Valentin OLESCHUK, Mihai TIRSU, Irina VASILIEV	124

SECTION D - Software Engineering and Information Technologies

<i>Non-bijectivity-based image obfuscation method for deep learning based medical applications</i> Andreea Bianca POPESCU, Cosmin Ioan NITA, Ioana Antonia TACA, Anamaria VIZITIU, Lucian Mihai ITU	132
<i>The delivery of large-scale software products through the adoption of the SAFe framework</i> Cristian FAGARASAN, Ciprian CRISTEA, Maria CRISTEA, Ovidiu POPA, Cristina MIHELE, Adrian PISLA	137
<i>Towards Education 4.0: Enhancing Traditional Textbooks with Augmented Reality and Quick Response codes</i> Marian-Vlăduț TOMA, Cristina Elena TURCU	144
<i>Experimental Evaluation of Implicit and Explicit Learning of Abstract Regularities Following Socio- Emotional Interactions in Mixed Reality</i> Cristian PAMPARĂU, Andrei COSTEA, Răzvan JURCHIȘ, Radu-Daniel VATAVU, Adrian OPRE	150

<i>Tendencies in the use of Big Data analytics at a global level</i> Marius Silviu MĂCIUCĂ, Mirela DANUBIANU, Corina SIMIONESCU	155
<i>ADLS Gen 2 for web server log data analysis</i> Elisabeta ZAGAN, Mirela DANUBIANU	161
<i>Tensor-Based and Projection-Based Methods for Dimensionality Reduction of Hyperspectral Images</i> Laura-Bianca BILIUS, Stefan Gheorghe PENTIUC	167
<i>Development of the fuzzy logic module to determine the expediency of event selection</i> Zakusylo M. TARAS, Volodymyr I. MESYURA	171
<i>Application of the wheel of life balance to time management software</i> Zakusylo M. TARAS, Volodymyr I. MESYURA	178
<i>Section method for monitoring the surface shape of a radiation spot in real time</i> Leonid TYMCHENKO, Natalia KOKRIATSKA, Volodymyr TVERDOMED, Yurii KUTAEV, Dmytro ZHUK	186
<i>Index of Authors</i>	191