



CONTENTS

Octavian Dontu, Moga Corina Ioana, Beatrice Tănase, Nicolae Băran, Gheorghe I. Gheorghe, Edgar Moraru	RESEARCHES REGARDING THE USE OF ADDITIVE TECHNOLOGIES IN THE CONSTRUCTION OF WATER AERATION ELEMENTS	7
Daniel Besnea, Dana Rizescu, Ciprian Ion Rizescu, Victor Constantin, Alina Spanu	ADDITIVE TECHNOLOGIES AND MATERIALS USED FOR MAKING CUSTOMISED GLASSES FRAMES	13
Yongjun Zhang	DISCUSSION ON ROBOT EMBEDDED POSITIONING SYSTEM BASED ON IMAGE CORRESPONDENCE ALGORITHM	18
Abhro Mukherjee, Satyabrata Das	NUMERICAL SIMULATION OF A SMALL SIZE ROTOR WITH SELF- INDUCED INSTABILITY USING SLIDING MODE AND FOPID CONTROLLER AND THEIR COMPARISON	28
Yakang Zhao, Dexian Ma, Shixiong Fu, Maohua Xiao*, Chengcheng Yan, Shanshan Guo	DESIGN OF A NEW TYPE OF AUTOMATIC DRAIN COVER	37
Cornel Marin, Ionel Rusa	EXPERIMENTAL RESULTS OF TURBO-AGGREGATE VIBROACOUSTIC DIAGNOSIS OBTAINED WITH VIBRO-EXPERT SYSTEM FOR ONE TURBO AGGREGATE IN LUKOIL REFINERY	45
Rochdi El Abdi, Julien Labbé, Florence Le Strat, Erwann Carvou	EFFECT OF VIBRATION FREQUENCY ON MECHANICAL BEHAVIOR OF AUTOMOTIVE SENSOR	55
Masood Sherafat and Saeed Olyaei	A NONLINEARITY ERROR COMPENSATION METHOD IN NANO- METROLOGY SYSTEM BASED ON DEVELOPED THREE- LONGITUDINAL MODE HETERODYNE INTERFEROMETER	60

Edgar Moraru, Daniel Besnea, Octavian Dontu, Gheorghe I. Gheorghe, Victor Constantin	APPLICATIONS OF ADDITIVE TECHNOLOGIES IN REALIZATION OF CUSTOMIZED DENTAL PROSTHESES	66
Yan WANG	MECHANICAL FAULT DIAGNOSIS BASED ON FUZZY CLUSTERING ALGORITHM	72
Gheorghe I. Gheorghe	INTELLIGENT MECHATRONICS AND CYBER-MECHATRONICS ECOSYSTEMS DEVELOPED IN "ECOSIN- MECATRON" RESEARCH INFRASTRUCTURE	82
Ahmed Sachit Hashim, Bogdan Grămescu, Constantin Nițu	PIPE LEAKAGE DETECTION USING HUMIDITY AND MICROPHONE SENSORS – A REVIEW	93
Xin BU, Qian GU , Xinwu WANG	EXPERIMENTAL STUDY ON SEISMIC PERFORMANCE OF THREE-DIMENSIONAL BEAM TO COLUMN CONNECTION WITH T-STUB	98
Mihai-Nicolae Popescu and Mihai Avram	STUDY ON THE CURRENT STATE OF RESEARCH IN THE FIELD OF ARTIFICIAL CLAMPING SYSTEMS USING ASTRINGENT ELECTRO ADHESION TECHNOLOGY	110
Ahmed Sachit Hashim, Bogdan Grămescu, Constantin Nițu	PIPE CRACKS DETECTION METHODS – A REVIEW	114
Gheorghe I. Gheorghe, Octavian Donțu, Nicolae Băran, Corina Moga, Mihaela Constantin, Eugen Tămășanu	RESEARCHES ON THE MEASUREMENT OF THE DISSOLVED OXYGEN CONCENTRATION IN STATIONARY WATERS	120
Liliana-Laura Badita, Valentin Gornoava, Adrian Marian Vocurek, Aurel Zapciu, Iulian-Sorin Munteanu	THIN FILMS USED TO IMPROVE THE FUNDAMENTAL CHARACTERISTICS OF THE MECHATRONIC COMPONENTS	127
Lopot František, Daniel Hadraba, Petr Kubový, Jan Hošek	AUTOMATED SYSTEM FOR REMOTE DEFECT INSPECTION	139
Amin S Abdullah Abdullah, Cristian Gabriel Alionte, Constantin Nitu	ANKLE-KNEE REHABILITATION SYSTEM	145

Chucong Zhong	MECHANICAL AND ELECTRICAL AUTOMATIC CONTROL SYSTEM BASED ON PLC	150
Mihai Avram, Valerian-Emanuel Sârbu, Alina-Rodica Spânu, Constantin Bucşan	INTELLIGENT HYDRAULIC POWER GENERATING GROUP	157
M.Amin Changizi, Davut Erdem Sahin, Ion Stiharu	A CLOSED FORM SOLUTION FOR NON-LINEAR DEFLECTION OF NON-STRAIGHT LUDWICK TYPE BEAMS USING LIE SYMMETRY GROUPS	163
Juanjuan Li	FAULT POINT STATE MONITORING OF ELEVATOR DOOR BASED ON MODULUS MAXIMUM WAVELET TRANSFORM	170
Leandro Pereira, José Machado, Vítor Carvalho, Filomena Soares, Demétrio Matos	MECHATRONIC SYSTEM FOR THE PROMOTION OF PHYSICAL ACTIVITY IN PEOPLE WITH MOTOR LIMITATIONS	177
Tudor Catalin Apostolescu, Georgeta Ionascu, Silviu Petrache, Lucian Bogatu, Laurentiu Adrian Cartal	DESIGN AND ANALYSIS FOR MOTORS CONTROL OF A 4-DOF PARALLEL ROBOT	184
Ileana Nicoleta Popescu, Ivona Camelia Petre, Veronica Despa	ANALYTICAL AND EXPERIMENTAL STUDIES ON WEAR BEHAVIOUR OF CAST AND HEAT TREATED ALSI12CUMGNI AND ALZN6MGCU MATRIX COMPOSITES REINFORCED WITH CERAMIC PARTICLES, UNDER SLIDING CONDITIONS	191
George Baboianu, Constantin Nitu and Constantin Daniel Comeaga	CURRENT STATE OF ANTHROPOMETRIC PARAMETERS MEASUREMENT WITH RELEVANCE FOR ADVANCED LENS OPTOMETRIC COMPENSATION	199
Maohua Xiao, Jun Guo, Xueyong Chen, Meng Xu, Meng Chen, Xiao Zhao	STUDY ON THE RELIABILITY OF PLUGGING AND DETACHING FISHEYE CONTACT	206
Mihai-Constantin Balăşa, Simona Mihai, Viviana Filip, Alexis-Daniel Negrea, Gheorghişa Tomescu	MODELLING THE TIBIAL BONE USING CAD TECHNIQUES, STARTING FROM THE 3D SCAN MODEL	213

IJOMAM-CONTENTS

Qing Lv, Chao Fu	TRANSMISSION EQUIPMENT TESTING BASED ON INTERNET OF THINGS	220
Daniel Cordoneanu, Constantin Nițu	A REVIEW OF FAULT DIAGNOSIS IN MECHATRONICS SYSTEMS	228
Aurel Zapciu, Marian Vocurek, Florin Izvoranu, Iulian Sorin Munteanu, Liliana Laura Badita, Valentin Gornoavă	RESEARCH ON SINTERIZED MATERIALS FROM METAL POWDER WITHOUT COBALT, FOR SPECIAL USES	236
Daniel Besnea, Octavian Dontu, Victor Constantin, Alina Spanu, Ciprian Rizescu, Edgar Moraru	APPLICATIONS OF ADDITIVE TECHNOLOGIES IN THE FOOD INDUSTRY	245
Daniel Besnea, Dana Rizescu, Ciprian Rizescu, Elena Dinu, Victor Constantin, Edgar Moraru	ADDITIVE TECHNOLOGIES AND MATERIALS FOR REALIZATION OF ELASTIC ELEMENTS	249