

LIST OF PARTICIPANTS

Nr. crt	Numele și prenumele autorilor	Titlul cercetării	Pag
INVENTION CATEGORY 1 - Mechanics – Motors – Machines – Equipment – Industrial procedures – Metallurgy			
1.	Băilă Diana-Irinel, Gheorghe Marian	Experimental researches concerning the sintering powder of Co-Cr by DMLS (direct metal laser sintering) used for microsurgical instruments manufacturing	15
2.	Buşaru Alina-Elena; Goran Mariana;	Thermal Shock Analysis Using the Finite Element Method for a Given Specimen	16
3.	Aurel-Ionuț Chirilă, Ioan Dragoș Deaconu, Anca Simona Deaconu, Ana-Maria Dumitrescu	Estimarea parametrilor sistemului de acționare al unui vehicul electric prin monitorizarea regimului termic	17
4.	Gheorghe Cristina Mihaela	Optimizarea motoarelor asincrone de înaltă eficiență cu considerarea principiului analizei valorii. Etapa 1: Direcții de optimizare Optimization of a high-efficiency induction motor with consideration of value analysis principle. Phase 1: Optimization trends	18
5.	Ghionea Ionuț Gabriel	Conception of mechanical products in a modern parametric manner	20
6.	Giurgiu Ioan-Tiberiu, Roșca Petru, Pană Iuliana-Florina	Vehicles stability. Cargo securing systems.	21
7.	Veronica Mănescu (Păltânea)	The analisys of technological procedures influnce on the iron losses in the magnetic cores of electrical machines	22
8.	Busuioc Danut	Procedeu de obtinere a unor placi decorative tip vitraliu	23
9.	Marius Cuzic	Research on improving the performance of separation Argon fraction from air	24
10.	Madalina Toma	MEDGreen – The National Pole of Competitiveness in Promoting Modern Manufacturing Systems for Implementing Green Economy Principles	26
11.	Sutan Claudiu, Ionel Didea, Abrudeanu Marioara, Malinovschi Viorel, Plaiasu Gabriela	Sistem de protectie pasiva la impact lateral sipps pentru autoturisme	28
12.	Alin-Mihai Cailean, Barthélemy Cagneau, Luc Chassagne, Valentin Popa, Mihai Dimian	Visible light communication system for vehicle safety applications	30
13.	Nedelcu Dumitru, Carcea Ioan, Popa Ionut, Roman Costel, Sava Ovidiu	Equipment to obtain composite materials reinforced with particles	32
14.	Heput Teodor, Socalici Ana, Ardelean Erika, Ardelean Marius, Constantin Nicolae,	Tubular briquette produced from pulverous and small ferrous wastes	34

	Buzduga Miron, Buzduga Radu		
15.	Niță Petre	Instalație pentru acoperirea anticorozivă a suprafețelor exterioare ale țevelor metalice	35
16.	Șolea Dumitru, Abrudan Ovidiu, Dițu Mircea, Șorcaru Paul Cristinel, Bejenaru (Vereșiu) Silvia, Gierling Alin	Speed multiplying device.	37
17.	Călin Saftirescu, Adrian Pocola, Mugur Bălan	Installation for drying gases in transport pipes, by cooling and reheating	38
18.	Andrei Butuza, Mugur Bălan	Cleaning equipment for dust depositions on the flat solar collector's surfaces	39
19.	Abrudan V. Ovidiu Vasile	Cuplaj centrifugal cu incarcare progresiva Progressive Loading Centrifugal Clutch	40
20.	Andrei Laurentia, Epureanu Alexandru, Andrei Gabriel	Equipment for the cutting process of the curved facewidth spur gears with variable tooth height	41
21.	Carmela Gurau	Method and machine for severe plastic deformation by High Pressure Torsion of cone shape memory alloys active elements	43
22.	Gheorghe Gurau	Process for straightening of continuous cast slabs and machine for drawing and straightening	44
23.	Carmen-Catalina Rusu, Luigi-Renato Mistodie, Costica Voicu, Elena Scutelnicu, Emil Constantin, Melat Bormambet	Multi-Wire & Multi-Process Welding System	45
24.	Șolea Liviu Cătălin	Brush holder – brush assembly for electric motors with wound rotor	47
25.	Șolea Dumitru, Abrudan Ovidiu, Dițu Mircea, Șorcaru Paul Cristinel, Bejenaru (Vereșiu) Silvia, Gierling Alin	Speed multiplying device.	48
26.	Ionel Chirica, Elena-Felicia Beznea, Doina Boazu, George Solomon, Valeriu Vilag.	Determination of shearing characteristics for new lightweight advanced materials used for aeronautic compressors impellers	49
27.	Botan Mihail, Deleanu Lorena, Georgescu Constantin, Constantinescu Doina, Avadanei Lidia	The power of aramid fibers blended with thermoplastic polymer PA6 for better performances in tribological applications	51
28.	Alina-Mihaela Cantaragiu, Felicia Stan, Catalin Fetecau	Indentation – a new method to measure the mechanical properties of polymers	52
29.	Ionel Chirica, Ionel Gavrilescu, Elena Felicia Beznea, Vasile Giuglea, Florentina Rotaru (Paraschiv)	Numerical simulations of the ship structures impact	53

30.	Ionel Chirica, Doina Boazu, Elena Felicia Beznea, Eduard Chirila	Numerical Simulations of the MRE adaptive damper characteristics	56
31.	Ionel Chirica, Ovidiu Ionas, Octavian Dumitriu	Increasing the cargo capacity by ship lengthening	59
32.	G. Chiriță, D. Soares, F.S. Silva, G. Andrei, I.G. Birsan	Evaluation of mechanical and fatigue properties of functionally graded aluminum alloys	62
33.	Cristescu Ana, Cristescu Bogdan	Noncircular gears for multiple speeds	64
34.	Daniel Ganea, Elena Mereuta, Claudiu Mereuta	Motion capture system	66
35.	Georgescu Constantin, Deleanu Lorena, Botan Mihail, Constantinescu Doina, Lidia Avadanei	Novel class of composites based on PBT and glass beads and PTFE	67
36.	Gheorghe Vasile, Catalin Fetecau, Felicia Stan	Experimental research on the milling process of some composite materials	69
37.	Murariu Gabriel	Specific fixed wing UAV	71
38.	Laurentiu Ionut Sandu, Felicia Stan	Cylindrical indentation method for long term relaxation experiments	73
39.	Elena Scutelnicu, Dan-Catalin Birsan, Carmen-Catalina Rusu	Simulation of Thermo-Mechanical Effects Induced by Submerged Double-Arc Welding Process in Pipelines	74
40.	Nicusor Ene, Elena Scutelnicu, Carmen-Catalina Rusu, Luigi-Renato Mistodie	High Productivity of Submerged Arc Welding Process achieved with Multiple-Wire Technology	76
41.	Stan Felicia	Scratch test methodology and characterization of friction in glassy polymers	78
42.	Viorel Păunoiu, Cătălin Fetecău, Gabriel Frumușanu, Cătălina Maier, Nicolae Oancea, Alexandru Epureanu, Mihaela Banu, Florin Susac	The Manufacturing Engineering Research Center ITCM - 10 Years of Activity	79
43.	Gabriel Andrei, Laurentia Andrei	Ballistic pendulum for impact tests	80
44.	Carmela Gurau	Method and machine for Severe Plastic Deformation by High Pressure Torsion of Shape Memory Alloys cone active elements	82
45.	Catalina Iticescu	Method for the use of sewage sludge in iron industry	83
46.	Viorel Păunoiu, Nicușor Baroiu, Cătălina Maier, Alexandru Epureanu, Vasilică Marinescu	Reconfigurable equipment for obtaining deep-drawing parts	84
47.	Ivan Krunic, Roman Krunic, Tomislav Krunic	Roto Rasp	85
48.	I. Sandu, C. Kiss, G. Popa, A.V. Sandu, V. Vasilache, V. Sirbu, L. Gorgan, I.G. Sandu, G. Drochioiu, D. Potolinca	Poligraph with integrated system and testing method	86
49.	Matej Bosnjak, Damir Matijak	ClickPliers	87

50.	Virgil Gabriel Teodor, Cătălin Fetecău, Nicolae Oancea, Nicolae Dumitrașcu, Vasilică Marinescu	Process and Device for the Cylindrical Sharpening of Multiple Auger Bits with Elliptical Arc Cutting Edge	88
	INVENTION CATEGORY 2 - Informatics – Computers – Electronics – Electricity – Communication devices		
51.	Andreea Ioana Udrea	Mobile application for the acquisition of quality verified nonstandardized color images for skin lesions risk assessment	91
52.			93
53.	Adina BĂRÎLĂ	Simulation of quantum computations on classical computers	94
54.	Moisuc (Ciobanu) Elena- Eugenia	Study on Optimized Design of CPU Architecture Based Real-Time Scheduling and Pipeline Registers	95
55.	Ioan Susnea, Grigore Vasiliu	Sistem de navigatie pentru vehicule	96
56.	Mioara Chirita, Daniela Sarpe	Using artificial neural networks for economic prediction	98
57.	Emilia Pecheanu, Adina Cocu, Ioan Susnea	Innovative training programs for technical domains	100
58.	Laurentiu Ionut Sandu, Felicia Stan, Florin Susac, Catalin Fetecau	Electrical properties of carbon nanotubes/polypropylene nanocomposites	101
59.	Simona Moldovanu, Luminița Moraru	Skull stripping segmentation using irrational filter and binary image.	102
60.	Davor Gusic	Led Sign Table	104
	INVENTION CATEGORY 3 - Sanitation facilities – Ventilation facilities – Heating and cooling installations		
61.	Frigioiu Romeo	Jgheab rezistent la actiunea zăpezii și la înfundarea cu materiale străine	106
62.	Bogdan Caciula	Theoretical and experimental research regarding operating conditions of the refrigeration absorption /adsorption machines using solar energy.	107
63.	Iuliean Hornet	Multi-system burner and pelletized biomass ecological combustion procedure	109
64.	Ioan Susnea, Grigore Vasiliu	Sistem de reglare a temperaturii in cladiri	111

INVENTION CATEGORY 4 - Agriculture – Horticulture – Gardening			
65.	Elena Bocioc, Victor Cristea, Neculai Patriche, Iulia Grecu, Sândița (Placintă) Ion, Mirela (Crețu) Mocanu, Marian Tiberiu Coadă	Researches regarding the influence of pellets with probiotics on the growth performance of juvenile carp (<i>cyprinus carpio</i> , l. 1758) in a recirculating aquaculture system	114
66.	MANEA Liliana Rozemarie, VLAHIDIS Virgil, LUPASCU Tudor, SANDU Ion	Device of administration by absorption on pseudo-roots of phytosanitary substances in ligneous plants	116
INVENTION CATEGORY 5 - Medicine – Surgery – Orthopaedics			
67.	Ardeleanu Valeriu	Folosirea microanatomiei cantitative ca factor de prognostic si predictie in cancerul tubului digestive.	118
68.	Pantelimona Mihoc, Ion Sandu, Cezar Honceriu, Marin Chirazi, Andrei-Victor Sandu	Streetball board and new game - TWIZBALL	119
INVENTION CATEGORY 6 - Teaching methods and materials			
69.	Nedelcu Dumitru, Simona Plavanescu, Radu Comaneci, Elena Puiu Costescu, Ciprian Ciofu	“Liquid Wood” – Microstructure and Properties	121
70.	Sorin Alexe	Xcolony Games	124
71.	Cătălin Fetecău, Felicia Stan, Dan Cătălin Bîrsan	Mechanical device for fatigue testing of thermoplastic specimens in flexure cyclic loading	125
72.	Murariu Gabriel	Optical properties computing system for crystalline substances using Kramers-Kronig method	127
73.	Pirvu Catalin, Deleanu Lorena, Marcel Istrate	Stratified ballistic plate with aramid fabrics	128
74.	Tocariu Liliana	Actualities in making the sketch of the machine’s parts.	129
75.	Ofelia CORBU, Attila PUSKAS	Eco Road Concrete	130
INVENTION CATEGORY 7 - Means of transportation – Vehicles – Ships – Airplanes			
76.	Frigioiu Romeo	Hydrogenerator plutitor mobil	133
77.	Silviu-Mihai Petrișor, Cosmin Iulian Grigoraș, Ghiță Bârsan, Dănuț Eugeniu Moșteanu	Minirobot șenilat cu acționare electrică obținută prin captare de energie solară cu încărcătură de material explozibil atașată. (Tracked mini-robot with electric actioning obtained from solar energy capture with a load of explosives attached).	134
78.	Abrudan V. Ovidiu Vasile	Ambreiaj centrifugal - Centrifugal Clutch	137

INVENTION CATEGORY 8 - Food – Beverages – Cosmetics – Hygiene materials – Medication

79.	Gabriela Badea, Ioana Lacatusu, Nicoleta Badea, Aurelia Meghea	Comparison among different vegetable oils in designing nanostructured lipid carriers with cosmetic and chemotherapeutic effects	139
80.	Adriana Duma (Voiculescu), Mariana Prodana	Functionalization of multi-walled carbon nanotubes with platinum-based antitumor drugs.	141
81.	Istvan Albert	Aparatura de laborator pentru analiza alimentelor si a bauturilor	142
82.	Anton Paar	Laboratory Equipment for food and beverage analysis	143
83.	Bungău Simona, Gavriș Georgeta, Cărbăban Alina Maria, Fodor Alexandrina, Petrehele Anda Ioana Grațîela	Method for determination of ascorbic acid in fruit	144
84.	Adam Gigi	Antioxidant, antimicrobial and UV-filter potentials of the lichen species <i>Cetraria islandica</i>	146
85.	Andrei-Sorin Bolocan, Andreea Craita, Teodora-Catalina Stinga, Elena-Alexandra Oniciuc	Magic bite	147
86.	Cristian-Teodor Buruiana, Oana Constantin, Daniela Istrati, Camelia Vizireanu	Prebiotic potential of xylooligosaccharides as a carbon source for the growth of probiotic bacteria strains	149
87.	Carmen Lidia Chițescu, Daniela Borda, Loredana Dumitrașcu, Anca Ioana Nicolau	Determination of polar pharmaceutical residues in water using gas chromatography–mass spectrometry	150
88.	Paul Lupoae, Victor Cristea, Carmen-Lidia Chitescu, Mariana Lupoae	Comparison of lyophilised and dried samples of <i>Potamogeton crispus</i> for analysis of chemical compounds	152
89.	Moraru Dana, Popa Corneliu, Georgescu Luminita, Borda Daniela, Segal Rodica, Bleoanca Iulia	Procedure and Technologic Equipment for Obtaining Probiotic Pumpkin Nectar and the Final Product	153
90.	Popa Corneliu, Moraru Dana, Georgescu Luminita, Segal Rodica, Vlad Daniel, Bleoanca Iulia, Borda Daniela	Quarter Dividing Machinery for Large <i>Cucurbitaceae</i>	154

INVENTION CATEGORY 9 - Sport - Leisure

91.	Pop Dragomir	Hidroglisor tip plansa cu propulsoare actionate manual	156
92.	Claudiu Mereuta, Daniel Ganea, Silviu Epure, Elena Mereuta	Lateratest	157
93.	Preda (Pârvu) Carmen, Roșculeț Răzvan	Computerised apparatus for the acquisition and assessment of the two-handed pass from below	159
94.	Claudiu Mereuta, Elena	Device for monitoring the athletic skills in	162

	Mereuta, Silviu Epure, Daniel Ganea	real conditions	
95.	Popa Corneliu, Moraru Dana, Georgescu Luminita, Borda Daniela, Segal Rodica, Bleoanca Iulia	Washing Machinery with Continuous Functioning for Large <i>Cucurbitaceae</i>	164

INVENTION CATEGORY 10 - Publicity – Printing – Packages – Packaging

96.	Asociația "JOB"	Placi pentru acoperirea unor elemente de construcții	166
97.	Busuioc Danut	Placi din material plastic ce inglobeaza materiale de construcție	167
98.	Busuioc Danut , Asociația "JOB"	Placi din material plastic ce inglobeaza materiale de construcție	168
99.	Zăpodeanu Ion, Buteică Dan, Nechita Petronela, Gavrilă Ionel, Stanciu Constantin, Cârâc Geta, Dinică Rodica, Dumitru Petrică, Aniculăsești Gherghina	Hârtie securizată și procedeu de obținere a acesteia Security paper and method for thereof manufacturing	169
100.	Manea Daniela, Talașman Cătălina Mihaela, Nechita Petronela, Radu Argentina, Burlacu Maricica, Ionescu Mariana, Mustăța Gabriel Sorin, Gavrilescu Dan	"Hârtie cu proprietăți de barieră destinată ambalării produselor alimentare și procedeu de obținere a acesteia" "Paper with barrier properties designed for food packaging and the manufacturing process for this paper grade"	170

INVENTION CATEGORY 11 - Environment protection – Energy

101.	Ana-Maria Dumitrescu, Anca Simona Deaconu, Dragoș Deaconu	Harmonic Controller Robustness in LV Active Filters	172
102.	Juganaru Elena-Cristina	The environmental impact preliminary study by applying CO ₂ pe methodology	173
103.	Ion Viorel Patroescu, Cristiana Cosma, Mihaela Alexie	Biological removal of ammonium from groundwater – When, what for, how?	174
104.	Simona Gheorghița Șașcîm (Dumitrescu), Constantin Minciu	Analysis of the Romanian Municipal Solid Waste Management System	175
105.	Razvan State, Florica Papa, Cornel Munteanu, Ioan Balint, Adrian Volceanov	Synthesis and characterization of gold nanoparticles using PVP (polyvinyl pyrrolidone).	176
106.	Sutan Claudiu, Ionel Didea, Sutan Anca	Sistem de creștere a eficienței turbinelor savonius cu ax vertical	178
107.	Alina Huzui-Stoiculescu	Multitemporal monitoring using satellite imagery in the Romanian cross border region	180
108.	Vasile Meita	Multidisciplinary methodology for the sustainable planning of the Danube Delta habitat	181

109.	Mugur Bălan, Tudor Șorban, George Chiș	Heat pump for thermal agent supplying at two different temperature levels	182
110.	Maria Cătălina ȚOPA, Cătălina ITICESCU, Lucian-Puiu GEORGESCU	Flood effects on water quality of the Lower Danube	183
111.	Daniel-Eduard Constantin, Lucian-Puiu Georgescu	A new technique to determine atmospheric NO ₂ using DOAS and motor glider	184
112.	George Ifrim, Mariana Titica, Marian Barbu, Sergiu Caraman, Lionel Boillereaux	Modeling and Control of Photosynthetic Growth of Microalgae in Photobioreactor	185
113.	Onea Florin, Rusu Eugen	Studies concerning the renewable energy extraction from the Romanian nearshore areas	187
114.	I. Sandu, M.A. Cretu, T. Lupascu, j.-m. Sieliechi, I.K. Kouame, J.G. Kayem, A.V. Sandu, V. Vasilache, I.G. Sandu, V. Vasilache	Procedure for potabilization of underground and surface water	189
115.	Gaiceanu Theodora	Mine Detection based on Autonomous Platform	190
116.	Marian Gaiceanu, Emil Rosu	Efficient Energy Control for the Variable Speed Electrical Drives	192
117.	Adrian Costache	“Procedeu de obtinere a unor materiale cu continut de iod, cu proprietati bactericide, bacteriostatice si antifungice”	194
118.	Nicolae Badea, Nelu Cazacu, Alexandru Epureanu, Emil Ceanga	Sistem integrat de poligenerare descentralizata a energiei din surse regenerabile	195
119.	Nicolae Badea, Nelu Cazacu	Sistem independent de rețeaua de energie electrica, pentru producere de energie electrica si caldura prin microcogenerare folosind pila de combustie	197
120.	Ioan Bosoancă, Radu Bosoancă, Iulia Graur, Adrian Cîrciumaru	Ion doped epoxy resin	203
121.	Carmelia Mariana Dragomir, Daniel Eduard Constantin, Mirela Voiculescu, Lucian Puiu Georgescu	Studiul variațiilor sezoniere ale concentrațiilor de NO ₂ într-o zonă urbană.	204
122.	Virgil Gabriel Teodor, Nicușor Baroiu, Cătălin Fetecău, Silviu Berbinschi, Nicolae Oancea	Process and Device for Hyperboloidal Sharpening of Multi-Flute Twist Drills with Cutting Edges in the Shape of a Circular Arc	205
123.	Sandu I., Canache M., Chirazi M., Sandu A.V., Matei P.N., Vasilache V., Matei A., Sandu I.G	Artificial halochamber for multiple users and re-activation procedure	207