

Conference schedule

Registration	11.00-11.30
Opening act	11.30-11.50
<u>Keynote presentation:</u> <i>Advances in Simulation and Modelling of Metal Forming</i>	11.50-12.30
Dorel Banabic, Technical University of Cluj-Napoca, Romania	
<u>Keynote presentation:</u> <i>On the Design of Assistive Robotics Solutions</i>	12.30-13.10
Giuseppe Carbone, University of Calabria, Italy	
<u>Keynote presentation:</u> <i>Climate Change Effects and the EU Targets in Terms Of Marine Renewable Energy</i>	13.10-13.50
Eugen Rusu, “Dunarea de Jos” University of Galati, Romania	
Technical break	13.50-14.00
<u>Keynote presentation:</u> <i>Robot Mechanics and Control in Medical Imaging Environments</i>	14.00-14.40
Dan Stoianovici, Johns Hopkins University, USA	
<u>Keynote presentation:</u> <i>Minimally Invasive Bioprosthetic Aortic Valve Implantation Under Real Time MRI Guidance - Engineering Challenges</i>	14.40-15.20
Dumitru Mazilu, National Institutes of Health, USA	
<u>Keynote presentation:</u> <i>Finding “Dark Side of the Moon” when Researching: the Case of Pyrometrical Measurement in WAAM</i>	15.20-16.00
Americo Scotti, University West, Sweden	
Technical breake	16.00-16.15
Technical sections	16.15-19.00

Technical sections

SECTION I. ROBOTICS		
ROBOTICS I.1.		
Chairmen: DOINA PISLA and GEONEA IONUT		16.15-17.30
1	WORKSPACE ANALYSIS OF TWO INNOVATIVE PARALLEL ROBOTS FOR SINGLE INCISION LAPAROSCOPIC SURGERY	16.15-16.30
	Alexandru PUSCA, Gabriela RUS, Iosif BIRLESCU, Calin VAIDA, Adrian PISLA, Claudiu SCHONSTEIN, Doina PISLA	
2	PATIENT ORIENTED CONTROL SYSTEM OF A MODULAR PARALLEL ROBOT FOR ELBOW REHABILITATION	16.30-16.45
	Alin BURZ, Paul TUCAN, Nicoleta TOHANEAN, Bogdan GHERMAN, Calin VAIDA, Adrian PISLA, Tiberiu ANTAL, Giuseppe CARBONE, Cristian ABRUDAN, Doina PISLA	
3	KINEMATICS AND WORKSPACE SIMULATION OF A NEW PARALLEL ROBOT FOR SILS	16.45-17.00
	Ionut ULINICI, Calin VAIDA, Tiberiu ANTAL, Doina PISLA	
4	DYNAMIC ANALYSIS OF AN EXOSKELETON ROBOT CONSIDERING FRICTION IN JOINTS	17.00-17.15
	Ionut GEONEA, Alexandru MARGINE, Adrian Sorin ROȘCA, Alin ONCESCU	
5	KINEMATIC AND DYNAMIC EVALUATION OF EXOSKELETON-ASSISTED GAIT ON AN INCLINED PLANE	17.15-17.30
	Ionut GEONEA, Daniela TARNITA	
ROBOTICS I.2.		
Chairmen: IOAN DOROFTEI and LUCIAN GRUIONU		17.30-18.30
1	KINEMATIC DESIGN OF A HYBRID LOCOMOTION MOBILE MANIPULATOR FOR AGRICULTURAL APPLICATIONS	17.30-17.45
	Ioan DOROFTEI, Claudia-Ana MORAR, Stelian ALACI, Marius-Gheorghe HAGAN	
2	ENDOVASCULAR PROCEDURES USING A ROBOTIC SYSTEM	17.45-18.00
	Răzvan Sabin STAN, Gabriel GRUIONU, Anca Loredana UDRIȘTOIU, Andreea IACOB, Mircea Constantinescu, Lucian Gheorghe GRUIONU	
3	CONCEPT AND VIRTUAL PROTOTYPE OF MECHATRONIC SYSTEM FOR VISUALLY IMPAIRED PEOPLE	18.00-18.15
	Isabela TODIRIȚE, Mihaiela ILIESCU, Emilia LUNGUȚ	
4	NAVIGATION PLATFORM FOR ENDOVASCULAR PROCEDURES	18.15-18.30
	Lucian Gheorghe GRUIONU, Răzvan STAN, Cristian MILITARU, Anca Loredana UDRIȘTOIU, Andreea IACOB, Mircea CONSTANTINESCU, Constantin MILITARU, Sebastian MILITARU, Gabriel GRUIONU	

SECTION II. BIOMECHANICS

BIOMECHANICS II.1.		
Chairmen: MIHNEA MARIN and ADRIAN SORIN ROSCA		16.15-17.15
1	GAIT SYMMETRY ANALYSIS IN MULTIPLE SCLEROSIS	16.15-16.30
	Mihnea MARIN, Ligia RUSU, Mihaela ZĂVĂLEANU, Cătălin POPA	
2	MECHATRONIC SYSTEM FOR RECOVERY OF POSTURAL BALANCE	16.30-16.45
	Octavian ROȘU, Ciprian DRAGNE	
3	DESIGN OF BIOMECHANICAL SYSTEM FOR HAND	
	Corina RADU FREŢ, Mihaiela ILIESCU, Cristina NIȚU, Emilia FURDU LUNGUȚ	16.45-17.00
4	DYNAMIC MOTION ANALYSIS OF A WHEELCHAIR FOR PEOPLE WITH LOCOMOTOR DISABILITIES	17.00-17.15
	Adrian Sorin ROSCA, Sorin DUMITRU, Diana CATALU, Nicolae DUMITRU, Ionut GEONEA	
BIOMECHANICS II.2.		
Chairmen: DAN MARGHITU and NICOLAE HERISANU		17.15-18.15
1	ADJUSTMENT OF MASS MOMENT OF INERTIA OF LOWER LIMB ACCORDING TO GAIT PHASE	17.15-17.30
	Andreea STOIA, Dan Ioan STOIA, Nicolae HERIȘANU	
2	AN ANALYSIS OF AN INNOVATIVE KNEE PROSTHESIS USING INTERDISCIPLINARY METHODS	
	Mihai Cătălin ȚENOVICI, Dragoș-Laurențiu POPA, Daniel ILIUTA, Gabriel BUCIU, Daniela VINTILĂ, Diana PRUNOIU, Vladimir ONTICA, Dănuț Nicolae TARNIȚA	17.30-17.45
3	EXPERIMENTAL KINEMATICS OF HUMAN AND ARTIFICIAL FINGERS	
	Daniela TARNITA, Dan MARGHITU, Alin PETCU, Alin ONCESCU, Diana PRUNOIU, Danut-Nicolae TARNITA, Mihai TENOVICI, Daniel ILIUTA	17.45-18.00
4	POSITION CONTROL USING GENERALIZED ACTIVE FORCES	18.00-18.15
	Dan MARGHITU, Daniela TARNITA	

SECTION III. INDUSTRIAL ENGINEERING		
INDUSTRIAL ENGINEERING III.1.		
Chairmen: GABRIEL BENGA and DANUT IONEL SAVU		16.15-17.15
1	IMPACT OF PLANETARY BALL MILLING PARAMETERS ON THE PARTICLE SIZE OF TIB₂ POWDERS	16.15-16.30
	Iulian STEFAN, Gabriel Constantin BENGA, Ionel Danut SAVU, Sorin Vasile SAVU, Adrian Bebe OLEI	
2	SPECIFIC ASPECTS IN USING SEASHELL POWDER (RAPA-NA THOMASIANA) IN ELABORATION OF COMPOSITES FOR MEDICAL PURPOSES	16.30-16.45
	Iulian STEFAN, Daniela TARNIȚĂ, Ionela Gabriela BUCȘE, Ionel-Dănuț SAVU, Sorin-Vasile SAVU, Laura-Mădălina Cursaru, Roxana Mioara Piticescu	
3	CONDITIONING THE STRUCTURE OF DEPOSITED LAYERS BY HYBRID THERMAL SOURCE IN FFF 3D PRINTING	16.45-17.00
	Remus SOCOL, Ionel Dănuț SAVU, Sorin Vasile SAVU, Cecilia-Mădălina MITROI	
4	DAMAGE LOCATION DETECTION IN COMPLEX MECHANICAL ASSEMBLIES	17.00-17.15
	Ciprian DRAGNE	
INDUSTRIAL ENGINEERING III.2.		
Chairmen: MARIN BICA, NICOLAE CRACIUNOIU and SORIN VASILE SAVU		17.15-18.15
1	MICROWAVE HEATING OF COMPOSITE MATERIAL REINFORCED WITH NATURAL CERAMICS – TECHNICAL AND ECONOMICAL ASPECTS	17.15-17.30
	Cristian Daniel GHELINGHER, Dalia SIMION, Sorin Vasile SAVU, Iulian STEFAN, Andrej DAVID, Ionel Danut SAVU	
2	SIMULATION AND EXPERIMENTAL RESULTS ON THE TEMPERATURE DURING TURNING PROCESS OF COMMERCIALY PURE TITANIUM	17.30-17.45
	Dumitru PANDURU, Marin BICA, Emil PATRU, Nicolae CRACIUNOIU	
3	CONNECTING ROD CURVES GENERATED BY THE R-PPR-PPR-PRP MECHANISM	17.45-18.00
	Alina DUTA, Iulian POPESCU, Mirela CHERCIU, Dragos POPA, Alina ROMANESCU, Diana PRUNOIU	
4	MODELLING AND SIMULATION OF TEMPERATURE DISTRIBUTION IN CAST IRON FOR MICROWAVE HEATING APPLICATIONS	18.00-18.15
	Cristian GHELINGHER, Sorin Vasile SAVU, Iulian STEFAN	

	INDUSTRIAL ENGINEERING III.3. Chairmen: MADALINA CALBUREANU and MARIUS STANESCU	18.15-19.00
1	A STUDY ABOUT SOME COMPOSITES WITH THE MATRIX FROM POLYESTER RESIN AND NATURAL REINFORCEMENTS	18.15-18.30
	Alexandru Ioan RĂDOI, Cosmin Mihai MIRIȚOIU, Dumitru BOLCU, Marius Marinel STĂNESCU, Mihaela BOGDAN, Adriana PĂDEANU	
2	STUDY OF DAMPING OF COMPOSITE MATERIALS WITH HYBRID RESIN MATRICE BASED ON DAMMAR REINFORCED WITH SUNFLOWER SEED SHELLS	18.30-18.45
	Alexandru BOLCU, Marius Marinel STĂNESCU, Dumitru BOLCU	
3	CONTRIBUTIONS ABOUT THE ENERGY EFFICIENCY USING GREEN ROOFS FOR A SPECIFIC OFFICES BUILDINGS IN OLTENIA	18.45-19.00
	Veronica IORDAN, Madalina CALBUREANU, Adriana IONESCU, Diana CALBUREANU, Raluca MALCIU	

SECTION IV. AUTOMOTIVE		
AUTOMOTIVE IV.1.		
Chairmen: CATALIN ALEXANDRU, NICOLAE DUMITRU and CRISTIAN COPILUSI		16.15-17.15
1	MULTI-OBJECTIVE DYNAMIC OPTIMIZATION OF A NOVEL SUSPENSION SYSTEM FOR RACE CARS	16.15-16.30
	Vlad ȚOȚU, Cătălin ALEXANDRU	
2	THE DYNAMIC IMPACT STUDY OF A CRANK CONNECTING ROD MECHANISM	16.30-16.45
	Andra CONSTANTIN, Oana OȚĂT, Adrian CALANGIU, Nicolae CRĂCIUNOIU, Alexandru MARGINE, Nicolae DUMITRU	
3	MODELLING THE VIBRATORY EFFECTS OF RAIL TRAFFIC ON THE ENVIRONMENT	16.45-17.00
	Valeriu IONICĂ, Nicolae DUMITRU, Ionuț GEONEA, Mihaela BOGDAN	
4	OPTIMIZING IN A DYNAMIC MODE THE CONNECTING ROD FROM AN INTERNAL COMBUSTION ENGINE	17.00-17.15
	Adrian CALANGIU, Sorin DUMITRU, Cristian COPILUSI*, Adrian Sorin ROSCA, Mihai DEMIAN, Nicolae DUMITRU	
AUTOMOTIVE IV.2.		
Chairmen: MIHAELA ILIESCU and LAURENTIU RACILA		17.15-18.15
1	FIRST ELASTIC STEP VIBRATION ISOLATION OF SINGLE DRUM VIBRATORY ROLLER COMPACTOR	17.15-17.30
	Dragoș Căpățină, Cristina Marilena Nițu, Mihaela Iliescu	
2	ROAD TRAFFIC ANALISYS IN THE CONTEXT OF HEAVY TRAFIC TRANSPORT REMOVAL POLICY	17.30-17.45
	Nicoleta GENCĂRĂU, Theodor OPRICA, Oana OȚĂT, Laurențiu RACILĂ, Lucian MATEI, Mihaela RACILĂ, Ilie DUMITRU, Alexandru OPRICA	
3	CAR TRANSFER ADAPTIVE SYSTEM FOR DISABLED	17.45-18.00
	Marius PANDELEA, Luige VLĂDĂREANU, Mihaela ILIESCU, Alexandru COTFAS	
4	STUDY OF THE INFLUENCE OF THE ROAD TYPE ON THE WHOLE BODY VIBRATIONS TRANSMITTED TO THE DRIVER OF AN ELECTRIC TRACTOR	18.00-18.15
	Teofil-Alin ONCESCU, Catalin PERSU, Ilie DUMITRU, Diana PRUNOIU, Daniela TARNITA	