

# CONFERENCE PROGRAM

THE 10<sup>th</sup> INTERNATIONAL CONFERENCE ON  
ADVANCED CONCEPTS IN MECHANICAL ENGINEERING

# ACME2022

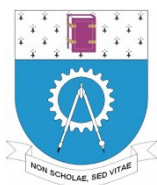
JUNE 9 – 10, 2022  
IASI, ROMANIA



**Organized by:**

**FACULTY of MECHANICAL ENGINEERING**

THE "GHEORGHE ASACHI" TECHNICAL UNIVERSITY OF IASI

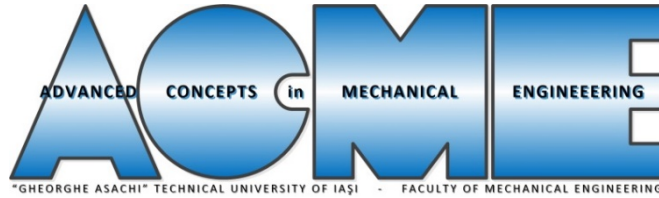


**Under the aegis of:**

ROMANIAN MINISTRY OF EDUCATION  
ROMANIAN ACADEMY OF TECHNICAL SCIENCES  
ACADEMY OF ROMANIAN SCIENTISTS

**In partnership with:**

SRR – ROBOTICS SOCIETY OF ROMANIA  
SRT - ROMANIAN SOCIETY OF THERMODYNAMICS  
SIAR - SOCIETY OF AUTOMOTIVE ENGINEERS OF ROMANIA  
ARoTMM - ROMANIAN ASSOCIATION FOR MECHANISMS AND MACHINE SCIENCE  
AFCR - ROMANIAN ASSOCIATION FOR REFRIGERATION AND CRYOGENICS ENGINEERS  
SROMECA – ROMANIAN ASSOCIATION OF MECHATRONICS  
ART – ROMANIAN TRIBOLOGY ASSOCIATION



## CONFERENCE PROGRAM OUTLINE

### Thursday, June 9<sup>th</sup>, 2022

<https://meet.google.com/wua-srfm-tjb>

09:30 – 10:00 Online Participants Registration

10:00 – 10:30 Welcome, Conference Opening Ceremony

10:30 – 12:00 Online Plenary Session

1. **Biomechanical properties of animals bones and the influence of oncologic drug on pig femur**  
*J.C. Mirza Rosca – University of Las Palmas de Gran Canaria, Spain*
2. **Using the equivalent plate concept to calculate functionally graded plates by numerical method**  
*V. Năstăsescu – Military Technical Academy “Ferdinand I”, Romania*
3. **Air-to-water heat pumps’ seasonal performance for heating in 16 Greek locations with climate data of the last decade**  
*K.T. Papakostas – Aristotle University of Thessaloniki, Greece*

12:00 – 14:00 Online Sections Session ([check each section for meeting link](#))

14:00 – 15:00 Own World Lunch Break

15:00 – 19:00 Online Sections Session ([check each section for meeting link](#))

### Friday, June 10<sup>th</sup>, 2022

09:00 – 12:00 Online Sections Session (where required)

12:00 – 12:15 Conference Closing Ceremony

<https://meet.google.com/oon-hsvy-kwv>

NOTE: All times are Eastern European Summer Time (EEST)

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## Session ACME-01-01: Machine Design. Tribology

<https://meet.google.com/yxt-hoji-osq>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Lorena DELEANU and Prof. Viorel PALEU*

No.	ACME code	Title of the papers and authors	Hours
1	1-107	<b>Calculating the film thickness for the rapeseed oil in order to evaluate functioning regime</b> D Guglea, C Georgescu, L Deleanu	12.00 - 12.15
2	1-046	<b>Comparative analysis concerning the state of stress for involute gears using ISO, AGMA standards and Finite Element Method</b> M Bucur, S Cananau, R F Mirica, and S Gabroveau	12.15 - 12.30
3	1-064	<b>Considerations concerning the power loss in a gear system</b> A Ilieş, M Bucur, S Cananau, R F Mirica, and S Gabroveau	12.30 - 12.45
4	1-053	<b>A review on tribological behaviour of mechanical components obtained by additive manufacturing</b> G Macovei and V Paleu	12.45 - 13.00
5	1-056	<b>Influence of test parameters on the operation of automotive high-pressure pumps</b> R C Iordache and C Bujoreanu	13.00 - 13.15
6	1-060	<b>Fractal dimension in tribology – an overview</b> A Lăpuşteanu, M Agop and V Paleu	13.15 - 13.30
7	1-096	<b>A prospective view on biodegradable lubricants for hybrid and electric vehicles</b> C I Bradu, G Ianuş and V Paleu	13.30 - 13.45
8	1-098	<b>A simple method to introduce the centrifugal effects in an angular contact ball bearing</b> A Zamă, V Paleu, A Tufescu and D N Olaru	13.45 - 14.00
		<b>Own World Lunch Break</b>	14.00 - 15.00

## Session ACME-01-02: Machine Design. Tribology

<https://meet.google.com/rog-giai-zja>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Traian CICONE* and *Prof. Dumitru OLARU*

No.	ACME code	Title of the papers and authors	Hours
1	1-090	<b>The evaluation of the influence of tilting on static performances of a novel elastohydrostatic thrust bearing</b> A Marinescu, Ș Coadă, E Moses and T Cicone	15.00 - 15.15
2	1-007	<b>Optimizing the trajectory of aggregates in drying units from the asphalt plants</b> A I Burlacu, M Tănase*, C Ilincă and M G Petrescu	15.15 - 15.30
3	1-017	<b>Modeling Non-Newtonian fluid flow through pipes with slip boundary conditions</b> A V Rădulescu and I Rădulescu	15.30 - 15.45
4	1-087	<b>Considerations concerning friction in four ball scuffing test</b> I C Românu, I Muscă and C Hangan	15.45 - 16.00
5	1-106	<b>Use of principles from axiomatic design in the case of equipment for studying abrasion resistance</b> L Slătineanu, A Hrițuc, A M Mihalache, O Dodun, G Nagîț, M Coteață and I Surugiu	16.00 - 16.15
6	1-093	<b>Static and dynamic friction coefficient in low loads and sliding speed conditions</b> C M Opreșan, B Chiriac, A Tufescu and D N Olaru	16.15 - 16.30
7	1-095	<b>Friction coefficient between glass surfaces and soft materials</b> B Chiriac, C M Oprisan, A Tufescu, V Carlescu and D N Olaru	16.30 - 16.45
8	1-099	<b>Film thickness in miniature ball bearing grease lubricated</b> D Cojocaru, G Ianuș, V Cârlescu, and D N Olaru	16.45 - 17.00

## Session ACME-02-01: Materials and Surface Engineering

<https://meet.google.com/zgx-penw-ttx>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Corneliu MUNTEANU* and *Prof. Bogdan ISTRATE*

No.	ACME code	Title of the papers and authors	Hours
1	2-013	<b>Influence of the defect characteristic in aluminum alloy 7075 in non-destructive electromagnetic testing</b> A Savin, R Steigmann, V Uchanin, M D Stanciu	12.00 - 12.15
2	2-088	<b>Metallographic study and corrosive behavior of titanium alloys for their use in medical applications</b> H Guerra Yáñez, N R Florido Suárez, I Voliculescu and J C Mirza Rosca	12.15 - 12.30
3	2-089	<b>Mechanical properties and biocompatibility of various cobalt chromium alloys</b> C Jiménez-Marcos, N R Florido-Suárez, J C Mirza-Rosca and A Saceleanu	12.30 - 12.45
4	2-008	<b>Influence of technological parameters on the behaviour in operation of the asphalt milling equipment</b> T Dumitru, C Ilincă, M Tănase and M G Petrescu	12.45 - 13.00
5	2-009	<b>An Example for Determining the Physical Parameters Used in DEM Modelling for the Interaction Process between Aggregates and Working Equipment</b> A Niță, E Laudacescu, I N Ramadan, M G Petrescu	13.00 - 13.15
6	2-015	<b>Influence of homogenization and aging parameters applied to mechanical and structural characteristics of alloy 5083</b> D Istrate, C Lazar (Natra), O P Odagiu, A M Demian, A D Buzatu, and B Ghiban	13.15 - 13.30
7	2-016	<b>Evaluation of mechanical characteristics of 3003 aluminum alloy plated sheets</b> C Lazar (Natra), D Istrate, O P Odagiu, A M Demian, A D Buzatu, and B Ghiban	13.30 - 13.45
8	2-031	<b>Structural analysis and mechanical properties of some coatings obtained by cold spray method. A review</b> F C Lupu, C Munteanu, B Istrate, S C Lupescu, R Ciubotaru and S Adrian	13.45 - 14.00
		<b>Own World Lunch Break</b>	14.00 - 15.00



## Session ACME-02-02: Materials and Surface Engineering

<https://meet.google.com/ybw-xstv-hzb>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Nicanor CIMPOEȘU* and *Prof. Ștefan LUPESCU*

No.	ACME code	Title of the papers and authors	Hours
1	2-063	<b>Instrumentation and preliminary evaluation of a drop tower tester for low and medium impact energy</b> I R Nechita, P Turtoi, T Cicone, C Puică	15.00 - 15.15
2	2-072	<b>Mechanical and structural characterisation of a 3D warp-knitted spacer fabric subjected to compression</b> G C Lupu, A Fătu, Y Henry, P Turtoi and T Cicone	15.15 - 15.30
3	2-081	<b>Replacement of natural sand with sand obtained from the recycling of crushed household glass</b> C C Epure, C Munteanu, B Istrate, S C Lupescu and M Harja	15.30 - 15.45
4	2-083	<b>Literature review of reinforced cementitious composites with carbon nanotubes in the field of historical building restoration</b> E Basalic, I S Entuc, C Nejneru, G Bădăraș, P Paraschiv, I Știrbu, N Cimpoeșu	15.45 - 16.00
5	2-035	<b>Equipment for thermo-mechanical contact fatigue in rolling conditions determination</b> S Mistreanu, F Tudose-Sandu-Ville, V Manole, B Istrate, N Cimpoeșu and I Știrbu	16.00 - 16.15
6	2-109	<b>Determined to the microstructural and mechanical properties of deposits made of high alloy steels used in the construction of environmentally friendly hydraulic turbines</b> C A Tugui, P Vizureanu, C Moraraș, M C Perju and N Cimpoesu	16.15 - 16.30
7	2-014	<b>Eddy current assessment of flaw severity of cylindrical products</b> A Savin, R Steigmann, N Iftimie, G S Dobrescu, M L Craus	16.30 - 16.45
8	2-114	<b>Acceleration of biomimetic hydroxyapatite nanocoating on titanium surfaces for biomedical applications</b> G Ciobanu and M Harja	16.45 - 17.00
9	Plenary Session P1	<b>Biomechanical properties of animals bones and the influence of oncologic drug on pig femur</b> C Jiménez Marcos, J C Mirza Rosca, N R. Florido Suárez, L Baltes and M Tiorean	17.00 - 17.15

## Session ACME-03-01: Mechatronics. CAD. Mechanical Vibrations

<https://meet.google.com/swn-sucm-rmo>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Jose MACHADO* and *Prof. Carmen BUJOREANU*

No.	ACME code	Title of the papers and authors	Hours
1	3-027	<b>Practical evaluation of the vibrations of a rail mounted boom crane</b> R Bosoancă, I Bosoancă and L Crudu	12.00 - 12.15
2	3-028	<b>Research regarding the influence of different printing strategies on the mechanical characteristics of some FDM manufactured structures</b> D Besnea, C I Rizescu, A Spanu, E Moraru, D Rizescu, V Constantin and I Panait	12.15 - 12.30
3	3-037	<b>LabVIEW Instruments for Creating Brain-Computer Interface Applications by Simulating Graphical Animations and Sending Text Messages to Virtual and Physical LEDs Based Display Systems Connected to Arduino Board</b> O A Ruşanu	12.30 - 12.45
4	3-051	<b>Cooling solutions by matching plastic and metal in automotive industry</b> S G Pal, V Goanță, D P Bistriceanu, C Moraras and V Vornicu	12.45 - 13.00
5	3-052	<b>Design recommendation for thermal conductive plastic parts in automotive industry</b> S G Pal, V Goanță, D P Bistriceanu, C Moraras and V Vornicu	13.00 - 13.15
6	3-061	<b>Analysis of thin wall cells made of Zhermack silicone rubber used for lower limb prosthesis</b> A R Spanu, D Besnea and E Moraru <sup>1</sup>	13.15 - 13.30
7	3-082	<b>Functional optimization of equipment for driving construction elements in the soil</b> O Tonciu, C Frâncu and C Sescu-Gal	13.30 - 13.45
8	3-100	<b>Design and simulation of an Unmanned Aerial Vehicle based on a motor glider concept</b> S Pop, A Steopan, M C Luculescu, A L Boer, L Cristea and C S Zamfira	13.45 - 14.00
9	3-101	<b>Some analyzes on box girders bridges - literature review</b> A M Velniciuc and C Bujoreanu	14.00 - 14.15
10	3-102	<b>Considerations on the proper selection of sensors for vibroacoustic study of the vehicles</b> N A Nițu, J Machado and C Bujoreanu	14.15 - 14.30
		<b>Own World Lunch Break</b>	14.30 - 15.00

## Session ACME-04-011: Theory of Mechanisms and Machinery. Robotics

<https://meet.google.com/nqi-urio-zju>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Stelian ALACI and Prof. Ioan DOROFTEI*

No.	ACME code	Title of the papers and authors	Hours
1	4-067	<b>The structural groups approach and transmission angles limits</b> C D Duca and F Buium	12.00 - 12.15
2	4-084	<b>Proposed gear rack cutter for spur gear manufacturing by generating method. Part I: Theoretical and strength analysis arguments</b> F C Ciornei, S Alaci, C Bujoreanu, I C Romanu and I Doroftei	12.15 - 12.30
3	4-085	<b>Proposed gear rack cutter for spur gear manufacturing by generating method. Part II: Comparison between the standard and modified profiles</b> S Alaci, C Bujoreanu, F C Ciornei, I C Romanu and I Doroftei	12.30 - 12.45
4	4-092	<b>About dynamics of a workpiece in a transportation mechanism from a robotized system</b> F Buium and D Leohchi	12.45 - 13.00
5	4-113	<b>Dimensional synthesis and comparative simulation of two planar deployable mechanisms</b> I Doroftei, I A Doroftei, S Alaci and C Bujoreanu	13.00 - 13.15
6			13.15 - 13.30
7			13.30 - 13.45
8			13.45 - 14.00
		<b>Own World Lunch Break</b>	14.00 - 15.00

## Session ACME-05-01: Mechanics of Deformable Bodies

<https://meet.google.com/wuq-zspr-ogx>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Vasile NĂSTĂSESCU* and *Prof. Paul-Doru BÂRSĂNESCU*

No.	ACME code	Title of the papers and authors	Hours
1	5-073	<b>Acoustic and elastic properties of wood used for musical instruments</b> M D Stanciu, A Savin, Z Orbok1, and T Stan	12.00 - 12.15
2	5-018	<b>Structural evaluation of a pusher-tug vessel to comply with the requirements for navigation in ice covered waters</b> L A Moise, A M Pohilca, C I Mocanu and L Domnisoru	12.15 - 12.30
3	5-030	<b>Strains and stresses at welding with tubular wires and swinging the electric arc</b> C I Mocanu, D I Tudose, A Hadar and E Gavan	12.30 - 12.45
4	5-048	<b>Numerical investigation of the stress state in the runner hub of a Kaplan turbine</b> V Cojocaru, C O Miclosina, C V Campian, D Frunzaverde and D Nedelcu	12.45 - 13.00
5	5-070	<b>A ballistic impact model for evaluating a preliminary higher level from simulation and tests on a glass fiber composite</b> G G Ojoc, C Pirvu, C Popescu, and L Deleanu	13.00 - 13.15
6	5-071	<b>Laboratory scale technology for a ballistic protection panel and preliminary results</b> G G Ojoc and L Deleanu	13.15 - 13.30
7	5-110	<b>Influence of material characteristics on impact response for fabrics made of glass and aramid fibers</b> L Chiper-Titire, V Totolici-Rusu, G G Ojoc, L Deleanu	13.30 - 13.45
8	5-078	<b>Calibrating a double aluminium bar with electrotensometric strain gauge attached</b> A I Donțu and T M Ulian	13.45 - 14.00
		<b>Own World Lunch Break</b>	14.00 - 15.00

## Session ACME-05-02: Mechanics of Deformable Bodies

<https://meet.google.com/zzk-ohje-cqn>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Vasile NĂSTĂSESCU* and *Prof. Paul-Doru BÂRSĂNESCU*

No.	ACME code	Title of the papers and authors	Hours
1	5-076	<b>Evaluation of the dynamic behaviour of a typical wind energy recuperation offshore system for the Black Sea costal area (I)</b> L Crudu, R Bidoae, O Neculet and AV Petrov	15.00 - 15.15
2	5-080	<b>A comparative evaluation of hydrodynamic loads for a series of river chemical tankers converted into river – sea series</b> L Crudu, O Neculeț, E Găvan, D C Obreja, E Aramă	15.15 - 15.30
3	5-029	<b>Vickers hardness variation on the part and welding cord subjected to plastic deformation</b> V Goanță and C I Morăraș	15.30 - 15.45
4	5-097	<b>Structural changes of GFRP composite material after immersion in liquid nitrogen and normal water</b> C Morăraș, V Goanță, D E Husaru and P D Bârsănescu	15.45 - 16.00
5	5-104	<b>Testing a modified weigh-in-motion sensor crossed by different vehicles</b> M Mihăilă, C Morăraș, I Blanari, P D Bârsănescu and V Goanță	16.00 - 16.15
6	5-036	<b>Finite element analysis of a modified weigh-in-motion sensor</b> M Mihăilă, I Blanari, C I Morăraș, V Goanță and P D Bârsănescu	16.15 - 16.30
7	5-038	<b>Static calibration of a modified weigh-in-motion sensor</b> V Goanță, M Mihăilă, C I Morăraș, I Blanari and P D Bârsănescu	16.30 - 16.45
8	Plenary Session P2 5-049	<b>Using the equivalent plate concept to calculate functionally graded plates by numerical method</b> V Năstăsescu and S Marzavan	16.45 - 17.00

**Session ACME-06-01: Automotives. Engine and Transmission.  
Road Safety**

<https://meet.google.com/dnw-hgsn-sob>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Ioan DAMIAN and Prof. Tudor ULIAN*

No.	ACME code	Title of the papers and authors	Hours
1	6-091	<b>Simulation of a frontal vehicle collision in order to study the comparison between a forward facing and rear facing child occupant</b> A I Radu and B A Tolea	12.00 - 12.15
2	6-012	<b>The study of the influence of speed regimes on smoke emissions for a diesel injection car</b> S M Burciu and G Coman	12.15 - 12.30
3	6-001	<b>Cold flow simulation for an Internal Combustion Engine with swirl flaps</b> Fratita Michael, F Popescu and S M Burciu	12.30 - 12.45
4	6-044	<b>Cold flow simulation for a S.I. engine with shrouded intake valve</b> Fratita Michael, F Popescu and K Uzunescu	12.45 - 13.00
5	6-019	<b>Design and finite element analysis of a circular steel profile frame using Autodesk Inventor</b> F Popescu, R M Chivu, K Uzunescu and I Ion	13.00 - 13.15
6	6-020	<b>Design and finite element analysis of a lower arm using CATIA V5</b> F Popescu, R M Chivu, K Uzunescu and I Ion	13.15 - 13.30
7	6-069	<b>Analytical model for the study of the frontal impact with a non-deformable barrier</b> A M Manea, D Iozsa, A Molea and C Stan	13.30 - 13.45
8	6-075	<b>Influence of air flow in the lateral areas of a tractor unit on its aerodynamic performance</b> E M Vieru, D Iozsa, L Ilea and G Frățilă	13.45 - 14.00
		<b>Own World Lunch Break</b>	14.00 - 15.00

**Session ACME-06-02: Automotives. Engine and Transmission.  
Road Safety**

<https://meet.google.com/eru-zpuy-jvi>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Adrian SACHELARIE and Prof. Andrei DONȚU*

No.	ACME code	Title of the papers and authors	Hours
1	6-006	<b>Test setup for experimental researches on tires grip at very low speed</b> A Budală and A Șoica	15.00 - 15.15
2	6-023	<b>The study of the spark ignition engine performance at fueling with n-butanol-gasoline mixture</b> Cr Sandu, C Pana, N Negurescu, A Cernat, D Fuioreescu, R Georgescu and C Nutu	15.15 - 15.30
3	6-024	<b>Experimental study on combustion of an automotive diesel engine fuelled with CNG</b> S Rotaru, C Pana, N Negurescu, A Cernat, C Nutu and D Fuioreescu	15.30 - 15.45
4	6-025	<b>A theoretical study on hydrogen - diesel fuel dual fuelled diesel engine operation</b> A Cernat, C Pana, N Negurescu and C Nutu	15.45 - 16.00
5	6-026	<b>The LPG-diesel fuel dual fuelling effect on diesel engine performance</b> L Nemoianu, C Pana, N Negurescu, A Cernat, C Nutu and D Fuioreescu	16.00 - 16.15
6	6-039	<b>Contributions to improving the performances of the spark ignition engine by using zonal cooling principle. Modelling and simulation</b> T M Ulian, A I Donțu and E Rakosi, G Manolache	16.15 - 16.30
7	6-041	<b>Zonal cooling principle model engine. Experimental results</b> T M Ulian, A I Donțu, E Rakosi, G Manolache and C Ciobotar	16.30 - 16.45
8	6-054	<b>An Overview of Actual Braking Systems</b> E M Boitan, T M Ulian and V Paleu	16.45 - 17.00
9	6-079	<b>Automatically collecting data traffic in intersections by using video analytics software for vehicle counting</b> A I Donțu, L Gaiginschi, A Sachelarie and T M Ulian	17.00 - 17.15
10	6-103	<b>Experimental methods to investigate the performance of the braking system using GPS and IMU equipment</b> R Drosescu, D Cojocaru and S Zamfir	17.15 - 17.30

## Session ACME-07-01: Applied Thermodynamics, Heat Transfer, and Renewable Energy. Thermal Systems

<https://meet.google.com/fgj-bfmv-cth>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Aristotel POPESCU and Prof. Marius-Vasile ATANASIU*

No.	ACME code	Title of the papers and authors	Hours
1	7-022	<b>Constant pressure combustion of gaseous mixture of natural gas and hydrogen and evaluation of harmful emissions</b> M F Lucăcel, S Darie, D T Bălănescu and G Dumitrașcu	12.00 - 12.15
2	7-047	<b>Thermal conductivity of Ag-rGO/water hybrid nanofluids: An experimental approach</b> G A Vardaru, G Huminic and A Huminic	12.15 - 12.30
3	7-033	<b>The effect of ambient temperature on the performance of a hermetic reciprocating compressor in a small household refrigerator working with R600a</b> S J Al Qaisy, K S Hmood, H Pop, V Apostol, J Al Douri and V Badescu	12.30 - 12.45
4	7-034	<b>Heat transfer analysis of roll-bond evaporator in a small-scale household refrigerator operating with R600a</b> K S Hmood, S J Al Qaisy, H Pop, V Apostol, J Al Douri and V Badescu	12.45 - 13.00
5	7-077	<b>Preliminary experimental assessment of a vertical shell and tube heat exchanger based on phase change materials</b> J Al Douri, H Pop, V Apostol, N K Fadhil, KS Hmood, S J Al Qaisy, A Nabbat, C Ionita and T Prisecaru	13.00 - 13.15
6	7-032	<b>Power control of a wind turbine using an electro-hydraulically controlled active pitch control mechanism</b> A P Chiriță, Ș Șefu, I M Baciuc, R Rădoi and A M Popescu	13.15 - 13.30
7	7-062	<b>Elimination of disturbances due to changes in air flow in a wind turbine with hydrostatic transmission</b> C Dumitrescu, A P Chiriță, Ș Șefu, I M Baciuc and R Rădoi	13.30 - 13.45
8	7-086	<b>Comparison between two measurement methods for airflow in circular ventilation ducts</b> D A Adîncu, A Popescu and M Atanasiu	13.45 - 14.00
		<b>Own World Lunch Break</b>	14.00 - 15.00



## Session ACME-07-02: Applied Thermodynamics, Heat Transfer, and Renewable Energy. Thermal Systems

## Session ACME-08-01: Technologies in Agriculture and Food Processing

<https://meet.google.com/wpg-bmqz-rob>

Thursday, June 9<sup>th</sup>, 2022

**Chairpersons:** *Prof. Aristotel POPESCU and Prof. Marius-Vasile ATANASIU*

No.	ACME code	Title of the papers and authors	Hours
1	8-094	<b>Study of a new support system JNG 20 equipping recycled batteries containers powered by solar energy for isolated farms or agri-food micro-factories</b> T I Jinga and C V Zăpodeanu	15.00 - 15.15
2	7-108	<b>Safety analysis of thermal equipment and piping systems in the CANDU nuclear power plant subjected to thermal shocks</b> L T Lozonschi and C E Panaite	15.15 - 15.30
3	Plenary Session P3 7-050	<b>Air-to-water heat pumps' seasonal performance for heating in 16 Greek locations with climate data of the last decade</b> G Mouzeviris, K Lagouvardos and K T Papakostas	15.30 - 15.45
4	7-115	<b>Modeling heat transfer in fins (extended surfaces) using finite difference method</b> G D Tcaciuc, A G Lupu, A Popescu	15.45 - 16.00
5			16.00 - 16.15
6			16.15 - 16.30
7			16.30 - 16.45
8			16.45 - 17.00

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## TOPICS:

- Machine Design. Tribology (Section 1);
- Materials and Surface Engineering (Section 2);
- Mechatronics. CAD. Mechanical Vibrations (Section 3);
- Theory of Mechanisms and Machinery. Robotics (Section 4);
- Mechanics of Deformable Bodies (Section 5);
- Automotives. Engine and Transmission. Road Safety (Section 6);
- Applied Thermodynamics, Heat Transfer, and Renewable Energy. Thermal Systems (Section 7);
- Technologies in Agriculture and Food Processing (Section 8).

