

28th International Conference on Hydraulics and Pneumatics

The logo for HERVEX 2024 features a stylized 'H' composed of two vertical black bars with a yellow swoosh that curves around the left side. To the right of the 'H', the text 'HERVEX 2024' is written in a bold, white, sans-serif font.

HERVEX 2024

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Conference Programme



Conference Programme

Wednesday, November 13, 2024

15⁰⁰-16⁰⁰	Registration of participants
16⁰⁰-17⁰⁰	Opening ceremony - Welcome speeches (<i>Speakers: Valentin Cismaru</i> – President of Valcea Chamber of Commerce and Industry Petrin Drumea , PhD. - INOE 2000 – IHP Bucharest Cătălin Dumitrescu , PhD. - INOE 2000 – IHP Bucharest)
17⁰⁰-17³⁰	<i>Keynote Lecture: "CETOP Education Recommendation - Implementation of CETOP Educational Centers in Poland"</i> Krzysztof Kędzia, Jarosław Prokopowicz (<i>Speaker: Krzysztof Kędzia</i> , PhD. – Professor at Wrocław University of Science and Technology, Poland)
17³⁰-17⁴⁵	Coffee break
17⁴⁵-18¹⁵	<i>Keynote Lecture: (video presentation)</i> "Research in Fluid Power Technology and Its Fit to EU Goals" (<i>Speaker: Katharina Schmitz</i> , PhD., Prof. – Director at RWTH Aachen University - Institute for Fluid Power Drives and Systems (ifas) Aachen, Germany)
18¹⁵-19⁰⁰	<i>Video presentations:</i> Realigning of Hydraulic Engineering Education to Actual Industrial Requirements Peter Heidrich ¹ , Niklas Weiß ¹ , Mirko Rothhaar ¹ ¹ University of Applied Sciences, Kaiserslautern, Germany Environmental Assessment of Floating Photovoltaic Systems Used in Irrigation in Dobrogea Region Gabriela Larisa Maravela ¹ , Sanda Budea ¹ ¹ National University of Science and Technology POLITEHNICA Bucharest Efficiency of LED Bulbs Compared to Conventional Bulbs - Energy Consumption Study Emina Pašić ¹ , Nusret Imamović ¹ ¹ University of Zenica, Bosnia and Herzegovina
19⁰⁰-20⁰⁰	DINNER

Thursday, November 14, 2024

09⁰⁰-10¹⁵	1st Regular paper session [presenting author – in bold typeface] Chairmen: Prof. PhD. Krzysztof KĘDZIA , PhD. Petrin DRUMEA
09⁰⁰-09¹⁵	A New Thin Film Processing Technique Tudor Blaga¹ , Otto Todor-Boer ¹ ¹ INCDO-INOE 2000, Research Institute for Analytical Instrumentation (ICIA)
09¹⁵-09³⁰	Hydrogen Production via Steam Reforming of Natural Gas with Integrated Carbon Capture: A Brief Overview Mihaela Ionela Bian¹ , Paula Veronica Ungureșan ¹ , Dan Opruța ¹ ¹ Technical University of Cluj-Napoca (UTCN)
09³⁰-09⁴⁵	Adhesion of Cold Gas-Sprayed Coatings and the Workability of the Applied Substrates Medard Makrenek¹ , Wojciech Żórawski ¹ ¹ Kielce University of Technology, Poland
09⁴⁵-10⁰⁰	Considerations regarding the Implementation of Hydrostatic Transmissions in Wind Turbine Power Transmission Systems Liliana Dumitrescu ¹ , Alexandru-Polifron Chiriță ¹ , Radu-Iulian Rădoi ¹ , Ștefan-Mihai Șefu ¹ , Adriana Mariana Borș ¹ , Cătălin Dumitrescu¹ , Eugen Marin ² ¹ National Institute of Research & Development for Optoelectronics – Subsidiary Hydraulics and Pneumatics Research Institute (INOE 2000 – IHP) ² National Institute of Research – Development for Machines and Installations Designed for Agriculture and Food Industry – INMA Bucharest
10⁰⁰-10¹⁵	Cold Sprayed Amorphous Coatings on Hydraulic Components Wojciech Żórawski¹ , Medard Makrenek ¹ , Anna Góral ¹ ¹ Kielce University of Technology, Poland
10¹⁵-10³⁰	Coffee break
10³⁰-12⁰⁰	2nd Regular paper session [presenting author – in bold typeface] Chairmen: Prof. PhD. Dan OPRUȚA , PhD. Radu-Iulian RĂDOI
10³⁰-10⁴⁵	Directions of Development of Hydraulic Satellite Displacement Machines Paweł Śliwiński¹ ¹ Gdańsk University of Technology, Poland
10⁴⁵-11⁰⁰	Research of Pumps (Gear, Piston) during Start-up in Low Ambient Temperatures Ryszard Jasiński¹ ¹ Gdańsk University of Technology, Poland
11⁰⁰-11¹⁵	Method and Means of Testing Low-Head Hydraulic Turbines Teodor Costinel Popescu¹ , Alina-Iolanda Popescu ¹ , Rareș-Andrei Chihaiia ² ¹ National Institute of Research & Development for Optoelectronics – Subsidiary Hydraulics and Pneumatics Research Institute (INOE 2000 – IHP) ² National Institute for Research and Development in Electrical Engineering (ICPE-CA)

11¹⁵-11³⁰	Practical Aspects regarding Implementation of PID Controller on a Programmable Logic Controller Marian Blejan¹ , Robert Blejan ¹ ¹ National Institute of Research & Development for Optoelectronics – Subsidiary Hydraulics and Pneumatics Research Institute (INOE 2000 – IHP)
11³⁰-11⁴⁵	Virtual Prototyping of Bulk Material Preparation Devices in Mining Using DEM/CFD Methods Jarosław Tokarczyk¹ ¹ KOMAG Institute of Mining Technology, Poland
11⁴⁵-12⁰⁰	Innovative Power Transmission System as a Result of the HEET II Project Bartosz Polnik ¹ , Krzysztof Stankiewicz ¹ , Marcin Skóra¹ , Marcin Kasprzak ² , Zbigniew Kaczmarczyk ² , Paweł Lasek ² , Marcin Zygmanski ² ¹ KOMAG Institute of Mining Technology, Poland ² Silesian University of Technology, Poland
12⁰⁰-12¹⁵	Coffee break
12¹⁵-12³⁰	Special paper session: INGENIUM: Challenging the Future [presenting author – in bold typeface] Chairmen: Ph.D. Gabriela MATACHE, Prof. Ph.D. Ioan-Lucian MARCU, Prof. Ph.D. Mihail SAVANIU
12¹⁵-12³⁰	The Oil-Film Method - Can We Analyze Boundary Layer Separation with this Method on Blunt Objects with Different Types of Topology? Alin Matei Popilian¹ , Mihai-Alexandru Chiriță¹ , Raul Sabău¹ ¹ Technical University of Cluj-Napoca (UTCN)
12³⁰-12⁴⁵	Preliminary Steps for Investigating the Air Pressure Inside the Tire Gabriel Sofrone¹ , Gabriel Anghelache ¹ , Severus Olteanu ¹ ¹ National University of Science and Technology POLITEHNICA Bucharest
12⁴⁵-13⁰⁰	Experimental Stand for Testing the Performance of a Drone Propeller Andreea-Larisa Pugna¹ , Liviu-Nicolae Hînsa¹ , Andrei-Beniamin Hopârtean¹ , Călin Hrab¹ ¹ Technical University of Cluj-Napoca (UTCN)
13⁰⁰-13¹⁵	Preparation and Tribology Performance of Bio-based Ceramic Particles from Rice Waste Artur-Romeo Ursu¹ , Aristia Ioana Popovici ¹ ¹ Technical University of Civil Engineering Bucharest (UTCB)
13¹⁵-13³⁰	The Impact of Elasticity in Developing a Mock Circulatory System Loop Atena Ștefania Szabo¹ , Ilinca Bălan¹ , Anissia Truscai¹ ¹ Technical University of Cluj-Napoca (UTCN)
13³⁰-14³⁰	LUNCH
14³⁰-15¹⁵	Research and Industry: News from companies in the field Parker Hannifin Sales SRO – Octavia Adriana Udrescu CALORIS GROUP S.R.L. – Andrei-Ionel Pătruț
14³⁰-15¹⁵	/// Poster session /// Theoretical Aspects Regarding the Development of a Method for Internal Volume Determination of Externally Geared Pumps Ionela-Mihaela Popescu¹ , Mihai Avram ¹ , Victor Constantin ¹ , Alexandra-Gabriela Vasilescu ¹ , Bogdan Grănescu ¹ ¹ National University of Science and Technology POLITEHNICA Bucharest

15¹⁵-15³⁰	Coffee break
15³⁰-17⁰⁰	3rd Regular paper session [presenting author – in bold typeface] Chairmen: Prof. PhD. Paweł ŚLIWIŃSKI , Prof. PhD. Carmen-Anca SAFTA , PhD. Teodor-Costinel POPESCU
15³⁰-15⁴⁵	Comparison of Experimental Results with Simulation Studies of "Digital" Hydrostatic Transmission Ahmed Jan Zubair¹ , Krzysztof Kędzia ¹ , Paweł Śliwiński ² ¹ Wrocław University of Science and Technology, Poland ² Gdańsk University of Technology, Poland
15⁴⁵-16⁰⁰	Simcenter Amesim-Based Optimization of an Experimental Test Stand for Ultra-Low Head Hydraulic Turbines Optimization Alexandru-Polifron Chiriță^{1,2} ¹ National Institute of Research & Development for Optoelectronics – Subsidiary Hydraulics and Pneumatics Research Institute (INOE 2000 – IHP) ² Technical University of Civil Engineering Bucharest (UTCB)
16⁰⁰-16¹⁵	Electric Platform for Transporting Small Objects on Sustainable Construction Sites Cătălin Frâncu ¹ , Mihail Savaniu¹ , Oana Tonciu ¹ ¹ Technical University of Civil Engineering Bucharest (UTCB)
16¹⁵-16³⁰	Development and Laboratory Testing of a Digital Flow Control Unit Bogdan Tudor ¹ , Radu-Iulian Rădoi¹ , Robert Blejan ¹ , Ioana Ilie ¹ , Ștefan Dumitru ² ¹ National Institute of Research & Development for Optoelectronics – Subsidiary Hydraulics and Pneumatics Research Institute (INOE 2000 – IHP) ² National Institute of Research – Development for Machines and Installations Designed for Agriculture and Food Industry – INMA Bucharest
16³⁰-16⁴⁵	Critical Raw Materials (CRM) Recovery from Mining Waste and the Remediation of Soils Contaminated with Potentially Toxic Elements (PTE) in the Context of Climate Change Adriana Mariana Borș¹ , Iustina Popescu ² , Liliana Dumitrescu ¹ , Alexandru-Polifron Chiriță ¹ ¹ National Institute of Research & Development for Optoelectronics – Subsidiary Hydraulics and Pneumatics Research Institute (INOE 2000 – IHP) ² IGR – Geological Institute of Romania
16⁴⁵-17⁰⁰	Improving the Reliability of an Automated Pneumatic Bearing Press Equipment Used in the Automotive Industry Roxana-Luiza Bahna ¹ , Ioan-Lucian Marcu¹ , Daniel-Vasile Banyai ¹ ¹ Technical University of Cluj-Napoca (UTCN)
17⁰⁰-17¹⁵	Coffee break
17¹⁵-19⁰⁰	Panel – "Opportunities for partnerships - Project calls" Chairmen: PhD. Cătălin DUMITRESCU , Prof. PhD. Krzysztof KĘDZIA
19⁰⁰-21³⁰	GALA DINNER

Friday, November 15, 2024

09⁰⁰-09²⁵	Project Workshop: Advanced research on the use of hydraulic drives in renewable energy generation, transmission and storage applications / Cercetări avansate privind utilizarea acționărilor hidraulice în aplicațiile de producere, transmitere și stocare a energiei provenite din surse regenerabile (PN 23 05, PN 23 05 01 01, Faza 23) Chairman: PhD. Cătălin DUMITRESCU
09²⁵-09⁵⁰	Project Workshop: Theoretical and experimental research on the adjustment of linear displacement speeds of mechanisms and energy recovery in HDSs, by using digital hydraulic cylinders / Cercetări teoretice și experimentale privind reglajul vitezelor liniare de deplasare a mecanismelor și recuperarea energetică în SAH, prin utilizarea cilindrilor hidraulici digitali (PN 23 05, PN 23 05 02 02, Faza 35) Chairman: PhD. Gabriela MATACHE
09⁵⁰-10⁰⁰	Concluding remarks and closing of the conference
10⁰⁰-12³⁰	Visit to “Ocele Mari” Salt Mine (<i>optional</i>)
12³⁰-13⁰⁰	Leisure time
13⁰⁰-14⁰⁰	LUNCH
14⁰⁰-19⁰⁰	Leisure time
19⁰⁰-20⁰⁰	DINNER

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