POLCOM 2026 - Conference Program
National University of Science and Technology POLITEHNICA Bucharest
University of Campania "Luigi Vanvitelli"

Thursday, November 26th

	Room	Chairman	Speakers
09:15 - 10:30	Plenary Session Central Library Room 4.1 4th floor	Polcom Conference Opening Chairs: prof. Constantin G. Opran prof. Giuseppe Lamanna	Prof. Constantin G. Opran National University of Science and Technology POLITEHNICA Bucharest, Romania Prof. Giuseppe Lamanna University of Campania "Luigi Vanvitelli"
			Invited Speaker: Prof. M. Catauro University of Campania "Luigi Vanvitelli", Italy Geopolymers for Hazardous Waste Inhertization
			Invited Speaker: Prof. Marek Płaczek Silesian University of Technology, Faculty of Mechanical Engineering, Department of Engineering Processes Automation and Integrated Manufacturing Systems, Poland Composite Piezoelectric Transducers for Mechanical Vibration Energy Harvesting Systems
			Invited Speaker: Prof. Mohd Khairol Ariffin Universiti Putra Malaysia, Advance manufacturing research group, Dept of Mechanical and manufacturing engineering, Faculty of Engineering Optimisation of FDM 3D Process for Medical Applications
			Invited Speaker: Prof. B. Abaza National University of Science and Technology POLITEHNICA Bucharest, Romania A Deployment Framework for Heterogeneous Mobile Robots in Polymer Product Manufacturing
			Invited Speaker: Dr. Samir Hulubencu DELCAM Software, Romania Software Cad - Cam For Plastics Industry Delcam
			Coffee Break

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	Room	Chairman	Speakers
10:45 - 13:00	Parallel Session Central Library Room 4.1 4th floor	Session Chairmen: prof. Bogdan Felician Abaza prof. Constantin Opran	**Session Polymers 1**
			Speaker: Eng. A. Felaco PhD University of Campania "Luigi Vanvitelli", Italy Effect of long-term water immersion on PLA/bio-based elastomer blends and wood-flour biocomposites for automotive applications
			Speaker: A. Șt. Velicu DP Project SRL, Bucharest, Romania Sustainable solution in concrete product manufacturing using recycled polymer particles
			Speaker: M. Urbanek Tomas Bata University in Zlín, Centre of Polymer Systems, Czechia Assessing Microparticles in the Regranulation Line Process Water
			Speaker: R.G. Hobjâlă Gheorghe Asachi Technical University of Iași, Department of Machine Manufacturing Technology, Romania The Transition to a Plastic State of Polyethylene
			Speaker: P. Suly Tomas Bata University in Zlín, Centre of Polymer Systems, Czechia Quantifying Particle Shedding from Nonwoven Fabrics
			Speaker: A.M. Turcanu (Constantinescu) Dunarea de Jos University of Galati, Center of Excellence Polymer Processing, Romania Nanoindentation evaluation of the creep behaviour of dental materials used in direct restorations

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	Room	Chairman	Speakers
			Speaker: O.M. Ulieru National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania Artificial Intelligence-Enhanced Electrochemical Sensors for Real-Time Pollution Detection in Industrial Wastewater
			Speaker: Ș. Jureschi Gheorghe Asachi Technical University of Iași, Department of Machine Manufacturing Technology, Romania Abrasive Erosion Behavior of Polyamide
			Speaker: Maria-Emilia Păsărin National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania Taguchi-based multi-response optimization of design and process parameters for Schwarz-P TPMS lattices fabricated by FDM with soluble PVA support
			Lunch Break
10:45 - 13:00	Parallel Session Central Library Room 4.2 4th floor	Session Chairman: dr. Amelia Felaco prof. Giuseppe Lamanna	**Session Composites**
			Speaker: Larisa-Anda Stroe National University of Science and Technology POLITEHNICA Bucharest, Department of Aerospace Sciences, Romania Influence of Mechanically Recycled CFRP Content on the Mechanical Performance of Epoxy Composites
			Speaker: Krzysztof Puchała Military University of Technology, Faculty of Mechanical Engineering, Poland Fatigue Behaviour of Mechanically Fastened Fibre Metal Laminates Reinforced with Glass, Flax and Basalt Fibres

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Room	Chairman	Speakers
		Speaker: Marin Dragoș-Cristian Polytechnic University of Bucharest, Faculty of Industrial Engineering and Robotics, Romania Study and finite-element-analysis for polymeric carbon composites applied to cylinder head covers
		Speaker: Nițǎ Ioan-Adrian Polytechnic University of Bucharest, Faculty of Industrial Engineering and Robotics, Romania Structural Evaluation of a Composite Housing as a Lightweight Alternative to Aluminium in a Gearbox
		Speaker: M. Wachowski Military University of Technology, Faculty of Mechanical Engineering, Poland Effect of a second metallic component (Ni, Cr) on the structure and properties of Al_2O_3-Cu composites fabricated by Pulse Plasma Sintering
		Speaker: Maria Gherghișan National University of Science and Technology POLITEHNICA Bucharest, Romania Effect of Layer Number and Test Rate on the Flexural Behavior of Quadriaxial Glass Fiber/Epoxy Composites
		Speaker: Cristian Nedelcu “Gheorghe Asachi” Technical University of Iași, Faculty of Mechnical Engineering, Romania Gamma-Irradiation Effects on Injection-Molded Bio-Based Composites
		Speaker: Rosamaria Russo University of Salerno, Department of Industrial Engineering, Italy Development of Bio-based Vitrimeric Composites Suitable for Aeronautical Applications
		Speaker: Dan Nitoi National University of Science and Technology POLITEHNICA Bucharest, Romania Research on the qualitative comparison of three parts made of polymeric materials, manufactured using different technologies POLCOM 2026

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		Lunch Break

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	Room	Chairman	Speakers
14:00 - 15:30	Parallel Session Central Library Room 4.1 4th floor	*Session Chairman:* *prof. Giuseppe Lamanna*	***Additive Manufacturing and Manufacturing Processes 1***
			Speaker: Mihaela Toma National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania A Literature-Grounded AHP-TOPSIS Framework for Evaluating Additive Manufacturing Research Projects in Polymer and Composite Materials
			Speaker: Nabeel Maqsood Center for Physical Sciences and Technology, Lithuania Effect of Printing Temperature on Tensile and Fracture Behavior of Aluminum Micro-Particle Reinforced PLA Composite Filaments Fabricated by FDM
			Speaker: I.-A. Dumitrache COMOTI—Romanian Research & Development Institute for Gas Turbines, Romania Data-driven process-geometry relationships in fused filament fabrication of space-grade polycarbonate
			Speaker: M. Năstase Center of Excellence Polymer Processing, Dunărea de Jos University of Galați, Romania FDM 3D Printing of G-PLA Embedded Strain Sensors: Effect of Sensor Geometries
			Speaker: Cristian Tilea Center of Excellence Polymer Processing, Dunărea de Jos University of Galați, Romania Influence of Cell Topology and Deposition Strategy on Manufacturing Efficiency and Compressive Response of Support Free FFF TPU Cellular Structures
			Speaker: Lucian-Corneliu Darlau “Gheorghe Asachi” Technical University of Iași, Department of Machine Manufacturing Technology, Romania Structure–Morphology–Thermal Relationships in Multi-Material Copper-Filled Polymer Composites

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	Room	Chairman	Speakers
			Speaker: Mihaela-Marilena Vlad National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania Structural Response Comparison of ANSYS-Based and LLM-Generated Finite Element Workflows for a Topology-Optimised 3D-Printed Medical Device
			Coffee Break
14:00 - 15:30	Parallel Session Central Library Room 4.2 4th floor	*Session Chairmen:* *prof. Nicolae Ionescu* *prof. Constantin Opran*	***Polymers 2***
			Speaker: V. Țisari Technical University Gheorghe Asachi of Iași, Department of Machines Manufacturing Technology, Romania Heat Transfer During the Cooling of PLA Specimens
			Speaker: C. Zaharia National University of Science and Technology POLITEHNICA Bucharest, Romania Developments on polymeric bipolar plates for proton exchange membrane fuel cells
			Speaker: Elena-Corina Cipu National University of Science and Technology POLITEHNICA Bucharest, Applied Mathematics Department, Romania Evolutionary and Reinforcement Learning Approaches for Shear-Thinning Polymer Processing POLCOM 2026
			Speaker: Ana Ghimp Gheorghe Asachi Technical University of Iași, Department of Machine Manufacturing Technology, Romania Experimental Investigation of Bio-Based Polymers for Automotive ECU Housing Applications

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	Room	**Chairman**	**Speakers**
			Speaker: M.V. Mollo University of Naples, Department of Engineering, Italy Thermal and Biological Evaluation of Sol-gel Zirconia Hybrids Embedded with Active Compounds for Biological Applications
			Speaker: Stelian-Florin Bardes National University of Science and Technology POLITEHNICA Bucharest, Doctoral School of Industrial Engineering and Robotics, Romania Feature-scoped topological selection and parametric construction of a polymeric enclosure in 3DEXPERIENCE
			Speaker: Cristian-Dan Hristescu National University of Science and Technology POLITEHNICA Bucharest, Doctoral School of Industrial Engineering and Robotics, Romania Lattice and Triply Periodic Minimal Surface Architectures for Additively Manufactured Polymeric and Metallic Bone Plates
			Coffee Break
15:45 - 16:45	Parallel Session Central Library Room 4.1 4th floor	*Session Chairman:* *Prof. Constantin Opran* *Prof. Giuseppe Lamanna*	***Additive Manufacturing and Manufacturing Processes 2***
			Speaker: Ana-Maria Manea National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania Material-Dependent Defects and Quality Costs in Injection Molding of Polymer Optical Lenses
			Speaker: Gabriela-Marina Pârvu National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania Estimating Least Material Condition Tolerances to Ensure Minimum Wall Thickness in 3D Printed Polymer Parts

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Room	Chairman	Speakers
		Speaker: Ionuț-Bogdan Costea National University of Science and Technology POLITEHNICA Bucharest, Faculty of Industrial Engineering and Robotics, Romania AI-Based Visual Defect Detection for Injection-Moulded Polymer Parts
		Speaker: R. Hopf National University of Science and Technology POLITEHNICA Bucharest, Doctoral School of Industrial Engineering and Robotics, Romania Capacity-Aware Lifecycle Decision Support for Control-Platform Migration in Polymer-Filament Rewinding
		Speaker: Irina-Maria Codreanu National University of Science and Technology POLITEHNICA Bucharest, Department of Manufacturing Engineering, Romania Functional tolerancing of a four-pin/four-hole additive manufacturing specimen
		Speaker: M. Iordache National University of Science and Technology POLITEHNICA Bucharest, Doctoral School of Industrial Engineering and Robotics, Romania Implementing a Continuous Process Improvement System within an Organization and Extending the Concept of Compliance to Sustainability Criteria
		End Sessions