

Friday, November 14<sup>th</sup>, 2025

Microsoft Teams



## Advanced Materials in Engineering

10:00 – 15:05 WORKING SESSION

Working committee

Chairpersons: Lecturer dr. eng. Vasile BAŞLIU, Lecturer dr. eng. Georgette MIHU

### KEYNOTE PAPERS

10:00 – 10:30	<b>NOBLE METAL NANOPARTICLES WITH BIOACTIVE PROPERTIES OBTAINED BY GREEN SYNTHESIS USING RAW CELLULOSE DERIVED BY SCOBY-MEMBRANES</b> Mariana BUŞILĂ <sup>a*</sup> , Violeta DEDIU <sup>b</sup> , Claudia UNGUREANU <sup>c</sup> , Leontina GRIGORE-GURGU <sup>d</sup> , Mihaela COTÂRLEŢ <sup>d</sup> , Cosmin ROMANITAN <sup>a</sup> , Vasilica TUCUREANU <sup>a</sup> , Oana BRINCOVEANU <sup>a</sup> , Gabriela Elena BHRIM <sup>d</sup> <sup>a</sup> Faculty of Engineering, „Dunărea de Jos” University of Galaţi, Romania <sup>b</sup> National Research and Development Institute in Microtechnologies–IMT Bucharest, Romania <sup>c</sup> Department of Life Sciences, Cross–Border Faculty, ”Dunărea de Jos” University of Galati, Romania <sup>d</sup> Department of Food Science, Food Engineering and Applied Biotechnology, ”Dunărea de Jos” University of Galati, Romania
10:30 – 11:00	<b>SUSTENABILITY APROACH IN SHEET METAL FORMING PROCESSES</b> Mitică AFTENI, Cezarina CHIVU, VIOREL PĂUNOIU, Florin SUSAC Faculty of Engineering, ”Dunărea de Jos” University of Galaţi, Romania

11:00 – 11:15 Q&A SESSION

### ORAL PRESENTATIONS

11:15 – 11:30	<b>STARCH-BASED BIOPOLYMERS FROM AGRO-FOOD INDUSTRIAL WASTE</b> Marina BUNEA <sup>a</sup> , Claudia Veronica UNGUREANU <sup>b</sup> <sup>a</sup> Department of Applied Sciences, Cross–Border Faculty, ”Dunărea de Jos” University of Galati, Romania <sup>b</sup> Department of Life Sciences, Cross–Border Faculty, ”Dunărea de Jos” University of Galati, Romania
11:30 – 11:45	<b>CELLULOSE AS A RENEWABLE RESOURCE IN THE DEVELOPMENT OF ECO-FRIENDLY MATERIAL</b> Claudia Veronica UNGUREANU <sup>a</sup> , Marina BUNEA <sup>b</sup> <sup>a</sup> Department of Life Sciences, Cross–Border Faculty, ”Dunărea de Jos” University of Galati, Romania <sup>b</sup> Department of Applied Sciences, Cross–Border Faculty, ”Dunărea de Jos” University of Galati, Romania



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11:45 – 12:00	<b>STUDIES AND RESEARCH ON ACTIVE BIOLOGICAL FILTRATION. PROPOSALS FOR NEW INNOVATIVE MATERIALS</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
12:00 – 12:15	<b>STUDIES AND RESEARCH ON THE INTRODUCTION OF NEW CLASSES OF THREE-DIMENSIONALLY PRINTED POLYMERIC MATERIALS</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
12:15 – 12:30	<b>STUDIES AND RESEARCH ON THE ENVIRONMENTAL ASSESSMENT OF RECIRCULATING SYSTEMS</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
12:30 – 12:45	<b>STUDIES AND RESEARCH ON THE INTEGRATION OF NEW CLASSES OF MATERIALS IN THE AQUATIC ENVIRONMENT FOR THE QUALITY OF LIFE</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
12:45 – 13:00	<b>REMINERALIZING FUNCTION OF BIOACTIVE NANOMATERIALS USED IN DENTISTRY</b> Alina-Mihaela CEOROMILA <sup>a</sup> , Maricica STOICA <sup>b</sup> <sup>a</sup> Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania <sup>b</sup> Department of Life Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
13:00 – 13:15	<b>Q&amp;A SESSION</b>
13:15 – 14:15	<b>BREAK</b>
14:15 – 14:55	<b>POSTERS</b>
P1	<b>NANOMATERIALS: BRIDGING ENGINEERING INNOVATIONS WITH EFFECTIVE MANAGEMENT IN MATERIALS SCIENCE FOR FUTURE TECHNOLOGIES</b> Iulia PĂDURARU-GRAUR*, Carmelia Mariana DRAGOMIR BĂLĂNICĂ, Geanina Marcela PODARU, Georgel MIHU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
P2	<b>POST-IMPACT DAMAGE MECHANISMS IN FABRIC-REINFORCED EPOXY COMPOSITES UNDER MECHANICAL LOADINGS</b> Marina BUNEA Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania



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P3	<b>THEORETICAL AND APPLIED ANALYSIS OF DEGRADATION PROCESSES IN MECHANICAL SYSTEMS FOR PERFORMANCE OPTIMIZATION AND ENVIRONMENTAL IMPACT REDUCTION</b> Geanina Marcela PODARU, Carmelia Mariana DRAGOMIR BĂLĂNICĂ, Iulia GRAUR-PĂDURARU, Marian Tiberiu COADĂ, Georget MIHU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
P4	<b>STUDIES AND RESEARCH ON THE EVALUATION OF PHYSICO-CHEMICAL AND MECHANICAL PROPERTIES OF INTEREST OF SOME POLYMERIC MATERIALS</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
P5	<b>STUDIES AND RESEARCH ON THE QUALITY OF THE AQUATIC ENVIRONMENT CONDUCIVE TO SUPPORTING FISH BIOMASS</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
P6	<b>STUDIES AND RESEARCH ON THE SUSTAINABILITY OF FISH BIOMASS USING THREE-DIMENSIONALLY PRINTED MATERIALS</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
P7	<b>STUDIES AND RESEARCH ON THE CONCEPT OF CIRCULAR ECONOMY FOR INNOVATIVE SUPPORT MATERIALS FOR BIOLOGICAL FILTRATION</b> Vasile BAŞLIU Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
P8	<b>HYBRID ADVANCED COMPOSITE NANOMATERIALS FOR MILITARY INDUSTRY: A REVIEW</b> Alina-Mihaela CEOROMILA, Mariana Carmelia BĂLĂNICĂ DRAGOMIR Department of Applied Sciences, Cross–Border Faculty, "Dunărea de Jos" University of Galati, Romania
14:55 – 15:05	<b>Q&amp;A SESSION</b>



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