

ICUSI 2024 Conference Program

Constanta, Romania, 19-20 September 2024

Ovidius University of Constanta

Faculty of Mathematics and Informatics

124 Mamaia Blvd., Constanta

AB1 Room

Thursday, 19 September 2024

8:00 – 9:00	Registration, AB1 Room
9:00 – 9:20	Opening session ICUSI 2024 Session Chair: Crenguta Puchianu, <i>Ovidius University of Constanta</i>
9:20 – 10:40 Paper session 1	Virtual Reality & User eXperience Session Chair: Dorin-Mircea Popovici, <i>Ovidius University of Constanta</i> <ul style="list-style-type: none">• Using Virtual Reality in promoting cultural heritage <i>Adrian Topoleanu and Dorin-Mircea Popovici</i>• StressVR: Visual Analysis Tool for ECG and HR Data in Virtual Reality <i>Raul-Alexandru Gorgan, Adrian Sabou and Teodor-Traian Ștefănuț</i>• HCI: Research into the Effects XR has on Users, an Exploratory Study on Apple Vision Pro <i>Panagiotis-Efstratios Chontas, Adrian Iftene and Corneliu-Sabin Buraga</i>• Indoor Navigation System Using Augmented Reality Technology at the Technical University of Cluj-Napoca <i>Dragoș-Andrei Andreșan, Călin Gheorghe Dan Neamțu and Radu Comes</i>
10:40 – 11:00	Coffee break
11:00 – 12:00 Invited talk	Research Directions in Cross Reality Mark Billinghurst, professor of Human Computer Interaction at the University of South Australia, professor at the University of Auckland's Bioengineering Institute and director of the Empathic Computing Laboratory Session Chair: Dragos Datcu, <i>Huawei Research Center Amsterdam, Netherlands</i>
12:00 – 13:00 Paper session 2	Interaction and learning Session Chair: Victor Ioan Băcu, <i>Technical University of Cluj-Napoca</i> <ul style="list-style-type: none">• S.T.A.R.S. - Stellar Teaching and Astronomical Realism Simulator <i>Octavian-Mihai Matei and Adrian Sabou</i>• VRduino Learning: Introduction in Arduino with Virtual Reality <i>Georgiana-Alexandra Bodea and Victor Ioan Băcu</i>• Virtual reality application for learning geography with gesture interaction <i>Maria Vasilache, Adrian Sabou and Teodor-Traian Ștefănuț</i>
13:00 – 14:00	Lunch break
14:00 – 15:00 Paper session 3	Games, vision & animation Session Chair: Costin Pribeanu, <i>Academy of Romanian Scientists, Romania</i> <ul style="list-style-type: none">• Design and Implementation of a 2D Game Engine: Algorithmic Approaches and Performance Optimization <i>Maria Pasca and Constantin Ioan Nandra</i>• Simfonia Silentio: The Impact of the Exclusively Auditory Game in Creating Equality and Innovation in the Gaming Universe <i>Patrick Antony Tudorie and Dorin-Mircea Popovici</i>

	<ul style="list-style-type: none"> • Spatial Big Data Visualization and Manipulation <i>Maria Gliga Hambet and Dorian Gorgan</i>
15:00 – 15:20	Coffee break
15:20 – 16:20 Paper session 4	<p>Education in USI Session Chair: Dorian Gorgan, <i>Technical University of Cluj-Napoca</i></p> <ul style="list-style-type: none"> • Tomorrow's Classroom: Virtual Reality Chemistry Lab <i>Alina Duca and Adrian Iftene</i> • Exploring the role of web accessibility in inclusive education: a case study <i>Marian Padure and Costin Pribeanu</i> • The Development Process of eLearning Application for Configurations of the Operating Room <i>Daria Elena Melinte and Adrian Iftene</i> • Predictors of student satisfaction - The role of social capital and teacher support <i>Costin Pribeanu, Gabriel Gorghiu and Elena-Ancuta Santi</i>
16:20 – 17:20 Paper session 5	<p>Artificial intelligence applications in USI Session Chair: Elena Băutu, <i>Ovidius University of Constanta</i></p> <ul style="list-style-type: none"> • Explainable Artificial Intelligence Techniques for Extended Reality Systems: a Systematic Literature Review <i>Clara Maathuis, Marina Anca Cidota, Dragos Datcu and Letitia Marin</i> • A P300-based Brain-Computer Interface to Control a 3D LabVIEW Simulation using GTEC Unicorn P300 Speller Aimed at Cognitive Training <i>Oana Andreea Rusanu</i> • Generative AI System to Support Decision-Making on Public Procurement Legislation by Fine-Tuned Large Language Models <i>Dragos Datcu and Clara Maathuis</i>
19:00 – 23:00	ICUSI 2024 Dinner

Friday, 20 september 2024

9:30 – 10:00 Invited talk	<p>Evaluating the User Interaction Experience with Artificial Social Agents Willem-Paul Brinkman, Delft University of Technology, The Netherlands Session Chair: Dragos Datcu, <i>Huawei Research Center Amsterdam, Netherlands</i></p>
10:00 – 11:00 Paper session 6	<p>Machine learning & Deep learning for interactive applications Session Chair: Paul Stefan Popescu, <i>University of Craiova, Romania</i></p> <ul style="list-style-type: none"> • Travel Me Now - Convolutional Neural Networks in Augmented Reality Exploration of Paris <i>Miruna-Elena Iosub and Adrian Iftene</i> • Recognition of Romanian Sign Language Alphabet Using Convolutional Neural Networks <i>Emilia Maria Nuta and Gheorghe Cosmin Silaghi</i> • SmartReviewHub: An AI Based Scientific Conference Management System <i>Mihail Popescu, Paul Stefan Popescu and Marian Cristian Mihaescu</i>
11:00 – 11:20	Coffe break

<p>11:20 – 13:00 Paper session 7</p>	<p>Software engineering for USI Session Chair: Marian Cristian Mihaescu, <i>University of Craiova, Romania</i></p> <ul style="list-style-type: none"> ● INTELLIT Version 2.0 – Advancements and Evaluation of an Enhanced Platform for the Modern Romanian Literature <i>Alin Dita, Mihaista Stroe, Laurentiu Neagu, Mihai Dascalu and Lucian Chisu</i> ● Improvement of Software Diagnostics with Advanced Execution Logging <i>Andrei-Ionut Nicolaev and Crenguta-Madalina Puchianu</i> ● Improved Maths Solving Abilities for Transformers Using Flow Engineering <i>Nicolae-Robert Linca and Traian Rebedea</i> ● Smart Eco Driving Assistant <i>Cojocaru Ion, Paul Stefan Popescu and Marian Cristian Mihaescu</i> ● Snoring Analysis System for Automatic Diagnosis of Obstructive Sleep Apnea Syndrome during VR Sleep Therapy <i>Dragos Datcu, Florin Stoicescu, Cătălin Ciobanu and Dorin-Mircea Popovici</i>
<p>13:00 – 14:00</p>	<p>Lunch break</p>
<p>14:00 – 15:40 Paper session 8</p>	<p>UI types and Interaction modalities Session Chair: Ștefan Trăușan-Matu, <i>Politehnica University of Bucharest</i></p> <ul style="list-style-type: none"> ● Computer-support for the analysis of rhetorical devices in texts <i>Stefan Trausan-Matu and Adrian-Dinu Urse</i> ● Enhancing Natural Human Interactions in AR/VR Applications <i>George-Gabriel Constantinescu and Adrian Iftene</i> ● Rhythm analysis of Romanian texts <i>Onur-Şener Veis and Stefan Trausan-Matu</i> ● Interactive Physics Experiments using Gesture Recognition <i>Mario-Cristian Constantinescu and Anata-Flavia Ionescu</i> ● Analysis of the structure similarity of musical scores <i>Ghiteanu Andrei-Daniel and Stefan Trausan-Matu</i>
<p>15:40 – 16:00</p>	<p>Coffee break</p>
<p>16:00 – 17:30</p>	<p>Building Trustworthy AI-XR Systems Workshop Protocol Session Chairs: Clara Maathuis, <i>Open University, The Netherlands</i> Dragos Datcu, <i>Huawei Research Center Amsterdam, The Netherlands</i></p>
<p>17:30 – 17:50</p>	<p>Closing session ICUSI 2024 Session Chair: Dragos Datcu, <i>Huawei Research Center Amsterdam, The Netherlands</i></p> <p>Best paper award</p> <p>Closing remarks</p>