

## Day 1 – Thursday, September 29

### 10.00 – 10.30 Opening

**Cleo Sgouropoulou, Ioannis Voyiatzis**

Greetings from the General Chairs

**Akrivi Krouska, Christos Troussas, Jaime Caro**

Greetings from the Program Committee Chairs

**Kitty Panourgia**

Greetings from the Organization Chair

### 10.30 – 12.30 Session 1 : Extended Reality and Games

*Session Chair : Christos Papakostas*

**Christos Papakostas, Christos Troussas, Akrivi Krouska and Cleo Sgouropoulou**

Modeling the knowledge of users in an augmented reality-based learning environment using fuzzy logic

**Elena Paunova-Hubenova, Yavor Dankov, Valentina Terzieva, Dessislava Vassileva, Boyan Bontchev and Albena Antonova**

Ready to play - a comparison of four educational maze games

**Christos Troussas, Akrivi Krouska and Cleo Sgouropoulou**

Employing FFNN and learning styles to improve knowledge acquisition in educational digital games

**Ioannis Kavouras, Emmanuel Sardis, Eftychios Protopapadakis and Anastasios Doulamis**

Effectiveness of Open-Source Solutions for Limited Scale Interventions Planning

**Andreas Marougkas, Christos Troussas, Akrivi Krouska and Cleo Sgouropoulou**

Virtual Reality in education: Reviewing different technological approaches and their implementations

**Ioannis Kavouras, Ioannis Rallis, Anastasios Doulamis and Nikolaos Doulamis**

Evaluating the feasibility of fast game development using open source tools and AI algorithms

**Argyris Sideris, Christos Troussas, Akrivi Krouska and Cleo Sgouropoulou**

A 2D platform game offering personalized guidance to players to promote environmental awareness

**Barbara David, Neil Jherome Hernandez, Kim Farhant Palao, Richelle Ann Juayong and Jaime Caro**

Designing a VR Application for Typhoon Preparedness Training in a Classroom

### 12.30 – 13.00 Break

### 13.00 – 14.30 Session 2 : Approaches in Adaptive Learning

*Session Chair : Christos Troussas*

**Viktor Uglev and Tatiana Gavrilova**

Cross-Cutting Visual Support of Decision Making for Forming Personalized Learning Spaces

**Akrivi Krouska, Christos Troussas and Cleo Sgouropoulou**

Extended Technology Acceptance Models for Digital Learning: Review of External Factors

**Valentina Terzieva, Tatyana Ivanova and Katia Todorova**

Personalized Learning in an Intelligent Educational System

**Nicholas Coulianos, Athanasia Sapalidou, Akrivi Krouska, Christos Troussas and Cleo Sgouropoulou**

Evaluating E-Learning Process on Virtual Classroom Systems using an ISO-based model

**Aurelio Vilbar**

Electronic-Service Learning to Sustain Instruction with Civic Engagement during the COVID-19 Pandemic

**Jeraline Gumalal and Aurelio Vilbar**

SERVE as instructional design for low-connectivity online self-directed modules

14.30 – 15.30 Break

15.30 – 17.00 **Session 3 : Data Mining and Machine Learning**

*Session Chair : Zoe Kanetaki*

**Jannie Fleur Oraño, Francis Rey Padao and Rhoderick Malangsa**

A Deep Convolutional Neural Network for Skin Rashes Classification

**Iason Katsamenis, Agapi Davradou, Eleni Eirini Karolou, Eftychios Protopapadakis, Anastasios Doulamis, Nikolaos Doulamis and Dimitris Kalogeras**

Evaluating YOLO transferability limitation for road infrastructures monitoring

**Zoe Kanetaki, Constantinos Stergiou, Christos Troussas and Cleo Sgouropoulou**

Developing novel learning spaces through a social media channel for sustainable CAD engineering education

**Ioannis Pontikis, Efstratios Koutivas, Panagiotis Kasnesis, Alexandria Filippoy and Dimitrios Stafylas**

Greek Patent Classification using Deep Learning

**Iason Katsamenis, Eleni Eirini Karolou, Agapi Davradou, Eftychios Protopapadakis, Anastasios Doulamis, Nikolaos Doulamis and Dimitris Kalogeras**

TraCon: A novel dataset for real-time traffic cones detection using deep learning

**Jozelle Addawe, Jaime Caro and Richelle Ann Juayong**

Machine Learning Methods for Modeling Dengue Incidence in Local Communities

17.00 – 17.30 **Greek Folklore Music**

## Day 2 – Friday, September 30

10.00 – 11.00 **Keynote Speech**

**Prof.-Dr. Mirjana Ivanovic**, Full Professor at Faculty of Sciences, University of Novi Sad, Serbia

Title: How Artificial Intelligent Approaches Support Medical Decisions and Patients' Wellbeing

11.00 – 11.30 Break

11.30 – 13.45 **Session 4 : Health and Earth Science**

*Session Chair : Christos Papakostas*

**Mirjana Ivanovic**

How Artificial Intelligent Approaches Support Medical Decisions and Patients' Wellbeing

**Maryam Ghaderi, Hamdi Ben Abdesslem and Claude Frasson**

An Analysis of Mental Workload involved in Piloting Tasks

**Anastasia R. Donskaya, Yulia A. Orlova, Dmitry R. Cherkashin, Victor V. Noskin and Stanislav V. Stepanov**

Development of methods and models for assessing spine curvature based on antilatency motion capture system

**Vadim Gilka, Kuznetsova Agnessa and Kachanov Yuri**

Architecture of the Android application for monitoring person's condition based on data readings from sensors of smart watches and mobile devices

**Lee Javellana**

A Landslide Model using a 3D Ultradiscrete Burgers' Equation

**Vitus Acabado, Gianna Burgos, Richelle Juayong, Jaime Caro and Maria Eliza Aguila**

Gamified upper limb rehabilitation program for elderly participants using a real-time motion tracking system

**Veeda Michelle Anlacan, Roland Dominic Jamora, Angelo Cedric Panganiban, Isabel Teresa Salido, Maria Evelyn Jacinto, Michael Tee, Maria Eliza Aguila, Cherica Tee and Jaime Caro**

Application Design for a Virtual Reality Therapy Game for Patients with Behavioral and Psychological Symptoms of Dementia

**Angelo Cedric Panganiban, Jaime Caro, Richelle Ann Juayong and Veeda Michelle M. Anlacan**

Design Strategies on Virtual Reality for Cognitive Monitoring of Older Persons

**Maria Eliza Aguila, Cherica Tee, Josiah Cyrus Boque, Isabel Teresa Salido, Maria Evelyn Jacinto, Michael Tee, Veeda Michelle Anlacan, Roland Dominic Jamora and Jaime Caro**

Application Design for a Virtual Reality Therapy Game for Patients with Cerebral Palsy

13.45 – 14.30 Break

14.30 – 16.45 **Session 5 : Information Systems and Science**

Session Chair : Karima Bossaha

**Silvester Kotsias, Athanasios Kerasiotis, Alexandros Bousdekis, Georgia Theodoropoulou and Georgios Miaoulis**

Predictive and Prescriptive Business Process Monitoring with Reinforcement Learning

**Viktor Uglev**

Unified Graphic Visualization of Activity (UGVA) Method

**Artem Prokudin, Mikhail Denisov and Oleg Sychev**

Disk space consumption by triple storage systems

**Maria Poli and Konstantinos Malagas**

The relationship of disability, new technologies and 'smart packaging': the Greek experience

**Alexander Katyshev and Anton Anikin**

Modern Approaches for Concepts and Relations Extraction for Ontology Learning

**Maryam Ghaderi, Marc-Antoine Courtemanche, Hamdi Ben Abdesslem, Roger Nkambou and Claude Frasson**

Attentional Tasks Model: a Focus group approach

**Herbert Gerard Villafranca, Jaime Caro, Romanlito Austria and Analyn Salvador-Amores**

From Threads to Textiles: Building an Ontology for the Indigenous Fabrics of the Ifugao

**Adrian Galido and Jerina Jean Ecleo**

Surveying Search Terms for COVID-19 Disease Surveillance

**Vladimir A. Litvinenko, Roman V. Titov, Yana V. Kulikova, Alexander Zubkov and Yulia A. Orlova**

Development of models and methods for building a psychological portrait of a person based on information from social networks

16.45 – 17.15 **Closing Session and Best Paper Awards**

#### Note:

- All the papers should have a **15-minute** duration **including Q&A** (13 minutes for oral presentation, 2 minutes for answering questions from the audience).
- The timetable of the NiDS2022 Program corresponds to **Eastern European Summer Time (EEST); UTC+3 hours**.