September 28 – 29
Athens, Greece
(Hybrid)

Conference Program
The timetable corresponds to Eastern European Summer Time
(EEST); UTC+3 hours

Day 1 – Thursday, September 28

09.00 – 09.30 Opening

Mirjana Ivanovic
Greetings from the General Chair

Katerina Kabassi, Phivos Mylonas, Jaime Caro
Greetings from the Program Committee Chairs

Kitty Panourgia
Greetings from the Organization Chair

09.30 – 10.30 Keynote Speech

Prof. Stefano A. Cerri, DKTS Milan, Italy – University of Montpellier, France
Title: Towards foundational principles in Interactive AI: From stamp collecting to Physics

10.30 – 12.30 Session 1 : Advances in AI
Session Chair : Christos Papakostas

Alexander Anokhin, Tatyana Ereshchenko, Danila Parygin, Danila Khoroshun and Polina Kalyagina
Applying Machine Learning and Agent Behavior Trees to Model Social Competition

Chloe de Leon and Richard Bryann Chua
Secure Genotype Imputation Using the Hidden Markov Model with Homomorphic Encryption

Dmitry Sasov, Anastasia Donsckaia, Yulia Orlova, Alexander Zubkov, Anna Kuznetsova and Victor Noskin
Identification of the problem of neural network stability in breast cancer classification by histological micrographs

Amreen Batool and Yung-Cheol Byun
Augmented Intelligence Assisted Deep Learning Approach For Multi-Class Skin Cancer Classification

Erika Rhae Magabo, Anna Liza Ramos, Aaron De Leon and Christian Arcedo
Combining Convolutional Neural Networks and Rule-Based Approach for Detection and Classification of Tomato Plant Diseases

Orestis Papadimitriou, Athanasios Kanavos, Phivos Mylonas and Manolis Maragoudakis
Classification of Alzheimer's Disease Subjects from MRI using Deep Convolutional Neural Networks

Sadiqa Jafari and Yung Cheol Byun
Enhancing Predictive Battery Maintenance through the Use of Explainable Boosting Machine

Aliza Lyca Gonzales, Anna Liza Ramos, Jephta Michail Lacson, Regie Boy Furigay and Kyle Spencer Go
Optimizing Image and Signal Processing through the Application of Various Filtering Techniques: A Comparative Study

12.30 – 13.00 Break

13.00 – 15.00 Session 2 : Advances in Software Engineering
Session Chair : Karima Boussaha

Glendel Calvo and Jasmine Malinao
Mapping hierarchies and dependencies from Robustness Diagram with Loop and Time Controls to Class Diagram

Vladislav Sukhoverkhov and Anton Anikin
Development of a module for generating function header tasks through the analysis of textual comments

Djaber Guassmi, Dehimi Nour El Houda and Mekhlouf Derdour
Testing open multi-agent systems

Jorelyn Concepcion, Aurelio Vilbar, Lynnette Matea Camello and Charmaine Lee Cabrera
Integrating CAD to University's Social Enterprise to Promote Local Weavers' Livelihood and Traditional Craft Preservation

NiDS 2023

September 28 – 29
Athens, Greece
(Hybrid)

C o n f e r e n c e   P r o g r a m
The timetable corresponds to Eastern European Summer Time
(EEST); UTC+3 hours

Cris Niño Sulla and Jasmine Malinao
Mapping of Robustness Diagram with Loop and Time Controls to Petri Net with Considerations on Soundness

Stergios Palamas, Yorghos Voutos, Paraskevi Zygoura, Phivos Mylonas and Vasileios Chasanis
Using Web Technologies to Implement a Modular Integrated System for Augmented Tourism Destinations

Kliezl Eclipse and Jasmine Malinao
Model Decomposition of Robustness Diagram with Loop and Time Controls to Sequence Diagrams

Boukelloul Soufiene, Dehimi Nour El Houda and Derdour Mekhlouf
Testing multi-agent systems using the mutation analysis technique

15.00 – 15.30	Break

15.30 – 17.30	**Session 3 : Data Analysis and Knowledge Representation**
	Session Chair : Zakaria Laboudi

Lamia Bendebane, Zakaria Laboudi and Asma Saighi
Mental Disorders Prediction from Twitter Data: Application to Syndromic Surveillance Systems

Aydin Ozan Cetintas and Halit Apaydin
Modeling and Prediction of Meteorological Parameters Using the Arima and LSTM Methods: Sivas Province Case

Dimitrios Tsakiridis and Anastasios Vasileiadis
A Computing System for the recording and integrating medical data of patients undergoing hemodialysis treatment

Konstantinos Gratsos, Stefanos Ougiaroglou and Dionisis Margaris
A web tool for k-means clustering

Jannie Fleur Orano, Jerome Jack Napala, Jonah Flor Oraño and Janrey Elecito
Automated Coral Lifeform Classification using YOLOv5: A Deep Learning Approach

Michalis Feidakis, Gregoris Maros and Angelos Antikantzidis
A Deep learning model to recognise facial emotion expressions

Polina Galyanina, Natalya Sadovnikova, Tatiana Smirnova, Artyom Zalinyan and Ekaterina Baranova
Ontological Model of Knowledge Representation for Assessing the City Visual Environment Quality

Alexander Katyshev, Anton Anikin and Alexey Zubankov
Bidirectional Transformers as a Means of Efficient Building of Knowledge Bases: A Case Study with XLM-RoBERTa

17.30 – 19.30	**Session 4 : Educational Technologies and AI in Education I**
Session 4 & 5 will be held in parallel	*Session Chair : Zoe Kanetaki*

Fateh Benkhalfallah and Mohamed Ridda Laouar
Artificial Intelligence-Based Adaptive E-Learning Environments

Kenneth Louis Cavanlit, Ericka Mae Encabo and Aurelio Vilbar
Using Recorded Lectures in Teaching Higher Education in an Online Remote Learning Context

Aurelio Vilbar
Hybrid-Service Learning during Disasters: Coaching Teachers Develop Sustainability-Integrated Materials

Zoe Kanetaki, Sebastien Jacques, Constantinos Stergiou and Panagiotis Panos
National Unemployment Recovery Initiative NextGenerationEU: Social Impact of Lifelong Learning in Computer Aided Design

Loubert John P. Go, Ericka Mae Encabo, Aurelio P. Vilbar and Yolanda R. Casas
Social Media to Develop Students' Creative Writing Performance

Crysali Therese Dayaganon, Judith Aleguen, Marichou Carreon, Virginia Albarracin and Aurelio Vilbar
Using CAD to Preserve Local Traditional Weaving Craft in Teaching Mathematics

Konstantinos Chytas, Anastasios Tsolakidis, Evangelia Triperina, Nikitas N. Karanikolas and Christos Skourlas
An Integrated Platform for Educational and Research Management Using Institutional Digital Resources

NiDS 2023 September 28-29
Athens, Greece

Lecture Notes
in Networks
and Systems

Springer

Hadjer Mosbah, Karima Boussaha and Samia Drissi
Rescue Under-Motivated Learners Who Studied Through MOOCs by Prediction and Intervention

17.30 – 19.30 Session 4 & 5 will be held in parallel	**Session 5 : Educational Technologies and AI in Education II** *Session Chair : Maria-Sofia Georgopoulou*

Sandra Katz, Pamela Jordan, Patricia Albacete and Scott Silliman
Debriefings on Prehospital Care Scenarios in MedDbriefer—A Tool to Support Peer Learning

Elias Dritsas, Maria Trigka and Phivos Mylonas
Mental Confusion Prediction in e-Learning Contexts with EEG and Machine Learning

Yavor Dankov
The Game Designer's Perspectives and the DIZU-EVG Instrument for Educational Video Games

Maria-Sofia Georgopoulou, Christos Troussas and Cleo Sgouropoulou
A Conceptual Framework for a Critical Approach to the Digital World: Integrating Digital Humanities and Informal Learning into Educational Design

Yavor Dankov
The Designer-Oriented Process Analysis of Utilizing the DIZU-EVG Instrument for Educational Video Games

Jeremy King L. Tsang, Gorge Lichael Vann N. Vedasto, Jozelle C. Addawe, Jaime D.L. Caro and Richelle Ann B. Juayong
Iskowela: Student Recruitment Platform and Marketing Tool for Educational Institutions

Houssam Ahmed Amin Bahi, Karima Boussaha and Zakaria Laboudi
Meta-Features based architecture for the automatic se-lection of prediction models for MOOCs

Chrysa Fraggista, Akrivi Krouska, Christos Troussas and Cleo Sgouropoulou
Exploring the use of augmented reality in teaching history to students with attention-deficit hyperactivity disorder

Day 2 – Friday, September 29

09.00 – 10.00	**Keynote Speech**

Prof. Michael L. Tee, University of the Philippines Manila

Title: Healthcare in the time of AI

10.00 – 12.00	**Session 6 : Emerging Technologies and Ecosystems** *Session Chair : Andrianthi Kapetanaki*

John Christidis, Helen C. Nelly Leligou and Pericles Papadopoulos
Blockchain-Enhanced Labor Protection: An Innovative Complaint Platform for Transparent Workplace Compliance and Fair Competition

Denis Sinkevich, Anton Anikin and Vladislav Smirnov
Embracing Blockchain Technology in Logistics

Marouf Ismahene, Saighi Asma, Kouah Sofia and Laboudi Zakaria
e-Health Cloud Based Systems: A survey on security challenges and solution

Christos Kampouris, Philip Azariadis and Vassilis Moulianitis
Introducing a Biomimetic Rig for Simulating Human Gait Cycles and its Potential Applications

Stefanos Karnavas, Dimitrios Kardaras, Christos Troussas, Stavroula Barbounaki, Panagiota Tselenti and Athanassios Kyriazis
Developing and accessing policies in maritime education using multicriteria analysis and fuzzy cognitive map models

Herminiño Lagunzad, Mikee Gonzaga and Carolyn Samonteza
Development and Implementation of File Security using Raspberry pi with an Advanced Encryption Standard (AES) Algorithm

September 28 – 29
Athens, Greece
(Hybrid)

C o n f e r e n c e   P r o g r a m
The timetable corresponds to Eastern European Summer Time
(EEST); UTC+3 hours

Asma Merabet, Asma Saighi and Zakaria Laboudi
Artificial Intelligence and Internet of Medical Things for Medical Decision Support Systems: Comparative Analysis

Chaima Hannachi, Sofia Kouah and Meryem Ammi
Internet of Everything based Intelligent System for Sleep Recording and Analysis

12.00 – 12.30	Break

12.30 – 14.30	**Session 7 : Mixed Reality**
	Session Chair : Andreas Marougkas

Christos Papakostas, Christos Troussas, Panagiotis Douros, Maria Poli and Cleo Sgouropoulou
CoMoPAR: A Comprehensive Conceptual Model for Designing Personalized Augmented Reality Systems in Education

Andrianthi Kapetanaki, Akrivi Krouska, Christos Troussas, Cleo Sgouropoulou and Stavroula Drosou
Augmented Reality for Enhancing Linguistic Skills of International Students in Preschool Education

Amadeus Rex Lisondra, Ryosuke Josef Nakano, Miguel Pardiñas, Josiah Cyrus Boque, Jaime Caro and Richelle Ann Juayong
UP V-Ikot: Augmented Reality Mobile Application to Assist Campus Visits and Tours Inside the UP Diliman Campus

Marios Iakovidis, Christos Papakostas and Christos Troussas
Empowering responsible digital citizenship through an augmented reality educational game

Andreas Marougkas, Christos Troussas, Akrivi Krouska and Cleo Sgouropoulou
Crafting Immersive Experiences: A Multi-Layered Conceptual Framework for Personalized and Gamified Virtual Reality Applications in Education

Lonnie France Gonzales, Frances Lei Ramirez, Samuel Kirby Aguilar, Richelle Ann Juayong, Jaime Caro, Veeda Michelle Anlacan and Roland Dominic Jamora
Home Bound: Virtual Home for Reminiscence Therapy of Dementia Patients

Panagiotis Strousopoulos, Christos Troussas, Christos Papakostas, Akrivi Krouska and Cleo Sgouropoulou
Revolutionizing Agricultural Education with Virtual Reality and Gamification: A Novel Approach for Enhancing Knowledge Transfer and Skill Acquisition

Josiah Cyrus Boque, Maria Eliza Aguila, Jaime Caro, Cherica Tee, Bryan Andrei Galecio, Isabel Teresa Salido, Romuel Aloizeus Apuya, Michael Tee, Veeda Michelle Anlacan and Roland Dominic Jamora
Moving in Space: Development Process Analysis on a Virtual Reality Therapy Application for Children with Cerebral Palsy

14.30 – 15.00	Break

15.00 – 17.00	**Session 8 : Smart Technologies and Intelligent Systems**
	Session Chair : Maria Poli

Viktor Uglev
Case Study of Organization of Decision-Making and Feedback Synthesis in Intelligent Tutoring Systems with a Cross-Cutting Approach

Alexander Khayrov, Olga Shabalina, Natalya Sadovnikova, Alexander Kataev and Tayana Petrova
Computer-Aided Development of Adaptive Learning Games

Halima Mahideb, Sofia Kouah and Ahmed Ahmim
Intelligent Air Quality Monitoring System a Comprehensive Review

Dimosthenis Margaritis, Helen C. Leligou and Dimitrios G. Kogias
One Dimensional Fingerprinting as an alternative to the Free Space Path Loss equation for indoor positioning

Mohamed Salah Benkhalfallah, Sofia Kouah and Meryem Ammi
Smart Energy Management Systems

Maria Poli, Konstantinos Malagas, Spyridon Nomikos, Apostolos Papapostolou and Grigorios Vlassas
The Interaction of People with Disabilities with the Intelligent Packaging

Lecture Notes in Networks and Systems

Springer

Nikolay Rashevskiy, Danila Parygin, Konstantin Nazarov, Ivan Sinitsyn and Vladislav Feklistov
Intelligent Assessment of the Acoustic Ecology of the Urban Environment

Maria Anastasia Katikaridi
Importance and Effectiveness of Delurking

17.00 – 18.15 Session 9 & 10 will be held in parallel	**Session 9: IoT and Smart Cities** *Session Chair : Panagiotis Strousopoulos*

Sofia Kouah, Abdelghani Ababsa and Ilham Kitouni
Internet of Things based Smart Healthcare System

Apple Rose Alce, Jerina Jean Ecleo and Adrian Galido
Exploring Smart City Analytical Framework: Evidence from Select Case Studies

Nadjem Eddine Menaceur, Sofia Kouah and Makhlouf Derdour
IoT-Based Intelligent Medical Decision Support System for Cardiovascular Diseases

Maria Poli, Konstantinos Malagas and Spyridon Nomikos
The Interaction of Disabled People and New Forms of Packaging: A Holistic Approach

Sabrina Mehdi, Sofia Kouah and Asma Saighi
Internet of Wearable Things Systems: Comprehensive Review

17.00 – 18.15 Session 9 & 10 will be held in parallel	**Session 10: User Experience and Human-Computer Interaction** *Session Chair : Theodosios Sapounidis*

Theodosios Sapounidis, Ioannis Kedros and Pavlos Mantziaris
DuckyCode: A hybrid platform with graphical and tangible user interfaces to program educational robots

Jeraline Gumalal and Aurelio Vilbar
Design thinking (DT) and user experience (UX) as springboard to teacher-made mobile applications

Maria Klouvidaki, Stelios Tsafarakis and Evangelos Grigoroudis
Readers' satisfaction from online news websites

Michael Dela Fuente, Carlo Inovero and Larry Vea
Emotion Recognition through Accelerometer and Gyroscope Sensors: A Pilot Study

Kurt Ian Khalid I. Israel, Kim Bryann V. Tuico, Richelle Ann B. Juayong, Jaime D.L. Caro and Jozelle C. Addawe
HomeWorks: Designing Mobile Applications to Introduce a Digital Platform for the Household Services Sector

18.15 – 18.30	**Workshop**

Title: **Lexais app: Connecting legal professionals and customers online**

Presenter: **Zilvinas Varanka**

18.30 – 18.45	**Closing & 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 NiDS2023 Program corresponds to **Eastern European Summer Time (EEST); UTC+3 hours**.

- The **NiDS2023 Conference link** is :   Click here to join the meeting *
  (for all sessions except from 5 & 10)   Meeting ID: 322 858 327 679   Passcode: 4AH6o9

- The **link of Sessions 5 & 10** is :   Click here to join the meeting **
  Meeting ID: 340 822 568 774   Passcode: LQnvGb

* https://teams.microsoft.com/l/meetup-join/19%3amoxd5sQJVPW_DuuhkMZPUfKTGEAkgzNaiSIVOESYF-U1%40thread.tacv2/1693846772197?context=%7b%22Tid%22%3a%220c8943ee-c370-4bb3-ba51-321f406f32ec%22%2c%22Oid%22%3a%224d87f611-a6f2-4156-8750-bfe9b354823d%22%7d

** https://teams.microsoft.com/l/meetup-join/19%3amoxd5sQJVPW_DuuhkMZPUfKTGEAkgzNaiSIVOESYF-U1%40thread.tacv2/1693847394734?context=%7b%22Tid%22%3a%220c8943ee-c370-4bb3-ba51-321f406f32ec%22%2c%22Oid%22%3a%224d87f611-a6f2-4156-8750-bfe9b354823d%22%7d