19TH INTERNATIONAL CONFERENCE ON
Intelligent Tutoring Systems
"AUGMENTED INTELLIGENCE and ITS"

SATURDAY, JUNE 3

FRIDAY, JUNE 2   18.00 - 19.00   **REGISTRATION**

9.30 - 10.00

OPENING CEREMONY

ACCESS TO THE SESSION
Greetings from the Program Chairs: **Prof. Claude Frasson, Assis. Prof. Christos Troussas**
Greetings from Ionian University Authorities
Greetings from the Organization Chair: **Dr. Kitty Panourgia**

10.00 – 11.00

ACCESS TO THE SESSION
Keynote Speech

Seiji Isotani, Visiting Professor of Education at the Harvard Graduate School of Education, USA

Personalization of Gamification in Education: Where Augmented Intelligence Meets Playfulness

11.00 – 13.00

Sessions 1 & 2: Track 1 - Intelligent Tutoring Systems

Session 1 *Session Chair: Dr. Nikiforos Stefanos* **ACCESS TO THE SESSION**	*Session 2* *Session Chair: Mr. Spyros Tzimiris* **ACCESS TO THE SESSION**
T1:#14 *Anaëlle Badier, Mathieu Lefort and Marie Lefevre (F)* **Understanding the usages and effects of a recommendation system in a non-formal learning context**	**T1:#13*** *Amal Ben Soussia, Azim Roussanaly and Anne Boyer (F)* **Early Warning Systems: How to Generate Early and Accurate Alerts of At-risk of Failure Learners?**
T1:#4 *Viktor Uglev and Oleg Sychev (F)* **Synthesising didactic explanatory texts in Intelligent Tutoring System based on the information in cognitive maps**	**T1:#1*** *Daniel Vasić, Branko Žitko, Ani Grubisic and Angelina Gašpar (F)* **KEMMRL:Knowledge Extraction Model for Morphologically Rich Languages**
T1:#5 *Wijdane Kaiss, Khalifa Mansouri and Franck Poirier (F)* **Towards a Chatbot-based Learning Object Recommendation: A Comparative Experiment**	**T1:#15*** *Rabin Banjade, Priti Oli and Vasile Rus (F)* **Automated Extraction of Domain Models From Textbook Indexes For Developing Intelligent Tutoring Systems**
T1:#6 *Oleg Sychev and Marat Gumerov (F)* **Generating Pedagogical Questions to Help Students Learn**	**T1:#8*** *Matteo Orsoni, Alexander Pögelt, Nghia Duong-Trung, Mariagrazia Benassi, Milos Kravcik and Martin Grüttmüller (F)* **Recommending Mathematical Tasks Based on Reinforcement Learning and Item Response Theory**

13.00 – 14.00

LUNCH

* Onsite presentation

ITS
INTELLIGENT TUTORING SYSTEMS

14.00 - 17.00

Sessions 3 & 4: Track 1 - Intelligent Tutoring Systems

Session 3	*Session 4*
Session Chair: Dr. Stelios Karagiannis	*Session Chair: Ms. Katia Kermanidis*
ACCESS TO THE SESSION	**ACCESS TO THE SESSION**
T1:#56	**T1:#51***
Guy Carlos Tamkodjou Tchio, Marc-Antoine Courtemanche, Roger Nkambou, Ange Adrienne Nyamen Tato and Valéry Psyché (F)	*Hemilis Rocha, Patrícia Tedesco, Evandro Barros and Julios Rocha (F)*
Integrating an Ontological Reference Model of Piloting Procedures in ACT-R Cognitive Architecture to simulate piloting tasks	**An approach for detecting gaming the system behavior in programming problem solving**
T1:#41	**T1:#55***
Amel Yessad (F)	*Fuhua Lin and Supun De Silva (F)*
Using the ITS components in improving the Q-learning policy for instructional sequencing	**An Approach to Generating Adaptive Feedback for Online Formative Assessment**
T1:#62	**T1:#40***
Reva Freedman, Lucas Edwards, Ian Sullivan, Dean LaBarbera and Virginia Naples (F)	*Tomasz Sosnowski, Moh'D Abuazizeh, Thomas Kirste and Kristina Yordanova (F)*
Teaching Cardiovascular Physiology with a Minigame-based ITS	**Development of a Conversational Agent for Tutoring Nursing Students to Interact with Patients**
T1:#63	**T1:#3***
Emmanuel Blanchard (F)	*Michał Maćkowski, Mateusz Kawulok, Piotr Brzoza and Dominik Spinczyk (F)*
Expert-centered design recommendationsto promote engagement in authoring activities of adaptive learning technologies	**Method and Tools to Supporting Math Learning in Inclusive Education of Blind Students**
T1:#49	**T1:#47***
Marc-Antoine Courtemanche, Ange Adrienne Tato and Roger Nkambou (F)	*Bert Bredeweg, Marco Kragten, Joanna Holt, Dennis Vaendel, Joris Hanse, and Steven Bloemen (F)*
A Framework for Automatic Task Ontology Execution in a Complex Environment	**Stargazing Live! Inspiring with real data in a mobile planetarium and learning through conceptual modelling**
T1:#34	**T1:#42***
Mariana-Madalina Nastase and Elvira Popescu (S)	*Alyssa Hajj Assaf, Hamdi Ben Abdessalem and Claude Frasson (F)*
Towards Integrating Learnersourcing, Microlearning and Gamification in Moodle	**Detecting Mental Fatigue in Intelligent Tutoring Systems**

17.00 – 19.00

SATELLITE EVENT - PART 1

ACCESS TO THE SESSION
Session Chair: Ms. Katia Kermanidis
EN.I.R.I.S.S.T.+ (https://enirisst-plus.gr/) is an intelligent National Research Infrastructure that aims to be the center of excellence in Shipping, Transport and Supply Chain in Greece by incorporating AI solutions therein. Project partners from all over the country will present their research progress and achieved results within the project.

19.00 – 20.00

RECEPTION

In the Garden of Science of History Building

* Onsite presentation

19TH INTERNATIONAL CONFERENCE ON
Intelligent Tutoring Systems
"AUGMENTED INTELLIGENCE and ITS"

10.00 – 13.10

Session 5 & 6: Track 1 - Intelligent Tutoring Systems

Session 5
Session Chair: Dr. Despina Mouratidou
ACCESS TO THE SESSION

T1:#2
Vladymyr Meitus and Clara Simon de Blas (S)
Functional programming of intelligent systems

T1:#10
George Zografos and Lefteris Moussiades (S)
A GPT-based Vocabulary Tutor

T1:#18
Hiba Gharbaoui, Khalifa Mansouri and Franck Poirier (S)
Towards a social learning analysis using LMS and LXP to predict learners' success

T1:#22
Stavros A. Nikou and Maiga Chang (S)
Learning by Building Chatbot: A System Usability Study and Teachers' Views about the Educational Uses of Chatbots

T1:#28
Viktor Uglev (S)
Explanatory didactic dialogue in the Intelligent Tutoring Systems based on the cross-cutting approach

T1:#61
Junya Morita, Masaji Kano, Shigen Shimojo, Yoshimasa Ohmoto and Yugo Hayashi (S)
Model-based Support for Collaborative Concept Mapping in an Open-ended Domain

T1:#50
Maryam Ghaderi, Amin Bonyad Khalaj, Hamdi Ben Abdessalem and Claude Frasson (F)
Attention Assessment of Aircraft Pilots Using Eye Tracking

T1:#37
Natawut Monaikul and Barbara Di Eugenio (F)
Detecting Interlingual Errors: The Case of Prepositions

Session 6
Session Chair: Ms. Maria Nefeli Nikiforou
ACCESS TO THE SESSION

T1:#59*
Fatma Miladi, Daniel Lemire and Valéry Psyché (S)
Learning Engagement and Peer Learning in MOOC: A Selective Systematic Review

T1:#38*
Anis Bey and Ronan Champagnat (S)
Toward a Smart Tool for Supporting Programming Lab Work

T1:#20*
Paulo Roberto Cordova, Iderli Pereira de Souza Filho, Gilleanes Thorwald Araujo Guedes and Rosa Maria Vicari (S)
ETHOSCHOOL: An Artificial Moral Agent Model for Collaborative Learning

T1:#57
Michele La Barbera, Filippo Sciarrone and Marco Temperini (S)
Helping Teachers to Analyze Big Sets of Concept Maps

T1:#58
Injila Rasul, Francisco Castro and Ivon Arroyo (S)
Towards Embodied Wearable Intelligent Tutoring Systems

T1:#48
Maryam Ghaderi, Hamdi Ben Abdessalem, Maxime Antoine and Claude Frasson (S)
Estimation of Piloting Attention Level Based on the Correlation of Pupil Dilation and EEG

T1:#64
Ted Krahn, Rita Kuo and Maiga Chang (S)
Personalized Study Guide: A Moodle Plug-in Generating Personal Learning Path for Students

T1:#44
Mehnuma Tabassum Omar, Nafisul Kiron and Julita Vassileva (S)
iQUIZ!: A Collaborative Learning Tool for Promoting Growth Mindset using Persuasive Strategies

T1:#31
Heeseok Jung, Jaesang Yoo, Yohaan Yoon, and Yeonju Jang (F)
Language Proficiency Enhanced Knowledge Tracing

* Onsite presentation

13.10 - 14.00	**LUNCH BREAK**

14.00 - 17.20

Sessions 7 & 8:

- **Track 3:** Augmented Intelligence in Games, Serious Games and Virtual Reality
- **Track 5:** Augmented Intelligence and Metaverse
- **Track 6:** Security, Privacy and Ethics in Augmented Intelligence
- **Track 7:** Applied Natural Language Processing

Session 7	Session 8
Session Chair: Dr. Kalliopi Kastampolidou	*Session Chair: Mr. Thomas Papikinos*
ACCESS TO THE SESSION	**ACCESS TO THE SESSION**
T6:#30	**T7:#86**
Dimitrios Tzimas and Stavros Demetriadis (F)	*Christos Troussas, Christos Papakostas, Akrivi Krouska, Phivos Mylonas and Cleo Sgouropoulou (F)*
Culture of Ethics in Adopting Learning Analytics	**Personalized feedback using Natural Language Processing in Intelligent Tutoring Systems**
T6:#7	**T7:#16***
Ana Matías and Iraide Zipitria (S)	*Kentaro Shiga and Naoyuki Morimoto (F)*
Promoting Ethical Uses in Artificial Intelligence Applied to Education	**Joint Topic Model with Selected Side Information for Inter-University Syllabus Analysis Focusing on the Variety of Instructional Approaches**
T3:#39	**T7:#36***
Jindi Wang, Ioannis Ivrissimtzis, Zhaoxing Li, Yunzhan Zhou and Lei Shi (F)	*Rita Kuo, Maria F. Iriarte, Di Zou and Maiga Chang (F)*
User-Defined Hand Gesture Interface to Improve User Experience of Learning American Sign Language	**Preliminary Performance Assessment on Ask4Summary's Reading Methods for Summary Generation**
T3:#46	**T7:#26***
Mahdi Zarour, Hamdi Ben Abdessalem and Claude Frasson (F)	*Qiongqiong Liu, Zitao Liu, Shuyan Huang, Jiahao Chen, Xiangyu Zhao, Yuyu Zhou and Weiqi Luo (F)*
Expert-centered design recommendationsto promote engagement in authoring activities of adaptive learning technologies	**SC-Ques: A Sentence Completion Question Dataset for English as a Second Language Learners**
T5:#54	**T7:#19**
Benedikt Hensen (F)	*Solomon Ubani and Rodney Nielsen (F)*
Mixed Reality Agents as Language Learning Tutors	**Improving Collaboration via Automated Intelligent Nudges**
T5:#45	**T7:#52**
Doru Anastasiu Popescu, Daniela Maria Cristea and Nicolae Bold (F)	*Laila Alrajhi and Alexandra Cristea (F)*
On an integrated assessment for the students within an academic consortium	**Plug & Play with Deep Neural Networks: Classifying Posts that Need Urgent Intervention in MOOCs**
T5:#25*	**T7:#12**
Azza Basiouni (S)	*Stavros Demetriadis and Yannis Dimitriadis (S)*
Metaverse and Virtual Environment to improve attention deficit hyperactivity disorder (ADHD) students' learning	**Conversational Agents and Language Models that learn from Human Dialogues to Support Design Thinking**

17.30 – 18.30

SATELLITE EVENT - PART 2

ACCESS TO THE SESSION
Session Chair: Ms. Katia Kermanidis

EN.I.R.I.S.S.T.+ (https://enirisst-plus.gr/) is an intelligent National Research Infrastructure that aims to be the center of excellence in Shipping, Transport and Supply Chain in Greece by incorporating AI solutions therein. Project partners from all over the country will present their research progress and achieved results within the project.

20.30

GALA DINNER

*Onsite presentation

19TH INTERNATIONAL CONFERENCE ON
Intelligent Tutoring Systems
"AUGMENTED INTELLIGENCE and ITS"

MONDAY, JUNE 5

9.30 – 10.30

ACCESS TO THE SESSION

Keynote Speech

Panos Kourouthanassis, Professor and Dean of the Faculty of Information Science & Informatics, Department of Informatics, Ionian University, Greece

Designing immersive information systems in the era of artificial intelligence

10.30 – 12.50

Sessions 9 & 10:

- **Track 2: Augmented Intelligence in Healthcare Informatics**
- **Track 4: Neural Networks and Data Mining**

Session 9 *Session Chair: Prof. Panagiotis Kourouthanasis*	*Session 10* *Session Chair: Ms. Maria Nikopoulou*
ACCESS TO THE SESSION	ACCESS TO THE SESSION
T2:#60*	**T4:#29**
Manuel Rebol, Alexander Steinmaurer, Florian Gamillscheg, Krzysztof Pietroszek, Christian Gütl, Claudia Ranniger, Colton Hood, Neal Sikka and Adam Rutenberg (F)	*Tingfeng Pan, Guang Feng, Xin Liu and Wenyan Wu (F)*
CPR Emergency Assistance through Mixed Reality Communication	**Using Feature Interaction for Mining Learners' Hidden Information in MOOC Dropout Prediction**
T2:#17*	**T4:#32**
Bharat Shankar and Carol Hargreaves (S)	*Ange Adrienne Nyamen Tato, Roger Nkambou and Gabrielle Joyce Nana Tato (F)*
Multimodal learning for clinical risk prediction in Intensive Care Units	**Automatic learning of piloting behavior from flight data**
T2:#27	**T4:#53**
Yves S. Nkulu-Ily (F)	*Massimo Pietracupa, Hamdi Ben Abdessalem and Claude Frasson (F)*
Combining XR and AI for integrating the best pedagogical approach to providing feedback in Surgical Medical Distance Education	**An Approach to Automatic Flight Deviation Detection**
T2:#35	**T4:#9**
Hamdi Ben Abdessalem and Claude Frasson (F)	*Zhaoxing Li, Lei Shi, Yunzhan Zhou and Jindi Wang (S)*
Emotional Impact of Cognitive Priming on Alzheimer's Disease	**Towards Student Behaviour Simulation: A Decision Transformer based Approach**
T2:#11	
Xiaoshan Huang, Shan Li and Susanne Lajoie (F)	
The Relative Importance of Cognitive and Behavioral Engagement to Task Performance in Self-Regulated Learning With an Intelligent Tutoring System	

13.00 – 13.30

CLOSING SESSION AND BEST PAPER AWARDS

ACCESS TO THE SESSION

** NOTE

Duration of the Full paper (F) presentation is 25 minutes + 5 minutes for QA

Duration of the Short paper (S) presentation is 15 minutes + 5 minutes for QA

* Onsite presentation

ITS
INTELLIGENT
TUTORING SYSTEMS