CALL FOR PAPERS

ITS 2023 - 19th International Conference on Intelligent Tutoring Systems
WEBSITE

ITS2023 is the upcoming Conference of the series of Intelligent Tutoring Systems Conferences on Computer and Cognitive Sciences, Artificial Intelligence, and Deep Learning in Tutoring and Education. **ITS2023** will be held in Corfu, Greece from **June 2 to June 5, 2023.** The conference will be hybrid and it will allow participants to attend it online too.

The ITS2023 Conference is about **"Augmented Intelligence and ITS". ITS2023** presents academic and research achievements in Computer and Cognitive Sciences, AI, and Deep Learning vis-a-vis the advances of Intelligent Tutoring Systems.

ITS is evolving to a new concept of Artificial Intelligence which can be found in various disciplines and can serve human education and well-being. This new concept is named: AUGMENTED INTELLIGENCE (or AI). Augmented Intelligence concerns any system, technique, architecture, method, or tool which can be used to enhance HUMAN intelligence, cognitive capacities, memory, and learning. Instead of trying to reproduce human behaviour or recognize human traits using artificial intelligence techniques or learning analytics, Augmented Intelligence provides means to increase human cognitive potential.

CFP
ITS2023 announces an open CFP and invites authors to submit their contributions in the form of scientific papers, posters, doctoral consortium papers, workshop/tutorial proposals by FEBRUARY 20, 2023. Acceptance notification will be sent to authors by MARCH 13, 2023. Paper submission should be made through the Easy Chair platform.

IMPORTANT DATES	
CONFERENCE EVENT	**DATES**
ITS2023 Conference	June 2 – 5, 2023

IMPORTANT DATES			
By 11:59 pm Pacific Time	**SUBMISSION**	**ACCEPTANCE NOTIFICATION**	**FINAL VERSION**
Full Papers (12 pages)	February 20, 2023	March 13, 2023	March 31, 2023
Short Papers (8 pages)			
Posters (6 pages)			
Doctoral Consortium (6 pages)			
Workshop Proposals			
Tutorial Proposals			
Industry Track Proposals			

SUBMISSION INSTRUCTIONS

The ITS2023 Conference invites submissions to be presented and discussed during the Conference. All papers must be original and not simultaneously submitted to or published in any other journal or conference.

The following categories are welcome: Full papers – twelve (12) pages, Short papers – eight (8) pages, Posters – six (6) pages.

All paper submissions should be made through the **Easychair** platform.

Paper submissions should be in **PDF** and in **English**.

In order to increase high-quality papers and independent merit, the **evaluation** process of papers is **double-blind**.

All papers submitted for review MUST not contain the authors' names, affiliations, or any information that may disclose the authors' identity (this information is to be restored in the camera-ready version upon acceptance). Authors should replace names and affiliations with Xs on submitted papers. In particular, in the version submitted for review, they should avoid explicit auto-references, such as "in [1] we show" — consider "in [1] it is shown"; i.e. they may cite previous works, provided that they are not deducible from the text that the cited works belong to the authors. When citing their previous work, they should keep the names with Xs.

Step 1

Authors should download the **LNCS** template and formatting instructions from the Springer website.

Step 2

Authors should prepare and submit their papers, including an abstract, through EasyChair. Login as author and select your document (by number) at the top of the screen. Follow the instructions on the submission screen. Upload your document in Springer LNCS format. Please select the topics (you may select more than one) carefully, as the topics play a key role in the process of assigning reviewers. It is important that the topics you select on the submission screen in EasyChair accurately reflect the document's content.

Program Committee Chairs

CONFERENCE COMMITTEE

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TOPICS OF INTEREST

T1: Augmented Intelligence in Tutoring systems

The goal of this track is to show how new techniques inspired by artificial intelligence and new methods in education can improve learning, teaching, and augment the capacity of knowledge acquisition.

• Augmented learning strategies	• Human-machine interaction
• Distance education	• Case-based Reasoning
• Learning analytics for tutoring systems	• Cognitive Modeling
• Deep learning and machine learning for tutoring systems	• Open learning
• Online and distance learning	• Authoring systems
• Augmented learner model	• Cultural learning
• Emotion recognition	• Adaptive learning

T2: Augmented Intelligence in Healthcare Informatics

The goal of this track is to show the progress of AI tools for increasing the propagation of healthcare techniques and their efficiency. Informatics provide means to improve the prediction, analysis, treatment of disease and a control for the patients over their own care.

• AI and telemedicine	• Augmented reality (AR):

• Medical Image processing • Virtual systems for healthcare • Learning Analytics in Medicine • Progress of AI for nonpharmacological Alzheimer's treatments • Predictive modeling of healthcare • Intelligent Tutoring Systems in Medicine • Machine learning and deep learning in healthcare • AI in medical education • AI in public health • Home management of healthcare • Neurofeedback techniques • Games for healthcare • Virtual reality (VR)	- Healthcare - VR/ AR and AI for medical applications - VR/AR for e-learning applications - Human-computer interaction - Ambient intelligence (AI) applications including; e-learning, e-healthcare, smart cities, and assisting medical diagnosis - Artificial intelligence - Machine and deep learning - Ambient assisted living (AAL) - Biomedical signals - Medical image processing - Cognitive assistants - m-Health - Mobility and behavioural analysis - Physiological signal monitoring and analysis

T3: Augmented Intelligence in Games, Serious Games and Virtual Reality

The goal of this track is to show the progress of interactive games using augmented intelligent techniques. Intelligent games can adapt to the characteristics of the player and can be used to enhance learning, skills, memory, cognitive capacities and strategic decisions. They can be used in various applications (education, healthcare, group management, decision support systems, industry control). Multimedia allows to increase the receptivity sensors and reactions.

• Game design • Intelligent immersive games • Multi-agent systems • Educational games • Social games • Augmented Simulations • Theory of games • Reinforcement learning in games • Virtual and augmented reality	• Simulation training • Emotions recognition • Neurofeedback games • Augmented scenario design • Human interaction with games • Multimedia technologies in games • Fuzzy systems in games • Artificial intelligence in games • Games content generation

T4: Neural Networks and Data Mining

• Supervised Machine learning • Genetic Algorithms • Markovian regulation • Smart sensor networks • Determinate regulation • Games and strategies • Fuzzy systems • Web information processing	• Applications of data mining in social sciences • Data-driven reasoning • Deep learning and statistical methods for data mining • Big data mining • Algorithms for data mining • Ethical data analytics • Data mining for recommendation • Uncertain reasoning

T5: Augmented Intelligence and Metaverse

• Technology and creativity around Metaverse • Gaming and interactivity • Mixed reality and virtual world • Social and digital identity • Extended reality	• Digital art • Social communication • Applications of Metaverse in Health • Global Metaverse • Knowledge increase with Metaverse

T6: Security, Privacy and Ethics in Augmented Intelligence

- Commercial Security
- Data privacy and security
- Web Security
- Applied cryptography
- Authentication, identity management, and biometrics
- Electronic payments
- Culture of ethics
- Business and human rights
- Diversity and inclusion in teaching and learning
- Environmental ethics
- Machine learning and security
- Cloud computing and data outsourcing security
- Mobile payments
- Security in games
- Security of peer-to-peer networks
- Security metrics
- Sustainability
- Language-based security
- Security and privacy for the Internet of Things
- Socio-technical security

T7: Applied Natural Language Processing

- Language modelling
- Domain ontologies
- Computational linguistics
- Cognitive semantics
- Text mining
- Translation
- Question answering
- Dialog systems
- Information retrieval
- Speech recognition and synthesis
- Discourse
- Machine translation
- Lexical semantics
- Linguistic resources

T8: Augmented Intelligence for Autonomous Robots and Learning

Augmented intelligence with robots include a variety of new criteria which provide more human characteristics to robots. Such elements concern emotions, affects, mood, face expressions which give a more realistic interaction with humans. They transform robots in useful human-like companions. Topics include, but are not limited to:

- Emotional robots
- Voice recognition
- Intelligent agents
- Autonomous robots
- Planning and Goal reasoning
- Entertainments robotics
- Intelligent systems and robotics
- Applications of autonomous intelligent robots
- Sensors and vision systems for robots
- Augmented exploration in hazardous situations
- Extraction of environments maps
- Robots in medicine
- Teaching robots

All questions about submissions should be emailed to **info@iis-international.org**