The Twelfth International Conference on
Information, Intelligence, Systems and Applications (IISA 2021)

http://www.easyconferences.eu/iisa2021

12-14 July 2021

Akali Hotel, Chania, Crete, Greece (https://www.akali-hotel.gr/**)**

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THE VENUE

IISA 2021 will take place in the city of Chania, on the Greek island of Crete. Greece offers top quality tourist attractions to about 30 million international visitors every year. Crete, in particular, is considered as the cradle of European civilization, with Knossos being the very first European city. Crete is well known for its genuinely friendly people, natural landscapes and sunny beaches, historical and religious sites, and lively entertainment style (www.incrediblecrete.gr/).

The conference last for three days and it will feature distinguished keynote speeches, oral and poster technical paper presentations, invited sessions, workshops and tutorials. It will provide excellent opportunities for the presentation of interesting new research results and discussion about them, leading to cross-fertilization, knowledge transfer and generation of new ideas.

IMPORTANT DATES

Invited sessions/workshop/tutorial proposals: March 29, 2021

Paper submission: April 19, 2021

Author notification: May 3, 2021

Camera-ready paper submission: May 17, 2021

INFORMATION CONTACT

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IISA-2021 is the twelfth conference in the IISA series, technically co-sponsored by IEEE, the **University of Piraeus** and the **Hellenic Mediterranean University**. IISA-2021 Proceedings will be published in IEEEXPLORE. The conference is intended to become an international forum for researchers and professionals in all areas of Information, Intelligence, Systems and Applications. We invite submissions of papers presenting high-quality original research and developments for the conference tracks listed. In **IISA-2021, the Biological & Artificial Intelligence Foundation will give best student-paper awards**.

Information is widely available and accessible, but frequently leads to information overload and overexposure, while the effort for coding, storing, hiding, securing, transmitting and retrieving it may be excessive. Intelligence is required to manage information and extract knowledge from it, inspired by biological and other paradigms. Multimedia Systems and Networks, with an increasing level of Intelligence, are being developed that incorporate these advances. As a result, new Technologies, Protocols and Applications are emerging.

The International Conference on Information, Intelligence, Systems and Applications (IISA) series offers a forum for the constructive interaction and prolific exchange of ideas among scientists and practitioners from different research fields – such as computers, mathematics, physics, biology, medicine, chemistry, experimental psychology, social sciences, linguistics, and engineering – having the goal of developing methodologies and tools for the solution of complex problems in artificial intelligence, biology, neuroscience, security, monitoring, surveillance, healthcare, sustainability in energy sources, governance, education, commerce, automation, robotics, optimization, image, speech and natural languages, and their integration.

SCOPE: TOPICS OF INTEREST INCLUDE, BUT ARE NOT LIMITED TO:

Track I: Information Processing and Intelligence

- Advances in databases
- Information systems
- Information and data management
- Data mining and knowledge extraction
- Recommender systems
- Digital rights management
- Processing of Social and Emotional Interactions
- Biological and artificial neural networks
- Biological and artificial immune systems
- Cognitive science
- Neuroscience
- Computational biology
- DNA computing
- Evolutionary computing and genetic algorithms
- Bayesian networks
- Expert systems & intelligent agents
- Swarm intelligence
- Fuzzy logic systems
- Kernel methods - support vector machines
- Ensemble classifiers
- Emerging machine learning paradigms
- Decision making techniques
- Knowledge-based systems
- Ambient-ubiquitous intelligence
- Robotics and automation
- Affective computing

Track II: Multimedia Systems and Networks

- Advances in multimedia processing
- Signal mining
- Signal visualization
- Human-machine interaction
- Multimodal systems
- Multimedia systems
- Autonomous Computing
- Distributed computing
- Quantum computing
- Mobile computing
- Green computing

- Trusted computing
- Proactive computing
- Cloud computing
- Ubiquitous computing
- Networking
- Sensing, sensory systems and sensor networks
- Design and implementation
- Real time systems

Track III: Educational Informatics

- Adaptive and personalized learning
- Student modeling
- Intelligent tutoring systems
- E-learning and mobile learning
- Social media and learning
- Educational games
- Computer-supported collaborative learning
- Big data in education and learning analytics
- Smart learning environments
- Virtual and augmented reality in education
- Risk management in education
- Learning management systems
- Content management systems
- Learning technologies for students with special needs

Track IV: Cyber Security

- Watermarking, cryptography/analysis, steganography/analysis
- Privacy and authentication
- Malicious software analysis
- Information, computer and network security
- Infrastructure security
- Forensics
- Biometrics

Track V: Smart Energy and Smart Cities

- Assessment of the energy status in smart cities
- Intelligent sensors and data analytics for energy optimization

- Monitoring and control of energy resources
- Smart grid
- Fault detection
- Decision support systems in energy planning and scheduling
- Middleware for urban computing
- Intelligent transportation systems
- Public displays for modern cities
- Impact of urban computing in modern cities
- Case studies and best practices
- Big city data
- Culture for smart cities

Track VI: Healthcare

- E-health, mobile health and smart health
- Infrastructure for smart health
- Advanced wearable devices and robotics for smart health
- Ambient intelligence in assisted living
- Health information systems
- Healthcare management
- Case studies

Track VII: Applications

- E-government and m-government
- E-commerce and m-commerce
- E-entertainment and m-entertainment
- E-legal and m-legal services
- Personalized systems and services
- Enabling technologies, frameworks and standards
- Empirical evaluations
- Simulation and evaluation via simulation
- Case studies
- Applications in culture and heritage
- Applications in tourism
- Applications in natural resource management
- Applications in disabilities and to people at need

Extended versions of selected papers will be published in related special issues of the International Journal on AI Tools (IJAIT, World Scientific), the Intelligent Decision Technologies Journal (IDT, IOS Press) and the International Journal on Computational Intelligence Studies (IJCIStudies, Inderscience).