



<https://www.dessert-conf.org/>



**12<sup>th</sup> International IEEE Conference  
Dependable Systems, Services  
and Technologies  
DESSERT'2022  
Greece, Athens  
December 9-11, 2022**



#### **2022 Theme:**

**Dependable and Trustworthy AI, IoE, Big Data Analytics for  
a Safe and Secure World**

#### **Organizers**

National Aerospace University KhAI, Kharkiv, Ukraine  
Hellenic Military Academy, Athens, Greece  
University of Thessaly, Lamia, Greece  
Leeds Beckett University, UK  
Institute of Information Science and Technologies, Pisa, Italy  
Lutsk National Technical University, Lutsk, Ukraine  
IEEE Greece Section

#### **Scope**

The annual DESSERT conference began since 2006 and its primary focus has been on methodologies, techniques and tools for dependability, security and safety assessment and assurance of software, hardware, computer systems and IT-infrastructures. DESSERT'2022 is responding to current major challenges relating to state-of-the-art information and communication technologies and paradigms such as Internet of things, cloud and edge computing, big data, AI and ML, cyber physical systems, etc. Relevant areas of interest encompasses regulations, analysis, modeling, development, verification, operation and maintenance of computer systems, networks and infrastructures for safety-, secure, mission- and business-critical applications.

DESSERT'2022 is addressing the main theoretical, methodological and technological challenges related to **Dependable, Resilient and Trustworthy Artificial Intelligence, Internet of Everything, Big Data Analytics for a Safe and Secure World**. Authors are invited to submit original manuscripts demonstrating recent advances in in all areas relevant to these challenges, including, but not limited to:

### ***Fundamentals and methodologies***

- Methodology and technologies of dependable and resilient computing
- Methodologies and technologies of smart and pervasive computing
- Methodologies and technologies of sustainable and green computing and communications
- Infrastructure safety and security regulation, assessment and assurance
- Multi-sectoral cybersecurity and safety analysis and assurance
- Cryptography and information security
- Safety, cybersecurity and resilience of Industry 4.0 and 5.0
- AI for design, safety and security of intelligent systems
- Privacy and personal & information society data protection
- Privacy and security ethical issues
- Big Data Analytics

### ***Methods and technologies***

- Dependable IoT for human and industry
- Trustworthy and explainable AI and resilient AI systems
- Human-machine interaction and cooperation for safety and security
- Dependability, security and resilience of web, cloud- and edge computing
- Big data and data mining techniques for business and critical domains
- Augmented, virtual and mixed reality for secure industrial and human applications
- Blockchain technology for critical and business domains
- Formal methods and assurance case-based techniques of development and assessment
- Quantum computing and post quantum cryptography
- Cryptography and steganography technologies
- Image processing and recognition for smart and dependable systems

### ***Domains and applications***

- Protecting critical infrastructures from cyberattacks
- Smart grid cybersecurity and resilience
- Reliability and safety of unmanned vehicles, drones and UAV fleets
- Dependability of mission critical, aviation and space systems
- Cybersecurity of health systems
- Intellectual transport systems
- Biomedical engineering and bioinformatics
- Ecology monitoring and decision making support
- Robotics and industry 4.0 and 5.0
- Dependable communication and high-reliable electronics
- Covid-19 and global trusted dependability
- UI cooperation, networking, education and training for business and critical domains
- Collaborative networked organizations for security

The conference will include special events including sessions dedicated to special topics. In particular, one of the streams will be dedicated to topics of the H2020-ECHO project “European network of Cybersecurity centers and competence Hub for innovation and Operations”  
<https://echonetwork.eu/>

### **The Expected Benefit**

DESSERT'2022 provides the opportunity to discuss topics with colleagues from different spheres such as academia, industry, IT, manufacturing companies, public and private research institutions and organizations. DESSERT'2022 with its truly international character promotes the development of relationships between countries from all parts of the globe. The key DESSERT target is to create new values for human, industry, state organizations and business.

## Submission Guidelines

The language of DESSERT'2022 Conference is English. Presentations in any other language are also not accepted. All submissions must comply with the IEEE format guidelines. Formatting instructions and template as well as submission guidelines are provided at the <https://www.dessert-conf.org/for-authors/>

Prospective authors are invited to submit a paper of minimum 4 and maximum 7 pages via EasyChair <https://easychair.org/conferences/?conf=dessert2022>.

Submissions must be made in .pdf or .doc/.docx by using EasyChair Conference Management System. You can find more details on how to complete the online registration at the registration page at <https://easychair.org/>. Please submit your paper to the applicable DESSERT'2022 Track.

## Important Dates

Submission (long/short paper, up to 4/7 pages): November, 9, 2022

Submission (special session): November 1, 2022

Notification of special session acceptance: November 3, 2022

Notification of paper acceptance: November 27, 2022

Final manuscript: November 29, 2022

Registration and payment: November 28, 2022

Program draft publication: November 30, 2022

Conference date: December 9-11, 2022

## Publication and Indexing

Accepted papers presented at the DESSERT will be published in Conference Proceedings, available in the IEEE Xplore and indexed by Scopus. Selected papers will be collected for a publication in international journals and books indexed by Web of Science and Scopus including IJ Radioelectronic and Computer Systems (Scopus, Q3). Full list of journals will be specified.

## Invitation to Sponsoring Program

Organizations interested in presenting their products are invited to participate in the Sponsor Program and to take part in the Technical exhibition. The exhibition area assigned during the DESSERT'2022 will be offered free of charge for sponsors only.

## The Venue

Athens is the capital and largest city of Greece, a world famous cultural and historical centre located on the picturesque coast of the Aegean Sea. The heritage of the Classical Era is still evident in the city, represented by ancient monuments, and works of art, the most famous of all being the Parthenon, considered a key landmark of early Western civilization. Athens is home to two UNESCO World Heritage Sites, the Acropolis of Athens and the medieval Daphni Monastery and as well as many other ancient shrines. During the conference participants will see one of the most beautiful cities of the world. Due to the COVID-19 pandemic, the 12th edition of this unique conference will run in hybrid mode (i.e., using remote audio/video support and as an in-person event).

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**Contact Information**

All information concerning DESSERT2022 is available at <https://www.dessert-conf.org>  
Organizing Committee Postal Address: Department 503, IEEE-DESSERT'2022 Organizing Committee, National Aerospace University KhAI, Chkalov str., 17, Kharkiv, 61070, Ukraine  
Phone: +38 (066) 5389293, +38 (096) 1305556 e-mail: [dessert@csn.khai.edu](mailto:dessert@csn.khai.edu) Olena Surynovych