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14<sup>th</sup> International IEEE Conference  
Dependable Systems, Services  
and Technologies  
**DESSERT'2024,**  
Greece, Athens,  
October 11-13, 2024



#### **2024 Theme:**

**Trustworthy AI, Internet of Robotics, and Big Data 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 Informatics and Telematics of the National Research Council, Italy

Lutsk National Technical University, Lutsk, Ukraine

IEEE Greece Section

IEEE Student Branch University of Thessaly - Lamia

#### **Scope**

The annual DESSERT conference began in 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. A lot of related DESSERT Ws covered different issues of dependable critical computing. DESSERT'2024 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, AI and Big Data, robotics systems, etc. Relevant areas of interest encompass regulations, analysis, modeling, development, verification, operation, and maintenance of computer systems, networks, and infrastructures for safety-, security-, mission- and business-critical applications.

DESSERT'2024 addresses the main theoretical, methodological, and technological challenges related to **Dependable, Resilient and Trustworthy Artificial Intelligence, Internet of Everything and Robotic Systems, and Big Data Analytics for a Safe and Secure World.** Authors are invited to submit original manuscripts demonstrating recent advances 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

- Safety, cybersecurity, and resilience of Industry 4.0 and 5.0
- AI for design, safety, and security of intelligent systems
- Cryptography and information security
- Privacy and personal & information society data protection
- Privacy and security ethical issues
- Big Data Analytics vs safety and security

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

- Dependable IoT for human and industry domains
- Trustworthy and explainable AI, AI as a Service, and resilient AI systems
- Methods and scenarios of AI-powered protection against AI-powered attacks
- 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 and UAV fleets
- UAV swarms/fleets for intellectual systems of monitoring critical objects
- Dependability of mission-critical aviation and space systems
- Safety and cybersecurity of industrial robots and robotics systems as a Service
- Cybersecurity and privacy of health systems
- Intellectual transport systems
- Biomedical Engineering and Informatics
- Ecology monitoring and decision-making support
- 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 (workshops, tutorials, industrial panels) and sessions dedicated to special topics.

### **The Expected Benefit**

DESSERT'2024 allows participants to discuss topics with colleagues from different spheres, such as academia, industry, IT, manufacturing companies, public and private research institutions, and organizations. With its truly international character, DESSERT'2024 promotes the development of relationships between countries from all over the globe. The key DESSERT target is to create new values for humans, industry, state organizations, and businesses.

### **Submission Guidelines**

The language of DESSERT'2024 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/dessert-2024/for-authors/>

Prospective authors are invited to submit a paper of a minimum of 5 and a maximum of 8 pages. 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: <https://easychair.org/conferences/?conf=dessert2024>. Please submit your paper to the applicable DESSERT'2024 Track.

## Important Dates

Workshop proposal submission: July 22, 2024  
Notification of Workshop proposal acceptance: July 25, 2024  
Paper submission: August 12, 2024  
Notification of paper acceptance: September 9, 2024  
Final manuscript: September 16, 2024  
Registration and payment: September 20, 2024  
Program draft publication: September 23, 2024  
Conference date: October 11-13, 2024

## Publication and Indexing

Accepted papers presented at DESSERT'2024 will be published in Conference Proceedings, available in the IEEE Xplore, and indexed by Scopus. Selected papers will be collected for publication in international journals and books indexed by Web of Science and Scopus, including the International Journal "Radioelectronic and Computer Systems" (Scopus, Q3). A full list of journals will be specified further.

## Invitation to Sponsoring Program

Organizations interested in presenting their products are invited to participate in the Sponsor Program and the Technical Exhibition. The exhibition area assigned during DESSERT'2024 will be free of charge for sponsors only.

## The Venue

Athens is the capital and largest city of Greece, a world-famous cultural and historical center 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 as well as many other ancient shrines as:

Parthenon – is a grandiose temple that has become the symbol of Athens and Greece.

Plaka, the "Neighborhood of the Gods" – is the oldest and liveliest area of Athens.

Acropolis Museum – the construction of the New Acropolis Museum was inaugurated in 2009 and has become one of the most visited and most important museums in Athens.

Ancient Agora – was the social, political and commercial hub of the city during Ancient Greece.

National Archaeological Museum - is one of the most-visited museums in Greece and Europe.

Panathenaic Stadium – was built in 144 AD. In the 19th century, it was dug up and restored. It hosted the first contemporary Olympics in 1896.

Temple of Poseidon – dedicated to Poseidon, the ancient Greek god of the sea, the temple could not have been built in a better spot than Cape Sounion, overlooking the Aegean Sea and guarding the city of Athens from anyone heading to the main Piraeus port.

Delphi – was considered the center of the world.

DESSERT'2024 will be held in a mixed format - an online format will be accepted for authors from Ukraine.

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Prof, Dr Oleksandr Markovskiy, NTUU, "Igor Sikorsky Kyiv Polytechnic Institute", Ukraine  
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Dr Thar Baker, Liverpool John Moores University, United Kingdom  
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Prof, Dr Vouyioukas Demosthenes, University of the Aegean, Greece  
Prof, DrS Vyacheslav Kovtun, Vinnytsia National Technical University, Ukraine  
Prof, DrS Yuriy Kondratenko, Black Sea National University, Mykolaiv, Ukraine  
Prof, DrS Yuriy Ponochovnyi, Poltava State Agrarian University, Ukraine  
Dr Zlatogor Minchev, Institute of Information&Communication Technologies, BAS, Sofia, Bulgaria

### **Contact Information**

All information concerning DESSERT2024 is available at <https://www.dessert-conf.org/>  
Organizing Committee Postal Address: Department 503, IEEE-DESSERT'2024 Organizing Committee, National Aerospace University KhAI, Vadym Manko 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