# Preliminary Call for Papers

## 31st ACIS International Conference on Computer and Information Science (ICIS 2027-IV)

**September 8-10, 2027**

**Kyoto Institute of Technology**

**Kyoto, Japan**

Sponsored by ACIS International
IEEE co-sponsorship in the process of approval



**ICIS 2027-IV** The 31st IEEE/ACIS International Conference on Computer and Information Science (ICIS 2027-IV) brings together scientists, engineers, computer users, and students to exchange and share their experiences, new ideas, and research results about all aspects (theory, applications, and tools) of computer and information science, and discuss the practical challenges encountered and the solutions adopted. The conference will cover a broad set of research topics.

**Scope and Topics of Interest**

The conference areas of interest include, but are not limited to:

**1. Computer Systems Architecture and Networks**

- Computer architecture and VLSI
- Embedded and real-time systems
- Operating systems
- Middleware technologies
- Communication systems and networks
- Mobile and wireless computing
- Parallel and high-performance computing
- Internet of Things and cyber-physical systems

**2. Intelligent Systems**

- Artificial intelligence and machine learning system
- Deep learning and generative AI system
- Intelligent agents and multi-agent systems
- Robotics and autonomous systems
- Evolutionary, fuzzy, and bio-inspired computing system
- Explainable, trustworthy, and responsible AI system
- Natural language processing and computer vision system
- Knowledge representation and automated reasoning system
- Expert, recommender, and decision-support systems
- Intelligent systems applications

**3. Programming Languages Algorithms and Foundations**

- Programming languages
- Compilers and runtime systems
- Algorithms and data structures
- Computational complexity
- Optimization and computational methods
- Formal methods
- Modeling and simulation
- Software specification and verification

**4. Data Information and Web Technologies**

- Database systems
- Data warehousing and management
- Information retrieval
- Knowledge management
- Information integration
- Web engineering and applications
- Multimedia and digital platforms
- Information visualization and decision support

**5. Human Centered and Intelligent Computing**

- Human-computer interaction
- Accessibility and assistive computing
- Social and collaborative computing
- Human-AI interaction
- Visual and multimedia computing
- Virtual, augmented, and extended reality
- Intelligent and interactive systems
- Control systems and smart environments

**6. Information Systems Security and Digital Society**

- Management information systems
- Enterprise information systems
- E-commerce and digital economy
- Digital transformation
- Cybersecurity and privacy
- Digital forensics
- Information security standards and law
- Computing education and societal impacts

**7. Emerging and Interdisciplinary Computing**

- Quantum computing
- Blockchain and distributed ledgers
- Sustainable and green computing
- Computing for healthcare
- Computing for science and engineering
- Educational and business technologies
- Smart-city and public-sector computing
- Interdisciplinary computing research

**8. Medical, Biomedical, and Healthcare Computing**

- Medical and healthcare information systems
- Artificial intelligence and machine learning in medicine
- Clinical decision-support systems
- Biomedical and health informatics
- Medical imaging and image-guided systems
- Electronic health records and clinical data integration
- Bioinformatics and computational biology
- Digital health, mobile health, and telemedicine
- Wearable devices and remote patient monitoring
- Precision medicine and personalized healthcare
- Medical robotics and intelligent assistive systems
- Public-health informatics and population health
- Healthcare data security, privacy, and interoperability
- Evaluation and deployment of clinical computing systems

**Important Dates**

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| Workshop/Special session proposal: | May 12, 2027 |
| Full Paper Submission: | July 1, 2027 |
| Acceptance Notification: | July 20, 2027 |
| Camera-Ready Papers & Registration: | July 27, 2027 |
| Conference Dates: | September 8 – 10, 2027 |

**Submission Types**

- Full Paper
- Short Paper
- Special Session Paper (invitation only)

**Submission Instructions**

Authors who are interested in the above topics can submit their unpublished work to the conference via Easychair. A clear indication of motivation and comparison with prior related work should be presented. Simultaneous submission to a journal or another conference with refereed proceedings is not allowed.

Submissions must adhere to the following guidelines:

- Papers must be formatted using IEEE Conference templates file without altering margins or the font point.
- The maximum length is 8 pages for a regular paper and is 4 pages for a short paper (including references).
- Proofs omitted due to space constraints must be placed in an appendix to be read by the program's committee members at their discretion.

**Best Paper Award**

Conference officers will select papers for the Best Paper Award. (To qualify for an award, the paper must be presented at the conference.)

**Publication**

ICIS 2027 Proceedings will be published by IEEE Conference Publishing Services and will be submitted to be indexed by EI, INSPEC, and DBLP.

Conference officers will select outstanding papers for publication in the following journals (www.acisinternational.org):

- International Journal of Networked and Distributed Computing (IJNDC), Springer, Germany
- International Journal of Software Innovation (IJSI), IGI Global, U.S.A.
- International Journal of Big Data Intelligence and Applications (IJBDIA), IGI Global, USA
- Studies in Computational Intelligence (SCI), Springer, Germany

## Organizing Committee

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