IEEE DASC 2025

The 23rd IEEE International Conference on Dependable, Autonomic and Secure Computing

October 21-24, 2025 - Hakodate, Hokkaido, Japan

http://cyber-science.org/2025/dasc

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Important Dates

Workshop/SS Proposal Due:	**May**	**20,**	**2025**
Regular Paper Submission Due:	**Jun.**	**10,**	**2025**
WiP/Workshop/SS Paper Due:	**Jun.**	**20,**	**2025**
Author Notification:	**Aug.**	**11,**	**2025**
Paper Registration:	**Sep.**	**05,**	**2025**
Camera-ready Submission Due:	**Sep.**	**12,**	**2025**

Submissions and Publications

Regular, Work-in-Progress (WiP), Poster, Workshop, and Special Session (SS) papers are all welcome to be submitted via the EDAS system.

Papers should be prepared in **IEEE CS Proceedings format**. All the accepted papers will be published by IEEE in the Conference Proceedings (**IEEE-DL and EI indexed**).

Best Paper Awards will be presented to high-quality papers. Selected papers will be recommended to the prestigious journal Special Issues.

Three Co-located Conferences

✧ The 10th IEEE Cyber Science and Technology Congress (CyberSciTech 2025)
✧ The 11th IEEE International Conference on Cloud and Big Data Computing (CBDCom 2025)
✧ The 23rd IEEE Int'l Conf. on Pervasive Intelligence and Computing (PICom 2025)

As computer and communication systems—alongside advanced paradigms such as Cyber-Physical Systems (CPS), the Internet of Things (IoT), and Autonomous Systems—grow increasingly large and complex, their dependability and security become paramount for enabling next-generation science, engineering, and commercial applications. Designing, analyzing, evaluating, and enhancing the dependability and security of autonomic computing environments present persistent challenges. **Dependable, Autonomic, and Secure Computing (DASC)** systems demand interdisciplinary research that integrates natural sciences, engineering, and social sciences. This convergence necessitates advancements in scientific and technological methodologies, as well as the development of innovative software, architectures, communication, and data platform technologies to seamlessly integrate constituent technologies. Notably, advanced AI techniques, such as Large Language Models (LLMs), play a pivotal role in autonomic systems, with embodied AI enabling adaptation, autonomous decision-making, and self-management. Ensuring the AI-driven solutions are trustworthy, dependable, and secure is equally essential.

IEEE DASC 2025 invites researchers, practitioners, and industry experts to submit papers exploring theoretical and practical advancements in dependable, autonomic, trustworthy, and secure computing, autonomous systems, and AI-driven solutions. The conference seeks to unite experts to exchange innovative ideas, discuss novel designs, share work-in-progress, and present case studies on emerging trends in these domains.

IEEE DASC 2025 Tracks and Topics

Track 1: Dependability, Reliability and Fault Tolerance
✧ Fault-tolerant HW and SW architectures
✧ HW and SW reliability, verification and testing
✧ Reliability modeling and prediction for complex systems
✧ Highly Reliable Systems achieving stable performance
✧ Resilience engineering in CPS
✧ Redundancy design for critical infrastructure
✧ Dependability metrics and evaluation frameworks

Track 2: Security, Privacy, and Trust in Systems and Networks
✧ Intrusion detection, prevention and mitigation in networked environments
✧ Security modeling, auditing and compliance in safety-critical systems
✧ Self-adaptive security architecture, techniques, and algorithms
✧ Security protocols for CPS, IoT, and autonomous systems (e.g., vehicles, drones, robots)
✧ Data protection for networked systems and storage systems
✧ Privacy-preserving techniques for distributed and autonomous systems
✧ Blockchain for trustworthy and secure system design
✧ Cryptographic methods for secure computing, storage and communication

Track 3: Autonomic Computing and Self-Adaptive Systems
✧ Self-adaptive SW architectures for autonomic computing
✧ Adaptive computing, communication, and resource allocation for autonomic systems
✧ Self-healing mechanisms for autonomic systems
✧ Autonomic decision-making under uncertainty
✧ Embodied AI for physical system adaptation
✧ Self-optimization for energy-efficient autonomic systems
✧ Modeling and SVT & V of self-adaptive behaviors

Track 4: AI, Machine Learning, and Advanced Computational Methods
✧ AI-driven threat prediction, anomaly detection, fault detection and diagnosis
✧ Large Language Models (LLMs) for system specification and verification
✧ Data platforms leveraging and powering AI
✧ Quantum computing applications in dependability analysis
✧ Generative AI for synthetic test case generation
✧ Explainable AI for trustworthy autonomic computing
✧ Trustworthy and safe AI-empowered systems

Track 5: Industrial Applications and Case Studies
✧ Dependability and security solutions in safety-critical control systems in transportation and aerospace industries
✧ Autonomous systems in industrial IoT deployments
✧ Case studies on CPS reliability in manufacturing
✧ Lessons learned from autonomous vehicle system deployments
✧ Real-world applications of trustworthy AI in various industrial sectors

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