

Call For Papers

The 19th IEEE International Conference on Ubiquitous Intelligence and Computing

Special Session: Cloud Native Computing and Security for Ubiquitous Intelligence

The development of cloud computing has prompted more and more applications to be built for the cloud. From early business applications to middleware applications, to high-performance computing, big data and AI, cloud computing has entered the "application-centered" cloud native 2.0 era. As an important supporting technology of new infrastructure, cloud native utilizes cloud computing to build and run scalable applications in modern, dynamic environments such as public, private and hybrid clouds. The representative technologies of cloud native include container, service mesh, microservices, serverless functions and immutable infrastructure.

Designing an efficient and secure cloud-native architecture that integrates diverse computing power and software-hardware collaboration to achieve intelligent operation and maintenance, security and trustworthiness is the key road for cloud-native ecology to industrialization. Due to the heterogeneous underlying hardware, dynamic and changeable network environment, and complex and diverse upper-layer applications, the design and management of cloud-native architecture face many challenges, including high performance, reliability, security, and scalability. Meeting these challenges requires innovative interdisciplinary efforts to design and implement cloud-native architecture. The aim of this special section is to provide a platform for researchers and practitioners from academia, government and industry to present their state-of-the-art research results in the area of designing and implementing efficient and dependable CNCS.

This is a special session of the 19th IEEE International Conference on Ubiquitous Intelligence and Computing (<http://www.ieee-smart-world.org/2022/uic/>). Please submit your paper via the submission site (<https://edas.info/N29956>) and select the special session of "Cloud Native Computing and Security for Ubiquitous Intelligence" marked with "UIC-CNCS".

The topics of interests for this special issue include, but are not limited to:

- Multi-cloud and edge-cloud collaboration
- Cloud native operating systems such as Kubernetes, etc.
- Cloud native infrastructure
- Service mesh/Microservices/Serverless
- Container technology and security
- Power/Energy efficiency issues in cloud native computing
- Security, privacy, availability, and reliability issues in cloud native computing
- Cloud native applications

- Cloud-native AI development

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Important Dates

Paper Submission Due: Sep 01, 2022

Acceptance Notification Due: Oct 01, 2022

Final Manuscript Due: Oct 31, 2022