

# The 16th IEEE/ACM International Conference on Utility and Cloud Computing (UCC 2023)

## Call for Papers

The IEEE/ACM International Conference on Utility and Cloud Computing (UCC) is a premier annual conference series aiming to provide a platform for researchers from both academia and industry to present new discoveries in the broad area of Cloud, Edge and Computing Continuum utility computing and applications. The conference features keynotes, posters, workshops and a student symposium. UCC 2023 will be held in conjunction with the 10th IEEE/ACM International Conference on Big Data Computing, Applications and Technologies (BDCAT 2023).

Authors are invited to submit original, unpublished research manuscripts in all areas of Cloud-Edge Continuum for utility computing and related computing paradigms such as Serverless, Distributed Computing and Function as a Service. Topics of interest include (but not limited to):

**Resource Management for Cloud-Edge Continuum:** Principles and Theoretical Foundations of Utility Computing; Architectural Models and Patterns to Achieve Utility; Virtualization, Containerization, Composition and Orchestration; Formal and Qualitative Aspects; Middleware and Stacks; Networking and Network Management; SaaS, PaaS, IaaS and XaaS; Resource Management and Scalability: Brokering, Scheduling, Capacity planning and Elasticity; Security, Trust, Privacy, Policies and Blockchains; Autonomic, Adaptive, Self-\*, SLAs, Management and Monitoring; Designs and Deployment Models: Private, Public, Hybrid, Federated, Aggregated, Inter-Cloud; High Performance Computing (HPC); Performance Analysis and Modeling.

**Artificial Intelligence for Cloud-Edge Continuum:** Machine Learning Operations (MLOps); Artificial Intelligence Solutions for Scheduling, Provisioning and Deployment; Artificial Intelligence Solutions for Orchestration; GPU as a Service (GPUaaS), Artificial Intelligence as a Service (AIaaS); Support for Extract/Transform/Load (ETL) or ETL Pipelines; Machine Learning Cloud Frameworks; Artificial Intelligence Infrastructure; Distributed, Federated, and Collaborative Learning.

**Applications and Systems for Cloud-Edge Continuum** Native Application Design, Programming Models and Engineering; Serverless and Function-Based Applications (FaaS); Microservices Architectures Quantum Computing; Interfacing to Internet of Things

(IoT) Applications; Utility-Driven Models and Mechanisms in All Domains (e.g., Smart Cities, Mobility, Healthcare, Industry 4.0); Micro Data Centers; Interfacing to Mobile Devices: Management, Hierarchy Models and Business Models; Energy-Efficiency and Sustainability; Development Operations (DevOps); Economic and Business Models; Business and Legal Implications Beyond Technology.

## Paper Submission

Authors are invited to submit papers electronically through the following link: <https://cmt3.research.microsoft.com/UCCBDCAT2023>.

Submitted manuscripts must represent original unpublished research that is not currently under review for any other conference or journal. Manuscripts are submitted in PDF format and may not exceed ten (10) ACM-formatted \*double-column\* pages, including figures, tables, and references. All manuscripts will be reviewed and judged on correctness, originality, technical strength, rigor in analysis, quality of results, quality of presentation, and interest and relevance to the conference attendees. Your submission is subject to a determination that you are not under any sanctions by ACM.

At least one author of each paper must be registered for the conference in order for the paper to be published in the proceedings. The conference proceedings will be published by the ACM and made available online via the IEEE Xplore Digital Library and ACM Digital Library.

## Important Dates

Timezone: Anywhere in the world!

Paper Submissions Due: August 3, 2023

Acceptance Notification: September 30, 2023

Camera Ready Papers Due: October 21, 2023

## Organizing Committee

### General Co-Chair(s)

Massimo Villari, University of Messina, Italy

Omer Rana, Cardiff University, UK

### Program Co-Chair(s)

Lorenzo Carnevale, University of Messina, Italy

Song Fu, University of North Texas, USA

