

The 19th IEEE International Conference on Big Data Science and Engineering (BigDataSE 2025)

Guiyang, China
14 - 17 November, 2025

CALL FOR PAPERS

Big data is an emerging paradigm applied to datasets whose size is beyond the ability of commonly used software tools to capture, manage, and process the data within a tolerable elapsed time. Such datasets are often from various sources (Variety) yet unstructured such as social media, sensors, scientific applications, surveillance, video and image archives, Internet texts and documents, Internet search indexing, medical records, business transactions and web logs; and are of large size (Volume) with fast data in/out (Velocity). More importantly, big data has to be of high value (Value) and establish trust in it for business decision making (Veracity). Various technologies are being discussed to support the handling of big data such as massively parallel processing databases, scalable storage systems, cloud/stream computing platforms, and high performance/parallel computing platforms.

The 19th IEEE International Conference on Big Data Science and Engineering (BigDataSE-2025) is going to provide a prime international forum for researchers, industry practitioners and environment experts to exchange the latest fundamental advances in the state of the art and practice of Big Data and broadly related areas. The goal of this conference is to promote community-wide discussion for identifying advanced applications, technologies and theories for big data. We seek submissions of papers that invent novel techniques, investigate new applications, introduce advanced methodologies, propose promising research directions and discuss approaches for unsolved issues.

BigDataSE-2025 will be hosted in Guiyang, China. Guiyang, a vibrant mountain city embraced by lush forests and karst landscapes, offers an excellent venue for the conference while inviting exploration of its unique attractions. Visitors can discover renowned sites such as the ancient town of Qingyan, the serene Qianling Mountain Park, and the breathtaking natural wonders of Huaxi National Urban Wetland Park and Tianhe Tan Karst Geological Park.

Prospective authors are invited to submit their papers to BigDataSE-2025. Accepted papers will be submitted for possible inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. The authors of selected best papers will be invited post conference to extend their contributions for special issues of prestigious journals to be planned in conjunction with the conference.

SCOPE AND TOPICS

Topics of interest include, but are not limited to:

- Novel theories, computational models, and algorithms of Big Data
- Big Data standards
- Big Data search and mining
- Big Data learning and analytics
- Big Data infrastructure, high performance /parallel computing platforms
- Big Data visualization
- Big Data curation and management
- Big Data semantics, scientific discovery and intelligence
- Big Data performance analysis and large-scale deployment
- Security, privacy, trust, and legal issues about Big Data
- Big Data vs Big Business and Big Industry
- Large data stream processing
- Large incremental datasets
- Distributed and federated datasets
- NoSQL data stores and Big Data compression
- Big Data placement, scheduling, and optimization
- Distributed file systems for Big Data
- MapReduce for Big Data processing, resource scheduling and SLA
- Performance characterization, evaluation and optimization
- Simulation and debugging systems and tools for MapReduce and Big Data
- Volume, Velocity, Variety, Value and Veracity of Big Data
- Multi-source Big Data processing and integration
- Storage and computation management of Big Data
- Large-scale Big Data workflow management
- Big Data sensing and crowdsourcing
- Sensor network, social network and Big Data
- Big Data ecosystem
- Foundation models and Big Data
- Big Data applications

MORE DETAILS

Conference Website

• iee-aipus-2025.org/BigDataSE.html

Submission Website

• <https://edas.info/N33928>



SPONSORS



WORKSHOP PROPOSAL

We invite proposals for workshops associated with the conference, addressing research areas related to the conference. Accepted workshop papers will be included in the proceedings published by IEEE. Send your proposals based on the requirements announced on the conference website to jhtang@gzu.edu.cn

SUBMISSION GUIDELINES

All papers need to be submitted electronically through the conference submission website (<https://edas.info/N33928>) with PDF format. The conference applies single-blind peer review. The materials presented in the papers should not be published or under submission elsewhere. Each paper is limited to 8 pages (or 12 pages with over length charge) including figures and references using IEEE Computer Society Proceedings Manuscripts style (two columns, single-spaced, 10 fonts). Manuscript Templates for Conference Proceedings can be found at: https://www.ieee.org/conferences_events/conferences/publishing/templates.html. Once accepted, at least one of the authors of any accepted paper is requested to register the paper at the conference.

IMPORTANT DATES

Workshop
Proposal
15 June, 2025

Paper Submission
Deadline
1 August, 2025

Author
Notification
1 October, 2025

Registration
Deadline
21 October, 2025