CALL FOR PAPERS

IEEE International Conference on Big Data

(IEEE BigData 2021)

http://bigdataieee.org/BigData2021/

December 15 – 18, 2021 @ Online Event

In recent years, “Big Data” has become a new ubiquitous term. Big Data is transforming science, engineering, medicine, healthcare, finance, business, and ultimately our society itself. The IEEE Big Data conference series started in 2013 has established itself as the top tier research conference in Big Data.

❖ The first conference IEEE Big Data 2013 had more than 400 registered participants from 40 countries and the regular paper acceptance rate was 17.0%.

❖ The IEEE Big Data 2019, regular paper acceptance rate: 18.7% was held in Los Angeles, CA, Dec 9-12, 2019 with close to 1200 registered participants from 54 countries.

❖ The IEEE Big Data 2020 (regular paper acceptance rate: 15.7%) was held online, Dec 10-13, 2020 with close to 1100 registered participants from 50 countries.

We solicit high-quality original research papers (and significant work-in-progress papers) in any aspect of Big Data with emphasis on 5Vs (Volume, Velocity, Variety, Value and Veracity), including the Big Data challenges in scientific and engineering, social, sensor/IoT/IoE, and multimedia (audio, video, image, etc.) big data systems and applications. The conference adopts single-blind review policy. We expect to have a very high quality and exciting technical program at Seattle this year. Example topics of interest includes but is not limited to the following:

1. Big Data Science and Foundations
   Novel Theoretical Models for Big Data
   New Programming Models for Big Data
   Data and Information Quality for Big Data
2. Big Data Infrastructure
   Cloud/Grid/Stream Computing for Big Data
   High Performance/Parallel Computing Platforms for Big Data
   Autonomic Computing and Cyber-infrastructure, System Architectures, Design and Deployment
   Energy-efficient Computing for Big Data
   Programming Models and Environments for Cluster, Cloud, and Grid Computing to Support Big Data
   Software Techniques and Architectures in Cloud/Grid/Stream Computing
   Big Data Open Platforms
   New Programming Models for Big Data beyond Hadoop/MapReduce, STORM
3. Big Data Management
   Search and Mining of variety of data including scientific and engineering, social, sensor/IoT/IoE, multimedia data
   Algorithms and Systems for Big Data Search
   Distributed and Peer-to-peer Search
   Big Data Search Architectures, Scalability and Efficiency
   Data Acquisition, Integration, Cleaning, and Best Practices
   Visualization Analytics for Big Data
   Big Data Computational Modeling and Data Integration
   Large-scale Recommendation Systems and Social Media Systems
4. Big Data Applications
   Cloud/Grid/Stream Data Mining- Big Velocity Data
   Link and Graph Mining
   Semantic-based Data Mining and Data Pre-processing
   Mobility and Big Data
   Multimedia and Multi-structured Data- Big Variety Data
5. Big Data Applications
   Large-scale Recommendation Systems and Social Media Systems
   Cloud/Grid/Stream Data Mining- Big Velocity Data
   Link and Graph Mining
   Semantic-based Data Mining and Data Pre-processing
   Mobility and Big Data
   Multimedia and Multi-structured Data- Big Variety Data
6. Ethics, Privacy and Trust in Big Data Systems
   Techniques and models for fairness and diversity
   Experimental studies of fairness, diversity, accountability, and transparency
   Techniques and models for transparency and interpretability
   Trustworthiness: between transparency and privacy
   Privacy-preserving Big Data Collection Technologies
   HCI Challenges for Big Data Security & Privacy
   Trust management in IoT and other Big Data Systems
7. Hardware/OS Acceleration for Big Data
   FPGA/VC/GPU/PU accelerators for Big Data applications
   Operating system support and runtime for hardware accelerators
   Programming models and platform for accelerators

8. Big Data Applications
   Complex Big Data Applications in Science, Engineering, Medicine, Healthcare, Finance, Business, Law, Education, Transportation, Retailing, Telecommunication
   Big Data Analytics in Small Business Enterprises (SMEs)
   Big Data Analytics in Government, Public Sector and Society in Big Data
   Real-life Case Studies of Value Creation through Big Data Analytics
   Big Data as a Service
   Big Data in Industry Standards
   Experiments with Big Data Project Deployments

INDUSTRIAL Track: The Industrial Track solicits papers describing implementations of Big Data solutions relevant to industrial settings. The focus of industry tracks is on papers that address the practical, applied or pragmatic or new research challenge issues related to the use of Big Data in industry. We accept full papers (up to 10 pages in two-column format) and extended abstracts (2-4 pages).

Paper Submission: Please submit a full-length paper (up to 10 pages IEEE 2-column format) through the online submission system.

Important Dates:
Electronic submission of full papers: September 5, 2021
Notification of paper acceptance: Oct 27, 2021
Camera-ready of accepted papers: Nov 15, 2021
Conference: Dec 15-18, 2021