

CALL FOR PAPERS
Big Data
IEEE Transactions on Emerging Topics in Computing
Special Issue

IEEE Transaction on Emerging Topics in Computing (TETC) seeks original manuscripts for a Special Issue on **Big Data**.

Big Data consists of datasets that grow so large that they become awkward to work with using on-hand computer data and computation management tools. Difficulties include, but are not limited to, capture, storage, search, sharing, analytics, and visualizing. Working with data sets of increasing scale allows analysts to "spot business trends, prevent diseases, and combat crime." Big data size is beyond the ability of commonly used computer software and hardware tools to capture, manage, and process the data within a tolerable elapsed time, hence demanding new innovative solutions. It has attracted a high degree of interdisciplinary interest internationally. This special issue is focusing on this new strategic research area to address challenges about big data. Original and unpublished high-quality research results are solicited to explore various challenging topics that include, but are not limited to:

- Big Data theoretical models, standards and theories
- Innovative computer software and hardware architecture for Big Data processing
- Big Data mining, advanced analytics and visualization
- Large big data stream processing
- Large-scale incremental, distributed and federated datasets
- NoSQL data stores and DB scalability
- Big Data sharing and privacy preserving
- Big Data placement, scheduling, and optimization
- MapReduce and new programming models for Big Data processing
- Cloud Computing, cluster and high performance computing and storage infrastructure for Big Data
- Performance characterization, evaluation and optimization
- Simulation and debugging of Big Data systems and tools
- Security, privacy, reliability and trust in Big Data
- Volume, Velocity, Variety and Value of Big Data
- Multiple source data processing and integration for Big Data
- Resource scheduling and Service Level Agreement for Big Data processing
- Distributed file systems, storage and computation management for Big Data
- Large-scale scientific workflow in support of Big Data processing
- Big data applications such as Medicine, Healthcare, Finance, Business, Retailing, Transportation and Science.

Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. Extended versions from conference papers such as The 2nd IEEE International Conference on Big Data and Distributed Systems (BDDS2013 - <http://www.swinflow.org/confs/bdds2013/>) must have at least 30% new content. As an author, you are responsible for understanding and adhering to our submission guidelines. You can access them at the IEEE Computer Society web site, www.computer.org. Please thoroughly read these before submitting your manuscript. TETC is the newest Transactions of the IEEE Computer Society with Open Access only.

Please submit your paper to Manuscript Central at <https://mc.manuscriptcentral.com/tetc-cs>

Please note the following important dates.

- **Submission Deadline: October 15, 2013**
- **Reviews Completed: January 15, 2014**
- **Major Revisions Due (if Needed): February 15, 2014**
- **Reviews of Revisions Completed (if Needed): March 15, 2014**
- **Minor Revisions Due (if Needed): April 15, 2014**
- **Notification of Final Acceptance: May 15, 2014**
- **Publication Materials for Final Manuscripts Due: May 30, 2014**
- **Publication date: September 2014**

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