This special issue focuses on all the aspects for the latest research on networking, high-performance computer architecture, and parallel and distributed data storage technologies. The purpose of this special issue is to provide a high-quality international forum for presentations and discussions of innovative ideas, recent research results on networking, storage, and architectures. This call is open for all contributions, but also invites selected best papers from the 14th IEEE international conference on Networking, Storage, and Architectures (NAS 2019) on Aug. 15-17, 2019 in Enshi, China.

The guest editors of the special issue are

- Xubin He, Professor of Temple University
- Weijun Xiao, Associate Professor of Virginia Commonwealth University

Topics of interests include, but are not limited to:

- Accelerator-based architectures
- Ad hoc and sensor networks
- Application-specific, reconfigurable or embedded architectures
- Architecture for handheld or mobile devices
- Architecture, networking or storage modeling and simulation methodologies
- Big Data infrastructure
- Big Data services and analytics
- Cloud and grid computing
- Cloud storage
- Data-center scale architectures
- Effects of circuits and emerging technology on architecture
- Energy-aware storage
- File systems, object-based storage
- GPU architecture and programming
- HW/SW co-design and tradeoffs
- Mobile and wireless networks
- Network applications and services
- Network architecture and protocols
- Network information theory
- Network modeling and measurement
- Network security
- Non-volatile memory technologies
- Parallel and multi-core architectures
- Parallel I/O
- Power and energy efficient architectures and techniques
- Processor, cache, memory system architectures
- Software defined networking
- Software defined storage
- SSD architecture and applications
- Storage management
- Storage performance and scalability
- Storage virtualization and security
- Virtual and overlay networks

Submissions must follow these guidelines:

- Please submit your paper to Manuscript central as NAS2019 special issue.
- Submissions should be prepared for publication according to the journal submission guidelines
- The submitted papers must have at least 50% different material beyond any other conference publication.

Important dates are as follows

Submission Deadline: Oct 31, 2019
Notification: Dec. 31, 2019
First round of reviews: Dec. 31, 2019
Second round of reviews: Jan. 31, 2020
Final Decision: Jan. 31, 2020
Camera-ready due: Feb. 15, 2020

Short bios for guest editors

Dr. Xubin He is a professor in the Department of Computer and Information Sciences at Temple University. He has been conducting extensive research in the area of data storage and I/O systems. His research interests include networked storage, big data management, storage cache and disk I/O, high availability and reliable computing. Dr. He's research has been mainly sponsored by the U.S. National Science Foundation (NSF). He has authored and co-authored many technical articles in prestigious journals such as IEEE Transactions on Parallel and Distributed Systems (TPDS), Journal of Parallel and Distributed Computing (JPDC), ACM Transactions on Storage (ToS), and IEEE Transactions on Dependable and Secure Computing (TDSC), and at international conferences, including the USENIX Conference on File and Storage Technologies (FAST), EuroSys, USENIX Annual Technical Conference (ATC), ACM International Conference on Supercomputing (ICS), IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), IEEE International Parallel and Distributed Processing Symposium (IPDPS), IEEE International Conference on Local Area Networks (LCN), etc. Graduate students who have graduated under Dr. He's supervision usually work in computer industry or research institutions as computer engineers or design architects. Dr. He has served as a panelist for NSF, also as a general/program chair and a technical committee member for many professional conferences in the field. He received the Ralph E. Powe Junior Faculty Enhancement Award in 2004 and the Sigma Xi Research Award (TTU Chapter) in 2010 and 2005. He is a senior member of the IEEE, a member of the IEEE Computer Society and USENIX.
Dr. Weijun Xiao is an associate professor of Electrical and Computer Engineering at Virginia Commonwealth University (VCU). Prior to join VCU, Dr. Xiao was a research associate in the Department of Electrical and Computer Engineering at the University of Minnesota-Twin Cities. He was a recipient of the prestigious Computing Innovation Fellowship sponsored by the National Science Foundation and the Computing Research Association in 2009. He received a Best Paper Award at the 30th IEEE International Conference on Computer Design (ICCD 2012). He published more than 40 papers at premier conferences and journals such as ISCA, ICDCS, ICS, and IEEE Transactions on Parallel and Distributed Systems (TPDS). His research interests include high-performance and GPU computing, data storage, embedded systems, computer architecture, and performance evaluation. Dr. Xiao holds three U.S. patents. He is a senior member of the IEEE and a member of the IEEE Computer Society.