

# CALL FOR PAPERS



## 2019 IEEE High Performance Extreme Computing Conference (HPEC '19)

Twenty-third Annual HPEC Conference

24 - 26 September 2019  
Westin Hotel, Waltham, MA USA



[www.ieee-hpec.org](http://www.ieee-hpec.org)

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*The IEEE High Performance Extreme Computing Conference (HPEC '19) will be held in the Greater Boston Area, Massachusetts, USA on 24 – 26 September 2019. The HPEC charter is to be the premier conference in the world on the confluence of HPC and Embedded Computing.*

The technical committee seeks new presentations that clearly describe advances in high performance extreme computing technologies, emphasizing one or more of the following topics:

- Machine Learning
- Graph Analytics and Network Science
- Advanced Multicore Software Technologies
- Advanced Processor Architectures
- Automated Design Tools
- Big Data and Distributed Computing
- Case Studies and Benchmarking of Applications
- Advanced Cloud Computing
- Computing Technologies for Challenging Form Factors
- ASIC and FPGA Advances
- Data Intensive Computing
- Digital Front Ends
- Fault-Tolerant Computing
- General Purpose GPU Computing
- High Performance Data Analysis
- Interactive and Real-Time Supercomputing
- Mapping and Scheduling of Parallel and Real-Time Applications
- New Application Frontiers
- Open System Architectures
- Secure Computing & Anti-Tamper Technologies
- Quantum/Hybrid Computing
- AI Computing

#### HPEC accepts two types of submissions:

1. Full papers (up to 6 pages, references not included), and
2. Extended abstracts (up to 2 pages, references included).

#### IMPORTANT DATES:

Submission Deadline: **May 17, 2019**  
Notification of Acceptance: **July 1, 2019**  
Camera Ready Deadline: **August 31, 2019**

Preference will be given to papers with strong, quantitative results, demonstrating novel approaches or describing high quality prototypes. Authors of full papers can mark their preference for a poster display or an oral presentation. Presenters who wish to have hardware demonstrations are encouraged to mark their preference for a poster display. Accepted extended abstracts will be displayed as posters. Papers can be declared "student paper" if the first author was a student when doing the presented work, and will be eligible for the "IEEE HPEC Best Student Paper Award." Papers should not be anonymized. All paper and extended abstract submissions need to use the approved IEEE templates. Full paper submissions with the highest peer review ratings will be published by IEEE in the official HPEC proceedings available on IEEE eXplore. All other accepted submissions and extended abstracts are published on [ieee-hpec.org](http://ieee-hpec.org).

Vendors are encouraged to sign up for vendor booths. This will allow vendors to present their HPEC technologies in an interactive atmosphere suitable for product demonstration and promotion. We welcome input ([hpec@ieee-hpec.org](mailto:hpec@ieee-hpec.org)) on tutorials, invited talks, special sessions, peer reviewed presentations, and vendor demos. Instructions for submitting will be posted on the conference web site shortly.

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