CALL FOR PAPERS
28th Annual IEEE HPEC Virtual Conference
23 – 27 September 2024
IEEE-HPEC.ORG

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The IEEE High Performance Extreme Computing Conference (HPEC '24) will be held virtually 23 – 27 September 2024. 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:

- High Performance Computing
- AI / Machine Learning
- Performance Engineering for AI
- AI for Performance Engineering
- AI at Scale and AI on the Edge
- LLMs, CNNs, DNNs, other AI/ML Methods
- Low/Mixed Precision Approaches
- Big Data and Distributed Computing
- Data Intensive Computing
- High Performance Data Analysis
- General Purpose GPU Computing
- Cyber Analysis and Secure Computing
- Interactive and Real-Time Supercomputing

- Supercomputing
- Graph Analytics and Network Science
- ASIC and FPGA Advances
- Advanced Multicore Software Technologies
- Advanced Processor Architectures
- Automated Design Tools
- Case Studies and Benchmarking of Applications
- Mapping and Scheduling of Parallel and Real-Time Applications
- Quantum and Non-Deterministic Computing
- New Application Frontiers
- Computing Technologies for Challenging Form Factors
- High Performance Embedded Computing
- Fault-Tolerant Computing

HPEC accepts two types of submissions:	**Important Dates:**
1. Full papers (up to 6 pages, references not included. Additional pages can be purchased for $200/page). 2. Extended abstracts (up to 2 pages, references included).	Submission Deadline: **JUL 7, 2024** Notification of Acceptance: **AUG 15, 2024** Camera Ready Deadline: **AUG 31, 2024**

Submissions to HPEC will be accepted through the CMT submission site at:
https://cmt3.research.microsoft.com/HPEC2024

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. All paper and extended abstract submissions need to use the approved IEEE templates.

Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. All other accepted submissions and extended abstracts are published on ieee-hpec.org (non-archival).

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.

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."nt Paper Award."