

Call for Papers: The 2008 International Conference on Computer Design (CDES'08), USA, July 2008

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 - *Date:* Sat, 22 Dec 2007 19:55:48 -0000
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[Moderator's note: This Cfp post is almost, but not quite, identical to a post made yesterday on this conference. This post appears to expand on the topics relevant to nanotechnology. This note is just the moderator's observation and rationale for approving what appears to be a redundant post. As always, caveat lector. -JimL]

C A L L F O R P A P E R S

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The 2008 International Conference on Computer Design
CDES'08

Date and Location: July 14-17, 2008, Las Vegas, USA

You are invited to submit a full paper for consideration.
All accepted papers will be published in the conference proceedings/
book.

SCOPE: Topics of interest include, but are not limited to, the following:

- O Processor and co-processor design
- O VLSI systems design and scaling techniques
- O ASIC design and architectures
- O Arithmetic circuits + Logic and circuit design
- O Microarchitectures
- O Power-efficient computer design and power management
- O Parallel/multi-processor computer architectures
- O Innovative hardware/software architectures
- O Scheduling techniques
- O Prefetching techniques
- O Architecture simulation systems
- O Branch prediction
- O Superscalar and dataflow design
- O Interconnect and interface design
- O Performance analysis and evaluation
- O Multi-thread, multi-cluster, multi-core systems and processors
- O Benchmarking and measurements

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- O Quantum computing
- O Novel design and methodologies
- O System-on-a-chip: design and methodology
- O Complexity issues
- O Cache and memory systems
- O Reliable architectures
- O Computer systems design and applications
- O High-level design methodologies
- O Support of operating systems and languages
- O Interaction between compilers and computer architectures
- O Synthesis
- O Pipelining
- O Mixed-signal design and analysis
- O Electrical/packaging designs and co-designs
- O FPGA-based design
- O Impact of novel technologies on computer architecture
- O Case studies
- O Emerging technologies

O Topics in Nanotechnology – all areas of nanotechnology are of great interest:

- Integration of high-performance computing in nanotechnology
- Bio-inspired and nano-scale integrated computing
- Material science
- Nanodevices and nanostructures
- Biomolecular machinery
- Nanomaterials
- Nanomedicine
- Nanobiotechnology
- Scanning probes
- Nanoelectronics
- Nanosensors
- Self-assembly
- Nanoscale structures and nanosystems
- Biomedical engineering and nanotechnology
- Supramolecular chemistry and technology
- Supercomputing and nanotechnology
- Nanotech and space exploration
- Miniaturization of science
- Nanotechnology and bioinformatics
- Nanotechnology challenges
- Case studies and emerging applications

O Topics in Real-Time Computing and Systems:

- Hardware software co-design
- System-on-chip
- Energy-aware real-time systems and applications
- Quality of service and scheduling
- Software engineering for real-time computing and systems
- System design and analysis (probabilistic analysis, quality of service support, validation technologies,

survivability and security, reliability issues, ...)

- Infrastructure and hardware (embedded devices, resource constrained methods, time synchronization, ...)
- Software technologies (real-time operating systems, middleware and distributed technologies, compiler support, component-based technologies, ...)
- Fault-tolerance
- Embedded systems and ubiquitous computing
- Real-time network connection scheduling
- Feed-back scheduling
- Multiprocessor scheduling
- Resource management
- Scheduling algorithms and analysis
- Real-time kernel support
- Modeling and synthesis techniques
- Real-time data-flow applications/computing
- Real-time control and sensing
- Real-time and embedded distributed algorithms and systems
- Simulation of real-time systems
- Multimedia and QoS support
- Real-time middleware systems
- Object oriented methods for real-time systems
- Knowledge-based real-time systems
- Algorithms and emerging applications
- Case studies

SUBMISSION OF PAPERS:

Prospective authors are invited to submit their full paper (about 5 to 7 pages – single space, font size of 10 to 12) to Prof. H. R. Arabnia by Feb. 25, 2008 (hra@xxxxxxxxxx). email submissions in MS Doc or PDF formats are preferable. All reasonable

typesetting formats are acceptable (later, the authors of accepted papers will be asked to follow a particular typesetting format to prepare their papers for publication.)

The length of the Camera-Ready papers (if accepted) will be limited to

7 (IEEE style) pages. Papers must not have been previously published

or currently submitted for publication elsewhere. The first page of

the draft paper should include: title of the paper, name, affiliation,

postal address, and email address of each author as well as the name

of the conference the paper is being submitted to (ie, CDES'08).

The first page should also identify the name of the Contact Author and a maximum of 5 topical keywords that would best represent the content of the paper.

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Each paper will be refereed by two experts in the field who are independent of the conference program committee. The referees' evaluations will then be reviewed by one member of the program committee who will recommend a decision to the co-chairs of the track.

The track chairs will make the final decision. Lastly, the Camera-Ready papers will be reviewed by one member of the program committee.

CONFERENCE SPONSORS:

The list of co-sponsors of CDES'08 will soon be finalized which will include research laboratories and centers affiliated with major institutions. The reputation and caliber of the co-sponsors of the 2008 conference will be comparable to the 2007 offering of the conference which included:

Academic Co-sponsors: Massachusetts Institute of Technology (MIT) Media Lab., MIT + Computational Biology and Functional Genomics Lab., Harvard University + Statistical Genomics and Computational Biology Lab., Dept. of Statistics, Harvard University + Biomedical Cybernetics Lab., Harvard University + Texas Advanced Computing Center, University of Texas at Austin + Statistical and Computational Intelligence Lab., Purdue University + Center for Computational Biology and Bioinformatics, Indiana University and Purdue University Indianapolis (IUPUI) + University of Iowa's Medical Imaging HPC Lab. + BioMedical Informatics and Bio-Imaging Lab. of Georgia Institute of Technology and Emory University + Intelligent Data Exploration and Analysis Lab., University of Texas at Austin + Statistical Genetics Research Group of Columbia University, New York + Institute for Informatics Problems of the Russian Academy of Sciences + University of North Dakota (Grand Forks, North Dakota).

Corporate Co-sponsors: Google, Intel, and Salford Systems.
Other Co-sponsors: Int'l Technology Inst. (ITI), GridToday, HPCwire, HPC Software Inc., STEM Education Society, and Hodges' Health.

MEMBERS OF PROGRAM AND ORGANIZING COMMITTEE:

The program committee includes members of the chapters of World

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Academy of Science (chapters: supercomputing; scientific computing; AI; imaging science; databases; simulation; software engineering; embedded systems; internet and web technologies; communications; computer security; and bioinformatics.) The names of the members of the program committee will soon be posted on the web site.

Those interested in joining the program committee should email Prof. H. R. Arabnia (hra@xxxxxxxxxx) the following information:

Name,

affiliation and position, complete mailing address, email address, tel/fax numbers, a short biography together with research interests.

For the list of the members of program committee of CDES'07, refer to:

<http://www.world-academy-of-science.org/worldcomp07/ws/CDES07/committee>

Many members of the program committee include renowned leaders, scholars,

researchers, scientists and practitioners of the highest ranks;

many

are directors of research laboratories, fellows of various societies,

heads/chairs of departments, deans and provosts.

IMPORTANT DATES:

January 16, 2008: Proposals for organizing/chairing sessions/workshops

Feb. 25, 2008: Submission of papers (about 5 to 7 pages)

March 25, 2008: Notification of acceptance

April 25, 2008: Camera-Ready papers and Registration due

July 14-17, 2008: The 2008 International Conference on Computer Design

(CDES'08)

URL:

<http://www.world-academy-of-science.org/sites/worldcomp08/ws/conferences/cdes08>

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