CALL FOR PAPERS

38th DESIGN AUTOMATION CONFERENCE®
Las Vegas Convention Center, Las Vegas, NV•June 18-22, 2001

DAC is the premier conference devoted to Design Automation (DA) and the application of DA tools in designing electronic systems. Five types of submissions are invited: regular papers, special topic sessions, panels, tutorials, and design contest entries. All types of submissions should be submitted electronically to: www.dac.com **NO later than October 27, 2000, 5:00 PM Mountain Standard Time**.

FOR INFORMATION CALL: 303-530-4333

TOPICS OF INTEREST

Authors are invited to submit original technical papers describing recent and novel research or engineering developments in all areas of design automation. Topics of interest include, but are not limited to:

DESIGN TOOLS TRACK:

The Design Tools track (T) is devoted to contributions to the research and development of design tools and the supporting algorithms.

T0.1 Fundamental CAD Algorithms, e.g., BDDs, graph coloring, partitioning
T1.1 Electrical-level circuit and timing simulation
T1.2 Discrete simulation
T1.3 Critical path analysis and timing verification
T1.4 Power estimation
T2.1 Testing, fault modeling and simulation, TPG, test validation and DFT
T2.2 Design and implementation verification (excluding layout verification)
T3.1 Floorplanning and placement
T3.2 Global and detailed routing
T3.3 Module generation and compaction, transistor sizing and cell library optimization, layout verification
T4.1 Technology independent, combinational logic synthesis
T4.2 Technology dependent logic synthesis, library mapping, interactions between logic design and layout
T4.3 Sequential and asynchronous logic synthesis and optimization
T4.4 High-level synthesis
T5.1 Interconnect and packaging modeling and extraction
T5.2 Signal integrity and reliability analysis
T5.3 Analog and mixed-signal design tools and RF
T5.4 Microsensor and microactuator design tools
T5.5 Statistical design and yield maximization
T6.1 Frameworks, intertool communication, WWW-based tools and databases

DESIGN METHODS TRACK:

The Design Methods track (M) deals with innovative methodologies for the design of electronic circuits and systems, as well as creative experiences with design automation in state-of-the-art designs. Submissions for this track will be judged on how innovatively tools are combined into a new methodology that is effectively applied to real-world design problems.

Design methodologies and case studies for specific design tasks

M1.1 Design entry and specification
M1.2 Simulation, analysis, modeling and estimation
M1.3 Verification, test and debugging
M1.4 Physical design, module generation, design for manufacturing
M1.5 Logic and high-level synthesis and optimization

Design methodologies and case studies for specific application domains and platforms

M2.1 Configurable computing, FPGA and rapid prototyping
M2.2 Integration of heterogeneous implementation technologies (DRAM, mixed signal)
M2.3 Deep sub-micron: signal integrity, interconnect modeling and extraction
M2.4 High-performance design: timing, clocking and power distribution
M2.5 Low power design
M2.6 Analog and RF design
M2.7 Process technology development, extraction, modeling and new devices
M2.8 MEMS, sensors, actuators

Integration and management of DA systems

M3.1 Management of DA systems, design interfaces, standards
M3.2 Distributed, networked, and collaborative design
M3.3 Intellectual property, design re-use and design libraries

Sponsored by:

EMBEDDED SYSTEMS TOPICS:

Embedded Systems are characterized by mixed hardware and software components with limited processing, I/O and storage resources. The increasing role played by software components and their associated support introduces a host of new system design issues. To focus on these, the 38th DAC will have embedded systems sessions covering both the "tools" and the "methods" aspects of the following topics:

E1 Embedded Systems Hardware: system-on-a-chip, IP re-use
E2 Embedded Systems Software: run-time schedulers, middleware, compilers
E3 HW/SW Codesign: specification languages, interfaces and integration, partitioning, synthesis
E4 Validation: debug, performance estimation and analysis, co-simulation
E5 Applications: application-architecture interaction, networked and distributed systems, multimedia systems

REQUIREMENTS FOR SUBMISSIONS

Again this Year: DAC Submissions must be made electronically. Reference the DAC web page for instructions on electronic submissions.

Be prepared to submit 2 files: 1) a paper abstract of approximately 60 words. 2) the paper itself of no more than 4000 words. Both should be submitted in PDF or Postscript format (preferably PDF)

The following information will be needed when submitting your paper
• Name, affiliation, and complete address for each author
• A designated contact person including his/her phone #, fax #, and email address
• A designated presenter, should the paper be accepted
• A list of topic numbers preceded by the letter T (Tools Track), M (Methods Track), or E (Embedded Systems Topic) ordered by relevancy, most clearly matching the content of the paper
• The following statement: "*All appropriate organizational approvals for the publication of this paper have been obtained. If accepted, the author(s) will prepare the final manuscript in time for inclusion in the Conference Proceedings and will present the paper at the Conference*".
• Authors of accepted papers must sign a copyright release form for their paper. Authors must also provide MP Associates a copy of their presentation materials and grant permission for the publication of the presentation and presentation materials on the DAC web site.

To permit a blind review, do not include name(s) or affiliation(s) of the author(s) on the manuscript or abstract. The papers will be reviewed as finished papers. Preliminary submissions will be at a disadvantage.
Notice of acceptance will be mailed to the contact person by February 19, 2001.

PANELS, TUTORIALS, SPECIAL TOPICS

Proposals should not exceed two pages in length and should describe the topic and intended audience. They must include a list of all participants, including the moderator for panels. Tutorial proposals must include a bulleted outline of covered topics.

Special Topic Sessions may be either independent papers with a common theme or a set of closely related papers describing an overall system. In both cases, independent reviews of each paper and evaluation of the session as a whole will be used to select sessions. Proposals for Special Topic Sessions should be submitted along with the list of papers to be included in the session and should describe the session's theme. **These proposals and paper submissions must be electronically submitted no later than October 27, 2000, 5:00 PM Mountain Standard Time**.

UNIVERSITY DESIGN CONTEST

Submissions of original electronic designs (circuit or system), developed at universities and research organizations after June 1998 and resulting in operational implementations are invited. Submissions should contain the title of the project, a 60-word abstract and a complete description of the design, not exceeding 4000 words in text. The submission should clarify the originality, distinguishing features, and the measured performance metrics of the design. Proof-of-implementation in the form of die or board photographs and measurement data is a must. Submitted designs should not have received awards in other contests. Submissions will be reviewed by a special committee of experts. Selected designs will be presented and exhibited at the conference.