FOREWORD

On behalf of the ICCAD-99 Executive and Technical Program Committees, I would like to welcome you to the International Conference on Computer-Aided Design. All of the technical presentations, the panel, the tutorials and related events will take place between November 7-11 at the San Jose DoubleTree Hotel. The hotel is located in central Silicon Valley, near the San Jose airport, and should be a convenient destination for local, US and international attendees. This year, ICCAD is co-located with the International Symposium on System Synthesis, ISSS, to help improve the interaction between CAD researchers working at higher and lower levels of design abstraction. ICCAD and ISSS will have several joint sessions on Wednesday November 10th, the last day of technical sessions for ICCAD and the first day of technical sessions for ISSS.

The technical program for ICCAD-99 was assembled by a program committee which includes experts from industry and academia around the world. The committee, organized and directed by Ellen Sentovich, is made up of ten subcommittees, and each subcommittee had at least five experts in the field evaluating 20-60 technical papers. Each volunteer on the committee devoted several days to reviewing the papers, and then participated in the full-day meeting to select papers for presentation from the many excellent submissions. Only 102 papers were accepted from 318 papers submitted to ICCAD-99.

As in the previous two years, within the technical program we have included six 90 minute embedded tutorials. The intent of these tutorials is to give conference attendees a chance to hear a focused presentation, complete with background, in important CAD areas. Two of the tutorials focus on emerging technologies. In the first, silicon-on-insulator (SOI) issues will be considered; and in the second, CAD approaches for micromachined devices, or MEMS, design will be examined. As has been true for the last several years, there will be an embedded tutorial on interconnect extraction. This year, though, the tutorial will expand to include more on design issues. Moving up the design hierarchy, there will be two tutorials on higher-level simulation. In the first, the use of static timing analysis in transistor sizing will be described, and in the second, the interaction between simulation and formal verification will be examined. Finally, there will be a system-level tutorial focused on embedded design for media applications.

On Monday night, there will be a technical panel organized by Rolf Ernst. The members of the panel will discuss the positive and negative aspects of the Semiconductor industry's published roadmap. Rolf has assembled both proponents and critics of the roadmap to engage in what should be a lively discussion.

The ICCAD/ISSS joint technical sessions will take place on Wednesday, November 10th, the last day of technical sessions for ICCAD and the first day of technical sessions for ISSS. The first of the joint sessions contains two invited talks which both address system design issues for wireless communication devices. The second session is an embedded tutorial on techniques and applications of embedded java. Finally, a joint panel session will be held Wednesday evening to discuss “System-Level Design: Designers’ Wish List vs. Reality”.

Complementing the technical program is the 1999 tutorial program, on November 11th, organized by Lawrence T. Pileggi. These full-day tutorials offer introductions to state-of-the-art in established CAD areas given by experts and leading researchers in their technical fields. This year's tutorials cover the following topics: 1) Mixed Signal ASIC design, 2) Modern physical design, 3) Low Voltage/Low power design, and 4) Signal integrity in high performance design.

The rapid pace of deep submicron and mixed signal technology development and the pressure for designers to reduce time-to-market is placing enormous demands on CAD tool development. ICCAD-99 offers a place for CAD developers and VLSI designers to meet and exchange ideas about the problems and solutions in the era of system-on-a-chip. We hope ICCAD-99 will be a valuable and enjoyable professional experience.

Jacob White
Conference/Finance Chair

Ellen M. Sentovich
Technical Program Chair