ISSS'99 is the 12th in a very successful series of symposia oriented towards professionals in design automation and system level design. As a student, I have had the opportunity to participate in the first event in the series (which was called the International High Level Synthesis Workshop) held in Catalina Island, CA in 1984. Back then, many of the "high level" research issues were more related to what is now referred to as logic and physical synthesis. Architectural synthesis was purely a research topic, and system synthesis was not even on the horizon. In 1994, the Workshop became a symposium, and was renamed in 1995 the International Symposium on System Synthesis. The aim of these changes was to recognize both the increased importance of the area, as well as the emergence of system level design as the next level of abstraction in the quest to design more and more complex systems-on-a-chip. The pervasiveness of such systems is not only witnessed in interactive computing but also in the much broader market of embedded systems. Today, over 96% of the 4 Billion Microprocessor/Microcontrollers shipped can be found in embedded systems. As these processors are integrated with memory, peripherals, ASIC blocks, and even MEMS components on a single die, the need for new tools and design paradigms at this level of abstraction becomes much more pronounced.

The symposium provides the ideal forum for discussions on the latest technologies and results in areas of system level design and synthesis. This year's ISSS will be co-located with ICCAD in the same hotel. ICCAD's technical sessions will be Nov. 7-10 while ISSS's technical sessions will start on the afternoon of Wed. Nov. 10. The Wednesday (Nov. 10) afternoon sessions of ISSS will be integrated in the ICCAD afternoon program (in one of the ICCAD tracks) and will contain special topics. Thursday and Friday (Nov. 11-12) will be devoted to the normal ISSS paper presentations (for ISSS registrants only) separately of ICCAD. We are excited about this collaboration, and hope that it will provide a model for future venues. Not only does such a model broaden the scope of the combined event but also optimizes attendees' schedule and travel budgets. This year, the topics covered in the Symposium include:

- System-level synthesis
- Hardware-software co-design
- Programmable (multi-) processor-based design and synthesis
- System design experience and methodologies.
- Embedded and real-time system software
- High-level and architectural synthesis
- Synthesis for low power, testability and verifiability in the above areas.

For the first time in ISSS history, the paper dissemination cycle this year was fully electronic. All 66 paper submissions from 17 different countries were done solely via email. Through a web-based system, each paper was reviewed by at least 4 reviewers. Based on the first round of reviews, papers were classified as "Clear accept", "Clear Reject" and "Possible Accept/Reject". In two subsequent rounds of reviews the "Possible Accept/Reject" papers were further analyzed by the Program Committee to finalize the selection of papers. As a result, consensus by the Program Committee was reached on 18 high quality papers that were accepted for presentation at the Symposium. To conclude the review cycle, the final manuscripts were also submitted electronically to the proceedings publisher. Authors of papers accepted for ISSS'99 and other conferences are encouraged to submit an extended version of their papers for possible inclusion in a Special Section of the IEEE Transactions on VLSI on System Level Synthesis and Design. Submissions of relevant work not presented at ISSS'99 are also welcome. The call for papers will be posted on the ISSS'99 website (http://www.eng.uci.edu/isss99) shortly.

In addition to the technical papers presented by leading system-level CAD researchers and practitioners, this year’s ISSS features an exciting array of special sessions. Several invited speakers from industry will discuss system-level applications and trends. Embedded tutorials are presented on Java compilation technology and software for real-time systems. Finally, a panel on system level design tools will include key experts from leading system level design houses and tool vendors to discuss the current state-of-the-art design and corresponding tool needs.

In conclusion, I would like to thank the steering committee and the program committee for their help in the success of this symposium. Specifically, I would like to thank Reinaldo Bergamaschi for his significant efforts in organizing the special sessions. Sanjiv Narayan was instrumental in orchestrating the local arrangements and financials of the symposium. Thanks are also due to Loganhath Ramachandran for his help as Publicity and Publications Chair. Francky Catthoor and Diederik Verkest deserve thanks for providing the web-based review system which was central to a seamless paper review process. Nik Dutt from the ISSS side, and Kevin Lepine and Ellen Sentovich from the ICCAD side were helpful in fostering a successful cooperation with ICCAD. Finally, I would like to thank the invited speakers for contributing their time and vision to the success of this Symposium.

We look forward to seeing you at ISSS'99 in San Jose.

Fadi J. Kurdahi
Program Chair, ISSS'99