Message from the Chairs
ASYNC 2013


This year’s Symposium is being hosted by the University of Southern California (USC), and the venue is Santa Monica, California, a beach city 8 miles from Los Angeles International Airport. The University of Southern California is one of the world’s leading private research universities. An anchor institution in Los Angeles, a global center for arts, technology and international trade, USC enrolls more international students than any other U.S. university and offers extensive opportunities for internships and study abroad. In particular, The University of Southern California's Viterbi School of Engineering has approximately 1800 undergraduates, with more than 30 combined degree options - some of them unique to USC - available to them. Approximately 3800 graduate students pursue degrees in over 25 fields; the USC graduate program in engineering is consistently ranked in the top 10 internationally.

We received 46 regular paper submissions. Twenty-two high quality papers were accepted for final publication and presentation at the symposium. In contrast with previous ASYNC years, this higher acceptance rate indicates that paper quality is rising and that this very small community is growing again, thanks to renewed interest in this discipline. Another promising sign is provided by two industrial papers that describe successful applications of asynchronous circuits and systems in products. The program chairs were impressed by the quality and range of submissions. The Program Committee members and external reviewers provided five in-depth reviews of each submission. The selection process emphasized novelty of contribution. We are pleased to see several newcomers amongst the authors whose papers have been accepted.

The final program is wide ranging, covering computer-aided-design tools and flows as well as designs that illustrate the benefits of asynchronous circuits. The CAD topics include performance and timing analysis, automated cell synthesis, and deadlock and glitch analysis, and techniques for radiation hardness. The design papers target low-power, asynchronous communication, GALS, clock-domain crossing, and synchronization. The call for papers also invited paper submissions from industry and we have created a special session called “Asynchronous Venture Update” to provide a venue for small and growing asynchronous ventures to present their on-going experiences in bringing new asynchronous technology to market. The objective of including these industrial-oriented papers and session is to highlight the impact of asynchronous design on industry, rather than only fundamental research contributions.
Moreover, we will have a special Demo Session to provide a venue to show-case recent software and hardware demos that are essential to bridging research and industrial practice.

To further complement the papers selected for presentation, we are delighted to have invited talks by two distinguished speakers, Vivek De from Intel and Jeanne Trinko Mechler, from IBM. These speakers will talk about current technology challenges in large industry designs and the opportunities for asynchronous technology in future chips.

The symposium would not have been possible without the help of many people: (1) Local staff at USC; (2) Staff at IEEE and IEEE Computer Society; (3) The program committee members, who put a big effort into delivering high quality reviews as well as debating the merits of the submissions and in providing extensive, elaborate and constructive feedback to all authors, as well as the efforts of several external reviewers; (4) The many dedicated volunteers from the research community who donate their time to help with the organization by chairing the many specific and diverse tasks.

We would like to specially thank the following individuals: the symposium finance and local arrangements chair Gloria Halfacre, for taking on this dual responsibility that is the backbone of any conference; Mehrdad Najibi for organizing the special Demo Session; Rajit Manohar for accepting the task of inviting our keynote speakers; Ken Stevens, for handling publicity and advertising; Erik Brunvand, for managing the publication process; John Bainbridge, for his persistence in seeking industrial donations; Mika Nystrom, for running the Best Paper Award process; and Arash Saifhashemi, for setting up and maintaining the conference web page.

Finally, we would like to thank the many companies and organizations who have provided direct or indirect financial sponsorship to the symposium. The list includes: USC and the USC Ming Hsieh Institute as well as Oracle, Intel, CEA-LETI, Octasic, Wave Semi, Tiempo, Blendics, and NVIDIA. This support has in particular enabled us to offer student travel grants and has supported other conference activities as well as has demonstrated that asynchronous circuits remain a hot bed of industry interest and innovation. In addition to those mentioned above we refer to the symposium website for a complete list of volunteers and sponsors (http://ee.usc.edu/async_2013).

We wish you an exciting symposium and a memorable visit to Santa Monica, California.

General Chair

Peter A. Beerel

Program Co-chairs

Ran Ginosar and Tomohiro Yoneda