Message from the Chairs


This year the symposium is being held in Grenoble, which is the capital of the French Alps, located in a valley surrounded by beautiful mountains. On the touristic side, Grenoble is famous for alpine landscapes, sunshine and snow. On the scientific side, Grenoble is a major European R&D centre. With a solid industrial network, from multinationals to innovating start-ups, and an outstanding scientific and technological environment, Grenoble is a major world-wide centre for electronics, information and communications technology. The technical expertise and the synergy between the universities, research and industry contributes to the successful image of Grenoble area.

There are many examples illustrating the vitality and sophistication of the microelectronics activity in Grenoble area. In 1992, STMicroelectronics, LETI-CEA and France Telecom R&D have pooled their deep sub-micronic technology research resources, with prototyping and production centred in Crolles. A new 300 mm wafer fab has opened in 2003. In 2002, Freescale (Motorola) joined Philips and STMicroelectronics R&D alliance for 90- to 32-nm processes for 300-mm wafers. SOITEC is the world leader in the fabrication of SOI wafers (Smart-Cut process). An active network of public research laboratories reporting to CNRS, INPG and UJF (CEPES, IMEP, LCIS, LMGP, LTM, TIMA, etc.) contributes to advanced projects and new concepts.

We are pleased to organize the symposium in such an attractive environment and hope the attendees will enjoy the area, benefit from networking and meetings, and have professional opportunities.

We received 51 paper submissions, of which 19 were accepted. The papers were rigorously reviewed by a total of 41 reviewers with each paper receiving 5 reviews. The program chairs want to point out the high quality of the submissions; this year the program includes a significant share of papers addressing timing, interfacing and communication issues; i.e. sessions:

- Interfacing and Synchronization
- Interconnect and Communications
- Design and Architectures for GALS

This does not reflect a deliberate decision; it simply reflects a current interest among researchers. The program further covers a wide range of topics specifically addressing the design of clockless/asynchronous circuits and systems, i.e. sessions:

- Fault-tolerance and testing
- Novel architectures and Design practices
- Synthesis
- Slack Matching

To complement the papers selected by the Programme Committee we are fortunate to have three exceptional invited talks in the conference programme this year. Nobuo Karaki, from Seiko Epson Corp., will describe the ground-breaking work involved in implementing an asynchronous 8-bit microprocessor on a flexible substrate. Jean-Pierre Schoellkopf, from STMicroelectronics, will discuss future semiconductor roadmaps and the impact these will have on system architecture. Ferdinand Peper, of the National Institute of Information and Communications Technology, Japan, will present ideas on asynchronous architectures for nanotechnologies, in particular the development of asynchronous cellular automata at the nanoscale. We look forward with eager anticipation to hearing what these three leading speakers will have to say about the latest developments in their fields, all of which are of great interest to the asynchronous design community.
Once again we enjoyed generous contributions from industry. This support greatly enhances the visibility and value of this workshop by providing funding for our invited speakers and student travel grants. This year there is increased emphasis on the commercialization of asynchronous technology. One afternoon is devoted to industry, with presentations on industrial applications and time for direct interaction between industry and the attendees. There is also an exhibit of commercial and operational unclocked ICs.

The Async symposium organization would not have been possible without the help of many people. We want to thank all the authors for submitting high quality papers and the programme committee members for their investment in the review process. We also thank our colleagues all around the world who contributed to the organization of this edition of Async, the invited speakers as well as our sponsors for their financial support. A special thanks goes to the people from TIMA for their efforts and professionalism in dealing with all aspects of the local arrangements.

We wish you an exciting symposium and a very pleasant stay in Grenoble.

Marc Renaudin
General Chair

Jens Sparsø and Alex Yakovlev
Program Co-Chairs

Steve Furber
Invited Speakers Chair

Ken Stevens
Industrial Liaison