

Preface

On behalf of the organizing committee and the Universidad Pública de Navarra (UPNA), we have the pleasure to welcome you to the 37th Conference on Design of Circuits and Integrated Systems (DCIS), to be held in Pamplona (Spain) from November 16th to November 18th 2022. This well-established international meeting promotes the exchange of new ideas and application experiences in the highly active fields of micro- and nano-electronic circuits and integrated systems. It provides an excellent forum to present and discuss works on the emerging challenges offered by technology, in the areas of modeling, design, implementation and test of devices, circuits and systems.

The 57 papers of these proceedings have been selected from over 110 submissions from 14 countries in four continents. These submissions were reviewed by 163 international reviewers, averaging 3.13 reviews per paper. Papers were submitted in the areas of Analog and Mixed-Signal Circuits and Systems, Digital Circuits and Systems, Signal Processing, EDA Tools and Methods, Industrial and Power electronics, Sensors Systems and Circuits, Embedded and High-Performance Computing, Semiconductor Memories, Hardware Security, New Computing and Hardware Paradigms, RF, Microwave and mm-wave Circuits, Energy Harvesting, IoT and Applications and Emerging Topics and Challenges.

The approved papers were organized in regular and special sessions distributed in three parallel tracks. Special session topics are: RISC-V and Open hardware, Hardware Security, Applications of 1D- and 2D-based Devices, Opportunities and Challenges of Memristive Devices, and Smart City Innovations. Moreover, a poster session was programmed, as well as a PhD poster competition taking place the first two days.

In two plenary sessions, distinguished invited plenary speakers gave a review of the future perspectives in their research areas: space electronics and FD-SOI technology. A panel session aimed to provide answers and foster discussion about the semiconductor crisis we face today and the ambitious European and national initiatives launched to regain production independence and leadership in the digital economy.

We would like to acknowledge the technical co-sponsorship of IEEE CAS Spain Chapter, and the help of the IEEE CEDA Spain Chapter. Our deepest gratitude also to all members of the Program Committee and reviewers for their invaluable work. Thanks also to the members of the local organizing committee and local volunteers whose hard work will help making the conference a reality. We also want to acknowledge the generous support from Public University of Navarra and IED.

Last but not least, we thank all authors who make this conference possible by sharing their ideas and results with the research community. It was a privilege and a pleasure to host for the first time in Navarra the DCIS conference. We are confident that you will find these conference proceedings valuable and of professional benefit, contributing to the exchange of new ideas and expertise in the field of integrated electronics.

November 28, 2022
Pamplona

Antonio López and Arantxa Otín,
General co-Chairs
Alfonso Carlosena and Jose Carlos
Alves, Technical Program co-Chairs
Pablo Ituero, Special Sessions Chair