



The 1st Conference on New Generation of Circuits and Systems NGCAS 2017 took place at Villa Giustiniani Cambiaso, which now seats the Polytechnic School of the University of Genova, Genova, Italy on September 6–9, 2017. The conference was technically sponsored by the **IEEE Circuits and systems society (CASS)** and the **IEEE Council on Electronic Design Automation (CEDA)**. The conference has been organized by the Department of Electrical, Electronic and Telecommunication Engineering and Naval Architecture (DITEN), University of Genova (**General Chair Maurizio Valle**).

NGCAS 2017 was honored by the presence of the IEEE CASS President Prof. **Franco Maloberti** who has been the promoter of a new conference dedicated to Young Professionals into the IEEE CAS Society.

The 2017 edition of NGCAS received a total of 120 submissions and a technical program committee of about 42 experts from across the world, led by **Marco Storace** (University of Genova) and **Elena Blokhina** (University College Dublin), conducted the peer reviews of the papers selecting 71 top quality papers for presentation. NGCAS is in particular addressed to young professionals in academia and industry. YPs are, and will be, in the future, the main driving force of innovation and technology transfer from academia to industry and society, even more concretely as they are naturally open to bridge the gap between different disciplines and to effectively promote interdisciplinary approaches. The aim of NGCAS is to be an open forum for YPs for presenting their results and for networking with experts from the industry and academia.

The organizers implemented a new conference format to make NGCAS attractive for the younger generation of engineers: the conference featured 4 oral special sessions, 6 oral sessions, 3 poster sessions (**with teaser presentations**) for a total of 44 oral and 27 poster presentations. Moreover 1 panel session

and **1 workshop, 3 keynote speakers** from academia and **3 invited talks from industry** (STM, Bosch, and National Instruments) and a **demo competition**.

The NGCAS 2017 technical program included a preconference tutorial day (four tutorials with two sessions in parallel) and 3 days of technical sessions with 2 sessions in parallel. The panel session “Interplay between Academia and Industry: Young professionals boost innovation into Society” has been organized with the participation of the panelists Eduard Alarcon (UPC BarcelonaTech, Spain), Franco Maloberti (Univ. Pavia), Anton Klotz (Cadence), Maurizio Granato (Texas Instruments), Giorgio Allasia (Fos), Giovanni Volpato (Fondazione Ricerca e Imprenditorialità), and Elena Blokhina (UC Dublin). The technical sessions keynotes were given by renowned researchers: “From iCub to R1” by Prof. Giorgio Metta, Vice Scientific Director & Director of the iCub Facility Department Istituto Italiano di Tecnologia (IIT), Italy; “Bio/Nano/CMOS interfaces for Remote Monitoring of Human Metabolism” by Prof. Sandro Carrara, École Polytechnique Fédérale de Lausanne, Switzerland and “Electronic Skin” by Prof. Ravinder Dahiya, University of Glasgow. The industry invited talks included: “Bosch Sensortec: Company Overview, MEMS sensors and ASIC Design for MEMS sensors” by Tamer Sinanoglu, Responsible of Design Team Bosch Sensortec GmbH, Milano, Italy; “Smart Power technologies, design techniques and application examples of High Voltage ICs” by Giulio Ricotti, Design Director and Technical Fellow in Research & Development for Smart Power Technology STMicroelectronics, Italy; and “New Technology Development: from idea generation, to development, to production” by Maurizio Granato, Isolation Foundational Technology Champion driving corporate technology roadmap and strategy Texas Instruments. The workshop was about “IC packaging Design flow, simulations and fabrication techniques” given by Marco Rocca, IC package designer for layout and simulation Cadence, Italy.

The Social dinner on the second conference day hosted the award ceremony where the best ranked papers were distinguished with Gold Leaf, Silver Leaf and Bronze Leaf Awards (30% of best papers); during the Closing Ceremony NGCAS awarded the best presentation, best poster. A 500\$ prize has been granted to the winner of competition. Two special issues on scientific journals (i.e. Integration, the VLSI Journal and Journal of Low Power Electronics) have been organized as a follow up of the conference.

The social events included a welcome reception at Villa Giustiniani Cambiaso, venue of the Conference (designed by architect Galeazzo Alessi around 1548 and which now seats the Polytechnic School of the University of Genova) and a conference dinner at Villa Croce, hosting the City Museum of Contemporary Art, attended by the director of DITEN. More photos from NGCAS2017 can be found on the website: ngcas2017.org.



Opening Ceremony



Photo of NGCAS 2017 participants at the conference venue



The IEEE CASS President Franco Maloberti Distributing the awards at the conference dinner