Call for Contributions

Note: Onsite and Remote Options
In order to accommodate a large number of situations, we are offering the option for either physical presence or virtual participation. We would be delighted if all authors manage to attend in person, but are aware that special circumstances are best handled by having flexible options.

Submission:
1. Inform the Chair: with the Title of your Contribution
2. Submission URL:
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SENSORDEVICES+2020+Special
Please select Track Preference as **Sensors-on-a-Chip**

Special track

Sensors-on-a-Chip: Sensors on a Chip

Chair and Coordinator

Dr. Marco Crescentini, Senior Assistant Professor, University of Bologna - Cesena Campus, Italy
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along with

The pervasiveness of the internet-of-things (IoT) paradigm, as well as the development of wearable and implantable healthcare devices, ask for more efficient, performant and miniaturized sensors, which could be easily integrated with electronic front-end and allows for scale-up production. In this perspective, silicon technology offers wide opportunities, as demonstrated by the great amount of sensors-on-chip available on the market. MEMS sensors have paved the way in this direction from the '70s but now new challenges are coming. More and more sensors are required to be integrated into ever smaller devices with improved performance and lower power consumption. New physical quantities are required to be sensed for the advent of pervasive of cyber-physical systems. Healthcare is facing a revolution towards "Personal and Preventive Healthcare", which is driven by the development of novel sensors and their integration into wearable devices or implantation into the human body. Moreover, quantum technologies open new perspectives in the design and implementation of miniaturized sensing technologies that could answer to today's and future challenges.

This session will focus on sensors-on-chip exploiting different technologies and answering to different demands but all with the same underlying concept of miniaturization and integration into a unique chip. It will cover advances in the development of sensors based on quantum phenomena (e.g. GMR, TMR), advances in the integration of microfluidic with sensors and electronics (e.g. lab-on-a-chip), advances in low-power analogue front-end, and investigation of novel miniaturized sensor devices based on nano-technologies (e.g. carbon nanotubes, silicon nanowires).

Authors are invited to submit complete unpublished papers, which are not under review in any other conference or journal in the following, but not limited to:

- CMOS-integrated sensors and system-on-a-chip
- Semiconductor-based sensors, e.g., magnetic sensors, GMR, TMR, optical sensors, biomedical sensors.
- Lab-on-a-chip
- CMOS sensor interfaces
- Wearable and implantable sensors
- Carbon nanotubes, nanowires, nanoribbons
- Smart sensors

Important Datelines
- Inform the Chair (see Contact below): As soon as you decided to contribute
- Submission: Sep 21, 2020
- Notification: Oct 11, 2020
- Registration: October 21, 2020
- Camera-ready: October 21, 2020

Contribution Types
- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format
- See: http://www.iaria.org/format.html
- Before submission, please check and comply with the editorial rules: http://www.iaria.org/editorialrules.html

Publications
- Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
- Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
- Articles will be archived in the free access ThinkMind Digital Library: http://www.thinkmind.org

Paper Submission
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SENSORDEVICES+2020+Special
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Registration
- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at http://www.iaria.org/registration.html

Contacts
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