

# 5<sup>th</sup> International Conference on Microelectronic Devices and Technologies (MicDAT '2023)

<https://www.micdat-conference.com/>



**20-22 September 2023 • Funchal (Madeira Island), Portugal**

The conference is the 5th of Series of annual International Conferences on Microelectronic Devices and Technologies (MicDAT) held in Barcelona (Spain), 2018, in Amsterdam (The Netherlands), 2019, in virtual format in 2020/2021 and in Corfu (Greece), 2022, organized by IFSA - non-profit, professional association, serving for academy and industry since 1999. The MicDAT' 2023 conference is intended to create awareness of the huge potential of modern microelectronic technologies and to improve understanding on the recent challenges in a wide range of applications. The many different technological bases for the fabrication of microelectronic devices, SoC, SiP, MEMS and NEMS will be outlined in this conference.

A number of recognized experts from both: academy and industry in the field of microelectronic design will be invited to give their view in selected application areas. Featuring strong participation of industry and academia, the MicDAT' 2023 conference will provide an excellent opportunity to exchange ideas and present latest advancements in these areas.

The aim of MicDAT series of conference is to provide an annual world forum for the presentation and discussion of recent advances in microelectronics, and bring together leading international researchers, engineers and practitioners interested on any of the microelectronics related technologies.

## Topics of interests:

- Analog, digital, mixed, and RF circuits and related design methodologies
- Analog-to-Digital Converters (ADC)
- Voltage-to-Frequency Converts (VFC)
- Frequency-to-Digital Converters (FDC)
- Time-to-Digital Converters (TDC)
- Logic, architectural, and system level synthesis
- Nonlinear circuits
- Microprocessors, microcontrollers and DSPs
- Testing, design for testability, built-in self-test
- Area, power, and thermal analysis and design
- Mixed-domain simulation and design
- Embedded systems, low-power designs
- VLSI systems circuit and design
- Non-von Neumann computing and related technologies and circuits
- Design and test of high complexity systems integration
- SoC, MPSoC, NoC, SiP, and NiP design and test
- Process technologies, CMOS, BJT, BiCMOS, GaAs
- 3-D integration design and analysis
- Emerging device technologies and circuits, such as FinFETs, SETs, spintronics, SFQ, MTJ, etc.
- Design for Manufacturability/Technology
- Microelectronics processing and materials
- Semiconductor processing
- Solid-state electronics
- Quantum electronics
- Thin solid films
- Nanoprocessing, nanotechnology and nanofabrication
- Flexible and stretchable electronics
- MEMS and NEMS
- CAD tools for microelectronics
- Hardware/software co-design
- Algorithms, methods and tools for modeling, simulation, synthesis and verification of ICs
- Electronic materials science and technology
- Organic electronic materials and devices
- Microelectronics reliability and qualification
- Assembly and Packaging

## Contribution Types:

- Keynote presentations
- Invited talks
- Regular sessions
- Poster sessions
- Special sessions
- Industrial sessions
- Panel Discussions and Round Tables
- Exhibition

## Special Sessions:

Participants are welcome to organize and manage special sessions during the conference. Each session will contain 4-6 papers in a related field as specified above.

## Session organizers will get:

- Certificate of Appreciation
- Free Registration for the Event
- Special Publishing Theme within Conference Proceedings
- Free article and book chapter post conference publications in appropriate open access journals and 'Advances in Microelectronics', Book Series, Vol. 4



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## Deadlines:

Submission (2-page extended abstracts): **25 June 2023**  
Notification of acceptance: **15 July 2023**  
Registration: **31 July 2023**  
Camera ready (4-6 pages full papers): **31 August 2023**

## One event - three different publications !

- 1) All registered abstracts will be published in the conference proceedings (USB flash drive edition of published Proceedings with the ISBN), distributed during the conference and submitted for indexing to the Web of Science.
- 2) Authors will be invited to submit full-page extended papers to one of the following special issues of peer-reviewed open access journals: Sensors & Transducers (ISSN 2306-8515, e-ISSN 1726-5479) or MDPI Micromachines (ISSN 2072-666X - indexed withing EI, Scopus, PubMed and Web of Science, Impact Factor of 3.523 (2021))
- 3) The limited number of full-page papers published in the journal will be selected by the Editorial Board to extend for book chapters for the open access Book Series on 'Advances in Microelectronics', Vol. 4.

## Organising Committee

### Chairman:

Prof., Dr. Sergey Y. Yurish (*IFSA, Spain*)

### Advisory Chairman:

Prof., Dr. Freddy Gabbay (*TECHNION, Israel Institute of Technology, Haifa, Israel*)

Prof. Dr. Edward Hrynkievicz (*Silesian University of Technology, Poland*)

Prof. Petrosyants K.O. (*Moscow Institute of Electronics and Mathematics, Russia*)

Dr. Josef Huran (*Slovak Academy of Science, Slovakia*)

### Industry Advisory Chairman:

Dr. Rozalia Beica (*The Dow Chemical Company, USA*)

### Conference and Publication Manager:

Mrs. Tetyana Zakharchenko (*IFSA Publishing, S.L., Spain*)



## Gala Dinner and Social Programme

**Welcome Cocktail:** 19 September 2023 (20:00-21:30). The Welcome Cocktail will take place in the Pestana Casino Park Hotel. Do not miss this opportunity to say the first "hello" to attendees and committee members.

**Gala Dinner:** 21 September 2023 (20:00-23:30). The Gala Dinner will take place in the Pestana Casino Park Hotel.

