

Sensors and Electronic Instrumentation Advances

Proceedings

**of the 9th International Conference
on Sensors and Electronic
Instrumentation Advances
(SEIA' 2023)**

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



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Edited by Sergey Y. Yurish



Sergey Y. Yurish, *Editor*
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Foreword

On behalf of the SEIA' 2023 Organizing Committee, we introduce with pleasure these proceedings devoted to contributions from the 9th International Conference on Sensors and Electronic Instrumentation Advances 20223 held in Funchal (Madeira Island), Portugal. The conference is organized by the International Frequency Sensor Association (IFSA) in technical cooperation with *IFSA Publishing, S. L.* (Barcelona, Spain) and media partners MDPI '*Sensors*', '*Chemosensors*' and '*Biosensors*' and open access journals (Switzerland).

The proceedings contain all papers of both: oral and poster presentations, which were presented at the conference. We hope that these proceedings will give readers an excellent overview of important and diversity topics discussed at the conference.

We thank all authors for submitting their latest work, thus contributing to the excellent technical contents of the Conference. Especially, we would like to thank the individuals and organizations that worked together diligently to make this Conference a success, and to the members of the International Program Committee for the thorough and careful review of the papers. It is important to point out that the great majority of the efforts in organizing the technical program of the Conference came from volunteers.

*Prof., Dr. Sergey Y. Yurish,
SEIA' 2023 Conference Chairman*