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Editors

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Foreword

The National Conference on Sensors was an important event held in Rome from 15 to 17 February, 2012 at the headquarters of the National Research Council in Rome. The most important scientific associations active in the area of sensors, actuators and microsystems were involved, for the first time altogether, in the organization of this national event: the Italian Society of Optics and Photonics (SIOF), the Electrical and Electronic Measurement Italian Association (GMEE), the Italian Association the Ambient Assisted Living Italian Association (AitAAL), the Italian Chemical Society (SCI), the Italian Physical Society, the Italian Association of Sensors and Microsystems (AISEM), the Italian Association for the Information and Communication Technologies (AICT), the Italian Association of Photobiology and the Italian Society of Pure and Applied Biophysics.

The driving idea in the organization of the event was the creation of a gathering moment at the national level, in order to favor the birth and the consolidation of interdisciplinary interactions among the different groups working in this field, and to strengthen the relationship between the sensor developers, the manufacturers and the final users. We consider both these aspects essential elements to create a real step forward in the research.

The Conference was a very successful interdisciplinary event, with more than 150 attendants coming from different disciplines, ranging from physics, engineering, chemistry, material science, biotechnology and biophysics. The Conference numbered 5 international plenary talks, 13 keynotes, 62 oral presentations and 81 poster presentations with a large participation of academic institutions, institutes of the National Research Council, and other national governmental research organizations. Particularly important was the substantial participation of companies involved in the design and development of sensors.

This book collects a selection of 100 papers presented at the conference and offers an exhaustive view of the state of the art in Italy in this field.

Particular thanks is expressed to the National Research Council, which hosted the Conference and to Assobiotec, the Italian Association for the Development of

Biotechnology, within the Italian Federation of the Chemical Industry (Federchimica), which strongly supported the event. The event was also financially supported by Datamed and AMS Technology.

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The Editors

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