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Razvan Tamas
Ionica Cristea
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4 Microsystems, and Instruments
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5 Micro/Nanophotonics and Micro/Nanotechnologies
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7 Optics-Inspired Approaches for Non-Optical Applications: Systems, Devices, and Signal Processing
Razvan Tamas, Cornel Ioana

8 Plasma Methods and Diagnostic Used for Surface Treatments
Bogdan Hnatiuc, Petr Spatenka

9 Medical Optoelectronics
Mona Mihailescu, Gabriel Popescu

Introduction

The eighth edition of the International Conference on Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies (ATOM-N 2016), was hosted for the fifth time in Constanta, Romania, one of the most important academic, cultural, and industrial centers in Romania, located in the historical region of Dobrogea, on the Black Sea (Pontus Euxinus) seaside.

The present edition marks 16 years of ATOM-N conference existence, time in which it has consistently gathered the youthful spirit, as well as the experience of the most appreciated scientists in the field of micro/nano technology and photonics/optoelectronics - topics that have, nowadays, great scientific applications worldwide.

ATOM-N 2016 took place 25–28 August 2016, and was organized into nine main sessions (from which two new special sessions): Plenary Session; Advanced Materials and New Technologies; Diffractive, Micro-Optics, and Optical Signal Processing; Sensors, Microsystems, and Instruments; Modeling, Design and Simulation; Micro/Nanophotonics and Micro/Nanotechnologies; Optics-inspired Approaches for Non-optical Applications: Systems, Devices, and Signal Processing; Plasma Methods and Diagnostics Used for Surface Treatments; and Medical Optoelectronics. This was for the fourth time in the conference history when students contributions have been evaluated and awarded.

We received abstracts from scientists all over Europe and United States (from over six countries). Due to the efforts of the scientific and program committees, 143 papers have been accepted for presentation, from which 127 have been selected for publishing in the conference proceedings as follows: seven invited (plenary) lectures, 38 oral lectures, and 82 poster papers.

We would like to express our thanks to the organizing committee for their enthusiastic and efficient work, and we extend our warmest thanks to all of the authors who presented their scientific contributions.

We hope that all of the participants of this prestigious meeting have had both an interesting professional experience, as well as moments of relaxation, while discovering the multicultural aspects of the academic city of Constanta.

Marian Vladescu
Razvan Tamas
Ionica Cristea