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**Paul Schiopu
George Caruntu**
Editors

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Introduction

The fifth edition of the International Conference on Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies (ATOM-N 2010), was hosted in Constanta, one of the most important academic, cultural, and industrial centres in Romania, and located in the historical region of Dobrogea. The present conference marks 10 years of ATOM-N's existence, during which time it has consistently gathered the youthful spirit, as well as the experience of the most appreciated scientists in the field of micro, nanotechnology, and optoelectronics, topics that have great scientific applications worldwide.

ATOM-N 2010 took place 26–29 August 2010, and was organized into six main sessions: Plenary Session; Advanced Materials and New Technologies; Diffractive, Micro-Optics, and Optical Signal Processing; Nanoscience/Nanoengineering and Nanotechnologies; Instruments, Sensors, and Microsystems; and the Student Session. This was the first time in the conference's history that a student session was included.

A scientific workshop (project ELAN/POSDRU) took place free of charge for all of the participants on 28 August. The goal of the workshop was to identify and promote research topics in the field of microelectronic technology.

We received over 116 abstracts from all over Europe and USA. Due to the efforts of the scientific and program committee, 102 papers by authors from 10 countries were selected for presentation: 6 invited lectures, 38 oral lectures, and 58 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 had both an interesting professional experience as well as moments of relaxation, while discovering the multicultural aspects of the academic city of Constanta.

**Paul Schiopu
George Caruntu**

