



“Gheorghe Asachi” Technical University of Iasi, Romania



EDITORIAL

A SPECIAL ISSUE DEDICATED TO

SUSTAINABLE TECHNOLOGICAL DESIGN AND OPTIMIZATION FOR GREEN MECHANICAL AND ENVIRONMENTAL ENGINEERING

This special issue of *Environmental Engineering and Management Journal* includes a selection of the peer-reviewed papers presented within the international conference *Constructive and Technological Design Optimization in the Machines Building Field – OPROTEH*, organized in Bacău, Romania on May 23-25, 2013 (<http://oproteh.ub.ro>) by the “Vasile Alecsandri” University of Bacău, Romania.

The main aim of the conference is to bring in the front of the specialist from the entire world some of the novelties from the machine building field and from some related scientific domains, contributing in the same time to the consolidation of national and international partnerships in research, development and innovation. The conference is organized since 2002, first annually, as a national conference; starting with 2009, each edition of the conference has become an international biennial conference.

Focused on optimization in the machine building fields and environmental engineering, the conference included the following topics:

- optimization in environmental engineering and environmental protection;
- optimization of manufacturing processes and systems;
- computer aided design and manufacturing (CAD, CAM, CAE, CAPP);

- optimization of thermal, hydraulic and pneumatic equipment, optimization of technologies and equipment from process industries;
- optimization of mechanical structures and automatic control in mechatronic systems;
- engineering and management;
- fracture mechanics;
- applied sciences;
- sciences of education.

The tenth edition of the conference was attended by ten well-known scientific personalities as key-note speakers in the conference topics: Deborah Panepinto – Politecnico di Torino, Italy, Giuseppe Genon – Politecnico di Torino, Italy, Gheorghe Voicu – University of Bucharest, Romania, Nikola Mihailov – University of Ruse, Bulgaria, Pedro Muñoz – University of La Rioja, Spain, Dumitru Nedelcu – “Gheorghe Asachi” Technical University of Iasi, Romania, Ion Bostan – Technical University of Moldova, Moldova, Maricel Agop – “Gheorghe Asachi” Technical University of Iasi, Romania, Diaka Sidibe – Faculty of Sciences, Tétouan, Mhannech, Maroc, Eve Jeanne Lambertine – Gaston Berger University of Saint-Louis, Senegal.

The conference was attended by more than 110 participants coming from 11 countries. Participants came from 34 institutions: 22 universities, 7 public institutions and research institutes, 5 economic companies and NGO entities.

A number of 158 scientific papers were presented during the conference, 28 of them being

selected for publication in *Environmental Engineering and Management Journal*.

Guest editors:

Valentin Nedeff
Carol Schnakovszky
Gabriel Lazar

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Valentin Nedeff (1958) is professor at the Department of Environmental and Mechanical Engineering – Faculty of Engineering of the *Vasile Alecsandri* University of Bacau, Romania, where he teaches courses in Procedures and Techniques for Environmental Protection, Higher Valorization of Resources. His research interests include sustainable development, study of soil and water pollution, and wastewater treatment. He supervises doctoral thesis in the field of Environmental Engineering. Prof. Nedeff has authored more than 300 articles and books in the fields of physics and environmental engineering. He is Associate Member of the Academy of Agricultural Sciences and Forestry *Gheorghe Ionescu Sisesti* Bucharest Romania and Editor-in-Chief of the *Journal of Engineering Studies and Research*.



Carol Schnakovszky (1961) is professor at the Department of Industrial Systems Engineering and Management – Faculty of Engineering of the *Vasile Alecsandri* University of Bacau, Romania, where he teaches courses in Industrial Engineering Systems and Data Analysis for Experimental Design. His research interests include industrial systems optimization, development of eco-technologies and experimental data processing. Prof. Schnakovszky has authored more than 100 articles and books in the fields of engineering technology and ecodesign. He is Chairman of the Constructive and Technological Design Optimization in the Machines Building Field International Conference.



Gabriel Lazar (1965) is professor at the Department of Environmental and Mechanical Engineering – Faculty of Engineering of the *Vasile Alecsandri* University of Bacau, Romania, where he teaches courses in Geographic Information Systems, Pollution Sources and Factors, Principles of Measurement. Laboratory Techniques. His research interests include GIS-based systems for environment monitoring and photocatalytic methods for wastewater treatment. He supervises doctoral thesis in the field of Environmental Engineering. Prof. Lazar has authored more than 120 articles and books in the fields of physics and environmental engineering. He is Managing Editor of the *Journal of Engineering Studies and Research*.