

## Foreword

The current conference IManE 2014 is the result of collaboration between the departments of machine manufacturing technology from the Technical University of Moldova of Chişinău (Republic of Moldova) and from „Gheorghe Asachi” Technical University of Iaşi (Romania). Starting in 1996 by the first conference entitled „Modern Technologies in Machine Manufacturing Technology” (TMCM’96) and which developed in Iaşi – România (being proposed and promoted by the professor, Octavian Pruteanu, head of department in that time), the series of conferences referring to manufacturing technologies constituted a useful opportunity in changing information and developing new collaborations among specialists working in various domains of machine manufacturing technologies. From 1999, materializing the proposal formulated by the professor Alexandru Marin, the Department of Machine Manufacturing Technology from the Technical University of Moldova became the second organizer of the series of conferences, and the first conference developed in Chişinău, under the title „Modern technologies, quality, restructuring” (TMCR). Between 2009 and 2012, the conference had the title „Modern Technologies, Quality and Innovation”; for some years, the Institute of Technical Science of the Serbian Academy of Sciences and Arts participated as co-organizer to this scientific event. From 2013, the name of the conference was changed in „Innovative Manufacturing Engineering” (IManE).

Nowadays, the technology is a concept with multiple significances in various economical and even non economical fields. Thus, one can meet technologies applied in education, medicine, culture etc. For us, the technologies applied in machine manufacturing are important; due to this importance of machine manufacturing technologies, there is an increased interest and intense preoccupations for introducing/applying new or improved technologies, in order to enhance the product competitiveness, to diminish the production costs, to increase the manufacturing productivity etc.

The IManE conference proposed to be held in 2014 received papers that will be presented within 9 sections, concerning fields such are Advanced Machining and Surface Engineering, Assembling Technologies, Forming Technologies, Non-Conventional Technologies in Manufacture and Industry, Welding Technologies, Advanced Materials and Construction Technologies, Flexible Manufacturing, Automation and Robotics in Technological Processes, CAD/CAM/CAE/CAX Technologies, Manufacturing Optimization, Mechanical and Manufacturing Equipment, Devices and Instrumentation, Design and Analysis, Innovation, Creativity, Learning and Education in Engineering, Industrial and Product Management, Quality and Evaluation.

During activities of organizing the conference, more than 260 papers were proposed to be presented within the scientific event. As a result of the reviewing process, 213 papers were selected and proposed to be included in the conference program and proceedings. The authors of the accepted papers develop research activities in countries as Belgium, Bulgaria, France, Germany, Greece, Italy, Portugal, Serbia, Spain, Ukraine, Romania and Republic of Moldova.

The organizing of the conference benefited of the help of many of our colleagues working in Republic of Moldova, Romania and other countries; for this reason, we express our gratefulness to all specialists involved in various phases of organizing the scientific event.

We hope also that the conference will develop in the best conditions and the IManE 2014 Conference will be a good occasion to develop new collaborations among the participants to this scientific event!

Professor Laurenţiu SLĂTINEANU, *Department of Machine Manufacturing Technology from  
“Gheorghe Asachi” Technical University of Iaşi, România*

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## Keynote speakers:

Prof. **Dorel BANABIC**, Tehnical University of Cluj-Napoca, ROMANIA,  
– *Micro-macro continuum scale modelling*

Prof. **Panagiotis KYRATIS**, Technological Educational Institution of Western Macedonia, GREECE,  
– *“Story telling” can make the difference in product design*

Prof. **Nicolae IONESCU**, Politehnica University of Bucharest, ROMANIA  
– *Recognition of Regulated Professions in EU*

Prof. **Birgit Kjærside STORM**, University of Aalborg, DENMARK  
– *Changing material – a challenge*

Prof. **Emă PANAITE** and **Oana DODUN**, Gheorghe Asachi Technical University of Iaşi, ROMANIA,  
– *Development of PBL introducing in mechanical engineering curricula*

Prof. **Alina MINEA**, Gheorghe Asachi Technical University of Iaşi, ROMANIA,  
– *Advanced flow and heat transfer characteristics of nano fluids: a review*

Prof. **Stanisław LEGUTKO**, Technical University of Poznan, Poland  
– *Quality evaluation of surface layer in highly accurate manufacturing*

Prof. **Eduard NIŢU**, University of Piteşti, ROMANIA  
– *Performance of assembly lines according to the method of supply*

Prof. **Svetlana GOROBIEVSCHI**, Technical University of Moldavia, MOLDAVIA  
– *Quality of life in Republic of Moldova – realities and perspectives*

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