Preface

The international conference *Advanced Materials and Structures – AMS 2015* is the sixth edition; first one in 1998, of a scientific event organized by the *Department of Materials and Manufacturing Engineering* from the Politehnica University Timişoara, with the support of the POLITEHNICA Foundation.

The conference has the aim to cover by its topics the broad domain of advanced materials, with all important aspects: technology of fabrication, property characterization, advanced applications, investigation and mathematical modelling. The sessions of the conference are also meant to be a forum of scientific debate and discussion.

The organizers are grateful to all the people that have made possible this conference. Special thanks to the POLITEHNICA Foundation.

Editors:

Mircea Nicoară Ion Dragoș Uţu Carmen Opriș

Committees

Chairman of the AMS'15 Conference

Prof. Viorel-Aurel Şerban, Politehnica University Timişoara

Scientific Committee

Prof. Waltraut Brandl, University of Applied Sciences Gelsenkirchen, Germany

Prof. Mihai Brinzei, University Politehnica of Bucharest

Prof. Ionel Chicinas, Technical University Cluj-Napoca

Prof. Didier Chicot, University of Lille, France

Prof. Teodor Heput, Politehnica University of Timisoara, Romania

Prof. Alain Iost, University of Lille, France

Prof. Demagna Koffi, University of Montreal at Trois-Rivieres, Canada

Prof. Alain Lodini, University of Reims Champagne-Ardenne, France

Dr. Marko Rakin, University of Belgrade, Serbia

Prof. Tomasz Sadowski, Lublin University of Technology, Poland

Dr. Mihai Stoica, Leibniz Institute for Solid State and Materials Research Dresden, Germany

Dr. Mariana Calin, IFW Dresden, Germany

Prof. Vadim Silberschmidt, Loughborough University, United Kingdom

Prof. Mircea Tierean, Transilvania University of Brasov, Romania

Prof. Ioan Vida-Simiti, Technical University Cluj-Napoca, Romania

Prof. Iulian Riposan, University Politehnica of Bucharest

Assoc. Prof. Raduta Aurel, Politehnica University of Timişoara, Romania

Prof. Mircea Voda, Politehnica University of Timisoara, Romania

Prof. Liviu Marsavina, Politehnica University of Timișoara, Romania

Assoc. Prof. Aurel Tulcan, Politehnica University of Timişoara, Romania

Organizing Committee

Assoc. Prof. Mircea Nicoară, Head of Department for Materials and Manufacturing Engineering

Lecturer Ion Dragoş Uţu, Secretary of AMS'15

Assoc. Prof. Aurel Răduță, Department for Materials and Manufacturing Engineering

Assoc. Prof. Nicolae Crainic, Department of Mechanical Machines

Prof. Liviu Marsavina, Department of Mechanics and Material Strength

Lecturer Cosmin Codrean, Department for Materials and Manufacturing Engineering

Lecturer Carmen Opriș, Department of Materials and Manufacturing Engineering

Sponsors

ZOPPAS INDUSTRIES ROMANIA SRL SC RONEXPRIM SRL CARL ZEISS INSTRUMENTS SRL CONTINENTAL AUTOMOTIVE ROMANIA POLITEHNICA Foundation