Preface

This issue of the Archives of Mechanics contains a selection of papers presented at the 37-th Solid Mechanics Conference (SolMech 2010) held in Warsaw, September 6–10, 2010.

The Conference belongs to a series of international Solid Mechanics Conferences (SolMech) continuing a long tradition going back to 1953. It is organized regularly, recently every two years, by the Institute of Fundamental Technological Research under the auspices of Committee on Mechanics, both of the Polish Academy of Sciences. Its aim is to bring together researchers from different countries to provide opportunities to exchange ideas, experiences and scientific research results from a wide area of solid mechanics. Over the years the Conference has evolved into an established event where world-wide leaders, their prospective successors and young researchers from Poland and abroad meet each other and share information on recent achievements and current trends in the mechanics of solids.

The SolMech 2010 Conference gathered 219 participants from 35 countries. The program of the Conference included 7 invited plenary lectures, 14 keynote sectional lectures, 126 oral presentations and 42 poster presentations. They have been organized into eleven Thematic Sessions as follows:

- Micromechanics, Interfaces and Multi-Scale Modelling,
- Fracture, Damage and Fatigue of Materials,
- Continuum Mechanics, Elasticity and Plasticity,
- Experimental Mechanics (*in memory of Prof. W.K. Nowacki*),
- Biomechanics,
- Geomechanics,
- Smart Materials and Structures,
- Structural Mechanics and Optimization,
- Shells and Plates,
- Computational Aspects of Solid Mechanics,
- Nonlinear and Stochastic Dynamics.

On behalf of the Scientific and Organizing Committees of the 37-th Solid Mechanics Conference I wish to thank all the Authors who have contributed to the Conference and to this special issue of Archives of Mechanics.

Warsaw, October, 2011
Henryk Petryk
Chairman of the 37-th Solid Mechanics Conference