The Tenth All-Russian Congress on Fundamental Problems of Theoretical and Applied Mechanics☆

The Russian National Committee on Theoretical and Applied Mechanics, together with the Institute of Mechanics of the M.V. Lomonosov Moscow State University, the Institute of Problems of Mechanics of the Russian Academy of Sciences and the N.I. Lobachevskii Nizhegorod State University – the National Research University, with the participation of the Russian Federal Nuclear Centre – the All-Russia Scientific Research Institute of Experimental Physics, the Institute of Applied Physics of the Russian Academy of Sciences and the I.I. Afrikantov Engineering Design Office, is holding the 10th All-Russian Congress on Fundamental Problems of Theoretical and Applied Mechanics on 24–30 August 2011 in Nizhnii Novgorod. Within the framework of the congress, the 2nd All-Russian School of Young Mechanics Scientists and a session of the General Assembly of the Russian National Committee on Theoretical and Applied Mechanics will be held.

Structure of the Scientific Programme of the Congress

Section I. General and Applied Mechanics

I – 1. Analytical Mechanics and the Stability of Motion.
I – 2. Control and Optimization in Mechanical Systems.
I – 3. The Oscillations of Mechanical Systems.
I – 4. The Mechanics of Systems of Rigid and Deformable Bodies.
I – 5. The Mechanics of Space Flight.
I – 6. The Mechanics of Machines and Robots.

Section II. Fluid Mechanics

II – 1. Hydrodynamics.
II – 2. Aerodynamics and Gas Dynamics.
II – 3. Stability of Flows and Turbulence.
II – 4. Physicochemical Continuum Mechanics.
II – 5. The Mechanics of Multiphase Systems.

Section III. Mechanics of Deformable Solids

III – 1. Theory of Elasticity and Viscoelasticity.
III – 2. Theory of Plasticity and Creep.
III – 3. Dynamic Processes in Deformable Media.
III – 4. Fracture and Damage Mechanics
III – 5. Non-classical Models of the Mechanics of Deformable Solids.
III – 6. Contact Interaction Mechanics.
III – 7. Problems of Optimization, Reliability and Safety

Section IV. Complex Subsections

IV – 1. Problems of Meso- and Nanomechanics.
IV – 2. Biomechanics.
IV – 3. The Mechanics of Natural Processes.

At the section meetings, commissioned papers will be given, and, at subsection meetings, papers will be presented in oral and stand forms, selected by the Organizing Committee. One paper per author only.

Applications to present a paper at the congress must be received by the Organizing Committe before 1 February 2011 using the form on the congress website, in accordance with which an abstract of no more than 500 characters and a brief text of the paper two A4 pages long should be presented. The abstracts of accepted papers will be published in the printed collection of papers of the congress, and the texts of the papers will be placed on the website and on a CD in pdf format.

Registration forms for participants and other information about the congress will be placed on the congress website **www.ruscongrmech2011.ru**

Registration of applications for papers: before 1 February 2011.

Translated by P.S.C.