ENIEF 2013

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The Facultad Regional Mendoza de la Universidad Tecnológica Nacional and the Asociación Argentina de Mecánica Computacional
organize the

XX Congress on Numerical Methods and their Applications

November, 18 – 22, 2013
Mendoza, Prov. of Mendoza, República Argentina

We invite you to participate of the Session:

Design and simulation of multi-body systems

The computational mechanics field applied to the simulation of multi-body systems has considerably advanced in the last years, contributing to the development of optimal designs and new products for the improvement of the quality of life of their users. The development of new numerical techniques has allowed the researchers to perform accurate simulations of very complex multi-body systems including, a large number of bodies interacting between them, subjected to several loading conditions, subjected to small or large displacements and/or deformations. Many of these problems are practically unaffordable in experimental form.

The objectives of the session are the following:
(i) Presentation and discussion of new theories and methods for multi-body systems;
(ii) Divulgation of results of original researches (analytical, numerical and experimental);
(iii) Exchange of experiences on the use of existing methods and software;
(iv) To promote the integration of national institutions and those from abroad in common projects for research and development as well as educational ones.
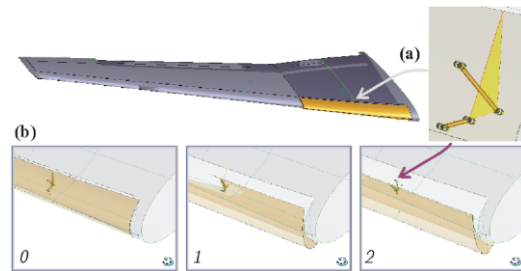
We await contributions in several areas: aeronautics and space, automotive, agricultural, industrial, and transport machinery, micro-electrical mechanical systems (MEMS), biomechanics, robotics, mechatronics, and others; not limited to the following topics:
- Computational design of mechanisms and machines, complex applications.
- Theory of mechanisms and machines (linkages, cams, gears, transmissions, etc.).
- Synthesis of rigid and flexible mechanisms.
- Computational kinematics.
- Algorithms and solvers (numerical integration) for dynamic analysis, sensitivity analysis, and combination with optimization techniques.
- Problems of contact, impact and wear.
- Computational and experimental vehicle dynamics.
- Education of graduate and post-graduate levels in topics of simulation of multi-body systems.

The format for abstracts is described in http://www.enief2013.frm.utn.edu.ar/
We are waiting for your contributions,

Dr. Martín PUCHETA
Dr. Alberto CARDONA

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Centro de Investigaciones en Métodos Computacionales (CIMEC),
Universidad Nacional del Litoral / CONICET,
Facultad de Ingeniería y Ciencias Hídricas de la Universidad Nacional del Litoral,
Santa Fe, Argentina