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## **Topics**

Plasticity, Fracture, and Damage Mechanics Mechanics of Nanomaterials Fluid-Structure Interaction Damage Identification and Non Destructive Evaluation (NDE) Computational and Experimental Mechanics Geomechanics and Mechanics of Granular Materials Flows in Porous Media Impact and Multibody Dynamics Nonlinear Dynamics, Structural Dynamics, and Control Dynamic Instability and Buckling Vibrations, Acoustics, and Noise Control Manufacturing Processes Advanced Materials and Smart Structures Micro Electromechanically Systems (MEMS) Mechatronics Transport Phenomena in Micro/Nanoscale Aerodynamics and Aeroelasticity Computational Fluid Dynamics (CFD) v Turbulence and Multiphase Flows Biomechanics and Biomaterials v Surface Engineering and Contact Mechanics Heat and Mass Transfer Compressible Flows Applications

### **Articles:**

<u>Comparative Study of Contact Stresses and Strains at Horizontal and Vertical Continuous Casting Using</u>
<u>Conventional and Innovative Methods of Withdrawing Profiles</u>

Authors: Marius Tufoi, Ion Vela, Constantin Marta, Lenuta Suciu, Ionel Adelin Tuta, Cornel Mituletu

Resistance of Thin-Walled Plate Girders under Combined Bending and Shear

Authors: Zdenek Kala, Jiri Kala

Quantitative and Qualitative Study on the State of Stresses and Strains of the Strength Structure of a Crane Bridge

Authors: Camelia Bretotean Pinca, Gelu Ovidiu Tirian, Ana Josan, Gladiola Chete

Applicability Analysis of 2D-Models for Masonry Arch Bridge Assessment: Ring, Archie-M and the Elasto-Plastic Model

Authors: Amaryllis Audenaert, Johan Beke

Optimal Design of Heating Elements Sheathed with INCOLOY Superalloy 800

Authors: Aurel Raduta, Mircea Nicoara, Laurentiu Roland Cucuruz, Cosmin Locovei

On the Influence of Residual Stresses on Fatigue Fracture of Railway Axles

Authors: Aurel Raduta, Cosmin Locovei, Mircea Nicoara, Laurentiu Roland Cucuruz

Comparison of FEA and Experimental Results for a Steel Frame Connection

Authors: Adrian Ivan, Marin Ivan, Ioan Both

<u>Using Finite Element Method in Geotechnical Design. Soil Constitutive Laws and Calibration of the Parameters. Retaining Wall Case Study</u>

Authors: Horatiu Popa, Loretta Batali

A Rigid-Plastic Hybrid PCM/FEM for Metal Forming Problems

Authors: Yong-Ming Guo, Shunpei Kamitani

Development of Mathematical Models for Analysis of a Vehicle Crash

Authors: Witold Pawlus, Jan Eivind Nielsen, Hamid Reza Karimi, Kjell Gunnar Robbersmyr

On the Dynamics of a Planetary Transmission for Renewable Energy Systems

Authors: Jaliu Codruta, Saulescu Radu, Diaconescu Dorin, Neagoe Mircea, Climescu Oliver

Optimization of Induction Brazing for Thin-Walled Aluminum Tubes

Authors: Mircea Nicoara, Aurel Radula, Laurenliu Roland Cucuruz, Cosmin Locovei

A Research of Digitizing Ship Design and Stability Analysis

Authors: Wei-Yuan Dzan, Hung-Jen Yang, Hsueh-Chih Lin

Towards Automated Visual Inspection and Classification of Micro-Parts

Authors: Bernd Scholz-Reiter, Michael Lutjen, Hendrik Thamer, Tobias Lensing

Cooling Demand in Commercial Buildings - The Influence of Daylight Window Design

Authors: Hendrik Voll, Teet-Andrus Koiv, Teet Tark, Monika Sergejeva

On the Reduction of Accelerations Transmitted to Transported Freight for the 4-Axle Platform Car with

Mobile Cover

Authors: Tanasoiu Aurelia, Copaci Ion

Measuring the Creep and Material Properties of Cement Paste Specimens

Authors: Pavel Padevet, Petr Bittnar

Theory of High Rate of Fire Automatic Weapon with Together Bound Barrels and Breeches

Authors: Jiri Balla, Lubomir Popelinsky, Zbynek Krist

Application of Analytic Functions to the Global Solvabilty of the Cauchy Problem for Equations of Navier-

**Stokes** 

Authors: Asset Durmagambetov

# Structure Design for TUUSAT-1A Microsatellite

Authors: Chin-Feng Lin, Zuu-Chang Hong, Jeng-Shing Chern, Chien-Ming Lin, Bo-Jyun Chang, Chen-Joe Fong, Huan-Jung Lin

# Stability Analysis for Neo-Hookean Machine-Tools Foundations

Authors: Nicolae-Doru Stanescu, Stefan Tabacu

## Real Time Orbit Determination with Different Force Fields

Authors: Vivian Martins Gomes, Antonio F. B. A. Prado, Helio Koiti Kuga

Analysis of the Thermal Damage on Homogenized Multi-Materials under Thermo-Mechanical Behavior

Authors: Bilal Taher, Said Abboudi, Rafic Younes

Research on the Stability Problem of Hydroelectric Station Penstock under External Pressure Based on Neural Network

Authors: Chenghua Dang, Tieguo Ji, Xinpei Jiang