

ROMANIAN ACADEMY
Department of Technical Sciences

ACADEMY OF TECHNICAL SCIENCES

**COMMISSION OF ACOUSTICS
OF ROMANIAN ACADEMY**



**THE ANNUAL SYMPOSIUM
OF THE INSTITUTE OF SOLID MECHANICS
SISOM 2007
and
HOMAGIAL SESSION OF THE COMMISSION OF ACOUSTICS**

Bucharest, May 29-31, 2007

Session 1 →

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In the memory of Professor Aurelian Stan - Opening Speach Acad. Radu Voinea

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Session 1 – System dynamics and continuum mechanics

(1D) Dan Alexandru IORDACHE, Viorica IORDACHE
Complexity features in mechanics

(2D) Gheorghe MORARU
Concentration of stresses near a debonded flexible inclusion in plane elasticity

(3D) MIRCEA RADEŞ
Trends in experimental structural dynamics

(4D) Iuliana OPREA
Ginzburg Landau amplitude equations for anisotropic materials

(5D) DINU BRATOSIN
Non – linear attenuation effects on soils dynamic response evaluation

(6D) Tudor SIRETEANU, Nicolae STOIA
Vibration amplification in oscillating systems with degrading characteristics

- (7D) Dan DUMITRIU, Gaston RAUCHS, Veturia CHIROIU
Optimization procedure for parameter identification in inelastic material indentation testing
- (8D) Polidor BRATU
Evaluation of quality dynamic performances in case of vibrating rollers used for road works
- (9D) Daniel BALDOVIN, Pier Paolo DELSANTO, Ana-Maria MITU, Veturia CHIROIU
On the modal strain energy approach
- (10D) Ligia MUNTEANU, Pier Paolo DELSANTO, Dan DUMITRIU
On the modelling of the Euler-Bernoulli beams with auxetic patches
- (11D) Radu D. RUGESCU
Proof of the Unstable Behavior of Ultra Long Orbital Tethers
- (12D) Valerica MOSNEGUTU
On the modeling of the human knee joint
- (13D) Angela PETRESCU
An analytical solution of a problem associated to the deformation of a linear viscoelastic rock around a circular shaft
- (14D) Horia PAVEN
Characteristic frequencies relationships in the rheodynamics of standard linear viscoelastic solid

- (15D) Horia PAVEN, Mariana CRISTEA, Bogdan C. SIMIONESCU
Multifunctionality selection criteria in the dynamic thermorheological characterization of solid-like polymer materials. I. PMMA in tensile condtions
- (16D) Grigore Liviu ODOBESCU, Rareş Alexandru ODOBESCU
Some aspects about power transfer optimization between electronic generator – piezoelectric transducer in case of low frequency power ultrasounds
- (17D) Liviu POPA, Diana-Flavia POPA
Study of the transitory vibratory movements of a non-circular shaft whit an eccentrically rotor
- (18D) Ion ION
GEORGE CONSTANTINESCU' torque converter analysis by simulink
- (19D) Gabriel MURARIU, Luminita MORARU
Fields evaluation for a KLEIN –GORDON- MAXWELL -EINSTEIN system equations
- (20D) Gabriel MURARIU, Marina Aura DARIESCU, Ciprian DARIESCU
Discrete symmetries of the field equations in curved space - time
- (21D) Ion ION
Torque converter with continuously variable transmission

- (22D) Marcel MIGDALOVICI, Daniela BARAN
On a parametric stability identification method with applications
- (23D) Adrian I. NICULESCU
On self adjustable shock absorbers “VZN” roll behavior, relative to the standard ones
- (24D) S. OPRISAN, A. BUZAIANU, I. FUIOREA, N. CONSTANTIN, C. BANU, B. SPINEANU,
I. R. MARIN
Studies on the repair of aeronautical structures using fibre reinforced polymer patches
- (25D) Annabella GROZESCU
Investigation of cavity flow physics
- (26D) J. ONISORU, A. IAROVICI, L. CAPITANU
FE prediction of femoral stem osseointegration
- (27D) I. PREDOIU, M. STOIA-DJESKA, F. FRUNZULICA, I. POPESCU, P. SILISTEANU
The synthesis of controllers for flutter suppression-theory and experiment
- (28D) Ileana TOMA
New periodic LEM solutions for the nonlinear pendulum

- (29D) Carmen DEBELEAC
A physico-mathematic model for the dynamic state movement analysis of the frontal charger
- (30D) Silviu NASTAC
Damping non-linearities influences on the isolation performances of the antivibrational systems
- (31D) Silviu NASTAC
About isolation performances for the polygonal shape elastic isolation devices (POSEID)
- (32D) Silviu NASTAC
A theoretical model for stress and strain analysis on dynamic performances at vibratory systems
- (33D) Andrea BALDINI, Enrico BERTOCCHI, Matteo GIACOPINI, Stefano MARGINI,
Stefano RIVASI, Roberto ROSI, Antonio STROZZI
On torsional vibrations in conrod assemblies for high performance engines
- (34D) Adrian LEOPA
The evaluation effects of vibration, from the technological equipment, on the environment

(35D) Adrian LEOPA

The impact of vibration on the environment, from the forging equipment

(36D) Margarit BAUBEC

On the uniqueness of solution in an anisotropic Reissner theory for plates

Session 1 

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Session 2 

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Session 2 – Robotics, mechatronics, biomechanics, wear investigations of materials

(1R) Luige VLADAREANU, Ion N. ION, Mihai MUNTEANU

MERO modular walking robots control

(2R) Lucian Marius VELEA, Luige VLADAREANU, Radu Adrian MUNTEANU,
Mihai Stelian MUNTEANU, Zachei PODEA, Alida Lia Mariana VELEA

Automatic S.A.M.D. monitoring and common equipment systems

(3R) George C. BALAN, Alexandru EPUREANU, Ciprian CUZMIN

The monitoring of a lathe using an artificial neural network – 5th part (recordings spectral analysis, use of ann on monitoring of the tool wear)

(4R) George C. BALAN, Alexandru EPUREANU, Ciprian CUZMIN

The monitoring of a lathe using an artificial neural network – 6th part (statistics, monitoring, fuzzy c-means method)

(5R) Ionel STARETU, Marian BOLBOE

Sinthesis, analysis, design and functional simulation for a family of anthropomorphic grippers for robots.

(6R) Mircea FENCHEA

Vibrodiagnosis of the bent shafts in the mechanical transmissions

