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GREEK-GERMAN-POLISH-YUGOSLAV SYMPOSIUM RECENT ADVANCES IN MECHANICS dedicated to Professor P. S. Theocaris

Xanthi, Greece, July 10-12, 1998, Democritus University of Thrace

This paper contains short presentation of the symposium on "Recent Advances in Mechanics" dedicated to Professor P.S. Theocaris. The symposium was held from July 10-12, 1998, at the School of Engineering of the Democritus University of Thrace, Xanthi, Greece. It was in joint organization of the Hellenic Society of Theoretical and Applied Mechanics and the Laboratory of Applied Mechanics of the Democritus University of Thrace, Xanthi. The symposium took place within the frame of the Greek-German-Polish-Yugoslav cooperation in the area of theoretical and applied mechanics and is a follow-up of three previous meetings.

Chairmans of the Symposium were professor A. N. Kounadis (Athens) and Professor E.E. Gdoutos (Xanthi).

Program of the Symposium contained the Opening Session, and the following sectional sessions:

Stability Analysis, Chair: Nikola Hajdin, Cochair: D. E. Beskos;

Numerical Method, Chair: R. Bogacz, Cochair: J. T. Katsikadelis;

Plasticity, Chair: K. (Stevanović) Hedrih, Cochair: H. G. Georgiadis;

Fracture and Damage Mechanics, Chair: A. Neimitz, Cochair: A. Liolios;

Structural Analysis and Design Chair: X. Markenshoff, Cochair: G. D. Manolis;

Dynamics, Vibrations and Earthquakes, Chair: D. D. Ružić, Cochair: A. N. Kounadis;

Wave Propagation and Impact, Chair: L. Deitrich, Cochair: N. Andrianopoulos;

Elasticity and Contact problems, Chair: P. D. Panagiotopoulos;

Plates and Shells, Chair: M. Kojić, Cochair: D. Talaslidis;

Symposium was a real succes. Many distinguished scientists from Greece, Germany, Poland, Yugoslavia and other parts of the world gave very interesting lectures and presented their latest research scientific results. The total number of invited paped submitted to Symposium are 91.

Organizers have published publication under the title:

RECENT ADVANCES IN MECHANICS, dedicated to Professor P. S. Theocaris, Abstracts, Edited by A. N. Kounadis and E. E. Gdoutos, Xanthi, Greece, July 10-12, 1998, Democritus University of Thrace, pp. 102.

Same choise of the lectures:

C. J. Cantes and A. N. Kounadis, Greece: *Dynamic Buckling of Imperfect Cantilever Models Under ImpacLoading.*

J. T. Katsikadelis and M.S. Nerandzaki, Greece: *The Boundary Element Method for Nonlinear Problems.*

V. A. Lubarda, U.S.A.: *On the Partition of the Rate of Deformation in Crystal Plasticity.*

W. K. Nowatski, Poland: *Localization of Thermoplastic Deformations in the Case of Simple Shear*.

S. C. Fan, S. Y. Yang and M. H. Yu, Singapore: *Unified Strength Theory for Engineering Materials*.

E. E. Gdoutos, Greece: *Failure of CMCs Under Longitudinal Tensile Loading*.

R. Bairo, Portugal: *LNEC Earthquake Simulators, recent Experiments*.

R. Bogach, Poland: *On High Frequency Dynamics of Wheelset/Track Interaction*.

N. Hajdin, R. Mandić and Z. Mišković, Yugoslavia: *A Model for Railway Track-Bridge Interaction Due to Temperature Changes*.

K. (Stevanović) Hedrih, Yugoslavia: *Nonlinear Dynamics of Heavy Rotor with Two Rotation Axes in the Turbulent Damping Field*.

A. Liolis, A. Elenas, L. Vassiliadis and D. Papalexiou, Greece: *A Numerical Approach for the Seismic Interaction of Building Systems with Unilateral Frictional Contact*.

M. D. Kotsovos, Greece: *Structural Concrete Design Concepts: Fiction and Facts*.

A. Baltov (Bulgaria) and M. Mićunović (Yugoslavia): *Plastic Wave Propagation in Hopkinson Bar-Tensor Representation and Numerical Analysis*.

D. D. Ružić, Lj. S. Marković, Yugoslavia: *A general Formula for Critical External Radial Pressure Around a Circular Cylindrical Shell with Built in Ends*.

X. Markenscoff, U.S.A.: *The Cosserat Spectrum and Applications to the Theories of Elasticity, Thermoelasticity, Viscoelasticity and Diffusion*.

K. Frischmuth, Germany: *On a Contact Model with Friction*.

D. Šumarac and M. Sekulović, Yugoslavia: *Fracture Mechanics Approach to Reinforced Concrete Beam Collapse*.

Participants from Yugoslavia were:

Academician Nikola Hajdin, and professors: Dobroslav Ružić, Mechanical Engineering Faculty-Beograd, Miloš Kojić, Milan Mićunović, MEF Kragujevac, Jovo Jarić, Mathematical Faculty Beograd, Dragoslav Šumarac and R. Mandić, Civil Engineering Faculty Beograd and Katica (Stevanović) Hedrih MEF Niš.

Academician SASA Đorđe Zloković sent an extended abstract of lecture: "*Analysis of Spherical Networks in G-Vector Spaces Based on Octahedral and Icosahedral Symmetry Groups*", as well as an academician ANS Veljko Vujičić, lecture under the title: "*The principle of Action - Generalization of Integral Variation Principles*".

Yugoslav participants gave the following publications to the Democritus University: *Facta Universitatis*, Series Mechanics Automatic Control, and Robotics No. 7 1997 and 7/2 1997; *Mathematical Institute*, *Topics from Mathematics and Mechanics*, 1998, and some numbers of the *Publications de L'Institut Mathematique*.

All the Symposium organizers contributed to the general success of the Symposium, welcoming all invited participants really friendly and providing them with pleasant stay at Democritus University of Trace in Xanthi, during the meeting, as the participants themselves assured us.

It is necessary to point out the engagement of chairman of Symposium Professor A. N. Kounadis and Professor E. E. Gdoutos, as well as a professor M. Consta-Gdoutos in the organization of the success of the Symposium.

REFERENCES

1. *Recent Advances in Mechanics, Abstracts, Dedicated to Professor P. S. Theocaris*, Xanthi, Greece, Editors: A. N. Kounadis and E. E. Gdoutos, Democritus University of Trace, 1998, pp. 102.

K. S. H.