EUROMECH Final Report

EUROPEAN MECHANICS SOCIETY

Please send this report to the Secretary-General of EUROMECH, within one month after the Colloquium.

EUROMECH Colloquium No: 354

Title: Stress Waves in Solids for Materials Characterization

Dates and location: 17-20 September 1996, Chania, Greece

Chairman: D. A. Sotiropoulos

Co-Chairman: R. W. Ogden

Is there need of another Colloquium on the same or a related subject? Which year?
Yes, a few years (4-6) down the road.

Full registration fee: $240 U.S. dollars

What other funding was obtained? U.S. Office of Naval Research: $5,000
Siemens: DM1,000 Local Sources: 150,000 drachmas

What were the participants offered? 5 main meals, one day-excursion, one lunch outside the town-transportation included, a colloquium folder which included a key-chain and a pen, entertainement. Scholarships to participants: 3,500 U.S. dollars.

Number of members of EUROMECH (reduced registration fee): 31

Number of non-members of EUROMECH (full registration fee): 19

Number of participants from each country:

Austria		Germany	3	Romania	
Belgium		Great Britain	7	Russia	
Byelorussia		Greece	9	Slovakia	
Bosnia		Hungary		Slovenia	
Bulgaria		Ireland	1	Spain	
Croatia		Italy	4	Sweden	3
Czech Republic		Latvia		Switzerland	
Denmark		Lithuania		Ukraine	
Estonia	1	Netherlands	1	Yugoslavia	
Finland		Norway		Others	15
France	4	Poland	2		
Georgia		Portugal		Total	50

Please turn

Scientific Report

The Colloquium took place on the dates and place that it was planned, i.e., 17-20 Sept. 1996 at the Technical University of Crete in Chania, Greece. There participated experienced scientists as well as young researchers and PH.D. candidates. There was ample opportunity for exchange of ideas and discussions. The topics that were presented orally in the form of short lectures (25 minutes each) by the participants included: Finite amplitude waves in finitely deformed materials, propagation of elastic guided waves in anisotropic layered plates, transient Rayleigh and Stoneley waves in thermoelastic solids, measurements of stresses in solids during shock loading, nonlinear wave propagation in cracked media, shock properties of high-strength ceramics, waves in non-linear elastic membranes, scattering considerations in elasticity, directivity control of a probe, stabilized finite elements for exterior wave problems, active composite materials characterization, solitary elastic surface waves due to cascaded quadratic nonlinearity, elastic interfacial waves in anisotropic interlayers, numerical simulation of ultrasonic nondestructive testing of two-dimensional multilayered structures, acoustic imaging of regions of inhomogeneity, ultrasonic waves in Biot solids, transient coupled thermoelastodynamic response of a crack under concentrated thermal loading, modifications of the Moens-Korteweg model for arterial pulse waves, energy and dissipation of inhomogeneous plane waves in thermoelasticity, stop bands for elastic waves in periodic composite materials, the influence of pre-stress on the reflection of elastic waves in incompressible solids, laser probing of ultrasonic waves inside materials, etc. 20 October 1996

D. A. Exarchopoulos

Please use additional pages if needed. Put date and signature at the end.