VITA OF Professor Costas P. Providakis Director of AMELaboratory Deputy Head of the Department of Applied Sciences

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DEGREES RECEIVED AND DATES

Ph.D., Major – Mechanics of Materials; Minors – Structural analysis and mechanics; Department of Civil Engineering, University of Patras, Greece, October 1988.

Diploma (5-yr. program), Civil Engineering, University of Patras, Patras, Greece, June 1983.

EXPERIENCE

Professor of Mechanics of Materials, Division of Mechanics, Technical University of Crete, Greece, May 1, 2008 –

- Associate Professor of Mechanics of Materials, Division of Mechanics, Technical University of Crete, Greece, September 1, 2003 May 1, 2008.
- Assistant Professor of Mechanics of Materials, (tenured) Division of Mechanics, Technical University of Crete, Greece, October 10, 1999 September 1, 2003.
- Faculty Member (Research Fellow), Division of Mechanics, Technical University of Crete, Greece, October 1, 1989 September 1, 1999.

Research Assistant, Department of Civil Engineering, University of Patras, 1983-1988.

Distinguished Undergraduate Student, Department of Civil Engineering, University of Patras, Mechanics Research Laboratory, Patras, Greece, 1980-1983.

RESEARCH INTERESTS AND PUBLICATIONS

More than 150 journal and conference articles and 2 books on Engineering Mechanics, Mechanics of Solids, Structural Health Monitoring, Seismic analysis, Seismic safety and risk, Smart materials, System dynamics. He serves on the editorial boards of the Structural Durability and Health Monitoring International Journal (<u>www.techscience.com</u>).

SELECTED PUBLICATIONS

A. PhD thesis «Dynamic Analysis of Plates and Shells by the boundary element merthod», Department of Applied Sciences, University of Patras, 1988.

B. Books:

B.1 C. P. Providakis and M. Yeroyanni, "Earthquake Strong Ground Motion Evaluation: *Application for Earthquake Disaster Mitigation*", European Commission, Directorate General XII, Brussels, Belgium, 1998: B.2 A. Kounadis, C.P. Providakis and G. Exadaktylos, "7th National Congress on Mechanics", Chania, Volume I and II, 2004

C. Scientific papers published in International Journals:

- C.1) C.P.Providakis and D.E. Beskos, "Dynamic Analysis of Beams by the Boundary Element Method", *Computers & Structures*, Vol. 22, pp. 957-964, 1986.
- C.2) C.P.Providakis and D.E. Beskos, "Free and Forced Vibrations of Plates by Boundary Elements", *Computer Methods in Applied Mechanics and Engineering*, Vol. 74, pp.231-250, 1989.
- C.3) C.P. Providakis and D.E. Beskos, "Free and Forced Vibrations of Plates by Boundary and Interior Elements", *International Journal for Numerical Methods in Engineering*, Vol. 28, pp. 1977-1994, 1989.
- C.4) D.E. Beskos, E. Vgenopoulou and C.P. Providakis, "Dynamics of Saturated Rocks II : body waves", *Journal of Engineering Mechanics*, Vol. 115, pp. 996-1016, 1989.
- C.5) C.P. Providakis and D.E. Beskos, "Free and Forced Vibrations of Shallow Shells by Boundary and Interior Elements", *Computer Methods in Applied Mechanics and Engineering*, Vol. 92., pp. 55-74, 1991.
- C.6) C.P. Providakis, D.A. Sotiropoulos and D.E. Beskos, "BEM Analysis of Reduced Dynamic Stress Concentration by Multiple Holes", *Communications in Numerical Methods in Engineering*, Vol. 9, pp. 917-924, 1993.
- C.7) C.P. Providakis, "Quasi-static Analysis of Viscoplastic Plates by the Boundary Element Method", *Engineering Analysis with Boundary Elements*, Vol. 11, pp. 265-268, 1993.
- C.8) C.P. Providakis and D.E. Beskos, "Dynamic Analysis of Elastoplastic Flexural Plates by the D/BEM", *Enineering Analysis with Boundary Elements*, Vol. 14, pp. 75-80, 1994.
- C.9) C.P. Providakis, D.E. Beskos and D.A. Sotiropoulos, "Dynamic Analysis of Inelastic Plates by the D/BEM", *Computational Mechanics*, Vol. 13, pp. 276-284, 1994.

- C.10) C.P. Providakis, "A General and Advanced Boundary Element Transient Analysis of Elastoplastic Plates", *Engineering Analysis with Boundary Elements*, Vol. 17, pp. 133-143, 1996.
- C.11) C.P. Providakis, "Transient Boundary Element Analysis of Elastoplastic Plates on Elastic Foundation", *Soil Dynamics & Earthquake Engineering*, Vol. 16 (1), pp. 21-27, 1997.
- C.12) C.P. Providakis and D.A. Sotiropoulos, "A BEM Approach to the Stress Concentration Reduction in Viscoplastic Plates by Multiple Holes", *Computers & Structures*, Vol. 64 (1-4), pp. 313-317, 1997.
- C.13) C.P. Providakis and G. Tougelidis, "A D/BEM approach to the transient response analysis of elastoplastic plates with internal supports', *Engineering Computations,* Vol. 15(4), pp. 501-518, 1998.
- C.14) C.P. Providakis, "Comparison of Boundary and Finite Element Methods for Dynamic Analysis of Elastoplastic Plates", *Advances in Engineering Software*, Vol. 30, pp. 353-360, 1999.
- C.15) C. P. Providakis and D. E. Beskos, "Dynamic Analysis of Plates by Boundary Elements, *Applied Mech. Reviews*, Vol. 52(7), pp. 213-236, 1999.
- C.16) C. P. Providakis, 'Creep analysis of V-notched metallic plates: boundary element method', *Theoretical and Applied Fracture Mechanics*, Vol. 32, pp. 1-7, 1999.
- C.17) C. P. Providakis, 'Boundary Element analysis of creeping Vnotched metallic plates in bending', *Engineering Fracture Mechanics*, 64, pp. 129-140, 1999.
- C.18) C. P. Providakis, 'Transient boundary element algorithm for elastoplastic building floor slab analysis', *International Journal of Solids and Structures*, 37, 5839-5853, 2000.
- C.19) C. P. Providakis and D. E. Beskos, 'Inelastic Transient Dynamic Analysis of Reissner - Mindlin Plates by the D/BEM', *International Journal for Numerical Methods and Engineering*, 49, 383-397, 2000.
- C.20) C.P. Providakis, 'Transient dynamic response of elastoplastic thick plates resting on Winkler-type foundation', *Nonlinear Dynamics*, 23, 285-302, 2000.

- C.21) C.P. Providakis, 'BEM-FEM comparison studies for the inelastic dynamic analysis of thick plates on elastic foundations', *Computer Modeling in Engineering and Science*, 1(3), 123-130, 2000.
- C.22) C. P. Providakis and S. Kourtakis, "Viscoplastic BEM analysis of creeping metallic structural components in the presence of temperature gradient", *International Journal of Pressure Vessels and Piping*, 79, 309-317, 2002.
- C.23) C.P. Providakis and S. Kourtakis, "Viscoplastic D/BEM analysis of metallic structures with dependence on thermomechanical history", *Engineering Computations*, 19(6), 640-661, 2002.
- C.24) C.P. Providakis, "D/BEM implementation of Robinson's viscoplastic model in creep analysis of metals using a complex variable numerical technique", *Advances in Engineering Software Journal*, 33, 805-816, 2002.
- C.25) C.P. Providakis, "Boundary element approach to creep deformation of edge notched and cracked specimens", *Theoretical and Applied Fracture Mechanics*, 38, 191-202, 2002.
- C.26) C. P. Providakis and S.G. Kourtakis, "Time-dependent creep fracture using singular boundary elements", *Computational Mechanics*, 29, 298-306, 2002
- C.27) C.P. Providakis, "Viscoplastic BEM fracture analysis of creeping metallic cracked structures in plane stress using complex variable techniques", *Engineering Fracture Mechanics* 70, 707-720, 2003.
- C.28) C.P. Providakis, "An efficient complex variable technique for the boundary element solution of stress concentration problems arising in notched creeping metallic structural components", *International Journal of Fracture*, 119, 125-144, 2003.
- C.29) C. P. Providakis, "A strain energy density rate approach to the BEM analysis of creep fracture problems", *Structural Durability and Health Monitoring*, 1(1), 11-16, 2006.
- C.30) C. P. Providakis, "The effect of internal support conditions to the elastoplastic transient response of Reissner-Mindlin plates", *Computer Modeling in Engineering and Science*, 18(3), 247-258, 2007.
- C.31) C.P. Providakis, "Effect of LRB isolators and supplemental viscous damper on seismic isolated buildings under near-fault excitations", *Engineering Structures*, 30(5), 1187-1198, 2008.

- C.32) S. Anagnostopoulos, C. Providakis, P. Salvaneschi, G. Athanasopoulos and G. Bonacina, "SEISMOCARE: An efficient GIS tool for scenario-type investigations of seismic risk of existing cities", *Soil Dynamics and earthquake Engineering*, 28(2), 73-84, 2008.
- C.33) C. P. Providakis, "Pushover analysis of base-isolated steelconcrete composite structures under near-fault excitations", *Soil Dynamics and Earthquake Engineering*, 28(4), 293-304, 2008.
- C.34) C. P. Providakis, "Repair of cracked structures under dynamic load using electromechanical admittance approach", *Key Engineering Materials*, 348-349, 49-52, 2007.
- C.35) C.P. Providakis, D.-P.N. Kontoni and M.E. Voutetaki, "Development of an electromechanical admittance approach for application in the vibration control of intelligent structures", *Smart Materials and Structures*, 16, 275-281, 2007.
- C.36) C. P. Providakis, D.-P..N. Kontoni and M.E. Voutetaki, "Comparisons of smart damping treatments based on FEM modeling of electromechanical impedance", *Smart Structures and Systems*, 4(1), 35-46, 2008.
- C.37) C. P. Providakis, "Integrity of thermal actuators using the concept of energy density", *Structural Durability and Health Monitoring*, 65(1), 1-6, 2008.
- C.38) C. P. Providakis and M.E. Voutetaki, "Electromechanical admittance-based damage identification using Box-Behnken design of experiments", *Structural Durability and Health Monitoring*, 3(4), 211-227, 2008.
- C.39) C. P. Providakis, "Effect of supplemental damping on LRB and FPS seismic isolators under near-fault excitations", *Soil Dynamics and Earthquake Engineering*, 29(1), 80-89, 2009.

Other publications:

- C.a) C. P. Providakis, "Electromechanical impedance based statistical method for structural health monitoring", *WSEAS Transactions on Applied and Theoretical Mechanics*, 1(2), 141-147, 2006.
- C.b) C.P. Providakis and E. Contadakis, "Geographical information system applied to monitor and analyze earthquake induced building damages", *Geophysical Research Abstracts*, 5, 10586, 2003.

D. <u>Scientific papers in Conference Proceedings:</u>

- D.1 Providakis and D.E. Beskos, "Forced Vibrations of Plates and Shells by Boundary and Interior Elements", in Boundary Elements IX, Vol. 2 : Stress Analysis Applications, Edited by C.A. Brebbia, W.L. Wendland and G. Kuhn, pp. 97-109, Sprienger-Verlag, Berlin, 1987.
- D.2 Providakis and D.E. Beskos, "Two BEM Approaches for Plate Dynamic Analysis", in Computational Mechanics '88, Edited by S.N. Atluri and S. Yagava, pp. 3.N.1-3.N.5, Sprienger-Verlag, Berlin, 1988.
- D.3 Providakis and D.E. Beskos, "Dynamic Analysis of Elastic Plates", in Boundary Elements X, Vol. 4, Edited by C.A. Brebbia, pp. 403-413, Sprienger-Verlag, Berlin, 1989.
- D.4 Providakis and D.E. Beskos, "Dynamic Analysis of Shallow Shells by Boundary and Interior Elements", in Proceedings of Twelveth Canadian Congress of Applied Mechanics, pp. 190-191, Carleton University Press, Ottawa, 1989.
- D.5 D.E Beskos, C.P. Providakis and C.A. Stamos, "Dynamic Response of Plates by the Domain/Boundary Element Method", in Proceedings of the 2nd National Congress on Theoretical and Applied Mechanics, Athens, 1990.
- D.6 Providakis, D.A. Sotiropoulos and D.E. Beskos, "Reduction of Dynamic Stress Concentrations in Elastic Plates by the BEM", in Proceedings of the 3rd National Congress on Theoretical and Applied Mechanics, Athens, 1992.
- D.7 Providakis and D.E. Beskos, "Nonlinear Dynamic Analysis of Plates by D/BEM", in Boundary Elements XIV : Stress Analysis and Computational Aspects, BEM14, Edited by C.A. Brebbia et al, pp. 64-74., Computational Mechanics Publications, Southampton, 1992.
- D.8 Providakis and D.E. Beskos, "Boundary Element Dynamic Response Analysis of Viscoplastic Plates", in Structural Dynamics, EURODYN '93, Edited by T. Moan et al, pp. 673-678, A.A. Balkema, Rotterdam, 1993.
- D.9 Leftheris and C.P. Providakis, "Nonlinear Analysis of Masonry Walls: Parametric Studies", in Structural Repairs and Maintenance of Historical Buildings, STREMA '93, Edited by C.A. Brebbia, Computational Mechanics Publications, Southampton, pp. 399-407, 1993.

- D.10 Providakis and D.A. Sotiropoulos, "The BEM on Stress Concentration Reduction in Viscoplastic Plates", in Advances in Computational Mechanics, CST'94, Edited by M. Papadrakakis and B.H.V. Topping, pp. 323-329, Civil-Comp Press, Edinburgh, 1994.
- D.11 Providakis and D.E. Beskos, "Transient Response of Elastoplastic Plates in Bending by Boundary Elements", in Advances in Computationsl Mechanics, CST'94, Edited by M. Papadrakakis and B.H.V. Topping, pp. 335-343, Civil-Comp Press, Edinburgh, 1994.
- D.12 Tougelidis and C.P. Providakis, "Effects of Lime Mortars on masonry construction", in Structural Studies of Historical Buildings IV : Architectural Studies, Materials and Analysis, Vol. 1, STREMA '95, Edited by C.A. Brebbia and B. Leftheris, pp. 215-222, Computational Mechanics Publications, Southampton, 1995.
- D.13 Providakis, "Dynamic Analysis of Elastoplastic Plates on Winkler Foundation", in Proceedings of the 2nd National Congress on Computational Mechanics, NCCM'96, Vol. 1, Edited by D. A. Sotiropoulos and D. E. Beskos, pp. 750-757, Chania, 1996.
- D.14 C. P. Providakis and D. A. Sotiropoulos, Application of the Boundary Element Method to the Analysis of V-Notched Viscoplastic Plates, in Boundary Elements XIX, M. Marchetti, C.A. Brebbia and M.H. Aliabadi (eds.), Proceedings of 19th International Conference on Boundary Elements, p. 159-168, September 1997, Rome, Italy
- D.15 C. P. Providakis, Transient BEM Analysis of Reissner-Middlin Plates, in Proceedings of 5th National Congress on Mechanics, P. Theocaris, D.J. Fotiadis, C. Massalas (eds.), Vol. 1, p. 84-91, September 1998, Ioannina, Greece
- D.16 C. P. Providakis, Transient Response Analysis of Thick Steel Plates, in K.T. Thomopoulos, C.C. Baniotopoulos, A.V. Avdelas (eds.) Proceedings of 3rd National Congress on Steel Structures, p. 44-51, October 1998, Thessaloniki, Greece.
- D.17 C. P. Providakis, 'Transient Response Analsysis of Elastoplastic Reissner Plates by the D/BEM', in C.A. Brebbia (ed.) Proceedings of the 2nd Conference on Boundary Element Research in Europe, p. 297-303, London, 1998 (Invited Lecture and Member of Scientific Committee).
- D.18 C. P. Providakis and D. E. Beskos, 'Dynamic Analysis of Elastoplastic Thick Plates by a D/BEM', N. Aravas, J. Katsikadelis, (eds.) Proceedings of

the 3rd National Congress of Computational Mechanics, Vol. II, p. 527-534, Volos, Greece, 1999.

- D.19 C. P. Providakis, 'Transient Elastoplastic Analysis of Thick Plates on Winkler - type Foundation', in M.H. Aliabadi (ed.) Boundary Element Techniques International Conference, pp.13-23, University of London , Queen Mary and Westfield College, June 1999.
- D.20 C. P. Providakis and D.E. Beskos, 'Earthquake Soil-Structure interaction analysis by time domain BEM – FEM', in Proceedings of the 2nd Joint EU -Japan Expert Workshop on Seismic Risk, B. Thorkelsson and M. Yeroyanni (eds.), 23-27 June 1999, Reykjavik, Iceland.
- D.21 C. P. Providakis and D. E. Beskos, 'Dynamic Analysis of Elastoplastic Thick Plates by Boundary Elements', in Proceedings of the European Conference on Computational Mechanics Solids, W. Wunderlich (Ed.) Structures and Coupled Problems in Engineering ECCM'99, 31 August-3 September 1999, Munich, Germany.
- D.22 C. P. Providakis, 'Thermoviscoplastic BEM analysis of stress concentration problems in metallic structures', in B.H.V. Topping (ed.) Computational Mechanics: Techniques and Developments, Proceedings of the International Conference on computational structures Technologies, p. 39-44, Leuven, Belgium, 6-8 September 2000.
- D.23 C. P. Providakis, 'D/BEM Transient response analysis of elastoplastic thick plates on two-parameter foundations', in Proceedings of IASS-IACM 2000, International Colloquium on Computation of Shells & Spatial Structures, 4-7 June 2000, Chania, Greece
- D.24 C. P. Providakis, N. Garofalaki, S. Mikrakis and M. Stavroulaki, 'Finite element analysis of contact problems in rubber covered rolls', in Proceedings of IASS-IACM 2000, International Colloquium on Computation of Shells & Spatial Structures, 4-7 June 2000, Chania, Greece
- D.25 C. P. Providakis, 'Dynamic Analysis of Elastoplastic Reissner-Mindlin plates with internal supports: A D/BEM Approach', in S.N. Atluri, F. Brust (eds.) Proceedings of ICES 2000, Vol. II, p. 1275-1280, 20-25 August 2000, Los Angeles, USA.
- D.26 C. P. Providakis, 'The effect of internal supports on the D/BEM transient dynamic analysis of elastoplastic Reissner-Mindlin plates", in M. Denda, MH Aliabadi, A. Charafi, (editors), Proceedings of BETEQ/IABE Conference II, Rutgers University, New Jersey, 16-18 July 2001.

- D.27 C. P. Providakis and S. Kourtakis, 'BEM solution of viscoplastic problems in metallicstructures in the presence of temperature gradients", Proceedings of 6th National Conference on Mechanics, Thessaloniki, Greece, July 19-21, 2001.
- D.28 C. P. Providakis, "Fracture analysis of creeping metallic components by the use of singular boundary elements", 4th National Congress on Steel Structures, May, 24-25 2002, Patras, Greece.
- D.29 C. P. Providakis and S. Kourtakis, "Viscoplastic D/BEM stress concentration analysis of cracked metallic structures', 4th GRACM Congress on Computational Mechanics, June, 27-29, 2002, Patras, Greece.
- D.30 C. Providakis, "On the performance of singular boundary elements in creep analysis of cracked components", 3rd International Conference on Boundary Element Techniques, Tsingua University, Beijing, China, 10-12 September 2002.
- D.31 C.P. Providakis, "On the use of singular boundary elements in fracture analysis of creeping cracked metallic components", 6th International Conference on Computational Structures Technology, 4-6 September 2002, Prague, Czech Republic.
- D.32 C. Providakis, "Fracture analysis problems in creeping materials: strain energy density rate", International Symposium in Multi-scaling in Mechanics", 2-6 September, 2002, Messini, Greece.
- D.33 C.P. Providakis and E. Contadaki, "Earthquake damage detection and analysis of historical masonry buildings using GIS", ITECOM2003, Athens, 2003.
- D.34 C.P. Providakis and E. Contadaki, "Geographical information system applied to monitor and analyze earthquake induced building damages", 3rd International Conference on NDT (HSNDT), Chania, 2003.
- D.35 C.P. Providakis, S. Kourtakis and M. Stavroulaki, "Analysis of creep fracture problems in metals by using strain energy rate distributions", 7th National Congress on Mechanics, Chania, 2004.
- D.36 C.P. Providakis and J. Xirogiannis, "Comparative studies on performance of base isolation devices for near-fault earthquake ground motions", 7th National Congress on Mechanics, Chania, 2004.

- D.37 C.P. Providakis and S. G. Kourtakis, "The strain energy rate density concept in fracture analysis problems of creeping materials", 5th GRACM International Congress on Computational Mechanics, Limassol, 2005.
- D.38 C.P. Providakis, M.E.Voutetaki, D.-P.N. Kontoni and M. Stavroulaki, "A comparison of active constrained layer damping treatments using FEM modeling of electromechanical impedance", Proceedings of ICCES2005, India, 2005.
- D.39 C.P. Providakis and S.G. Kourtakis, "A strain energy density rate approach to the BEM analysis of creep fracture problems", Advances n Boundary Element Techniques, BETEQ2005 International Conference, Paris, 2005.
- D.40 C. P. Providakis, M.E.Voutetaki, M.E.Stavroulaki and D.-P.N.Kontoni, "FEM modeling of electromechanical impedance for the analysis of smart damping treatments", Proceedings of CISSE2005 International Conference on Computer, Information and Systems Sciences, Springer, 2005.
- D.41 V.Spitas, Ch. Spitas, E. Zouridaki and C. Providakis, "Dynamic modeling of impact modeling during short concrete columns testing", Proceedings of the 25th IASTED International Conference on Modeling, Identification and Control, Spain, 2006.
- D.42 C.P. Providakis, D.-P.N. Kontoni and M.E. Voutetaki, "An electromechanical impedance approach for vibration control using multiple piezoelectric actuators and sensors", CST2006 Proceeding of the 8th International Conference on Computational Structures Technology, Civil-Comp Press, 2006.
- D.43 Κ. Ν. Μπροκαλάκης, Κ.Π.Προβιδάκης και Σ.Θ.Μουγιάκος, «Εργαστηριακοί και άλλοι έλεγχοι για την εφαρμογή κανονισμών και προτύπων για την παραλαβή χαλύβων οπλισμού σκυροδέματος σε τεχνικά έργα», Πρακτικά 6° Εθνικό Συνέδριο Σκυροδέματος, Αλεξανδρούπολη, 2006.
- D.44 C. Providakis and M.E. Voutetaki, "Damage detection using electromechanical impedance signatures and statistical outliers", Proceedings of 2nd WSEAS International Conference on Applied and Theoretical Mechanics, Venice, 206.
- D.45 C.P. Providakis, D.-P.N. Kontoni and M.E. Voutetaki, "An electromechanical admittance approach for vibration damping control using PZT actuators", Proceedings of 2nd International Conference "From Scientific Computing to Computational Engineering" (2nd IC-ISCCE), Athens, 2006.

- D.46 C. Providakis, "Damage diagnosis using electromechanical impedance signatures and extreme value statistics", 8th HSTAM International Conference on Mechanics, Patras, 2007.
- D.47 C.P. Providakis, D.-P.N. Kontoni and M.E. Voutetaki, "Vibration control using smart materials and response surface metamodels", Proceedings of 11th International Conference on Civil, Structural and Environmental Engineering Computing (CC2007), Malta, 2007.
- D.48 C.P. Providakis and J. Xirogiannis, "Analysis of combined performance of FPS and supplemental viscous dampers on base-isolated buildings under near-fault motions", COMPDYN2007-ECCOMAS Thematic International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, 2007.
- D.49 E.V. Liarakos, Y. Tsompanakis, C.P. Providakis and M.E. Stavroulaki, "Dynamic interaction of tunnels and surface structures", COMPDYN2007 ECCOMAS Thematic International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, 2007.
- D.50 C.P. Providakis and M.E. Voutetaki, "Electro-mechanical admittance-based damage detection using response surface and design of experiments", EURODYN2008 7th European Conference on Structural Dynamics, Southampton, 2008.
- D.51 C. Providakis, "Electro-mechanical admittance-based damage detection using extreme value statistics", 7th International Conference on Fracture and Damage Mechanics (FDM2008), Seoul, 2008.
- D.52 C. Providakis and M.E. Voutetaki, "Electro-mechanical admittance-based damage identification using Box-Behnken design of experiments", ICCES2008, Hawaii, 2008.

E) <u>Papers in posters</u>:

- E.1 S.A. Anagnostopoulos, G. Bonacina, C. Gavarini, N. Nistico, C. Providakis, P. Salvaneschi, G. Woo, Computer Aided Reduction of Seismic Risk with application in existing cities, town planning and construction (SEISMOCARE), SISM-98 Seismic Impacts on Structures and monuments, Cambridge, UK, 1998.
- E.2 C. P. Providakis, 'Viscoplastic BEM studies on the solution of Crack problems in Creeping Metallic structures', 5th World Conference on Computational Mechanics, July 7-12, 2002, Wien, Austria (poster).

- E.3 C.P. Providakis and E. Contadaki, "Geographical information system applied to monitor and analyze earthquake induced building damages", EGS-AGU-EUG Joint Assembly, Nice, France, April 2003 (poster).
- E.4 C.P. Providakis and E. Xatzina, "Near-fault seismic performance of composite structures retrofitted with isolation devisces", 1st European Conference on Earthquake Engineering and Seismology, Geneva, 2006 (poster).
- E.5 C.P. Providakis and M.E.Voutetaki, "Seismic damage detection using smart piezo-transducers and electro-mechanical impedance signatures", 1st European Conference on Earthquake Engineering and Seismology, Geneva, 2006 (poster).
- E.6 S. Anagnostopoulos, C.Providakis, P. Salvaneschi, G. Bonacina, "Seismocare: an efficient GIS tool for scenario-type investigations of seismic risk of existing cities ",1st European Conference on Earthquake Engineering and Seismology, Geneva, 2006 (poster).
- E.7 C.P. Providakis and M.E. Voutetaki, "Damage prediction using response surface metamodels and electromechanical admittance signatures", 4th International Conference on NDT (HSNT), Chania, 2007 (poster).

F. <u>Reports</u>

- F.1 C.P. Providakis and M. Stavroulaki, "Finite element Analysis and Mathematical Modeling of Fabric Reinforced Rubber Belt with and without Cracks", Final Report of the project BRITE-EURAM: BE96-3847: "Fatigue and Abrasion Mechanisms in Fabric Reinforced Rubber Belting", European Commission, 2000.
- F.2 C.P. Providakis, "Building and lifeline inventory in the city of Chania", Final Report of the project ENVIRONMENT AND CLIMATE: ENV4-CT97-0588: "SEISMOCARE Computer Aided Reduction of Seismic Risk with Application in Existing Cities, Town Planning and Construction", European Commission, 2001.
- F.3 K. Π. Προβιδάκης, «Dynamic analysis of pavements under moving loadigs», Funded by PENED95, 2000.

G. International Conferences organization

- G.1. 2nd NATIONAL CONFERENCE ON COMPUTATIONAL MECHANICS, 26-28 June 1996, Chania, Member of the Organizing and Scientific Committee.
- G.2. 2nd EUROPEAN BOUNDARY ELEMENT METHOD SYMPOSIUM, Southampton, May 1998, Member of the International Scientific Advisory Committee.
- G.3. 1st JOINT EU JAPAN WORKSHOP ON SEISMIC RISK AND STRONG GROUND MOTION, Chania, March 23-27, 1998, Chairman of the Organizing and Scientific Committee, χρηματοδοτούμενο από την EUROPEAN COMMITTEE, DIRECTORATE GENERAL DGXII και της STA, PRIME MINISTER'S OFFICE OF JAPAN, Chairman.
- G.4. IASS-IACM2000, 4th INTERNATIONAL COLLOQUIUM ON COMPUTATION OF SHELLS AND SPATIAL STRUCTURES, Chania, 5-7 June 2000, Local Organizer and Member of the Organizing Committee.
- G.5. 5th INTERNATIONAL CONFERENCE ON COMPUTATIONAL STRUCTURES TECHNOLOGY, Leuven, Belgium, 6-8 September 2000, Member of the Conference Editorial Board.
- G.6. BOUNDARY ELEMENT TECHNIQUES, 16-18 July, 2001, New Jersey, USA, Member of the International Scientific Advisory Committee.
- G.7. BOUNDARY ELEMENT TECHNIQUES (BETEQ 2002), Tsinghua University, Beijing, China, 10-12 September 2002, Member of the International Scientific Advisory Committee.
- G.8. 6th INTERNATIONAL CONFERENCE ON COMPUTATIONAL STRUCTURES TECHNOLOGY, 4-6 September 2002, Prague, Czech Republic, Member of the International Scientific Committee.
- G.9. 30 INTERNATIONAL CONFERENCE ON NON-DESTRUCTIVE TESTING, October 2003, Local Organizer and Member of the Organizing Committee and Scientific Advisory Board.
- G.10. 4th INTERNATIONAL CONFERENCE ON BOUNDARY ELEMENT TECHNIQUES (BETEQ2003), 15-17 July 2003, Granada, Spain, Member of the International Scientific Committeee.
- G.11. 5th INTERNATIONAL CONFERENCE ON BOUNDARY ELEMENT TECHNIQUES (BETEQ2004), 21-23 July 2004, Lisbon, Portugal, Member of the International Scientific Committee.

- G.12. 7th INTERNATIONAL WORKSHOP ON BIFURCATION, INSTABILITIES AND DEGRADATION IN GEOMECHANICS (IW BIDG2005), 13-16 June 2005, Chania, Greece, Member of the Local Organizing Committee.
- G.13. ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2007), 13-16 June 2007, Rethymno, Greece, Member of the National Advisory Board.
- G.14. 4th INTERNATIONAL CONFERENCE ON NON-DESTRUCTIVE TESTING (HSNT2007), 11-14 October 2007, Chania, Member of the Organizing Committee.
- G.15. 2nd WSEAS INTERNATIONAL CONFERENCE ON APPLIED AND THEORETICAL MECHANICS, 14-16 December 2007, Canary Islands, Spain.

LECTURING

Has given invited lectures and short courses in ISMES Enel, Italy (1998-1999) and invited speeches as invited speaker in several international conferences USA and Europe.

RESEARCH GROUP

Has served as Chairman of the theses of 3 doctoral and 16 master's students. Directs a group of 6 graduate students.

CONSULTING /PUBLIC SERVICE

Extensive consulting experience as technical advisor and Expert Witness.